THE PUBLIC UTILITIES BOARD, ALBERTA

DECISION E94076

re:

TRANSALTA UTILITIES CORPORATION

In the matter of an application dated February 22, 1994 by TransAlta Utilities Corporation for approval of Network Services and Generation Services rates.

BEFORE:

A. Calista Barfett	Acting Chairman
N. W. MacDonald	Member

FILE 5601-7

November 4, 1994

TABLE OF CONTENTS

TABLE OF CONTENTS

APPEARANCES

For TransAlta Utilities Corporation	:	Mr. T. Dalgleish, Q.C. McCarthy Tetrault
For Alberta Power Limited	:	Mr. D. O. Sabey, Q.C. Bennett Jones Verchere
For Edmonton Power	:	Mr. F. V. Martin Ackroyd, Piasta, Roth and Day
For the Industrial Power Consumers Association of Alberta	:	Mr. A. L. McLarty Milner Fenerty
For the City of Calgary	:	Mr. J. R. McKee McCaffery Goss
For the Town of Fort Macleod	:	Dr. A. C. Jackson Energy Consulting, Inc.
For the City of Red Deer	:	Mr. J. A. Bryan, Q.C. Bryan and Wilson
For the Independent Power Producers Society of Alberta	:	Mr. L. L. Manning Parlee McLaws
For the Alberta Cogenerators Council	:	Mr. R. C. Secord Parlee McLaws
For the City of Lethbridge	:	Ms. P. A. L. Smith, Q.C. Emery Jamieson
For the Alberta Association of Municipal Districts and Counties	:	Mr. P. G. Sully, Q.C. Brownlee Fryett

APPEARANCES

For the Alberta Federation of REAs Ltd.	:	Mr. K. L. Sisson Sisson Warren Sinclair
For Fletcher Challenge Petroleum	:	Mr. D. Sexsmith Consultant
For the Alberta Irrigation Projects Association	:	Mr. J. H. Unryn Unryn & Associates Ltd.
For the Consumers Coalition Association consisting of the Consumers Association of Canada (Alberta) and the Alberta Council on Aging	:	Mr. K. J. Alyluia Gledhill Reid
For Suncurrent Industries Inc.	:	Mr. P. Liddy President

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		Mr. D. G. Huntingford Director, Transmission Markets and Energy Supply
	:	Mr. D. S. Stoness Supervisor, Pricing, Transmission Markets and Energy Supply
	:	Mr. R. Mikkelsen Senior Engineer Cost of Service
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For The Industrial Power Consumers Association of Alberta	:	Dr. R. J. Fleming PowerComp Associates
	:	Mr. M. Drazen Drazen, Brubaker and Associates
	:	Mr. A. R. Morin Power Train Supervisor Dow Chemical Canada Inc.

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	:	Mr. G. C. Bachmann Vice President Northland Power
	:	Mr. J. R. Keating Vice President, Canadian Hydro Developers, Inc.
For Suncurrent Industries Inc.	:	Mr. P. Liddy President
	:	Mr. R. J. Adamson Technology Manager

ABBREVIATIONS

AAMDC	Alberta Association of Municipal Districts and Counties
ACA	Alberta Council on Aging (part of Consumers' Coalition Association)
AEUB	Alberta Energy and Utilities Board
AIPA	Alberta Irrigation Projects Association
AIS	Alberta Integrated System
APL	Alberta Power Limited
B.C. Tie	B.C. Hydro Interconnection
Board or PUB	Public Utilities Board
BPA	Bonneville Power Authority
Calgary	City of Calgary
CAC	Consumers' Association of Canada (Alberta) (part of Consumers' Coalition Association)
Cogenerators	Alberta Cogenerators Council
EEMA	Electric Energy Marketing Agency
EP	Edmonton Power
ERCB	Energy Resources Conservation Board
Fort Macleod	Town of Fort Macleod
G&A	General and Administration
GOLF	Generation On-peak Load Factor
GRA	General Rate Application
IEE	Institute of Electrical Engineers
IPCAA	Industrial Power Consumers Association of Alberta
IPP	Independent power producer
IPPSA	Independent Power Producers' Association of Alberta
LDC	Local distribution company
Lethbridge	City of Lethbridge
MVA	Megavolt Amperes
O&M	Operating and Maintenance
PICA	Public Institutional Consumers Association
REA	Federation of REAs Ltd.
Red Deer	City of Red Deer
Suncurrent	Suncurrent Industries Inc.

ABBREVIATIONS

TOLF	Transmission On-peak Load Factor
TransAlta or TAU	TransAlta Utilities Corporation
VAR	Volt Amperes Reactive
Weldwood	Weldwood of Canada Limited
WOMWUA	Western Oldman Water Users Association

REFERENCES

ORDER / DECISION / REPORT NO.	DATE	PARTICULARS
E87128/87C	December 29, 1987	Gas Supply and Transportation Service Inquiry (Report - PUB and ERCB)
E90055	October 15, 1990	TransAlta Utilities Corporation (Decision - 1988/89/90 GRA Phase II Reasons)
E92070	December 8, 1992	TransAlta Utilities Corporation (Decision - 1991/1992 GRA - Phase II)
E93053	October 7, 1993	TransAlta Utilities Corporation (Decision - 1993 Expedited)
E94034	June 17, 1994	Alberta Power Limited (Decision - 1992 GRA - Phase II)

1. INTRODUCTION AND BACKGROUND

By letter dated February 22, 1994, TransAlta Utilities Corporation (TransAlta or TAU) applied to the Public Utilities Board (the Board or PUB) for a new Network Services Rate 820 and a new Generation Services Rate 830, both to be effective January 1, 1995 (the Application, Exhibit 1). At the hearing, TransAlta's witness stated the purposes of these rates to be as follows:

> "... in summary, we are here today regarding the application for two new rates: the network services rate and the generation services rate; and together, these two rates achieve an unbundling of the traditional electric service into its network and generation components.
>
> Now, these rates are in response to customer ambitions to take advantage of export markets and customers desiring to pursue their own choice in a provision, at least, of a portion of their own electric services.
>
> Now, there is a fair amount of new terminology that we have introduced through the process of the application and the IRs. So just for the sake of clarity, to summarize when we speak of 'generation services', we are referring just to the production of power and energy and the production of that power being distinct from the delivery of it.
>
> When we speak of 'network services', we are referring not only to the delivery of the generated power and energy but also to the various services such as voltage control, and frequency control, short-circuit capacity, and reactive power that are provided by an interconnected network and by the network of transmission distribution and generation facilities.
>
> When we talk about 'system support service,' we are talking the combination of generation services and network services, so you have not only the production of the energy but also the delivery and the network services that go with it.
>
> This hearing, really, we refer to as the 'network and generation services' hearing. We have a distinction that when we refer to the previous application that is now adjourned, we refer to it as 'network access."
>
> There is really three general groupings of services that we are dealing with in this application: the first being the service for the export of

1. INTRODUCTION AND BACKGROUND

> power that is produced by a nonutility generator or a utility generator, the second service being standby to a customer's on-site generation of power for his own load. And that standby has various components. If the standby is instantaneous, then we refer to it as 'backup service.' If the standby is predictable, then we refer to it as 'scheduled maintenance service.' And if a portion of the customer's load cannot be served by the customer's own generation, then we refer to it as 'supplementary service.' So export and standby being two of the services.
>
> The final service we refer to is 'network service' where a customer's on-site generation is sufficient to meet his requirements of his load, but he requires connection to the network for network services such as assistance in motor-starting." (Tr. p.15, line 26 to p.17, line 26)

TransAlta also applied to close its existing standby rate, Option 11, as of January 1, 1995 and to discontinue Option 11 as of August 1, 1995. The Application concluded by requesting approval of "...the conditions to be applied to the proposed Rates, as described in part 2 of this Application;" (Exhibit 1, p.12)

The Board, by letter dated March 17, 1994, directed TransAlta to publish notice of its application in all daily newspapers in Alberta, except for the Globe and Mail, by March 24, 1994. TransAlta was also directed to serve notice by March 25, 1994 directly on parties participating in the application for network access rates, dated December 18, 1992, which TransAlta withdrew in December, 1993. The Board held a hearing into TransAlta's application in Calgary from June 20 to 23, 1994. At the hearing, the Board considered notice (Exhibit 2) to be adequate. The Board heard the evidence of TransAlta, the Industrial Power Consumers Association of Alberta (IPCAA), the City of Calgary (Calgary), the Independent Power Producers' Association of Alberta (IPPSA), the Alberta

1. INTRODUCTION AND BACKGROUND

Cogenerators Council (the Cogenerators), and Suncurrent Industries Inc. (Suncurrent). The Board received written argument on or before July 8, 1994 from TransAlta, Alberta Power Limited (APL), Edmonton Power (EP), IPCAA, Calgary, the Town of Fort Macleod (Fort Macleod), the City of Red Deer (Red Deer), the Cogenerators, the City of Lethbridge (Lethbridge), the Federation of REAs Inc., the Alberta Association of Municipal Districts and Counties (REA/AAMDC) and the Alberta Irrigation Projects Association (AIPA). Although not participating in the hearing, the Public Institutional Consumers Association (PICA) and Weldwood of Canada Limited (Weldwood) submitted written argument on July 8, 1994. The Board received written argument from IPPSA on July 11, 1994, from the Consumers Coalition Association (CAC/ACA) consisting of the Consumers Association of Canada and the Alberta Council on Aging on July 12, 1994 and from the Western Oldman Water Users Association (WOMWUA) on July 13, 1994. The Board received written reply argument on or after July 22, 1994 from all who submitted argument, except for APL, Fort McLeod, the Co-generators, Weldwood and WOMWUA.

Having heard the evidence and received the arguments of the interested parties, the Board will now provide its decision with reasons on these matters.

