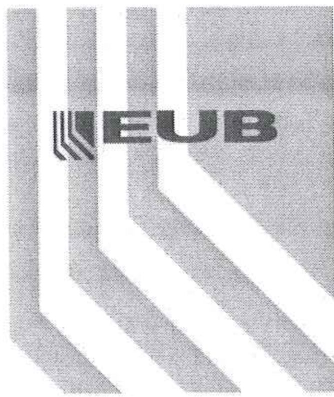

ESBI Alberta Ltd.

Shell Scotford Duplication Avoidance Tariff Refiling

July 2, 2002

Alberta Energy and Utilities Board

ALBERTA ENERGY AND UTILITIES BOARD
Decision 2002-060: ESBI Alberta Ltd.
Shell Scotford Duplication Avoidance Tariff Refiling
Application No. 1249770

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ALBERTA ENERGY AND UTILITIES BOARD
Calgary, Alberta

ESBI ALBERTA LTD.
SHELL SCOTFORD DUPLICATION
AVOIDANCE TARIFF REFILING

Decision 2002-060
Application No. 1249770
File No. 1806-2-1

1 INTRODUCTION

Shell Canada was granted an Industrial System Designation ("ISD") for its Scotford Refinery (AEUB Order No. U2000-109) on March 7, 2000, permitting Shell Canada to produce and consume power within the Scotford Industrial System ("Scotford Site"), while being exempt from the Electric Utilities Act ("EUA"). As a component of the Industrial System, Shell Canada requested that the Transmission Administrator ("TA") develop a Transmission Duplication Avoidance Adjustment Tariff ("DAT") for a portion of the electric power generated and consumed on the Scotford Site. To this end, Shell Canada and the TA have developed the proposed Shell Scotford Industrial System Duplication Avoidance Tariff ("Shell Scotford DAT").

On November 24, 2000, the TA filed an application with the Alberta Energy and Utilities Board ("the Board" or "the EUB") for approval of the Shell Scotford DAT ("the Duplication Avoidance Application") for the Scotford Site. The application requested a term of 35 years commencing March 1, 2001.

On August 9, 2001, in Decision 2001-68, the EUB rejected the Shell Scotford DAT. In a refiling, filed with the Board on November 26, 2001, ("the Refiling") EAL stated that a Shell Scotford DAT would allow Shell Canada to attain a cost-efficient method of delivering electricity to its Load Facilities from its Cogeneration Facility via the existing 409S transmission station, rather than constructing a duplicate transmission station ("Duplicate Facilities"). The Shell Scotford DAT would involve totalizing energy transfers at the 409S transmission station for Shell Canada's load and generation. As part of the Shell Scotford DAT, Shell Canada would make payments to the TA that reflect the costs to Shell Canada of building and operating the Duplicate Facilities over a 35 year period.

In Decision 2001-68, the Board had cited five key areas of concern. The areas of concern and subsequent modifications to address the concerns are set out hereafter:

1. Escalation provision used for the tariff: this has been amended to reference the Alberta Consumer Price Index.
2. Timing factors related to the tariff: this has been amended to January 1, 2002 or a date thereafter.
3. Costs and benefits to TA customers from the Scotford bypass facilities: in the opinion of the TA, the DAT is beneficial to TA customers and these benefits have been clarified.
4. Customer Owned Transmission ("COT") credits for bypass facilities: this will be subject to future proceedings before the Board.
5. Staff time and costs of processing DATs: in order to comply with the Board's direction that application development should not place a burden on the TA, Shell

Canada was asked to propose revisions for TA review and approval. In this manner, fewer TA resources were consumed and the onus was placed on the DAT proponent in the resubmission process.

The Board issued a schedule on January 24, 2002 indicating its view that the Refiling application could best be handled through a written process. TransAlta Utilities Corporation ("TransAlta") and FIRM were the only parties to register interventions. Final reply argument was received from EAL on April 3, 2002. Therefore, the Board considers the record of this Refiling application to have closed on April 3, 2002.

2 APPLICATION

Pursuant to Section 49(2) of the EUA, EAL requested approval from the EUB of the Refiling of the Duplication Avoidance Application, including the Rate Rider in Appendix D, which would form part of the TA's overall tariff.

EAL maintained that the Shell Scotford DAT met the criteria established by the EUB to be used in evaluating transmission duplication proposals. These four criteria are:

1. The DAT is required to respond to a credible threat to construct duplicate facilities to avoid the TA's Tariff;
2. The DAT must exceed the long run incremental cost of service;
3. The DAT is no more attractive than is reasonably required to avoid the construction of duplicate transmission facilities; and
4. The cost of offering the DAT is appropriately shared between other utility customers and the utility shareholders.

EAL examined these criteria as described in more detail below.

2.1 The DAT is Required to Avoid a Credible Bypass Threat

EAL stated that from a regulatory perspective, Shell Canada's Duplicate Facilities alternative was credible, given its ISD status and the fact that the Duplication Facilities proposal would form the basis for a valid facilities application to the EUB.

EAL has also reviewed the technical merits of the proposed Duplicate Facilities alternative and determined that it is a credible technical alternative.

Shell Canada's Duplicate Facilities alternative is economic for Shell Canada. EAL compared the economic merits of the Duplicate Facilities alternative to Shell Canada's cost of taking standard transmission service. Without Duplicate Facilities, the future cost to Shell Canada of taking standard transmission service is $7.0 million per year. The cost of transmission service after construction of the Duplicate Facilities would be $2.06 million per year for annual savings of $4.94 million per year. With a capital cost of $2.9 million, the payback for the construction of the Duplicate Facilities would be less than 1 year. Appendix B to the Duplication Avoidance Tariff provided further details on the TA's evaluation of these costs to Shell Canada.

Based upon its regulatory, technical and economic review, EAL concluded that the Duplicate Facilities proposal was credible and that a DAT was required to respond to Shell Canada's proposed Duplicate Facilities alternative.

2.2 The DAT Must Exceed the Long Run Incremental Cost of Service

EAL stated that as part of the Shell Scotford DAT, Shell Canada would continue its contract for approximately 83 MW of Contract Capacity under Demand Transmission Service (DTS) at the 409S transmission station to provide back-up service to its Load Facilities.

As a consequence of continuing its current level of DTS Contract Capacity, the physical facilities and energy flows associated with the AIES beyond the 409S transmission station would be essentially the same regardless of whether the Duplicate Facilities were constructed or if the Shell Scotford DAT was approved. The only difference with the DAT in place would be that the 83 MW of power required by the Load Facilities would be delivered through the 409S transmission station, rather than through an alternative transmission station. If the Duplicate Facilities were built, they would replace the 138/25 kV transformers in 409S transmission station, which would be salvaged. The remaining facilities in 409S would remain in service for other customers.

To determine the long-run incremental cost of service, the TA evaluated the Duplicate Facilities alternative against the Shell Scotford DAT. Long-run incremental costs are taken as those costs the TA would incur over the 35-year term that it would not incur if Shell Canada implemented the Duplicate Facilities alternative. A breakdown of the evaluation is as follows:

(a) System Support Services

EAL considered the incremental impact of the Shell Scotford DAT on system support services costs and determined it to be zero.

(b) Transmission (Wires) Costs

Under the Shell Scotford DAT, Shell Canada would deliver power from its Cogeneration Facility to its Load Facilities using the 409S transmission station. Under the Duplicate Facilities alternative, Shell Canada would deliver the power through its own transmission station. In both alternatives, power flows to and from the AIES are the same, with no difference in load or generation requirements between the two alternatives. EAL stated that the cost to the TA of providing the Shell Scotford DAT is the continued cost of the transformation at 409S (building the Duplicate Facilities would allow for the removal of these transformers). The removal of the two transformers at 409S is estimated at a capital credit of $1,200,000, less salvage costs of $60,000, for a net credit of $1,140,000. Therefore, the capital cost of continued service at 409S is $1,140,000.

Under the Duplicate Facilities alternative, Shell would be responsible for operating and maintaining the 138/25 kV transformers. However, even with the approval of the Shell Scotford DAT, the TA would be required to continue to provide transformation and would subsequently incur ongoing operation and maintenance ("O&M") costs and property taxes associated with the continuation of providing 409S for other customers. Under the Shell Scotford DAT, Shell Canada would pay the O&M charges, property tax costs, and capital improvements associated with the Duplicate Facilities and in addition would continue to contribute to the 409S costs

through DTS tariff charges. This would leave a net increase of revenue to the TA for O&M, property taxes, and capital improvement charges.

(c) Transmission Losses

As the physical transmission facilities and energy flows on the AIES would be essentially the same regardless of whether the Duplicate Facilities are constructed or the Shell Scotford DAT is approved, physical energy losses would also be similar. However, the TA's responsibility for losses would be different.

Under the Duplicate Facilities alternative, the TA would not be responsible for losses in the transformers in the duplicate transmission station. This would be the responsibility of Shell Canada. Without the Duplicate Facilities alternative, the TA would continue to be responsible for transformer losses in the 409S transmission station, as it is part of the AIES. For an expected average load of 60 MW, EAL stated these transmission losses are calculated to be 0.178 MWh.

As part of the Shell Scotford DAT, the incremental cost of transmission losses will be transferred to Shell Canada through a metering balancing calculation. With the metering compensation in place, the net incremental cost of losses to the TA would be reduced to zero.

(d) COT Credit

The COT credit is designed to compensate a customer who owns transmission facilities and is taking DTS service. If this is not done, that customer would effectively pay twice for transmission facilities, once via the DTS charge and again via its own facilities cost. This situation exists whether or not the customer is an industrial system.

With the Duplicate Facilities alternative, Shell Canada would provide all transformation from 138 kV for the Load Facilities and may be entitled to the COT credit. As stated by the Board, "The eligibility of bypass customers for COT and the further defining of the COT proposal will be the subject of a separate future proceeding." (Decision 2001-68.[1]) The TA would provide the COT credit (if any) to Shell Canada for the Shell Scotford DAT in accordance with future EUB rulings thereon.

EAL claimed this approach was consistent with the preservation of economic indifference between the Shell Scotford DAT and bypass alternatives.

(e) Conclusion

In conclusion, EAL stated the net incremental cost of providing the Shell Scotford DAT was an estimated up-front cost of approximately $1.1 million for the opportunity cost of not salvaging the 409S transformers. The cost is more than offset by the Capital Charge of $2.9 million in the Shell Scotford DAT. Thus, the revenues that the TA would receive from the Shell Scotford DAT exceed the TA's long-run incremental cost of providing the Shell Scotford DAT by an estimated $1.8 million.

[1] Alberta Energy and Utilities Board. Decision 2001-68; ESBI Alberta Ltd., Shell Scotford DAT Application, Shell Scotford Industrial Site. August 9, 2001, page 9.

2.3 Attractiveness of Shell Scotford DAT

EAL stated that the Shell Scotford DAT was designed such that Shell Canada would be held financially neutral between the Shell Scotford DAT and the Duplicate Facilities alternative. The payments and the other terms of the Shell Scotford DAT would be equivalent to the estimated costs that Shell Canada would incur if it were to build and operate the Duplicate Facilities. The TA considered the Shell Scotford DAT to be no more attractive than was reasonably required to avoid the construction of the Duplicate Facilities.

The TA's proposed Shell Scotford DAT consisted of the following six components:

(a) Capital Charge

The capital charge reflects the capital cost that Shell Canada would incur in building the Duplicate Facilities. Shell Canada would pay the capital charge to the TA as a lump-sum payment immediately upon implementation of the Shell Scotford DAT.

Shell Canada provided the TA with a design study on the Duplicate Facilities alternative, which included a capital cost estimate of the Duplicate Facilities of $2,907,800.

(b) Capital Adjustment Charge or Credit

The purpose of a capital adjustment charge or credit is to adjust for any capital cost differences between the Duplicate Facilities alternative and the Shell Scotford DAT.

(c) Incremental Energy Losses Charge

As explained in Section 4.3 of the Duplication Avoidance Application, Shell Canada would incur energy losses in the transformers of its duplicate transmission station. For an expected average load of 60 MW from Shell Canada's Load Facilities, these losses were calculated to be 0.178 MWh.

Under standard transmission service, Shell Canada's Load Facilities would continue to be served from the 409S transmission station, and the TA would continue to be responsible for losses in this transmission station. Losses incurred by Shell Canada would be zero. Thus, the incremental losses that Shell Canada would incur with the Duplicate Facilities alternative in place would be equal to the transformer losses in the duplicate transmission station.

Shell Canada would pay for the deemed incremental losses using the metering balancing calculation for the 409S transmission station as a cost to Shell Canada. This amount would be charged on an ongoing basis for the Term of the Shell Scotford DAT.

(d) Other Expenses Charge

The Other Expenses Charge simulates expenses for operating and maintenance, capital improvements, and property tax that Shell Canada would incur with the Duplicate Facilities alternative. The TA believed that the Other Expense Charges were commercially reasonable for Duplicate Facilities.

EAL conducted a detailed 35-year estimate of the O&M and capital improvements costs of the Duplicate Facilities. The cost estimate was converted from real 2000 dollars to nominal dollars using a 2% per year escalator as an example of typical escalation.

The property tax cost was estimated based on the current property tax formula and mil rate for non-regulated transmission lines and transmission stations. Information on the applicable formula was taken from the Alberta Linear Property Assessment Manual, published by Alberta Municipal Affairs. An annual escalator of 2% was used in the property tax calculation as an example of typical escalation.

EAL explained that Shell Canada would make monthly payments to the TA equal to the values in the column entitled "Monthly Payment" in the rate rider for other expenses, for the applicable year. These payments are in addition to the O&M, property tax and capital improvements costs for 409S since, under the Duplicate Facilities arrangement, 409S would remain in place to serve other customers.

(e) Reliability Adjustment Charge or Credit

EAL explained that the purpose of a reliability adjustment charge or credit was to adjust the Shell Scotford DAT to compensate for any difference in the level of physical reliability that the Transmission Duplication Customer would receive from the Duplicate Facilities option, compared to taking standard transmission service. EAL compared the reliability of Shell Canada's Duplicate Facilities alternative to the reliability that Shell Canada would receive through service under the Shell Scotford DAT. As EAL found no material difference between the two alternatives, the proposed Shell Scotford DAT did not include such a charge or credit.

(f) Risk Adjustment Charge or Credit

EAL explained that the purpose of a risk adjustment charge or credit was to adjust the DAT to compensate for any difference in risk to the DAT Customer for the Duplicate Facilities option versus the DAT. As no material risks have been identified by either EAL or Shell Canada, the proposed Shell Scotford DAT did not include such a charge or credit.

(g) Conclusion

In conclusion, EAL submitted that the Shell Scotford DAT was no more attractive than was reasonably required to avoid construction of the Duplicate Facilities. If the Shell Scotford DAT were any higher, Shell Canada would have an incentive to construct the Duplicate Facilities.

In summary, Shell Canada would make the following payments to the TA as part of the proposed Shell Scotford DAT:

- Capital Charge – a payment of $2,907,800, to be made immediately upon implementation of this Shell Scotford DAT;
- Incremental Losses Charge – incorporated in the metering balancing calculation for the 409S transmission station for the Term of the Shell Scotford DAT; and
- Other Expenses Charge - monthly payments for the Term of the Shell Scotford DAT.

EAL explained that these payments were set out in the Rate Rider, which would form part of the TA's tariff upon EUB approval of the Duplication Avoidance Application.

The TA would flow through the lump-sum payment to the applicable Transmission Facility Owner ("TFO"), which would reduce its revenue requirement accordingly in a similar manner as with customer contributions.

2.4 Appropriate Sharing of Cost of DAT between Shareholders and Customers

EAL stated the cost of offering the Shell Scotford DAT was appropriately shared between the TA's Customers and its Shareholder. The Shell Scotford DAT minimized the impact of Shell Canada's Duplicate Facilities proposal on transmission rates by collecting revenues from Shell Canada that were equal to the full amount of estimated costs that Shell Canada would incur with the Duplicate Facilities. In addition, the TA would receive revenues from 83 MW of DTS service contracted by Shell Canada and revenues from 409S, which would remain in service for other customers. EAL claimed that all customers would benefit from this approach.