2. RATE DESIGN

(a) Need For the Proposed Rates

TransAlta stated that, since the adjournment of its Network Access application, it had engaged in discussions with stakeholders with respect to steps to be taken in the near future with respect to the Network Access application. From these discussions, TransAlta stated that it was apparent that sufficient agreement existed to allow TransAlta to take prompt action with respect to the need for new rates for standby service and a new rate for long term transportation service for export. TransAlta summarized the concerns of stakeholders in Appendix B of Exhibit 1. (Exhibit 1, p.3)

The witness for IPCAA, Mr. Drazen concluded that there was a need for standby rates as customers were currently taking standby service. The question was whether TransAlta's proposal was the best one to meet customer needs. Whereas there appeared to be a need for a rate for export, Mr. Drazen concluded that the proposed rate design would not facilitate the export of electricity from the province. (Exhibit 14, pp.4-8)

In its evidence (Exhibit 17), IPPSA stated that a large number of benefits would result from allowing independent power producers (IPPs) connection with the electric network. These included: a) benefits to the Alberta Integrated System (AIS) customer from power exports; b) the availability of renewable and non-renewable power sources in Alberta; c) reduced electricity rates; d) reduced rate shock through the addition of power sources in smaller

2. RATE DESIGN
(a) Need for the Proposed Rates

increments; e) risk of providing generation is borne by the IPP and not the AIS customers or utilities; f) diversified sources of generation; g) better utilization of existing transmission capacity; h) better overall system reliability; i) increased employment; j) economic diversification; k) increased tax revenue to all levels of government; l) increased competitiveness for Alberta industry; and m) increased royalty revenue from presently shut-in gas.

EP

EP considered that TransAlta's proposed rate for export was a rate for selling capacity on its transmission facility from Langdon, Alta. to Cranbrook, B.C. EP considered the evidence suggested that the capacity on this facility was limited. EP suggested that the situation might arise where non-utility firm exporters could take priority over the needs of Alberta utilities to export. In addition, there were uncertainties concerning the regulatory framework and the restructuring of the utilities regulated by the Board. EP proposed that the export rate issues be referred to a future division of the combined Alberta Energy and Utilities Board (AEUB). (Argument, pp.2-5)

IPCAA

IPCAA stated:

> "The proposed rates go further than necessary to merely establish new rates for standby service and for long term export service. At the same time the proposed rates fall far short of responding to the needs identified by TransAlta's Network Access Application." (Argument, p.4)

2. RATE DESIGN
(a) Need for the Proposed Rates

IPCAA noted TransAlta's reason for withdrawal of the Network Access Application, to allow for consultation with customers. TransAlta implied that there was agreement for new standby services and export rates. However, TransAlta's proposal sought to establish rates for network support services as well. These network support services rates were sought on the basis of fairness and the implication that there was agreement on the need for such services. TransAlta also suggested that future parallel generation would be inappropriate, where customers do not pay their fair share, when there was no historical evidence that this might be true.

IPCAA submitted that the scope of the application should be limited to standby rates and export services. If the scope were to extend to unbundling of rates, then IPCAA submitted that TransAlta should pursue its Network Access application. (Argument, pp.4-7)

IPCAA considered that TransAlta had not identified any purpose for its export rate. Most intervenors, in the opinion of IPCAA, agreed that exports would be beneficial, if increased utilization of facilities resulted. However, TransAlta's proposal was exceedingly limited in scope and likely to not be used much. (Argument, p.22) IPCAA noted that the need for more flexible standby rates had been debated before the Board in earlier proceedings. IPCAA submitted that the standby rates were more complicated than they needed to be. (Argument, p.24)

2. RATE DESIGN
(a) Need for the Proposed Rates

Calgary

Calgary concluded that the proposed rates might offer potential benefits. Calgary submitted that "...TransAlta's attempts to quantify the need and impact of the proposed rates in terms of load have only added to the uncertainty." Calgary noted that TransAlta's estimate of exports ranged from 35 to 700 MW of capacity. Similar uncertainty existed with the amount of load that might leave the system without the proposed rates. In the opinion of Calgary, TransAlta had not conclusively justified the need for the new rates. (Argument, pp.2-4)

IPPSA

IPPSA noted that, in addition to the benefits listed in its evidence, the Exhibit 9 example introduced at the hearing showed that a strategically located IPP could result in a decrease in system losses. (Argument, pp.15-17)

Cogenerators

The Cogenerators supported TransAlta's proposal on the basis that it was better to have the proposed rates than no rates at all. (Argument, p.1)

Lethbridge

Lethbridge noted that TransAlta had confirmed at the hearing that it had received requests for long-term transportation service for export. Furthermore, the parties interested in these rates had intervened in favour of TransAlta's proposal. TransAlta had estimated the loss in load to the system to be in the

2. RATE DESIGN
(a) Need for the Proposed Rates

order of 140 MW, should its proposal not be approved. Lethbridge concluded that TransAlta had demonstrated a sufficient case that the rates were needed. (Argument, pp.3-5)

REA/AAMDC

The REA/AAMDC stated that it was apparent, from argument received, that the users of Rates 820 and 830 did not constitute a homogeneous group. This suggested a need for negotiated rates for cases which did not fit the particular rates offered. The REA/AAMDC noted that control of the transmission system was a monopoly and the discretion of negotiated rates did not fit the traditional regulatory model. Notwithstanding any shortcomings of the proposed rates, the REA/AAMDC supported approval. Any shortcomings could be resolved in a future general rate application (GRA). (Reply, pp.3-4)

PICA

PICA stated that it supported the purpose for which TransAlta requested approval of the proposed rates. (Argument, p.1)

WOMWUA

WOMWUA stated that it supported Rates 820 and 830. (Argument, p.2)

TransAlta

TransAlta submitted that it had demonstrated a need for the proposed partial requirements rates. The response to CR.TAU-1, which listed requests for

2. RATE DESIGN
(a) Need for the Proposed Rates

partial requirements rates had shown the need for export rates. The need for standby rates had been under review by TransAlta as a result of Decision E90055, dated October 15, 1990, and more standby customers will exist in the future. Customers need clarity as to the availability and cost of network services when considering installing self-generation. (Argument, pp.3-4)

Board Findings

The Board finds that there is a need for the proposed rates which will provide standby, export and network support services. The Board considers that the standby aspects of these rates recognize the full range of standby service, i.e the need for emergency, maintenance and supplemental energy. The Board considers that the proposal of these rates fulfills the Board's direction:

> "...to supply evidence on a proposed standby rate that includes consideration of daily charges and other terms and conditions similar to APL's approved Rate 32 at the time of TransAlta's next general rate application." (Decision E90055, p.128)

Despite not appearing identical to the APL standby rates, the Board considers that the TransAlta proposal provides the same degree of customer flexibility with respect to the levels of standby service as the APL rate.

The Board considers that the need for an export service has been demonstrated in the response to CR.TAU-1 and by the presence of parties in these proceedings, such as Fort Macleod and some members of IPPSA and IPCAA, whose stated intent is to export power from the province.

2. RATE DESIGN
(a) Need for the Proposed Rates

The matter of network support services is more fully discussed in Section 3(a)(3) of this Decision and the Board finds that these services are similarly required.

Overall, the Board notes TransAlta's evidence that approval of the rates would prevent loss of an estimated 140 MW of system load. Therefore, the Board considers that the rates will provide a potential for benefits to the system.

(b) Rate Design/Cost of Service Study

TransAlta stated that Rates 820 and 830 were based on 1992 Alberta-wide embedded costs after such costs were averaged through the Electric Energy Marketing Agency (EEMA) process. Furthermore, both rates were offered on a postage stamp basis. The cost of service and rate design were consistent with the basis for standard bundled rates which resulted from its last Phase II hearing in 1992. (Exhibit 1, p.4)

TransAlta stated that embedded costs, rather than marginal costs, were appropriate for Rate 820 because transmission was a natural monopoly and required rates to be regulated. The regulation should be on the same basis as customers on standard, bundled rates. Since the proposal required customers to take either Rate 720 Temporary Energy or Rate 830 Generation Services, embedded costs were appropriate for generation services as well. (Exhibit 4, BR.TAU-2,3)

In designing Rate 820, TransAlta calculated its unit transmission cost out of EEMA by dividing its transmission demand cost by its transmission demand to arrive at a total transmission demand cost of $6.24/kW/month. TransAlta allocated this demand cost 50% to a fixed charge termed the Network Support Charge and 50% to a variable portion based on the customer's Transmission On-peak Load Factor (TOLF). The calculation of TOLF is detailed in Section 3(a) of this Decision. TransAlta, in response to RD.TAU-2, indicated that a 50/50 allocation was reasonable based on fairness to customers with varying load

factors, the proportions of cost by voltage level and the need to recover certain fixed costs resulting from utility interconnection. In order to recover the cost of serving customers at lower voltage levels, TransAlta calculated a "distribution increment", based on the blocking structure of Rate 790, and added this increment to the fixed and variable portions of transmission demand to arrive at the demand blocking structure of Rate 820.

In designing Rate 830, TransAlta calculated its unit generation demand cost out of EEMA by dividing its generation demand cost by its generation demand to arrive at a total generation demand cost of $12.78/kW/month. TransAlta split the demand cost into a fixed demand portion of $2.35/kW/month to reflect the target 22.5% reserve margin on the AIS. The remaining $10.43/kW/month was considered to be variable with a customer's Generation On-peak Load Factor (GOLF). The calculation of GOLF is detailed in Section 3(b) of this Decision. TransAlta calculated the energy charge of Rate 830 as TransAlta's total energy cost out of EEMA divided by TransAlta's energy consumption.

The details of these costs and rate design principles are shown in Appendix 1, attached to and forming part of this Decision.

The witness for the Co-generators, Dr. Schmidt, stated that he agreed with the TOLF and GOLF features as it allowed a customer to contract only for capacity used. However, it shifted the risk of recovery of capacity costs to the customer. Dr. Schmidt proposed that a point-to-point transmission rate be

offered in order to better reflect costs of transmission at various voltage levels and over various distances. A simplified version of such a rate would be the megawatt-mile method. Dr. Schmidt approved of TransAlta's reserve rationale method of determining fixed demand costs for standby since it results in a fairly stable determination of class responsibility, especially in cases where there are not a large number of customers seeking standby service. (Exhibit 10, pp.7-10)

The witness for Calgary, Mrs. Beach, agreed with TransAlta that the new partial requirements rates should be based on the same embedded costs as full requirements rates for consistency. Mrs. Beach agreed that when rates are offered on a monopoly service, they should be based on embedded costs. Calgary supported the postage stamp nature of the rates as consistent with the province-wide averaging of EEMA and the integrated operation of the AIS. Calgary considered TransAlta's proposal to split cost recovery 50/50 between fixed and variable charges as reasonable for rates which presently had no customers. (Exhibit 12, pp.7-9)

IPCAA

IPCAA did not oppose TransAlta's proposal for an export rate but considered that the export rate was set higher than it should be. The rate was designed "mechanically" in order that all costs should be recovered. However, the costs were all assumed costs. TransAlta could have alternatively designed a rate based on ensuring the facilities were utilized. Instead TransAlta chose to make rates consistent between exporting customers and sales customers. Since

exporters would not otherwise be sales customers, there was no reason that their rates should be designed on a consistent basis. (Argument, pp.22-23)

Calgary

Calgary considered that the use of embedded costs was consistent with the rate design used for full requirements customers. The use of EEMA embedded costs also removed the major objection that Calgary had to TransAlta's original Network Access application. Calgary agreed with the principle that embedded costs were appropriate when offering services on a monopoly basis. Calgary considered that the 50/50 split between fixed charges and variable charges based on TOLF and GOLF was reasonable for a rate which had no customers and no history of usage patterns. Calgary also approved of the postage stamp design of the rates. (Argument, pp.8-11)

Red Deer

Red Deer considered that the demand blocking of Rate 820 was appropriate. The evidence indicated that customers potentially could be connected at the 25 kV level or through the distribution network. Furthermore, the lower blocks were intended to recover costs of telecontrol, customer accounting, marketing and G&A expense. Red Deer considered it reasonable that the percentage of distribution costs increase in the network charge as the size of the generator decreased. Red Deer submitted that inclusion of all voltage level costs in a rate was essential to postage stamp rate design. (Argument, pp.2-4, 21)

2. RATE DESIGN
(b) Rate Design/Cost of Service Study

IPPSA

IPPSA noted that the export Rate 820 was derived from Rate 790. IPPSA agreed with the witness for IPCAA who stated "...there is no point to have an export rate that is designed to look like Rate 790 in terms of blocking because exporters are not 790 customers." Rate 790 was designed for users taking power from the system whereas the export rate is designed for users supplying power to the system. This resulted in a rate that was too high. IPPSA submitted that a rate in the range of 0.01-0.40¢/kWh was realistic. The only way to achieve such a rate, in the opinion of IPPSA, was to completely unbundle electric services. (Argument, p.6)

IPPSA considered that the CAC/ACA was attempting to raise the issue of marginal costing in argument, which other parties had not spoken to at the hearing. The CAC/ACA also seemed to raise the issue of whether rolled-in costing or postage stamp rates currently used in Alberta was still appropriate. CAC/ACA's argument also rested on the assumption that full service customers would subsidize partial requirements services. In the opinion of IPPSA, there was no evidence that this would be so. Finally, the CAC/ACA's concern over new facilities rested on the assumption that existing customers have a prior right to existing facilities. By taking service, a customer simply obtained a right to service. (Reply, pp.2-4)

Lethbridge

Lethbridge considered that the argument of IPPSA ignored the fact that Rate 820 was intended for long term use by exporters. Use of capacity for the long term at less than embedded cost was inappropriate, in the opinion of Lethbridge. Lethbridge submitted that "...if export is not economic because the product cannot be sold at a price that exceeds the long-run marginal cost of facilities necessary to transport, such industry should not be encouraged." IPPSA's proposals would result in a subsidy from full-service customers to exporters. (Reply, pp.2-3)

REA/AAMDC

The REA/AAMDC noted that the Board apparently recognized, in Decision E94034, dated June 17, 1994, at pages 25-29, that partial requirements customers receive more benefits from the electric system currently than they provide. The REA/AAMDC considered that TransAlta may have designed the rates at a lower level than need be by adhering to embedded costs in the rate design. The REA/AAMDC supported the value of service method approved in Decision E94034. Notwithstanding this principle, there was not a significant difference between TransAlta's rate and the corresponding APL rates.

The REA/AAMDC noted that the use of marginal costs of transmission would increase the rate by 12%. However, the REA/AAMDC agreed with TransAlta that the transmission system was a natural monopoly and the use of embedded costs for Rate 820 was appropriate. The REA/AAMDC was concerned about the

use of embedded costs for Rate 830. The REA/AAMDC noted that the marginal cost of energy on the AIS was approximately 2.4¢/kWh and temporary energy sales fetched around 3.0¢, based on the response to RD.TAU-12. The REA/AAMDC considered that TransAlta might be selling energy at a loss by pricing it at 1.1¢/kWh in Rate 830. The REA/AAMDC submitted that the energy charge should be based on marginal costs and time differentiated, as in TransAlta's Network Access application. (Argument, pp.8-12)

CAC/ACA

The CAC/ACA submitted that it would be more appropriate to design the new rates based on 1995 EEMA costs since the new rates would be implemented in 1995.

The CAC/ACA also submitted that the new rates should be based on marginal costs. The CAC/ACA noted that the AIS marginal cost of building new transmission in TransAlta's Network Access application was $7.00/kW/month whereas the embedded EEMA cost used in the current application was $6.24/kW/month. The CAC/ACA further noted TransAlta's evidence that constraints in certain parts of the network would require new transmission systems to be built to provide the new service. The CAC/ACA considered that no-choice customers would, therefore, be disadvantaged by not using the marginal cost of new transmission. (Argument, pp.7-8)

2. RATE DESIGN
(b) Rate Design/Cost of Service Study

PICA

PICA stated that it did not object to the proposed rate design of Rates 820 and 830. However, PICA considered that the on-peak load factors used to measure usage might not reflect the true costs imposed on the system by a partial requirements customer. The coincident demand in only one hour of the month is used for EEMA allocation purposes. Therefore, the true coincidence of a low load factor customer might not be reflected.

PICA also noted TransAlta's proposal to base energy costs on average costs which, in TransAlta's opinion, did not vary much from hour to hour or season to season. PICA contended that this might not be true since increasing amounts of gas generation and higher gas costs had occurred since the last cost of service study since 1992.

PICA proposed that that Rates 820/830 should be established as separate rate classes at the time of TransAlta's next GRA. Then, costs could be based on actual experience. (Argument, pp.1-2)

TransAlta

TransAlta noted that it had used embedded cost in its design of the proposed rates except for marginal cost of losses and the deferred project credits. TransAlta submitted that its choice of costs in the rate design achieved the goals of fairness between partial and full requirements customers while ensuring

the actions of partial requirements customers do not harm full requirements customers. (Argument, pp.6-7)

TransAlta noted that IPCAA's position on the rate design for export contradicted its argument leading to Decision E94034 which considered APL's value-based rate design as a departure from historical cost-based rates. (Reply, pp.7-8)

TransAlta stated that 1995 EEMA forecast costs, as proposed by the CAC/ACA, were presently unavailable. In any case, TransAlta's witnesses had confirmed that partial requirement rates would be subject to an appropriate EEMA flow-through rider. (Reply, p.18)

TransAlta stated that PICA's proposal for a separate rate class in the cost of service study was premature as it was not known how many customers there would be at the time of the next GRA. (Reply, p.20)

Board Findings

The Board accepts TransAlta's overall rate design for network and generation services rates for purposes of this Decision. The Board considers that the overall level of partial requirement rates should be based on the same embedded costs as the rates for full requirement customers to avoid cross-subsidization. The rate structure should, where practical, reflect incremental and/or marginal costs to give proper price signals to customers. The Board considers that a rate design developed in this manner will achieve fairness between partial and

2. RATE DESIGN
(b) Rate Design/Cost of Service Study

full requirement customers. Although the embedded cost of service study upon which the rates were based dates from 1992, the Board notes that the EEMA flow through rider will automatically update rates to reflect current EEMA costs.

TransAlta is directed to include all data necessary for the possible establishment of a separate rate class for Rates 820 and 830 in the cost of service study in the Annual Status Report referred to in Section 5(b).

3. TRANSALTA RATE PROPOSALS

(a) Rate 820 (Network Services Rate)

TransAlta proposed the following rates (Exhibit 1, Appendix A), based on the 1992 cost of service study, as described in the previous section:

Network Support Charge:

$6.70 per month per kW for the first 500 kW of contracted capacity
$5.02 per month per kW for the next 1500 kW of contracted capacity
$3.12 per month per kW for all contracted capacity over 2,000 kW

Plus

Network Usage Charge:

$6.70 per month per kW for the first 500 kW of contracted capacity
$5.02 per month per kW for the next 1500 kW of contracted capacity
$3.12 per month per kW for all contracted capacity over 2,000 kW

TransAlta proposed that a customer's bill would be calculated based on multiplying the Usage Charge by the customer's contracted TOLF. TOLF is contracted and calculated by dividing the average kW usage of the transmission system for power delivery during the on-peak periods of the year by the kW of contracted capacity. The TOLF On-peak Periods are:

Time Period	April-Sept.	Oct.-March
8:00 a.m. to 4:00 p.m.	**"On Peak"**	
4:00 p.m. to 9:00 p.m.		**"On Peak"**

For TOLF purposes, weekends and holidays are excluded from the On-peak period.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)

TransAlta indicated that Rate 820 would provide transmission access for purchases of emergency back-up, temporary power (maintenance power) and firm power (supplementary power) for standby service and network connection for voltage and frequency support ("humalong" service). In addition, Rate 820 would provide access for the transportation of energy to points outside of Alberta.

TransAlta proposed that Rate 820 be based 50% on a support (fixed) component and 50% on a usage (variable) component. TransAlta noted that the above rate structure was designed to serve diverse customer profiles:

> "At the present time, it is foreseen that two predominant customer profiles will exist. First, there are customers who will use Network Services to provide backup service at low load factor and second, customers who will use Network Services to export high load factor firm power.
>
> In order to be fair to customers within each of these profiles, as well as existing customers on bundled rates, the appropriate split between charges based on usage and fixed charges must be determined. High load factor customers will pay largely the same amount regardless of the split between fixed and variable. If the fixed portion is too high, then low load factor customers are overcharged. If the fixed portion is too low, then low load factor customers are subsidized by other customers. The determination of the split between fixed and variable rate components is largely a question of fairness between low load factor Network Services customers and other customers." (RD.TAU-2)

TransAlta considered a number of factors including an examination of the cost breakdown of its transmission system and concluded:

> "... that it is appropriate to assign 50% of the Network Services charges independent of usage and 50% dependent on usage and that this rate structure recovers the appropriate costs for the services provided." (RD.TAU-2)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)

(1) Level and Structure of Rate 820

The following parties expressed concern about or approval of the level and structure of Rate 820.