EAL maintained that the Shell Scotford DAT would maximize incremental revenues to the TA, to the benefit of the TA's other customers, through obtaining the highest payments from Shell Canada without creating an incentive for Shell Canada to build the Duplicate Facilities. It was appropriate, therefore, that any revenue loss (i.e., normal tariff revenue - DAT revenue = loss) to the TA associated with the Shell Scotford DAT be reflected in the system access rates paid by all customers.

2.5 Other Terms for the Shell Scotford DAT

The following subsections outline the other considerations that have been agreed to between Shell Canada and the TA as part of the Shell Scotford DAT.

(a) Metering and Totalizing

Totalization should proceed on the basis of economic indifference to Shell Canada between the DAT and the construction of Duplicate Facilities and a net positive benefit to other transmission customers. EAL maintained that these principles were met by the terms proposed for the Shell Scotford DAT.

There was no direct relationship between the size of the 409S transmission station (sized for a prior, smaller load with no cogeneration at the site) and the larger scale operations now reflected in the Scotford Site. The Shell Scotford DAT, in respect of the treatment of 409S, is the most advantageous arrangement for the TA compared to construction of Duplicate Facilities.

If Shell Canada were to build the Duplicate Facilities, the 409S transmission station would be a Point of Supply ("POS") when the Scotford Site power generation exceeded the load requirements. Likewise, it would be a Point of Delivery ("POD") when the Scotford Site generation did not meet the load requirements. The Shell Scotford DAT would simulate this result by deeming the separate POD and POS at the 409S transmission station to be a single Point of Exchange for the purpose of totalizing Metered Demand and Metered Energy.

During the term of the Shell Scotford DAT, the TA would totalize the metered data at the 409S transmission station for the load of Shell Canada's Load Facilities and the generation from its

Cogeneration Facility. This would ensure that payments by Shell Canada to the TA under the TA's Tariff are equivalent to the costs that Shell Canada would have incurred had it built the Duplicate Facilities.

Given that the capacity of the Duplicate Facilities would be identical to that of the 409S transmission station, if the transformer required upgrading in order to serve additional load from the Load Facilities, Shell Canada would be responsible for the cost of the upgrade.

The TA will provide Shell Canada with all data used in the totalization calculation so that Shell Canada may recreate the totalization calculation and validate the charges accrued to it in the respect of the Scotford Site under the TA's Tariff. An example of totalization was provided at Appendix C of the Duplication Avoidance Application.

(b) Term of Shell Scotford DAT:

The Term for the Shell Scotford DAT would be 35 years, commencing at Shell Canada's request after January 1, 2002. EAL maintained this was appropriate timing given that a detailed design for the Duplicate Facilities was submitted to the TA in July, 2000 and, based on industry experience, Duplicate Facilities could have been constructed and in service by January 1, 2002. This is 9 months later than requested in the Duplication Avoidance Application.

(c) Exit Provisions

If either the TA or Shell Canada were to terminate the Shell Scotford DAT at a future date, Shell Canada would receive a partial refund of the lump sum Capital Charge payment. The amount of the partial refund would be the deemed remaining undepreciated dollar amount of the avoided Duplicate Facilities, in the year that the TA or Shell Canada gives notice to terminate the Shell Scotford DAT. The undepreciated dollar value would be calculated based on the lump sum Capital Charge payment using a straight-line depreciation over the first 24 years of the Term of the Shell Scotford DAT. At the end of 24 years, the undepreciated value would be zero. The termination notice period, for both the TA and Shell Canada, will be 24 months.

The TA believed the exit provisions were commercially reasonable and consistent with existing agreements for direct transmission access customers. The Shell Scotford DAT represents a net benefit to the TA over facilities duplication in the opinion of the TA.

(d) Load Shedding

EAL stated that load shedding would not be an issue under the Shell Scotford DAT as long as Shell Canada continued to take transmission service under Rate DTS for the purpose of meeting its standby requirements for the full amount of its load, as intended. Shell Canada has requested 83 MW of contract capacity under Rate DTS. This will allow full Scotford Site operation with one generation unit out of service. Shell Canada would be responsible for shedding the necessary load to prevent its totalized Metered Demand from exceeding the provisions of the TA's tariff with respect to Contract Capacity. Shell Canada would be responsible for any costs of equipment required to shed load.

(e) Assignment

Shell Canada may transfer the Shell Scotford DAT to any affiliate, creditworthy person or entity located on the Scotford Site, if such assignee agrees to be bound by the terms and conditions of the Shell Scotford DAT and such assignee is also included in the ISD at the Scotford Site. The TA must agree that the assignee is creditworthy.

3 VIEWS OF THE PARTIES

3.1 EAL

In argument EAL stated that the Board had noted, in Decision 2001-68, that the COT, including eligibility criteria, was not finally approved in EAL's 2001 Phase II Decision (Decision 2001-32). The Board noted that certain directions respecting the COT were given to the TA in that Decision and should be addressed in the 2002 GRA filing.

The TA submitted that it had begun work on examining the COT credit issue and should the Board determine as part of a future proceeding that facilities such as Shell Canada's should be eligible for the COT or a COT like credit, the TA would file an application with the Board for an appropriate amendment to the Shell Scotford DAT.

With respect to inflation, EAL noted the Board expressed concern at the level of the inflation escalator for O&M expenses, capital projects and taxes. The inflation escalator was set at 2% for the entire Term of the tariff. The Board considered that actual inflation could easily exceed the inflation escalator over the 35-year Term of the contract.

EAL noted Decision 2002-019 with respect to Imperial Oil, where FIRM recommended the use of an Alberta index. In response to FIRM-EAL-5, the TA has committed to using the actual annual change in the Alberta CPI for purposes of determining the annual Other Expense charge, with the exception of that portion relating to the capital improvements. Capital improvements will be based on the actual costs incurred.

EAL noted Board Decision 2001-68, where the Board expressed concern that the Duplication Avoidance Application did not adequately provide a real time assessment of when the bypass facilities could be in operation, given the approval process, permitting, ordering construction period or the loss in revenue from production that Shell Canada would experience to implement its bypass scheme. The Board therefore considered that the Duplication Avoidance Application should provide adequate supporting data to substantiate the proposed effective date.

The TA and Shell Canada have agreed that the starting date for the tariff shall be set at Shell Canada's request. As stated in FIRM-EAL-7 (f), the commencement date will coincide with the time required to build the Duplicate Facilities.

With respect to benefits, EAL noted that in Decision 2001-68, the Board indicated that bypass applications consume resources for the Board, customer groups and the TA. Therefore, bypass applications should be approved only when material benefits for customers are achieved compared to allowing the bypass proponent to invest in bypass facilities.

On the issue of benefits for customers, the TA was satisfied that under the Shell Scotford DAT, Shell Canada would pay the O&M charges, property tax, and capital improvements associated with the Duplicate Facilities and in addition, would continue to contribute toward the 409S costs through the TA's DTS tariff charges. This leaves a net increase in revenue to the TA for O&M, property taxes, and capital improvement charges, which assists customers.

EAL noted that FIRM argued that the sharing of benefits was disproportionate. EAL claimed FIRM based these conclusions on a number of erroneous statements and assumptions. EAL observed that FIRM quoted from the draft Transmission Development Plan (TDP) that discusses the proposed development of the Josephburg substation in the Fort Saskatchewan (Redwater) area. This development was described in FIRM-EAL-2(c). FIRM suggested that this proposed development and the TA's investment for interconnection to the feeder from 409S to the Air Liquide substation would result in costs that would be shared by all customers.

EAL submitted that under the TA's approved Customer Contribution Policy for load (Article 9), the investment in the proposed Josephburg substation would be considered a "system" related investment. As discussed in FIRM-EAL-2(c), even if the Josephburg substation were deemed to be entirely customer related, the application of Article 9 would not result in a customer contribution from Shell Canada due to the significant DTS contract levels for the Scotford Site.

FIRM-EAL-2(c) also noted the small TA investment in the feeder interconnection from 409S to the Air Liquide substation. This investment was also subject to Article 9 and resulted in no customer contribution due to the 25 MW DTS contract Air Liquide has executed with the TA.