IPPSA

In response to Board information request BR.IPPSA-4 (a), IPPSA submitted that Rate 820 was not appropriate. IPPSA considered the TransAlta proposal resulted in rates that were too high and that few, if any self-generating projects would be built using the rate. IPPSA suggested that the rate could be reduced by further unbundling services and only charging customers for services used. In BR.IPPSA-4 (b) (Revised), IPPSA stated:

> "As regards the export rate, in Appendix C of TransAlta's application, in the 'Example of Network Services for Export', where an Unused Investment Credit will apply, a charge expressed as an average ¢ per kWh of 0.70 ¢/kWh was generated. This is too high. In order to compete, an IPP must be able to supply power into the Pacific Northwest for approximately CDN 3.85 ¢/kWh. The electricity must also be wheeled through BC Hydro's (at a published rate including line losses from the Alberta Border to BPA East of 0.57 ¢/kWh) and Bonneville Power's (at a published rate of 0.29 ¢/kWh) systems, both of whom will be charging a wheeling rate in total of at least 0.86 ¢/kWh, thus only leaving an IPP with barely 2.29 ¢/kWh. There are few, if any projects that can meet this hurdle. Thus, IPPSA submits that the 'appropriate' charge for Network Services Rate for Export should realistically be in the range of 0.10 to 0.40 ¢/kWh." (Exhibit 17) (Revised Tr. p.607)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(1) Level and Structure of Rate 820

Red Deer

Red Deer considered that a Network Services Rate based on EEMA-averaged costs represented a fair sharing of the costs of providing service to all customers who utilize the transmission and distribution systems in Alberta. Red Deer noted that APL would introduce an export rate that would be similar to TransAlta's as both companies used province-wide averaged costs. (Argument, p.2)

Red Deer noted that IPPSA's witnesses were not appearing as experts on cost of service. IPPSA's position, that Rate 820 was too high, was based on the assumption that excess capacity existed and its proposal would use that excess. However, the evidence indicated that AIS capacity must be considered in addition to the capacity on the B.C. Tie. In reality, the problem raised by IPPSA was that the price paid for power in the Pacific Northwest was too low. Both IPPSA and Suncurrent suggested that the export rate be lowered simply so that an IPP could make a profit. Notwithstanding its position, Red Deer noted that IPPSA had stated that TransAlta's proposal should be approved at this time. (Argument, pp.21-24)

Lethbridge

Lethbridge noted that some intervenors had suggested that the rate be lowered or the structure changed to effectively lower the rate. However,

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(1) Level and Structure of Rate 820

Lethbridge considered it fair that the customer pay 50% of the transmission fixed costs when no on-peak energy was supplied, even though the network support services might be required 100% of the time. Lethbridge submitted that this was one example of how the actual cost incurred by the rate might not be recovered. This must be considered when evaluating the arguments for lowering the rate. (Argument, pp.7-8)

REA/AAMDC

The REA/AAMDC expressed appreciation for the co-operation between APL and TransAlta in concluding an agreement for third party exports. However, the REA/AAMDC considered that the value of service method of rate design used by APL could lead to a different rate from Rate 820 in APL's territory. (Argument, p.15)

Board Findings

The Board approves the level of Rate 820, as proposed by TransAlta. The Board considers that the level of this rate should be based on embedded costs in order to achieve fairness and avoid cross subsidization between partial requirements customers and full requirements customers. The Board considers that the level of Rate 820, based on embedded costs, will not be a barrier to self generation or export which is economic in the sense of not being subsidized by existing customers or the utility. The Board further considers that the fixed and variable structure of Rate 820 achieves fairness between customers and recovers the appropriate costs for

the services provided. The Board notes TransAlta's evidence that the export rate to be filed by APL is expected to be similar in terms of cents per kWh to that proposed by TransAlta in these proceedings. (Tr. p.302)

The Board notes the alternate level of rates proposed by IPPSA is based on value of service, not the embedded cost of service. The value of service cited by IPPSA is sufficiently different from the level of rate arrived at by the embedded cost of service that the Board considers lowering the rate to the level proposed by IPPSA would result in existing customers subsidizing exporters, which would be unacceptable.

(2) 500 kV Export Transmission Rate

Calgary

Calgary submitted that TransAlta's proposal for a postage stamp principle for the Network Service Rate was reasonable:

> "Postage stamp rates reflect the average embedded cost basis of rates for full requirements customers in TransAlta's service area. Postage stamp rates are also consistent with the integrated manner in which the transmission system is designed and operated in the AIS. Contract path or distance related pricing does not reflect the realities of power flows. Because TransAlta's proposed Network Services rates are intended to address a wide range of loads, usage patterns, and siting characteristics, a postage stamp type of rate is appropriate." (Argument, p.10)

IPPSA

IPPSA stated that one purpose of rate design was cost recovery. An equally important purpose should be to encourage efficient use of the system. IPPSA submitted that this could be accomplished by unbundling services so that users paid only for the services used. Some exporters would benefit from being able to access the 500 kV portion of the exporting system through location and lower demand changes.

IPPSA designed its rate based on the ratio of 1992 embedded cost at the 500 kV level to total 1992 embedded transmission cost. This resulted in a cost of $0.30/kW for the Network support charge and $0.30/kW subject to TOLF. IPPSA further assumed in its rate that the interconnecting IPP would pay for all facilities required for the interconnection. The details of the calculation are provided in Appendix 3, attached to and forming part of

this Decision. IPPSA, in Appendix 1 to its argument, supplied examples of how, with various TOLF and load factor, a 500 kV rate would result in transmission costs in the order of 0.1 to 0.4¢/kWh recommended by its witness, Mr. Smith.

IPPSA submitted that its rate was consistent with EEMA principles. IPPSA's proposed 500 kV rate was fair as it would be economical only for IPP's in the 100-200 MW range which would not require connection through lower voltage or distribution facilities. (Argument, pp.4-5 and Appendix 1)

Red Deer

Red Deer stated that the evidence that IPPSA had submitted supporting a 500 kV rate did not explain how interconnection to the 500 kV system would take place nor did it account for the costs of the interconnection. Red Deer submitted that the argument of IPPSA constituted new evidence not tested during the proceedings and should be ignored by the Board. (Reply, p.5)

Lethbridge

Lethbridge opposed any further unbundling of network charges, as proposed by IPPSA. Lethbridge agreed with the reasons advanced by TransAlta at Tr. pp.329-330 for not doing so. (Reply, pp.2-3)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(2) 500 kV Export Transmission Rate

TransAlta

TransAlta submitted that IPPSA's proposal was improperly introduced in argument. Furthermore, the nature of its proposal was for a dedicated path rate. TransAlta's witness, Mr. Steeves, had described the integrated nature of the B.C. Hydro Interconnection (B.C. Tie). This was the reason that a dedicated path rate was inappropriate. TransAlta considered that the IPPSA proposal resulted in an inaccurate rate. Any 500 kV rate should be based on the contracted firm demand on those facilities and not on AIS weighted demand. Furthermore, the IPPSA rate was not consistent with costs out of EEMA since the EEMA costs assume all customers are served at the 25 kV level. TransAlta submitted that any rate based solely on the B.C. Tie would result in an unstable rate. (Reply, pp.10-12)

Board Findings

The Board acknowledges TransAlta's comment that the integrated nature of the AIS transmission system makes it difficult to accurately determine an appropriate rate by voltage level or for a dedicated path such as the B.C. Tie.

The Board notes that, even if an appropriate 500 kV rate could be developed, a rate for the remainder of the AIS should be recalculated (excluding the 500 kV costs) such that the two rates would be additive for customers who use both the 500 kV and the below 500 kV facilities.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(2) 500 kV Export Transmission Rate

The Board considers, for the purposes of this Decision, that the added complexity of deviating from a postage stamp Network Services Rate to rates by dedicated path or voltage level is not warranted at this time. The Board notes, in any case, that TransAlta's costs out of EEMA are not differentiated by path or voltage level.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)

(3) Network Support Charges

The level of the Network Support Charge proposed by TransAlta has been outlined in the previous section. TransAlta proposed that this fixed portion of Rate 820 be charged to self-generating customers for standby services, for network connection even if no energy was taken or if maintenance energy was taken under Temporary Energy Rate 720, and to exporting customers for the transportation of energy to points outside of Alberta. IPCAA's witness, Dr. Fleming, listed the network support services as including voltage, frequency and power factor control, short-circuit capacity, motor starting capacity and load following. (Exhibit 13, pp.2-3) Those services collectively but without the delivery of any net energy were referred to as "humalong" service.

IPCAA provided evidence and three witnesses, Dr. Fleming, Mr. Drazen and Mr. Morin, on the matter of network support charges, among other matters arising from the Application. In his evidence (Exhibit 14), Mr. Drazen submitted that there had been no agreement from the consultative process that network support charges were needed in the same sense as standby and export rates. Mr. Drazen maintained that the system support could go in both directions, with either the utility or self-generator supplying energy when cheaper. Mr. Drazen recommended that the network support charges not be levied on customers not taking standby service. The issue should be deferred for consideration with Network Access in general.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(3) Network Support Charges

In his evidence (Exhibit 13), Dr. Fleming speculated that a network support charge might be justified for a small self-generator but not for a large one, such as Dow. In response to information request AIPA.IPCAA-1, Dr. Fleming estimated that 30 MW may be the threshold between a "small" and "large" self-generator, based on the assumption of 10% of the spinning reserve of the largest unit on the AIS being 300 MW. Dr. Fleming cautioned that the dividing line is not exact and his figure should be taken as a starting point when investigating how benefits flow between the system and a self-generator. Dr. Fleming, in response to BR-IPCAA.10 declined to calculate the customer cost of operating independent of the network for a small co-generator. In fact, it might be impossible, in the opinion of Dr. Fleming, for a small generator to achieve the same degree of frequency and voltage support as the utility can provide.

In his evidence (Exhibit 15), Mr. Morin calculated that, absent the grandfathering proposed by TransAlta, Dow's cost of power could increase by $3,000,000 annually. Mr. Morin indicated that Dow derived some benefits from the connection as it would have to install extra controls if it left the system. In BR.IPCAA-7, Mr. Morin estimated the capital cost to be in the order of $5,000 to $10,000. A self-generator of the size of Dow (220 MVA) provided stability and system support to the immediate area surrounding Dow's facility. IPCAA estimated that Dow provided TransAlta with 92 GWh of energy in 1993. On the other hand, Dow incurred some

disbenefits from the connection with TransAlta, such as voltage transients, short circuits and frequency excursions.

The witness for Calgary, Mrs. Beach stated that:

> "IPPs which require only system support to 'humalong' must pay for system support services which include costs of frequency and voltage control, VAR support, motor starting capacity, etc... TAU's use of a fixed charge based upon one half of the transmission related costs is a reasonable initial attempt to recover difficult to identify support costs." (Exhibit 12, p.9)

Calgary defined "humalong" as "...a customer with self generation that is interconnected with and operated in parallel with the utility's system receiving voltage, frequency and other system support but requires no 'net' real power from the utility on a normal metering interval." (Exhibit 14, BR.CR-4)

In rebuttal evidence (Exhibit 5), TransAlta stated:

> "TransAlta does not propose to make network support mandatory for all customers who operate parallel generation simply and solely because of the existence of the parallel operated generation. The Network Services rate will only be required where interconnection is necessary for the sustained operation of the customer's system." (Exhibit 5, p.3)

At the hearing, TransAlta's witness clarified the operating conditions as being able to run with the main circuit breaker open for up to six months. (Tr. pp.125-126) Concerning whether the proposed Network Support Charge was really a "cogen killer rate", TransAlta's witness stated:

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(3) Network Support Charges

> "...I would hesitate to say that we are putting forward these rates for the purposes of killing cogeneration. We state, as our principles, that if generation is genuinely economic, and its economics are not based on an unfair subsidy or an underpayment of costs for network support, then we would like to be helpful; not be a barrier to that generation." (Tr. p.90, lines 12-18)

APL

APL disagreed with the position of IPCAA that co-generating customers provide symmetrical benefits to the system. IPCAA's own witness, Dr. Fleming, had confirmed that the self-generating customer's primary concern was maintaining the customer's process. Any system support was, therefore, a by-product of the process. The Institute of Electrical Engineers (IEE) paper relied upon in AIPA.IPCAA-3 as supporting the benefits of self-generation was misleading. The paper related to size of unit and not to the form of ownership. IPCAA's witness was unable to cite any actual instances of self-generators supporting the utility's system. APL concluded from the response to TAU.IPCAA-4 and from the response of IPCAA's witness that such support was theoretically unlikely due to the setting of the self-generator's relays. APL submitted that the benefits which flow to the co-generator include the use of the utility's system as a pool for any surplus energy. APL submitted that a "humalong" rate, such as TransAlta's Network Support charge, should properly be included in any utility's rate schedule. Cogenerators that are able and willing to contractually commit to providing specific support services to the utility system of an equivalent nature may be compensated on an exception basis. (Argument, pp.1-6)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(3) Network Support Charges

EP

EP agreed with the "position and philosophy" of APL with respect to these charges. (Reply, p.1)

IPCAA

IPCAA considered that it was inappropriate to consider network support charges in these proceedings as a general rate application was the more appropriate forum to consider issues of fairness. In addition, TransAlta had indicated that no existing self-generator was "leaning on the system" and required network support services. Furthermore, it should not be assumed that future parallel generators will be different from existing ones. According to TransAlta's projections, such different parallel generators would not be likely to come on the system until some time in the future. IPCAA submitted that the matter of network support charges be put off until some time in the future.

IPCAA considered that the proposed network support charge would discourage self-generation and serve to protect TransAlta's market.

IPCAA noted that TransAlta proposed to apply the test of whether interconnection with the network was required for the sustained operation of the customer's system. IPCAA considered that this test would create considerable uncertainty, contrary to TransAlta's stated objective of providing clarity. TransAlta's proposal would only serve to create

confusion, uncertainty and complexity where none existed before, in the opinion of IPCAA.

IPCAA concluded that there was, at best, a modest requirement for a network support charge but, more likely, no requirement at all, beyond the scope of the standby and export rates. (Argument, pp.8-11)

IPCAA agreed with APL that a "humalong" rate should exist in order that self-generators who require network support should pay for what they require. IPCAA disagreed with APL's conclusion that the majority of self-generators required network support. IPCAA's evidence was not that all self-generators provide symmetrical support to the system but that not all self-generators require system support. This point was agreed to by TransAlta and not disputed by APL. Therefore, APL's argument was directed to a point that was not at issue. (Reply, pp.5-8)

Red Deer

Red Deer considered that the issue of network support charges had been resolved by the evidence. The charge was not mandatory if the customer's system could operate without network support. IPCAA's witness and APL agreed that small self-generators did derive benefits from system interconnection. TransAlta had offered to grandfather existing self-generators. Red Deer submitted that the network support charges

should apply to all self-generators, unless it can be demonstrated that they could operate in isolation from the system. (Argument, pp.8-10)

Red Deer noted that the issue, as defined by TransAlta's witness, was that future self-generators were trying to obtain network support services without paying for them. Red Deer disagreed with IPCAA that there was no urgency for a network support rate. TransAlta's evidence was that this was the appropriate time to establish the rate. (Reply, pp.2-3)

IPPSA

IPPSA submitted that a network support charge should not be included in an export rate intended for a 500 kV transmission line. IPPSA considered that the charge might be appropriate for self-generators but not for exporters, based on TransAlta's "survival" test. IPPSA agreed with Mr. Drazen that there was insufficient information as to whether a network support charge was appropriate at this time or even what the level of such a rate should be. IPPSA submitted that the rate for export should be modified to exclude the network support charge until the matter of network support charges could be thoroughly examined. (Argument, pp.13-15)

IPPSA opposed the charging of network support charges to an export customer which could demonstrate survivability without the network.

IPPSA also believed that a co-generation plant could be operated in a manner that provided system support. IPPSA suggested that contracting practices should evolve beyond the present sale of self-generated power on a ¢/kWh basis to include system support provided by the co-generator. (Reply, pp.6-7)

Lethbridge

Lethbridge stated that, if IPCAA were correct that there was no need for the network support charge, then existing customers would not be harmed if the rate were in place and not used. However, if the rate were needed and not in place, existing customers would be harmed by partial requirements customers requiring support and not paying for the services used. IPCAA seemed to suggest that the rates proposed should encourage certain kinds of development. Lethbridge submitted that a self-generation project that did not bear its share of network costs was not economic and should not be encouraged. Lethbridge disagreed with IPCAA's position that without network support charges, rates would be much less complicated. Lethbridge noted that they were required for standby and export services. (Reply, pp.5-6)

AIPA

The AIPA noted that Dr. Fleming only proposed 10% as a starting point for determining the threshold at which an IPP provided benefits to the system. TransAlta took the position that no threshold existed. The AIPA

submitted that information response AIPA.IPCAA-1 demonstrated that small generating units are particularly good at augmenting system reliability. (Argument, p.12)

Weldwood

Weldwood considered that TransAlta's position in evidence and at the hearing was that Weldwood would be subject to the Network Support Charge due to its existing standby contract. Weldwood noted that it had exchanged power with TransAlta in the past and its system did not require system support for starting its motors. Therefore, based on statements of TransAlta's witnesses at the hearing, Weldwood concluded that this would be an unfair levy in its case. Weldwood submitted that the Board should clarify the application of the Network Support Charge in order to avoid a request for arbitration from Weldwood.

Weldwood considered that TransAlta's proposal would result in a practice of credits flowing only to the utility for what the utility considers to be of value. For example, in the recent California earthquake, Weldwood had separated from the AIS but was in a position to resynchronize and begin supporting the network. Weldwood received no credit for this other than the energy sold to TransAlta. (Argument, pp.1-3)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(3) Network Support Charges

TransAlta

TransAlta stated that full requirements customers paid network support charges as part of bundled rates. Network support charges were an integral part of the unbundling undertaken in the rate design. Network support charges reflected the customer's choice not to install all the equipment necessary to operate independent of the network. IPCAA's witness, Dr. Fleming agreed that self-generators other than Dow required network services. Mr. Drazen had agreed that if a customer required network support, it should pay for it.

TransAlta noted that the Board had, in Decision E94034, approved a System Support Minimum Rate for APL. A network support charge provided proper price signals to customers. It facilitated the construction of self-generation facilities which were truly economic. TransAlta submitted that a network support charge should be implemented. (Argument, pp.4-6)

TransAlta noted that IPCAA's witness, Dr. Fleming, was clear that network support services are inherent, integral and distinct and are of value to partial requirements customers. IPCAA's concern for the complexity of rates was not well-founded. Exhibit 19 listed those matters which might come before the Board in case of utility/customer disagreement and TransAlta did not consider that list to be lengthy. TransAlta further considered that IPCAA should not propose postponement of the rate proposal because IPCAA did not itself propose an alternative. IPCAA also

was incorrect that a network support charge had no historical basis. TransAlta's evidence showed that Union Carbide had sought service of a similar nature. TransAlta's evidence showed that a connection provided services to the customer but required investment on the part of the utility. (Reply, pp.2-5)

TransAlta noted that IPPSA took the position that a network support charge was applicable to self-generators and not to exporters, opposite to the position of IPCAA. TransAlta's position was clear, that transportation of energy was part of network support and not just voltage control and other "humalong" services. (Reply, p.12)

TransAlta considered that Weldwood's position was based on a misunderstanding of network support charges which include transportation of energy as well as "humalong" services. Even IPCAA considered that network support charges were an integral part of standby services. TransAlta considered that Weldwood's argument contained evidence, which was procedurally incorrect. In any case, the facts were incomplete as Weldwood could not operate separated from the network for a sustained period. Response RD.TAU-7(d) indicated that Weldwood took power at the time of system peak in three of the twelve months of 1993. (Reply, pp.14-15)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(3) Network Support Charges

TransAlta concurred with Dr. Fleming for IPCAA that some generators connected to the system may also provide benefits to the system. TransAlta stated that where a self-generation customer provides needed benefits to TransAlta, TransAlta will negotiate contractual arrangements which compensate the customer for the benefits provided, much like it has proposed credits for near-term transmission facilities deferrals.

Board Findings

The Board approves TransAlta's proposal for a Network Support Charge as part of its proposed Rate 820. The Board notes that this is a charge which results from services rendered to, and costs incurred by, "humalong" customers as well as services provided to customers who require the transportation of energy. The Board considers that the Network Support Charge should apply to all customers who can not operate independently of the system. The Board considers that the Rate 820 Network Support Charge provides the proper price signals to those customers who can choose to either install equipment necessary to operate independently of the system or purchase network support services from the utility. The Board also considers that the Network Support Charge will not be a barrier to self generation which is economic in the sense of not being subsidized by existing customers or the utility. Additionally, the Board notes that it is similar to the System Minimum Support Rate approved for APL.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(3) Network Support Charges

The Board agrees with TransAlta that self-generators who provide needed system benefits or system support should be compensated for the benefits provided.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)

(4) Losses

TransAlta proposed that customers using Rate 820 for export of energy be responsible for losses between the customer's site and the Alberta-B.C. border. The proposed rate schedule for Rate 820 included this paragraph:

> "In the case of export customers the delivery point is taken to be adjacent to but on the Alberta side of the provincial border. This means that customers generating for export must generate sufficient capacity and energy, in On-peak and Off-peak hours, to make up for losses to the provincial border."