EAL argued that FIRM failed to recognize that the incremental DTS revenue levels from the Scotford Site would be significantly higher than the incremental costs resulting from TFO investment in these facilities. In this instance, it was clear that the incremental revenue that is above incremental costs would serve to reduce future rates to all TA customers.

FIRM also suggested that there might be an opportunity to utilize the Scotford Refinery transformation equipment that may become redundant by the end of the year if the proposed Duplication Facilities were constructed. EAL submitted that this suggestion had no merit.

EAL noted the FIRM suggestion that with the Duplication Facilities, only one interconnection to the AIES would be required and that the thermal loading on AIES transmission lines would be reduced. EAL noted that the loading on the AIES system outside of the Scotford Site would be identical with or without the Duplicate Facilities. EAL submitted that FIRM was in error regarding a reduced need to contract for interruptible load and related expense.

EAL also noted that FIRM quoted from Decision 2001-68 where the Board stated that it would be concerned if the bypass application process became an easy exercise to make a "paper investment" to achieve huge savings in tariffs at the expense of other customers. The TA submitted that extensive engineering studies by both Shell Canada and the TA were performed along with considerable analysis to prepare the Duplication Avoidance Application and accompanying payment schedules. The TA did not believe that the Shell Scotford DAT was merely a "paper investment".

EAL noted FIRM's suggestion that there was a need to consider a number of other potential costs that could result from the construction and operation of the Duplicate Facilities including:

(a) the stranding of the transformation facilities for the existing refinery load

As noted in FIRM-EAL-2(f), the TA argued that there will be no stranded facilities resulting from the construction of the Duplicate Facilities.

(b) the costs of contract termination for the refinery load POD

As noted in FIRM-EAL-4, EAL argued that the Scotford Refinery load is currently under a DTS contract between Utilicorp Networks Canada Inc. ("UNC") and the TA. The entire DTS contract will be transferred to an equivalent DTS contract between Shell Canada and the TA. Thus there will be no contract termination costs.

(c) the stranding of TA interconnection costs for the new Upgrader and Air Liquide Points of Connection ("POCs") as indicated in FIRM-EAL-2(c)

EAL submitted that the interconnection from the 409S substation to the feeder to the Air Liquide substation would still be required in the event the Duplicate Facilities were constructed. As noted in FIRM-EAL-4, the DTS contract between Air Liquide and the TA would be transferred to an equivalent DTS contract between Shell Canada and the TA.

(d) the costs of contract termination for the separate Upgrader and Air Liquide POCs; these contractual quantities would have been higher to accommodate servicing the refinery 71.6 MW load via the station 409S 138 KV bus.

Again, as noted in FIRM-EAL-4, the TA submitted that the DTS contract between Air Liquide and the TA would be transferred to an equivalent DTS contract between Shell Canada and the TA. There was no contract in respect of the Upgrader substation, as service has not yet commenced.

EAL noted that the current contractual DTS quantities between UNC and the TA for the Scotford Refinery and between the TA and Air Liquide for Air Liquide's load would be fully transferred to the new DTS contract between Shell Canada and the TA. In addition, the DTS contract amount would be increased to over 200 MW when the Upgrader loads were commissioned in 2002. The peak demand and corresponding DTS contract amount would not be any higher or lower if the Duplication Facilities were constructed.

EAL noted that FIRM concluded that a DAT with three POCs is not equivalent to the Duplicate Facilities with one POC. The Shell Scotford DAT addresses a credible by-pass alternative and the TA will collect the equivalent capital and O&M costs from Shell Canada. EAL argued that FIRM's submissions that additional costs will be incurred with the construction of the Duplicate Facilities are unfounded.

In reply EAL noted that TransAlta maintained that the TA's intent to flow the Capital Charge lump sum payment through to the applicable TFO would result in a reduction in TransAlta's net rate base and a corresponding reduction in earnings, despite the ongoing obligation to operate

and maintain all existing assets. TransAlta further submitted that the TFO should not suffer as a result of the "right thing" happening to the benefit of customers.

The TA noted that TransAlta suggested that equivalent results might be achieved for Shell Canada and other customers of the TA by converting the lump sum payment into an annualized revenue stream charged to Shell Canada on a monthly basis. The TA would use the payments as an offset to the revenue requirement underlying its tariff to other customers.

The TA observed that this same issue was argued before the Board in the Imperial Oil Shell Scotford DAT application (Decision 2002-019, page 26), where the Board took the position that the TA's proposed lump-sum treatment mirrors the effect of building duplicate facilities and was therefore reasonable and appropriate in the circumstances.

The TA submitted that applying customer contributions to a TFO's rate base is equitable and consistent with past practices, including DATs previously approved by the Board.

To address the Board's concern surrounding the resources consumed by the TA, customer groups and the Board, EAL stated it understood that the Shell Scotford ISD Administrator approached the FIRM's representative on several occasions with an offer to discuss the Refiling and address any concerns FIRM may have had with it. These offers for constructive dialogue were declined. Instead FIRM filed extensive Information Requests seeking information on the operations, equipment specifications, metering, etc. which could have been more efficiently responded to outside of the formal proceeding.

EAL observed FIRM's submission that the Shell Scotford DAT exit provision, that returns the undepreciated costs of a deemed Duplicate Facility to Shell Canada in the event the DAT is cancelled, remained unfair to other customers. EAL noted that in FIRM-EAL-7(i), it had proposed exit provisions that were similar to those applicable to other direct transmission customers.

With respect to the effective date of the Shell Scotford DAT, EAL cited Board Decision 2001-68, which noted "the Application does not adequately provide a real time assessment of when the bypass facilities could be in operation..."[2]. EAL noted that this deficiency in the original filing was corrected in section 7.3 of the Refiling.

EAL noted the FIRM's submission that the commencement date for the Shell Scotford DAT, if approved, should be 18 months from the November 2001 refiling. The TA submitted that the commencement date of the DAT, if approved, would likely be June 2002 which is more than 18 months from the original Duplication Avoidance Application and nearly 24 months from the time Shell Canada submitted the detailed design to the TA in July 2000. In addition, it is approximately four years from the time the TA was first advised of the proposed expansions at the Scotford Refinery.

FIRM expressed concern that the DTS demand charge can fluctuate from month to month depending on load in the month. If a DAT is to be approved, it should be conditional on the DTS demand contract amounts as specified and subject to ratchet provisions if exceeded. The TA

[2] Decision 2001-68, page 10 and 11, also quoted in FIRM Customer's argument page 7)

argued that the design of the DTS rate ensured that the DTS demand did not fluctuate by more than 10% from month to month. Further, the ratchet provisions recommended by FIRM were already contained in the TA's Terms and Conditions.

EAL also noted that FIRM argued a condition of DAT approval should be the provision that any contracts between Shell Canada and the TA be filed with the Board and referenced in Rider A as directed in Decision 2001-68 at page 12 as follows:

> Accordingly, the Board directs the TA, in future applications for Shell Scotford DATs, to provide the relevant information in the proposed Rider A and to provide any contracts that may be signed between the Applicant and the TA.

EAL stated it had complied with this Board directive and provided a copy of the proposed form of contract for DTS as Appendix F of the Refiling. Further, as noted in FIRM-EAL-4:

> Any new DTS and STS contracts will be based on standard Board approved contract templates. Revised contracts for DTS and STS with the Scotford ISD are in the process of being finalized. The form of the DTS contracts will be similar to the sample provided in Appendix F of the application.

The TA submitted that the Refiling adequately and reasonably addressed all deficiencies noted in Decision 2001-68 and requested the Board to approve the Shell Scotford DAT.

3.2 FIRM

In argument FIRM noted that nothing has changed in the resubmission concerning the COT credit and any potential DAT should not be eligible for this credit pending the future disposition of this matter by the Board.

FIRM cited Board Decision 2001- 68, which set out the criteria used in evaluating transmission duplication proposals. FIRM had concerns that a reasonable sharing of benefits had not been achieved in the Refiling.

FIRM cited Board Decision 2001-68, page 9:

> The Board considers that the criterion of sharing between utility customers and utility shareholders does not apply in the circumstances of this Application since EAL does not have an opportunity to earn a return on the investment in transmission facilities.