At the hearing, TransAlta confirmed that an exporter was responsible for the incremental losses incurred on the system. This would result in no extra cost to other customers. However, TransAlta's policy would be to move toward average losses as the rate was used more frequently. (Tr. pp.45-49)

EP

EP disagreed with TransAlta's proposal to initially calculate losses on an incremental basis. EP considered that this was inconsistent with other aspects of the rate design being based on EEMA average costs. The incremental approach could also result in unequal treatment of exporters. (Argument, pp.6-7)

EP agreed with the REA/AAMDC that exporters should be responsible for losses. EP considered that full recovery for losses could be ensured with less complexity by allocating losses on an average basis. (Reply, p.1)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(4) Losses

Fort Macleod

Fort Macleod noted that report ERCB ST 93-28 showed at page 42 that AIS system losses, including internal use were 8.5% in 1993. Fort Macleod concluded that, depending on the location and type of equipment used, IPP interconnection would reduce these losses. Fort Macleod proposed that the Board order TransAlta to make payments to an IPP which contributed to a reduction in system losses. (Argument, p.4)

IPPSA

IPPSA submitted that its Exhibit 9 demonstrated that IPP connection to the system resulted in freed-up capacity and reduced system losses. In the circumstances where an IPP would reduce line losses but not result in corresponding capital expenditures, IPPSA considered that the IPP should receive payment for the benefit. IPP considered that the benefit could be derived by using the average EEMA loss rate of 7% multiplied by the average overall EEMA cost per kWh. IPPSA estimated this benefit to be 0.0042¢/kWh. (Argument, p.17)

REA/AAMDC

The REA/AAMDC agreed with TransAlta's proposal to initially compute losses on an actual basis. The REA/AAMDC agreed this would be a complex calculation but it would avoid firm customers picking up the cost of losses caused by exports. (Argument, p.13)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(4) Losses

CAC/ACA

The CAC/ACA disagreed with the proposal of TransAlta to move Rate 820 export customers towards average line losses over a five year period. In the opinion of the CAC/ACA, this would increase costs for no-choice customers. The CAC/ACA submitted that incremental losses should be used. (Argument, p.14)

PICA

PICA submitted that losses were not the only incremental costs associated with transportation service. PICA stated that fuel costs might increase due to transmission constraints caused by exports on the system. PICA considered that TransAlta should monitor all incremental costs and include these in its next cost of service study leading to these rates. In the interim, PICA submitted that losses should be calculated on an incremental basis. (Argument, p.3)

TransAlta

TransAlta submitted that Fort Macleod was introducing new evidence in argument. In any case, TransAlta had proposed location credits, losses would be calculated for individual export transactions and, for non-export rates, losses would be shared among full and partial requirements customers. (Reply, pp.15-16)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(4) Losses

TransAlta stated that its proposed treatment of losses was not inconsistent with EEMA, as suggested by EP. The EEM Act and accompanying regulations do not specify any particular treatment of losses. The purpose of EEMA loss averaging was for the purpose of reduction of rate disparities among Alberta customers and there was no requirement that export customers be treated on the same basis. (Reply, p.18)

Board Findings

The Board accepts TransAlta's proposal that exporters should bear the incremental losses incurred on the system by their use of the system. The Board considers that TransAlta's proposal with respect to losses is consistent with its proposal with respect to project deferral credits, discussed later in this Decision. The Board considers that, under TransAlta's proposal, when incremental losses are negative, i.e. when an exporter's siting reduces losses, the charge for losses will automatically become a credit. The Board considers that, when both these proposals are taken together, the proper price signals are given to exporters with respect to generator siting decisions.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)

(5) Energy Imbalances

TransAlta proposed that an imbalance provision be applied to the export of electricity on Rate 820. TransAlta proposed applying the imbalance provision as follows:

> "Where an export generation supplier is not buying capacity under the Generation Services Rate, the cumulative monthly difference, since commencement of service on this Rate between the on-peak supply adjusted for losses and the on-peak load cannot exceed 5%. If this difference exceeds 5%, TransAlta will have the right to do any of:
>
> - Bill the customer for appropriate service under the Generation Services Rate.
> - Install matching tripping schemes, at the customer's expense, to make the generation equal to the load."

Red Deer

Red Deer noted that the loss of one day's generation by an exporter would result in an imbalance of -3%. This gave rise to the possibility that the imbalance provisions could be used as a substitute for short-term standby. Since TransAlta had indicated that it would change its imbalance provisions if this occurred, Red Deer proposed that imbalances be included in the annual report proposed by Calgary. (Argument, pp.10-11)

Red Deer noted that TransAlta's evidence indicated that it was unable to monitor the ultimate customer's load; TransAlta's obligation was merely to deliver power to the Alberta-B.C. border. Red Deer submitted that, for export imbalance purposes, "on-peak load" should be defined as

"contracted on-peak load at the Alberta border inter-connection point." (Argument, pp.19-20)

Lethbridge

Lethbridge noted that exporters were not required to pay for generation services as long as imbalances were within the cumulative ±5% range, despite the improbability of operating without generation services support from TransAlta. Lethbridge submitted that full requirements customers pay for the facilities that provide generation services and the ±5% provision was one manner in which the full requirements customer could subsidize the partial requirements customer. (Argument, pp.7-8)

PICA

PICA submitted that TransAlta should be directed to monitor the ±5% cumulative imbalance allowance to ensure that it does not become an inadvertent banking arrangement for the benefit of exporters. Banking would increase costs on the AIS. (Argument, p.3)

Board Findings

The Board approves the ±5% cumulative imbalance provision for the purposes of this Decision. The Board notes TransAlta's forecast that, initially, there will be few users of the export rate. With the projected small use of the export rate, it does not appear that any significant harm

will occur if this cumulative imbalance provision is adopted for the purposes of this Decision.

However, the Board considers that the cumulative imbalances should be monitored to evaluate IPP performance and to determine if any harm has been caused to the AIS. Therefore, the Board directs TransAlta to include in the Annual Status Report (Section 5(b)) the monthly cumulative imbalances incurred by exporting IPP's. The Board directs TransAlta to review its imbalance provisions and propose any necessary revisions at the time of its next GRA. The Board agrees with Red Deer that its proposed wording represents a more practical measure of energy imbalances. The Board has changed the appropriate words in Schedule "A", Rate 820.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)

(6) Distribution Facilities Charges

As noted in Section 2(b) of this Decision, TransAlta proposed calculating the "distribution increment" based on the demand blocking of Rate 790, in order to serve as a proxy for the cost of TransAlta's distribution network. (Tr. p.252, lines 5-11) During the hearing, TransAlta's witnesses confirmed that the "distribution increment" included further customer costs such as telecontrol, marketing, customer accounting and general and administration (G&A) expenses. In Exhibit 19, TransAlta provided the following example, based on a TOLF of 85%, of the percentage of total cost to a user of Rate 820 that would be represented by downstream costs:

Downstream as a Percent of Network Support Charges

Contracted MW	Monthly Bill	Charges related to Downstream	Downstream as % of Monthly Bill
200	$1,162,984	$8,584	0.7%
100	$585,784	$8,584	1.5%
50	$297,184	$8,584	2.9%
20	$124,024	$8,584	6.9%
10	$66,304	$8,584	12.9%
5	$37,444	$8,584	22.9%
1	$10,841	$5,069	46.8%
0.1	$1,240	$662	53.4%
0.05	$620	$331	53.4%

Red Deer

Red Deer noted that the first two demand blocks of Rate 820 reflected not only distribution costs but other downstream costs, such as telecontrol and general, customer accounting, marketing and G&A expenses. Furthermore,

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(6) Distribution Facilities Charges

TransAlta's evidence was that many of the potential projects would be connected as low as the 25 kV level or even through the distribution network. Red Deer did not consider the proportion of distribution costs included in Rate 820 to be unreasonable. Red Deer submitted that, since potential export customers could be connected at voltages as low as the distribution system, it was reasonable that they pay a portion of the downstream costs. Red Deer concluded that all voltage levels were included as a result of the postage stamp nature of Rate 820. (Argument, pp.3-4)

AIPA

The AIPA disagreed with TransAlta's design of Rate 820. The AIPA considered that the process of unbundling Rate 790 into Rate 820 did not take into account the fact that Rate 790 consisted of both demand and energy blocking. Therefore, demand costs for Rate 790 were spread equitably over all consumption. A proper Rate 820 design, in the opinion of the AIPA, would account for energy blocking by spreading the costs over all consumption proportionally. The AIPA noted that Rate 790's design incorporated the fact that coincidence increases with load factor and included part of the demand charge in the energy component. Based on the billing determinants incorporated in TransAlta's 1992 Phase II Decision E92070, dated December 8, 1992, the AIPA provided a "Modified Rate 790 Demand Blocking", as shown in Appendix 2, attached to and forming part of this Decision. The AIPA submitted that, based on its modifications, the incremental blocking structure to be applied to Rate 820 should be

$5.31/kW/month for the first block, $2.25/kW/month for the second block and $1.31/kW/month for the third block of both the Network Support Charge and the portion subject to TOLF. (Argument, pp.7-10)

The AIPA disagreed with TransAlta that the demand blocking of Rate 820 reflected the downstream charges inherent in Rate 790. The AIPA considered that the downstream charges of Rate 790 were reflected in both the demand and energy charges of Rate 790. The 3% of distribution charges applied to customers above 50 MW that TransAlta stated reflected downstream costs was, in the opinion of the AIPA, the result of inappropriate demand blocking levels. The AIPA submitted that a flatter blocking structure would better reflect Rate 820 costs. (Reply, pp.3-4)

TransAlta

TransAlta considered that the AIPA's proposal for reblocking Rate 790 was inappropriately included in argument and should have been introduced as evidence. Furthermore, it was based on an erroneous assumption that fixed costs are recovered in the energy charge. TransAlta's witnesses indicated (Tr. p.415, line 25 to p.418, line 3) that very little, if any fixed cost of distribution is recovered in the energy charges. The appropriate description of Rate 790 is:

> "...in addition to the basic demand charges, Rate 790 energy blocking allows demand-related costs to be more equitably recovered over all load factors. Demand blocking recognizes that small customers generally cause higher per unit fixed costs than larger customers, whereas the energy blocking recognizes that

> higher load factor customers generally cause higher fixed costs than lower load factor customers."

TransAlta considered that a fairer comparison was that energy blocking in Rate 790 performs the same function as the TOLF and GOLF factors. (Reply, pp.21-22)

Board Findings

The Board approves TransAlta's proposed demand blocking for Rate 820. The Board is not persuaded that the AIPA proposal would better reflect Rate 820 costs. The Board agrees with TransAlta that distribution costs are more reflected in the Rate 790 demand blocking than the Rate 790 energy blocking. (Tr. p.418) The Board notes that potential exporters could be connected at voltages as low as those on the distribution system. Therefore, distribution and other downstream costs are a necessary and reasonable feature of Rate 820. The Board considers, based on the table provided in Exhibit 19, that TransAlta's downstream costs as a portion of total charges appear to be reasonable.

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)

(7) Project Deferral Credits

TransAlta proposed "...for a Network Services customer whose generating unit allows TransAlta to defer in the short term (less than 5 years) capital projects related to transmission, TransAlta will give the customer a credit for a share of the savings arising from the deferral." (Exhibit 1, p.6)

In response to BR.IPPSA-2, IPPSA stated:

> "IPPSA supports TransAlta's proposal at page 6 of its evidence which indicates that credits will be given to Network Services customers whose generation projects allow deferral, in the short term, of capital projects. IPPSA would define short term as one to three years in this context. Any saving that accrues to the system is a benefit. IPPSA believes that the benefits ... should be shared among all the Network Services customers and not to just one party. At first it may be relatively easy to identify a single party who may be providing a benefit to the system. However, as the number of generation projects increase, it will be more difficult to identify which parties are providing benefits and how to administer the subsequent credits which could be granted to such parties. IPPSA submits that it would be fairer and more consistent for all of the benefits which would accrue as a result of adding generation projects throughout the province to be shared among the Network Services rate class. 'Benefits include such things as providing line support, reducing line losses, providing diversification of generation resources, improving the utilization of the existing transmission capacity, increasing overall system reliability and so on.' A number of these benefits will indirectly accrue to the other rate classes as the whole system will become more efficient, with added reliability and support." (Tr. pp.650-651)

Calgary

Calgary considered TransAlta's proposal to negotiate credits or surcharges to share the benefits or costs of particular locations, operations or loads

to be reasonable. Calgary considered that such credits or surcharges should be monitored in an annual report. (Argument, p.10)

Fort Macleod

Fort Macleod stated that the proposal for negotiated project deferral credits would only create uncertainty with respect to obtaining financing for an IPP project. Fort Macleod submitted that the credits should be applied as a reduction to the rate class as a result of a Phase II hearing. In addition to project deferral credits, Fort Macleod submitted that the credits should be extended to other system benefits such as reduction in losses. (Argument, pp.3-4)

IPPSA

IPPSA proposed that the project deferral credits should be shared by all customers of the rate class. IPPSA acknowledged that this might pose difficulties but it considered that all members of the rate class should benefit equally from the deferral credits. (Argument, p.18)

TransAlta

TransAlta considered that IPPSA's proposal to spread deferral credits among the rate class would reduce the incentive for IPPs to locate wherever it would be most beneficial to the system. TransAlta noted that the customer contributions towards needed facilities were also customer specific. (Reply, p.13)

3. TRANSALTA RATE PROPOSALS
(a) Rate 820 (Network Services Rate)
(7) Project Deferral Credits

Board Findings

The Board approves TransAlta's proposal for project deferral credits specific to that project. The Board considers that customer specific credits related to project deferral will provide incentive for siting generating projects which will maximize benefits to the system. In this regard, the alternate proposal of IPPSA to contain and spread the benefits within the exporting class, would not provide the same incentive. The Board considers that the principle of project specific deferral credits is consistent with the principle of project specific customer contributions.

3. TRANSALTA RATE PROPOSALS

(b) Rate 830 (Generation Services Rate)

TransAlta proposed the following rates for Rate 830:

Capacity Charge

$2.35 per month per kW of contracted capacity

Plus

$10.43 per month per kW of contracted capacity multiplied by the customer's contracted Generation On-peak Load Factor (GOLF)

Energy Charge:

1.1¢ per kWh of energy consumed

GOLF is contracted and calculated by dividing the average kW usage of TransAlta generation during the on-peak periods of the year by the kW of contracted capacity. GOLF On-peak Periods are:

Time Period	April-Sept.	Oct.-March
8:00 a.m. to 4:00 p.m.	**"On Peak"**	
4:00 p.m. to 9:00 p.m.		**"On Peak"**

TransAlta stated that Rate 830 would be available to Rate 820 customers requiring instantaneous generation backup or supplementary power. For customers exporting power on Rate 820, TransAlta proposed that the kWh consumed under Rate 830 would be calculated based on the difference between the kWh delivered at the provincial border and the kWh generated by the supplier, less losses incurred in transmission to the provincial border.

The following are the issues raised with respect to Rate 830.

3. TRANSALTA RATE PROPOSALS
(b) Rate 830 (Generation Services Rate)

(1) Level and Structure of Rate 830

REA/AAMDC

The REA/AAMDC noted that power sold to B.C. Hydro was priced in the range of 1.6-2.2¢/kWh, the marginal cost of energy on the AIS was approximately 2.4¢/kWh and temporary energy sales fetched around 3.0¢/kWh, based on the response to RD.TAU-12. The REA/AAMDC considered that TransAlta might be selling energy at a loss by pricing it at 1.1¢/kWh in Rate 830. Although TransAlta's position was that application of GOLF charges would recover some of the energy charge in the demand charge, the complexity of TransAlta's rate design made this difficult to confirm. (Argument, pp.11-12)

CAC/ACA

The CAC/ACA did not agree with TransAlta's assignment of 22.5% to fixed cost based on the theoretical reserve margin of 22.5%. The CAC/ACA noted that the expected reserve margins would be in the range of 33% to 38% from 1993 to 1995 with a further increase when Genesee 1 would be added to rate base. AIS customers were paying for this additional reserve but partial requirements customers would benefit through the increased reliability due to the additional reserves. The CAC/ACA submitted that Rate 830 should be based on the expected average reserve margin from 1993 to the year 2000. The CAC/ACA noted that this would be 30.5%, based on the response to CAC.TAU-6. (Argument, pp.13-14)

3. TRANSALTA RATE PROPOSALS
(b) Rate 830 (Generation Services Rate)
(1) Level and Structure of Rate 830

The CAC/ACA submitted that no benefit of diversity in the form of GOLF factor should be used to discount the difference between actual and planned reserves for partial requirements customers. The CAC/ACA submitted that this would be contrary to S.81 of the PUB Act. (Reply, pp.2-4)

Red Deer

Red Deer noted that the actual costs out of EEMA included capacity costs above the 22.5% planning reserve margin. Red Deer submitted that the actual 32.5% reserve margin should be incorporated in the fixed portion. This would increase the fixed portion of Rate 830 to $3.13/kW per month and decrease the portion subject to GOLF to $9.65/kW per month. (Argument, pp.13-14)

Lethbridge

Lethbridge submitted that the proposed level and structure of the rate represented an appropriate balance in determining the costs and allocating them for recovery to customers in a fashion that provided a reasonable degree of protection for existing customers but which was not usurious. (Argument, p.7)

3. TRANSALTA RATE PROPOSALS
(b) Rate 830 (Generation Services Rate)
(1) Level and Structure of Rate 830

TransAlta

TransAlta stated that the price of temporary and export sales include a margin over the marginal cost of energy. Therefore, it is not true to state that Rate 830 energy would be sold at a loss. The REA/AAMDC had misunderstood its witness' statements on the purpose of GOLF. Its witness had stated "The GOLF feature ... has the effect of making the usage charge higher on an effective basis for those customers taking generation services." (Reply, p.23)

TransAlta stated it was wrong to assume that partial requirements customers were being subsidized by reserve margins above 22.5%, as was the position of the CAC/ACA. TransAlta submitted that the cost of actual reserves were included in the overall costs assigned to the rates. (Reply, p.18)

Board Findings

The Board considers that TransAlta's proposed energy charge of 1.1¢ per kWh recovers the average energy costs coming out of EEMA. Accordingly, the Board considers that Rate 830 energy would not be sold at a loss and therefore approves TransAlta's proposal for the purposes of this Decision.

The Board also approves TransAlta's method of incorporating reserve margins into Rate 830. The Board notes that the actual reserve margin is incorporated in the overall costs assigned to Rate 830. The method

3. TRANSALTA RATE PROPOSALS
(b) Rate 830 (Generation Services Rate)
(1) Level and Structure of Rate 830

proposed by Red Deer and the CAC/ACA would have the effect of requiring adjustment of Rate 830 as the actual reserve margin rose or fell. The Board considers that this would not achieve rate level or rate structure stability.

Therefore, the Board approves the level and structure of Rate 830, as proposed.

(2) Time Differentiated Energy Charges

In Evidence (Exhibit 12, p.10) Calgary noted that TransAlta proposed a flat energy rate for Rate 830 because energy costs out of EEMA were not time differentiated. However, Calgary submitted that this might encourage an IPP to take supplementary power in on-peak periods when energy costs were higher. Calgary proposed that the actual energy costs, by time period, provided in information response IPCAA.TAU-42 should be used for Rate 830:

Off-Peak	1.0 ¢/kWh
Shoulder Period	1.5 ¢/kWh
On-Peak Period	1.7 ¢/kWh

TransAlta stated that it recognized time of use in its rate design through TOLF and GOLF factors. TransAlta submitted "Such a rate design deals in a reasonable manner with the additional costs cause {sic} by on-peak usage." (Exhibit 5, p.16)

REA/AAMDC

The REA/AAMDC submitted that the energy charge should be time differentiated, as in TransAlta's Network Access application. (Argument, p.23)

AIPA

The AIPA considered that there was an inconsistency between the demand and energy charges in Rate 830. The AIPA submitted that the matter of time differentiated rates be analysed at TransAlta's next GRA. (Reply, p.4)

3. TRANSALTA RATE PROPOSALS
(b) Rate 830 (Generation Services Rate)
(2) Time Differentiated Energy Charges

TransAlta

TransAlta considered that time of use differentiation based on embedded costs would not provide substantially different energy charges. TransAlta also considered that the more significant variations in time of use embedded costs were to be found on the demand side rather than with energy. In TransAlta's proposed rates, these were addressed through the GOLF and TOLF factors. Partial requirement customers have more flexibility in energy choices than full requirements customers and can choose the number of hours they are off-peak in usage. (Argument, pp.12-13)

Board Findings

The Board approves TransAlta's proposed energy charge. The Board notes that the energy charge of Rate 830 is equal to the average AIS energy cost out of EEMA. However, the Board considers that there may be merit to the proposal to time differentiate energy charges based on embedded costs so that proper price signals related to energy charges are given to customers. Therefore, the Board directs TransAlta to address the matter of time differentiated energy charges for partial requirements customers at the time of its next GRA.