FIRM submitted that while the TA only passed through the costs of the TFO in a particular area, the TFO still has the opportunity to earn a return on investment in transmission facilities. Therefore, FIRM submitted the criterion of sharing between utility customers and the TFO should be addressed by the Board in considering a DAT application.

FIRM noted that with regard to the sharing of the bypass rate between Shell Canada and other utility customers the Board noted:

> that while FIRM has not raised this as an issue directly, it is central to their submissions. Further, the level of sharing of benefits between Shell Canada and other TA customers is a primary concern to the Board. (Decision 2001-68, page 9)
>
> Processing bypass applications consumes resources for EAL, customer groups, and the Board. In exchange for this consideration, the Board considers that substantial benefits to customers must be realized. Approval of bypass applications should be relatively difficult to receive and only when material benefits for customers are achieved compared to allowing the bypass proponent to invest in bypass facilities. (Decision 2001-68, page 11)

FIRM noted that in response to FIRM-EAL–6 the revenue loss to the TA (normal tariff – DAT = loss) is shown as $50 million on a NPV basis (at 10%). This is still a very large revenue loss in spite of the purported Shell Canada increase in contractual quantities in this Refiling, to an estimated DTS of 206.1 MW and STS of 72.4 MW[3] for the Scotford ISD.

To appreciate the growth and utilization of transmission facilities in the immediate area, FIRM – EAL-02(g) had requested the estimated utilization of Station 409S over the term of the proposed DAT contract. EAL declined to respond, however FIRM noted that the recently provided draft TDP indicates at page 45:

> 6.4.7 Fort Saskatchewan (33)
>
> 6.4.7.1 Highlights
>
> The Fort Saskatchewan area is unique in Alberta in that it has several concentrated loads and large local generation resulting in heavy line loadings. The combination of an outage of local generation and any one of a number of line outages can result in the thermal overloading of other lines. This is particularly pronounced during the summer when thermal line ratings are reduced due to higher ambient temperatures. Another industrial complex, Shell Canada Scotford Upgrader is scheduled for completion in 2002, increasing the generation capacity in the area by 185 MW.
>
> The optimum solution to these thermal overload problems is a combination of a new 240/138 kv substation and the construction of a short length of 138 kv line. A project for the construction of this new 240 MW substation, Josephburg (410S), was awarded to TransAlta and is scheduled for completion by December 2002. A contract for the construction of the 138 kv line from Deerland to Bruderheim will be placed in 2002.
>
> 6.4.7.2. Area Performance 2001
>
> A temporary operating guide for the area was developed in 2001 to address possible thermal overloads resulting from the combined outages of generation and

[3] FIRM-EAL-03(a).

> lines. ESBI contracted with several area loads to allow for interruption in the event of an overload. No curtailments due to line overloads were necessary during 2001.

Additionally FIRM-EAL-02(c) indicated there was TA investment in the feeder interconnection from Station 409S to the Air Liquide and Upgrader sub-stations.

It was submitted that all of the foregoing suggested there were on-going TFO investments in upgrading facilities to support the Scotford ISD complex and these investments would ultimately be shared by all customers. Furthermore, with a new substation scheduled for completion by the end of the year there may be an opportunity to readily utilize any Scotford refinery transformation equipment, which would be made redundant with the construction of the Shell Canada proposed Duplicate Facilities.

FIRM submitted that a disproportionate sharing of benefits between Shell Canada and other utility customers remained even after the Refiling. With the DAT providing such an insignificant level of benefits to other customers, the alternative of Duplicate Facilities being constructed would provide more attractive benefits to other TA customers. With Duplicate Facilities and only one connection to the AIES, thermal loading on the AIES transmission lines would be reduced. The loading on the Duplicate Facilities would remain in these facilities and not stress the AIES system. Therefore, the necessity to contract for interruptible load and related expense would be reduced.

FIRM also noted that the Board expressed concern with the level of the inflation escalator for O&M expenses, capital projects, and taxes, stating:

> The inflation escalator was set at 2% for the entire term of the tariff. The Board considers that actual inflation could easily exceed the inflation escalator over the 35-year term of the contract. In particular, the Board considers that inflation for the capital improvements anticipated in Appendix A of the tariff could easily exceed 2% in Alberta for the foreseeable future. An inflation escalator that is too low and not adjusted for changing circumstances during the term of the tariff effectively transfers costs to the other customers of EAL for up to 35 years. The transfer of costs occurs, in these circumstances, because the revenues fixed in the Shell Scotford DAT, using the 2% escalator would be insufficient to cover the actual costs incurred by EAL to maintain the existing 409S facilities.
>
> The Board also observes that, if anything, the simulated O&M charges and capital improvements associated with the new Duplicate Facilities would likely be less than the ongoing O&M charges and capital improvements associated with the older existing 409S facilities. This would further erode EAL's calculated benefit. (Decision 2001-68, pages 9 and 10)

In the Imperial Oil Decision 2002-019, page 27 the Board indicated:

> Therefore, EAL is directed to use the Alberta CPI index issued by Statistics Canada for purposes of determining the annual Other Expenses Charge, with the

> exception of that portion relating to capital improvements. For this latter portion, EAL is directed to use the actual costs incurred.

FIRM submitted that the Board directive with respect to the Imperial Oil DAT similarly should apply to the Shell Scotford DAT in the event the Board approves it.

With respect to the exit provision FIRM noted that on page 10 of Decision 2001-68, the Board stated:

> The Board also notes that the term of the proposed tariff is for 35 years. There is an exit fee provision that provides an opportunity for either Shell Canada or EAL to provide notice with 24 months notice.
>
> This exit provision is another provision in the Application that could erode the benefits to customers significantly. In spite of very substantial immediate annual benefits to Shell Canada resulting in a payout of less than one year, the exit provisions provide for a partial refund of the lump sum Capital Charge to Shell Canada for a 24-year period. The Board does not consider this to be a reasonable commercial term given the benefits to Shell Canada and as such is unfair to other ratepayers.

FIRM noted that EAL in its resubmission indicated "The TA has reviewed the exit provisions and found them to be commercially reasonable and to be consistent with existing arrangements for direct transmission area customers". EAL stated in FIRM-EAL07(i):

> The depreciation provisions proposed are consistent with the depreciation treatment for regulated transmission assets. If the duplication facilities were placed into a regulated TFO's rate base, and subsequently removed at a later date, the exit provisions proposed would generally apply. The TA submits that the proposed exit fee provisions are similar to other direct transmission area customers.

FIRM argued that the unchanged exit provision still did not constitute a reasonable commercial term and remained unfair to other ratepayers.

FIRM submitted that Article 9 of the TA Terms and Conditions regarding the Customer Contribution Policy was relevant in considering EAL's position. Article 9.1 (a) indicates "where the Customer's request primarily represents a shift of supply or demand from an existing POC then the full cost of the transmission upgrade or extension – the project – shall be borne by the Customer". FIRM submitted that the proposed Duplicate Facilities would in fact shift demand from existing POD transformation at station 409S to demand at the new single POS/POD connection that would service the proposed Duplicate Facilities. Therefore, FIRM submitted the Customer was responsible for all the Duplicate Facilities costs.

In addition, FIRM maintained there was a need to consider the following costs resulting from the construction and operation of the proposed Duplicate Facilities:

- The stranding of the transformation facilities for the existing refinery load;
- The costs of contract termination for the refinery load POD;
- The stranding of TA interconnection costs for the new Upgrader and Air Liquide
- POCs as indicated in FIRM-EAL-2(c); and
- The costs of contract termination for the separate Upgrader and Air Liquide POCs;
- These contractual quantities would have been higher to accommodate servicing the refinery 71.3 MW load via the station 409S 138 KV bus.

Therefore, FIRM submitted that a DAT with three POCs was not totally equivalent to the Duplicate Facilities alternative with one POC and where the refinery load was serviced separately. Of course the revenues to the TA are substantially different with the Duplicate Facilities alternative.

With respect to the effective date, FIRM noted that the Board had previously expressed concern with EAL's proposed effective date of March 1, 2001:

> The Board considers that the Application does not adequately provide a real time assessment of when the bypass facilities could be in operation given the approval process, permitting, ordering, construction period or the losses in revenue from production that Shell Canada would experience to implement its bypass scheme. The Board, therefore, considers that a Shell Scotford DAT application should provide adequate supporting data to substantiate the proposed effective date. (Decision 2001-68, pages 10 and 11)

In reply, FIRM noted that EAL argued:

> In the initial submission dated November 24, 2000, the proposed start date for the tariff was set at March 1, 2001. This was changed in the November 26, 2001 refiling to January 1, 2001 and since that time, the TA and Shell Canada have agreed that the starting date for the tariff be set at Shell Canada's request. As stated in FIRM-EAL-7 (f) the commencement date will coincide with the time required to build the Duplicate Facilities.[4]

If the Refiling were to be approved, FIRM submitted that an appropriate commencement date should reflect the minimum time for the Duplicate Facilities to be constructed and placed in service, which is indicated as 18 months[5]. Accordingly the commencement date should be no less than 18 months after the Refiling date of November 2001.

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[4] EAL Argument, section 3

[5] FIRM – EAL-01, page 2 - indicating 18 months not 15, when it suggests a completion period from mid-2000 to Jan 2002

From a broad perspective, FIRM claimed the Board shared the concerns of FIRM that bypass applications should not be a routine approval process, quoting the following extract from Board Decision 2001-68:

> The Board would be concerned if the bypass application process became an easy exercise to make a "paper investment" to achieve huge savings in tariffs at the expense of other customers.
>
> The Board considers that caution should be exercised in committing other customers to special tariffs for lengthy (30-35 years) periods, when the benefit received by customers is relatively minor and no real investment by the proponent is being made. Binding future customers to these terms may not be appropriate, given the uncertain nature of the restructuring process and some associated unpredictability. (Decision 2001-68, page 11)

FIRM did not believe EAL has justified approval of the Shell Scotford DAT in the Refiling.

On the issue of meter totalizing, FIRM noted, as referenced in Decision 2001-68[6], that this would provide the largest quantum of benefits to Shell Canada pursuant to the proposed Shell Scotford DAT.

FIRM noted that in FIRM-EAL-07(b), EAL indicated four meters were identified as being totalized. EAL further stated:

> The bi-directional data from each of the four meters M1, M2, M3 and M5 will be aggregated and used for billing purposes. Any negative values (generation) will be netted off any positive values (load). The largest positive reading (demand, energy from the grid) in any meter interval during a billing period (calendar month) will be used as the billing determinant for the DTS charge to the Scotford ISD. Hence, when generation is down for maintenance, even for a short duration, the Scotford ISD will pay the full monthly and ratcheted demand charge for all load operating at the time.[7]

FIRM was concerned that the DTS demand charge can fluctuate from month to month depending on load in the month. FIRM argued that if a DAT is to be approved it should be conditional on the DTS demand contract amounts specified in the contracts and (at 206.1 MW[8]) and subject to ratchet provisions if exceeded. This would ensure appropriate cost responsibility for the ISD.

Furthermore a condition of any potential DAT approval should be a provision that any contracts between Shell Canada and EAL should be filed with the Board and referenced in Rider A as directed in Decision 2001-68, page 12.

With respect to the lump sum payment of $2.9 million by Shell Canada in lieu of constructing the Duplicate Facilities, as proposed in the Shell Scotford DAT, in reply FIRM noted that Shell

[6] Section 3.2.6, Conclusions, page 12
[7] FIRM-EAL-07(b)
[8] FIRM-EAL-03(a)

Canada Scotford DAT this payment would be provided to the TFO, which is TransAlta in this case. Such payment was to be treated as a form of customer contribution and would reduce the TFO's rate base.

FIRM noted that TransAlta expressed a concern similar to FIRM's own concern with regard to the number and frequency of industrial bypass applications. However, FIRM's concerns are based on the inequity of the very large revenue loss by the TA, which must be absorbed by the other TA customers. TransAlta's concern on the other hand appeared to FIRM to be based on the maintenance of rate base to support continued TFO earnings that would be flowed through to the TA revenue requirement. In FIRM's view an equitable sharing between customers and the TFO would have the credit to rate base increased, not decreased, to reflect the present value of decreased revenues to the TA arising from the Shell Scotford DAT.

FIRM had a number of concerns with the proposed TransAlta approach of annualized payments rather than a lump sum payment.

First of all to ensure equivalence and to prevent harm to customers, the annualized payments would have to reflect a carrying cost that mirrored the TFO pre-tax average weighted cost of capital. Such a large carrying cost rate may not be acceptable to Shell Canada, which may argue for a long-term interest rate as the proxy. However any difference in the carrying cost rate between the embedded TFO rate and the computed annualized rate would expose customers to the risk of under-recovery of the payment in lieu of construction.

Secondly, the term of the DAT is 35 years, which would represent the period for annualized payments. An upfront payment would assure compliance by Shell Canada with the terms of the Shell Scotford DAT. With an annualized payment there can be a mis-match between the DAT term of 35 years and the amortization period of 24 years for the proposed Duplicate Facilities. The terms of the Shell Scotford DAT specify that on early termination there is a return of the undepreciated facilities cost to Shell Canada (i.e. $2.9 million less depreciation). In these circumstances Shell Canada could recover substantially more than it would have provided in annualized payments.

Thirdly, Firm argued that the upfront payment and consequent credit to the TFO rate base does not subject the TFO to a substantive risk of reduced earnings. In FIRM's view the expansions for the Shell Canada Scotford area detailed in the TDP will allow the TFO to continue investment in transmission facilities in the area. Therefore, an alternate use for a lump sum payment is virtually assured. Furthermore the one-time credit to rate base is more in accord with existing retirement practices. When facilities are found not to be used or useful and retired from rate base the resulting effect is the same, the FIRM submitted, to the proposed lump sum reduction to rate base.

With respect to the effectiveness of the process in relation to the Refiling, FIRM noted that in the TA's Reply Argument it was alleged for the first time that FIRM's representative refused to consult with the ISD Administrator with consequent increases in costs of the process. FIRM submitted this was an abuse of the Board's process. The purpose of Reply Argument is to address and rebut issues in the main Argument. In this case the TA raised a new issue in Reply. FIRM submitted that this part of the TA's Argument should be struck since this is a new matter not addressed in Argument and could have been raised then or even earlier if it was an important

matter. Further, FIRM argued that it had not refused to work with the Scotford ISD Administrator and the TA Reply in this regard was unfair.

FIRM argued that Decision 2001-68 was without prejudice to the submission of a revised application reflecting a fairer balance of benefits between the parties and other customers. Therefore in FIRM's view there was little doubt that customers were entitled to scrutinize and challenge such applications, particularly DATs with lengthy terms, large savings to ISDs and corresponding costs to remaining customers. Further, Firm submitted that the TA could have avoided some costs by filing a more complete application at the outset.

3.3 TransAlta

TransAlta did not object to the approval of a DAT to apply to the Scotford Site. Its concern arose from the effect on TransAlta as a TFO from the receipt and required treatment of the lump sum payment by Shell Canada.

TransAlta noted that EAL has concluded that under the Shell Scotford DAT as filed, the existing TransAlta facilities continue to be required either to supply other customers or to provide service to the Scotford Site.

TransAlta submitted that should the transformers be salvaged, EAL notes that the capital cost of continued service at 409S is $1,140,000, a figure derived from an estimate by EAL of the net salvage credit associated with the salvage of the 409S transformers (Section 4.2, Paragraph 2). This lost opportunity potential credit is subsequently compared to the Capital Charge received by EAL through the Shell Scotford DAT of $2.9 million, which TransAlta noted led EAL to conclude that the Shell Scotford DAT revenue exceeded the long-run incremental cost of providing the DAT service (Section 4.5).

TransAlta argued that the risk posed to TransAlta was the potential loss of an investment opportunity equal to the value of the salvage credit, should the Duplicate Facilities be constructed. TransAlta observed that in this case, however, the operating and maintenance exposure associated with the 409S transformers is also foregone. TransAlta submitted that at no point has it been suggested that the TFO should be at risk for capital recovery of the original TFO investment, nor could that be reasonably suggested.

EAL proposed to forward the lump sum payment received from Shell Canada through the Shell Scotford DAT to TransAlta. TransAlta argued that this proposed treatment results in a reduction in TransAlta's net TFO rate base and a corresponding reduction in earnings, despite the ongoing obligation to operate and maintain all existing assets. TransAlta submitted that the Shell Scotford DAT would result in an environment wherein utilities are expected to build, own, operate and maintain facilities, and continue to take the risks associated with the operation and maintenance of those facilities, without the opportunity to invest in those facilities and to earn a fair return on those investments.

TransAlta recognized and accepted that it has been determined to be a matter of public interest to permit ISD's. One ramification of the ISD structure is that growth opportunities that would normally have accrued to the local TFO now are more limited, as privately owned transmission systems are developed on these sites.

The inequity to the TFO resulting from the treatment of the lump sum contribution is further highlighted, in TransAlta's view, when one considers that the larger the estimated avoided cost of the duplicate facilities, the larger the lump sum payment to be passed along to TransAlta. A higher lump sum payment minimizes the rate increase to EAL's remaining customers resulting from the DAT, but erodes a larger share of TransAlta's rate base investment in other facilities. TransAlta submitted that the TFO should not suffer as a result of the "right thing" happening to the benefit of customers.

In short, TransAlta argued that the use of a Capital Charge so calculated as an offset to the TFO rate base was an unreasonable and unnecessary approach. The present earning value of the TFO investments ought not to be diminished as a result of a tariff design by EAL.

In addition to articulating its concerns, TransAlta proposed an alternative treatment, suggesting that equivalent results may be produced for Shell Canada and for the other customers of EAL by converting the lump sum payment into an annualized revenue stream charged to Shell Canada on a monthly basis. EAL would use the payments as an offset to the revenue requirement otherwise underlying its tariff to other customers. This simple adjustment to the rate mechanism would also produce equitable results for the TFO, allowing the TFO to continue to earn a reasonable return on assets which are providing transmission service to the Transmission Administrator.

TransAlta acknowledged that it has in the past supported DATs, and has accepted payments such as that proposed in this Application and treated them as proposed by EAL as customer contributions. TransAlta, however, shared the concern of FIRM with the increasing number and frequency of industrial bypass applications, in that a greater number of such applications, and the corresponding amounts of lump sum payments artificially reducing rate base, become problematic for investor-owned utilities.

In reply TransAlta countered FIRM's position by reviewing the impact on the TFO of the Shell Scotford DAT as proposed by the TA. TransAlta's facilities in the Scotford area are being used to provide System Access Service, regardless of the pricing mechanism applied to the Scotford Site by the TA. TransAlta's concern is that the treatment of the lump sum contribution proposed by the TA (offsetting TransAlta's investment in transmission facilities) was counter to the fundamental principle of earning a fair return on investments in transmission systems being owned, operated and maintained by TransAlta to provide service. Further, the level of the lump sum contribution has no correlation to TransAlta's facilities in the Scotford area. TransAlta noted that FIRM suggested that beyond these impacts the earnings of the TFO should be reduced in some manner due to the rate design of the TA and the manner in which the TA recovered its total revenue requirement from its customers. TransAlta submitted that it was unfair and unnecessary to erode investment opportunity by the TFO due to the rate mechanisms developed by the TA.

Furthermore, TransAlta submitted that it was important to recall the treatment of TFO assets in the low probability event that a bypass was actually constructed or if the Shell Canada Scotford load left the system for any other reason. In an extreme case, the TFO could, at the direction of the TA, be requested to salvage whichever of the TFO's assets might no longer be required because a bypass alternative was constructed. The original construction costs would be removed from fixed capital and depreciation, with the net cost of salvage charged to accumulated depreciation. Thus, the TFO would not be harmed financially and the TFO's net rate base would

be changed only to the extent of the net salvage cost. In this case however the TFO investment and earnings would be reduced even though the facilities stayed in use.

Unless TransAlta's proposal for the treatment of the lump sum contribution was approved by the Board, TransAlta argued that it would be exposed to loss of investment opportunity. Further unfairness would arise since the TFO is not in a position to manage the risks associated with potential bypass of transmission facilities, and the development of DAT alternatives by the TA.

TransAlta requested that the Board modify the terms of the Duplication Avoidance Application, specifically the treatment of the lump sum payment, to convert the lump sum payment into an annualized revenue charge from the TA to Shell Canada that would offset the revenue the TA would otherwise recover from other customers.

4 VIEWS OF THE BOARD

The Board will first assess its findings and assess the overall reasonableness of the proposed Shell Scotford DAT by considering applicable general criteria. The Board will then consider particular concerns raised by interveners.

4.1 Overall Justness and Reasonableness of Tariff

The general criteria for assessing the overall reasonableness of a DAT have previously been defined by the Board as follows:

- The bypass avoidance rate is required to respond to a credible bypass threat;
- The bypass avoidance rate must exceed the long-run incremental cost of service;
- The bypass avoidance rate is no more attractive than is reasonably required to avoid duplicate facilities; and
- The cost of offering the bypass avoidance rate is appropriately shared among other utility customers and the utility shareholders.[9]

In particular the Board will consider the equitable sharing of costs and benefits of the proposed tariff.

4.1.1 Credible Bypass Threat

Having considered the evidence, the Board agrees with EAL that the proposed Duplicate Facilities form the basis for a credible bypass threat. In particular, the Board notes that Shell Canada would save approximately $4.5 million per year should it construct the Duplicate Facilities.[10] The Board also notes that the Shell Canada Scotford facility has been granted ISD status and believes that the proposed Duplicate Facilities would form the basis for a valid facilities application to the Board.

4.1.2 Bypass Avoidance Rate vs. Long-Run Incremental Cost of Service

The Board has reviewed Appendix B of the Application regarding the financial evaluation and technical summary of the bypass threat. In particular, Table B-2 indicates that the net benefit, or

[9] These criteria were established by the Board in Decision U97096, pages 17-28.
[10] Appendix B of the Application, page 20 of 42

reduction in revenue loss, to other customers of the TA as a result of the Shell Scotford DAT is approximately $286,000 per year.

Based on this evidence, the Board finds that the forecast DAT revenue appears to exceed the long-run incremental cost of service and, therefore, appears to provide a benefit to the TA's other customers.

4.1.3 Bypass Avoidance Rate Attractiveness

The Board notes from Appendix B of the Application that if Shell Canada were to build the Duplicate Facilities, Shell Canada would incur estimated annual costs of $2.467 million. If Shell Canada were to remain on standard TA tariffs, Shell Canada would incur annual costs of $7.002 million. The Board considers that the savings to Shell Canada ($4.535 million per annum) provide Shell Canada with an obvious economic incentive to build the Duplicate Facilities.

The Board also notes EAL's submission that the charges to Shell Canada under the DAT are equal to the costs that Shell Canada would have incurred to build the Duplicate Facilities. If Shell Canada were to construct the Duplicate Facilities, EAL advised that totalization would be achieved in a physical sense as the facilities would combine the current connection points into one, with the resulting combination of billing determinants and revenues. Under the Shell Scotford DAT, totalization is achieved by adding the current connections together. Accordingly, the resulting billing determinants and revenues under the Shell Scotford DAT are the same as the billing determinants and the revenues that Shell Canada would have incurred and paid if it had built the Duplicate Facilities.

Given that Shell Canada and EAL jointly developed the tariff and its terms and conditions of service, the Board acknowledges that the proposed rate would overcome the incentive to Shell Canada to construct the Duplicate Facilities. Overall the Board believes that the Shell Scotford DAT aims to produce costs and results to Shell Canada that are equivalent to building Duplicate Facilities, not more favourable than undertaking the bypass alternative, and therefore the Board believes the bypass avoidance rate is no more attractive than is reasonably necessary to avoid the bypass threat.

4.1.4 Sharing of Bypass Rate Among Other Utility Customers and Utility Shareholders

In the Board's view, the criterion of sharing between utility customers and utility shareholders does not apply in the circumstances of the Duplication Avoidance Application since EAL does not have an opportunity to earn a return on the investment in transmission facilities.

With respect to the appropriate sharing of costs and benefits between Shell Canada and other TA customers The Board notes that FIRM has asserted that there would be a disproportionate receipt of benefits by Shell Canada at the expense of other customers. FIRM maintained that with such minimal benefits accruing to other customers under the Shell Scotford DAT the alternative of the Duplicate Facilities would be more attractive to these customers.

EAL on the other hand has maintained that it is satisfied that under the Shell Scotford DAT, Shell Canada will pay the O&M charges, property tax, and capital improvements associated with the Duplicate Facilities and in addition, will continue to contribute toward the 409S costs through the TA's DTS tariff charges.

EAL has also claimed that the Shell Scotford DAT maintains the economic neutrality of Shell Canada with respect to its bypass option. Given that the Scotford Refinery facilities were designated as an industrial system, and the bypass alternative was credible, EAL maintained that the Shell Scotford DAT represents the best achievable outcome for other customers.

The Board shares FIRM's concern that the approval of DAT applications causes the balance of demand customers to shoulder an increasing portion of system costs. In particular, the Board notes that no real "benefit" accrues to customers other than the potential bypass customer, except for the minimization of potential costs to these customers occasioned by the revenue loss to the TA when the system is bypassed.

However, the Board must recognize that the current legislative framework allowing for ISDs creates opportunities for customers such as Shell Canada to bypass the system and realize significant savings. In these circumstances, the best financial outcome for remaining customers is likely the negotiation of business arrangements such as a DAT.[11]

The Board considers that it would not be a prudent business decision for Shell Canada to accept a DAT less favourable than building the Duplicate Facilities.

4.2 Particular Concerns of Interveners

TransAlta and FIRM were the only interveners to express concerns with respect to the proposed Shell Scotford DAT. The Board will respond to the concerns of TransAlta first and then those of FIRM in the following subsections.

4.2.1 Concerns of TransAlta

TransAlta stated that, in principle, it did not object to DATs in general or the Shell Scotford DAT in particular. It did object, however, to the proposed treatment of the lump sum to be received by the TA from Shell Canada.

The Board considers the arguments of TransAlta to be similar to those made by ATCO Electric (AE) in the case of the Imperial Oil Cold Lake DAT, dealt with by the Board in Decision 2002-019. The Board also notes TransAlta's proposal to replace the lump sum payment by Shell Canada with a stream of annual payments.

In Decision 2002-019 the Board stated:

> The Board notes EAL's position that the DAT proposal treats the lump sum received by the TFO in a manner *similar* to a customer contribution in the resulting reduction of revenue requirement, and that the lump-sum payment is made by the industrial system customer in lieu of proceeding with the duplication of assets that would in turn strand TFO assets and put them at risk of being removed from rate base. The Board further notes FIRM's argument that EAL's proposed lump-sum treatment was based upon the construction of a hypothetical bypass of the TFO's facilities and, if bypass facilities were constructed, then

[11] Or "load retention rates" as they are generally known.

> stranded assets would result. As the capital contribution was in lieu of stranded assets, FIRM submitted that it was appropriate to treat capital contributions as a credit to TFO rate base. The Board agrees. Having regard to these considerations, the Board is of the view that the EAL's proposed lump-sum treatment mirrors the effect of building duplicate facilities. Therefore, the Board considers that this proposed treatment is reasonable and appropriate in the circumstances.
>
> In addition to the arguments of the parties the Board notes that AE is a business and faces certain business risks. It is not "guaranteed" either the recovery of or a return on capital in perpetuity. It is compensated for its business risks in its rate of return. In addition, in cases such as this in which the underlying risk of stranded assets is involved and the tariff response is based on a hypothetical bypass analysis, the Board considers it reasonable if a lump sum payment, similar to or in the nature of a stranded asset payment, is made to the TFO and its rate base is reduced producing a similar effect as if the by-pass had occurred.
>
> When the TFO receives the lump sum payment, it then has proceeds available to it to invest in other capital additions to utility rate base, on which to continue to earn a return, or elsewhere. The Board believes that the TFO in these circumstances is treated fairly.

The Board believes the foregoing principles apply to TransAlta in respect of its investment opportunities and does not see a reason to alter the conclusions reached in Decision 2002-019 in this regard.

With respect to TransAlta's proposal for an annualized payment stream by Shell Canada rather than a lump sum payment, the Board notes the arguments of FIRM in relation to potential difficulties in determining a cost of capital, a possible mis-match between the DAT term of 35 years and the amortization term of 24 years and a one time credit being more in accord with existing retirement practices. The Board also notes the potential for early termination and a return of the undepreciated facilities cost to Shell Canada, which could allow recovery for Shell Canada of a considerably greater amount than paid out in annual installments. The Board is therefore not convinced that an annualized payment stream is a reasonable solution, particularly when the TFO is not substantially harmed, in the Board's view, by the receipt of the lump sum payment.

For all the reasons noted above the Board approves the lump sum treatment of the Capital Charge as proposed by EAL.

4.2.2 Concerns of FIRM

(a) Inflation

FIRM has expressed concern over the 2% factor originally proposed by EAL. The Board notes that EAL has now proposed to use the actual Alberta CPI factor, as directed by the Board in Decision 2002-019 with respect to the Imperial Oil DAT. The Board accepts EAL's revised proposal. EAL is therefore directed to use the actual Alberta CPI index for the annual Other Expense charge. EAL is directed to use actual cost for all capital costs charged to Shell Canada.

(b) *Exit Provisions*

FIRM claimed that the exit provisions proposed by EAL were unchanged from the first filing and as such were still unfair to other customers.

EAL has countered, as pointed out in IR response FIRM-EAL-7, that the proposed exit provisions are similar to those accorded other direct transmission customers.

The Board is prepared to accept the argument of the TA with respect to this matter. The exit provisions are therefore accepted as filed.

(c) *Effective Date*

FIRM pointed out that in Decision 2001-68 the Board had noted that the original Duplication Avoidance Application did not provide a real time assessment of when bypass facilities could be in operation.

EAL acknowledged the Board's comments and stated that the commencement date of the Shell Scotford DAT would likely be June, 2002 which was more than 18 months after the filing of the original DAT application and nearly 24 months from the time Shell Canada submitted the detailed design to the TA in July, 2000. The Board accepts that this general time for commencement of the Shell Scotford DAT is reasonable in the circumstances of this Refiling.

(d) *Metering and Totalization*

FIRM has noted that totalization of metering provided the largest quantum of benefits to Shell Canada under the proposed Shell Scotford DAT. FIRM suggested that the DTS demand contract amounts should be subject to ratchet provisions if exceeded.

EAL has pointed out that the design of the DTS rate ensures that DTS demand would not fluctuate by more than 10% from month to month. Further, EAL indicated that the ratchet provisions recommended by FIRM are already part of the DTS rate schedule.

The Board accepts the position of EAL in respect of this issue. The Board would also note that Shell Canada could obtain the benefits of totalization by constructing the Duplicate Facilities. The totalization procedures proposed by EAL are therefore approved as filed.

(e) *COT Credits*

EAL has stated that no COT credit would be payable to Shell Canada under the proposed Shell Scotford DAT until this issue has been resolved by the Board in a future proceeding. This approach meets with the approval of the Board.

4.3 Conclusion

In conclusion, the Board considers that the proposed Shell Scotford DAT achieves a reasonable sharing of costs among all customers. While the Board would prefer to see greater benefits for remaining customers, the Board considers that greater benefits may not be possible in cases such as this one.

Given the credibility of the bypass threat and the economics of Shell Canada's options, the Board considers the Shell Scotford DAT will achieve the optimal financial outcome for customers in the circumstances.

The Board has also carefully considered the particular concerns raised by TransAlta and FIRM. However, the Board finds that, subject to the directions set out in this Decision, the Shell Scotford DAT as amended by the Refiling results in the most efficient use of existing transmission assets which might otherwise be stranded and should be approved.

5 ORDER

For the reasons set out in this Decision and subject to the directions regarding inflation contained in subsection 4.2.2(a), the Shell Scotford DAT is approved as refiled.

The Board expects that EAL will file the Shell Scotford DAT rate schedule when it is finalized.

DATED in Calgary, Alberta on July 2, 2002.

ALBERTA ENERGY AND UTILITIES BOARD

(Original signed by)

B. T. McManus, Q.C.
Presiding Member

(Original signed by)

R. G. Lock, P. Eng.
Member

(Original signed by)

C. Dahl Rees
Acting Member