(c) Rate 820/830 - TOLF and GOLF Overuse Charges

TransAlta proposed for Rate 820 overuse charges as follows:

"• **Capacity Overuse Charge:**

- In the event that a customer exceeds the contracted capacity, the customer will be billed an overuse charge for Transmission Support and Usage, using the kW amount that the customer exceeds the contracted capacity times the relevant charges, doubled, times 12 months.

• **TOLF Overuse Charge:**

- In the event that a customer exceeds the usage as contracted in the annual TOLF in the on-peak period, the customer will be billed an overuse charge for Usage, using the percentage amount the customer exceeds the TOLF times the Usage charge, doubled, times 12 months."

The calculation of Rate 830 Capacity and GOLF Overuse charges was identical.

The witness for the Co-generators, Dr. Schmidt, stated:

> "The proposed Generation and Network Services rates ultimately provide for a 200 percent penalty in instances where customers exceed the contracted maximum capacity, or the contracted maximum TOLF or GOLF. I agree with TransAlta that 'use beyond contracted levels ought not be treated as an alternative to proper contracting practices.' Moreover, penalty revenues would likely only end up in TransAlta's pocket and would not benefit other ratepayers. I would suggest the GOLF or TOLF level 'be reset at a more appropriate level of service' as proposed by TransAlta, but without the penalty." (Exhibit 10, p.10)

Calgary

Calgary approved of the overuse charges as they protect the interests of full requirements customers. (Argument, p.9)

3. TRANSALTA RATE PROPOSALS
(c) Rate 820/830 - TOLF and GOLF Overuse Charges

Fort Macleod

Fort Macleod disagreed with TransAlta's proposals for overuse charges when customers exceed contracted GOLF and TOLF. Fort Macleod noted that this treatment was inconsistent with Rate 790 where the penalty for excess demand was merely a new peak demand for the subsequent eleven months. Fort Macleod recommended that the proposed penalties be set aside for possible later implementation, should there be evidence that abuses are occurring. (Argument, pp.1-2)

IPPSA

IPPSA noted that there were no capacity overuse charges for Rate 790 comparable to that proposed for Rate 820. TransAlta proposed to waive the first accidental overuse by a customer because it realized that its proposed overuse charges were unduly harsh. TransAlta proposes resetting contracted GOLF and TOLF as well as levying the penalty. IPPSA submitted that this would result in a customer paying three times for capacity overused. IPPSA proposed that a ratchet mechanism and minimum use charge, such as were features of Rate 790, would be more appropriate.

IPPSA also submitted that the TOLF provisions were discriminatory towards renewable fuelled, run of river and wind generation. (Argument, pp.8-11, 21)

3. TRANSALTA RATE PROPOSALS
(c) Rate 820/830 - TOLF and GOLF Overuse Charges

Red Deer

Red Deer noted that the Cogenerators were the only party entering evidence against TransAlta's proposal. Red Deer noted that Dr. Schmidt had agreed at the hearing that the penalty was only 100%, not 200%. Red Deer submitted that the penalty revenues would form part of any TransAlta forecast of revenue. Red Deer supported TransAlta's proposal "...as being a reasonable solution to what could be a difficult and costly problem." (Argument, pp.14-16)

Red Deer disagreed with IPPSA that the overuse charge was excessive and amounted to a doubled annual penalty. Red Deer considered that, in most instances, the penalty would recover the amount that should have been contracted for initially. IPPSA was incorrect that no similar penalty existed for Rate 790. Rate 790 demand was metered demand, not contracted demand. Red Deer further considered that IPPSA's position that TOLF charges were unsuited to run-of-river hydro and wind generators was related to the inability of these IPP's to control output rather than the rate design. Red Deer concluded that TransAlta's approach was reasonable. (Reply, pp.6-7)

Lethbridge

Lethbridge submitted that TransAlta's proposals with respect to overuse charges were fair, given the rate design. Lethbridge noted that there was an incentive to overuse, in the absence of penalties, because TransAlta had placed half the fixed transmission costs and 77.5% of generation costs into usage as opposed to capacity charges. A ratchet mechanism, proposed by IPPSA, would

be appropriate only if Rates 820 and 830 were designed in the same way as Rate 790, which they were not. (Reply, p.4)

REA/AAMDC

The REA/AAMDC agreed with TransAlta's position on this issue for the reasons set out in the arguments of TransAlta and Red Deer. (Reply, p.2)

TransAlta

TransAlta considered that its overuse charges were similar in nature to the ratchets and minimum charges which were a feature of Rate 790. These provided a signal of what customer actions caused costs. The proposal of the Cogenerators to merely recontract after three overuses would result in an incentive to under-contract when taking service. (Argument, pp.9-10)

TransAlta speculated that IPPSA's position on overuse charges was based on the evidence of the Cogenerators' witness, Dr. Schmidt. However, once Dr. Schmidt understood how the charges were to be applied, he admitted at the hearing that they were appropriate. (Reply, p.9)

Board Findings

The Board approves TransAlta's proposal for overuse charges for partial requirements customers. The Board approves the concept of overuse charges as this provides a price signal to customers respecting those customer actions which cause costs on the system. The Board does not agree with those parties

who characterize the overuse charges as being unduly harsh but rather considers such charges as necessary to protect the interests of full requirements customers. The Board agrees with Red Deer that, under certain circumstances, the overuse charges could amount to the TOLF or GOLF charges that should have been contracted for initially. The Board does not agree with those parties who submit that overuse charges for Rate 820 and Rate 830 should be consistent with ratchets and minimum charges which are a feature of Rate 790. Although certain features of the partial requirements rates are based on bundled rate parameters, the Board does not consider that overuse penalties should necessarily be consistent among rates that are intended for different uses.

(d) Option 11

In its application, TransAlta proposed that its existing standby rate (Option 11) be closed as of January 1, 1995 and discontinued after July 31, 1995. In response to information request, BR.TAU-8, TransAlta stated:

> "TransAlta has chosen not to phase out existing Option 11 service over a period of five years because there are few customers presently on Option 11, none of whom are expected to see increases under the proposed rates. TransAlta anticipates that none of these customers will want continued access to Option 11 for more than six months. Accordingly, a six month transition period will provide ample opportunity to contract for the Generation Services Rate."

TransAlta estimated that its proposed rates, when used for standby service, would result in a decrease of $100,000 in revenue, annually. (Exhibit 5, p.13)

AIPA

The AIPA submitted that TransAlta's proposal to close Option 11 was inconsistent with its with its proposal for grandfathering. If customers could continue to take supplementary power on bundled rates, then standby service should be also available on bundled rates. (Argument, p.5)

Board Findings

The Board approves TransAlta's proposal to close Option 11 and to discontinue it after July 31, 1995 for those reasons advanced by TransAlta. In approving the closure and discontinuance of the existing standby service, the Board notes that none of the existing users opposed the proposal.

(e) Interruptible Export Service

In his evidence, the witness for IPCAA, Mark Drazen, noted that TransAlta had not proposed an interruptible export rate. This omission limited opportunities. In addition, the proposed rate favoured high load factor exporters over those who might have energy available on an occasional basis. (Exhibit 14, p.8)

In rebuttal evidence, TransAlta stated:

> "In the event that any customer wishes to obtain short term or interruptible transportation service, TransAlta would be willing to negotiate such a service on a mutually acceptable basis. Negotiated rates for short term, interruptible transportation for exports have been the situation for some time as among the Alberta utilities." (Exhibit 5, p.2)

IPPSA

IPPSA noted that TransAlta's evidence at the hearing was that no rate, per se, existed for interruptible transportation. Rather, each transaction was historically negotiated on the basis of shared benefits, power swaps or time differentiated service swaps. IPPSA also noted that TransAlta's witness, Mr. Huntingford, indicated that TransAlta's priority was for firm export transportation and that TransAlta might make an application in the future for an interruptible rate. IPPSA submitted that the Board should direct TransAlta to provide guidelines under which interruptible service would be provided. IPPSA further submitted that, if TransAlta did not provide guidelines, the Board should initiate a hearing into an interruptible rate. (Argument, pp.18-19)

3. TRANSALTA RATE PROPOSALS
(e) Interruptible Export Service

REA/AAMDC

The REA/AAMDC proposed that the rate for exporters could be lowered by offering the service on the basis that there would be no investment for exporters. All additional costs of hook-ups and system reinforcement would be borne by the export customer. These capacity constraints and the cost of additional facilities should be considered as options when TransAlta negotiates interruptible export rates. (Argument, p.13)

AIPA

The AIPA considered that TransAlta's proposal to negotiate interruptible service would only add to the list of matters which might possibly be submitted to the Board for future adjudication. The AIPA proposed that the Board set a rate based on the firm service rate at a load factor of between 75-100%. The AIPA noted that this practice was common in the gas industry. (Argument, p.11)

TransAlta

TransAlta submitted that the proposed formula of the AIPA was inappropriate and would prevent many interruptible transactions proceeding on a negotiated basis. (Reply, p.21)

TransAlta considered that the proposal of the REA/AAMDC would have the effect of committing without charge current facilities and then cutting off export sales when capacity was used up. (Reply, p.24)

3. TRANSALTA RATE PROPOSALS
(e) Interruptible Export Service

Board Findings

The Board considers that TransAlta's offer to negotiate and provide interruptible export service constitutes a new service offering at this time to customers and should, accordingly, have a rate schedule. The Board will accept TransAlta's view that a set rate would be inappropriate for such a service, given the evidence received in this hearing that costs of transmission can vary depending on the current configuration and usage of the system and location of the user. Notwithstanding these difficulties, the Board considers that a rate schedule setting the conditions under which such an interruptible service would be offered to the public and the method by which a rate would be determined, would be appropriate. Therefore, TransAlta is directed to file for acknowledgement by the Board, before January 1, 1995, a rate schedule for interruptible export service. Further, TransAlta is directed to address the suitability of this rate at the time of its next GRA.

4. TERMS AND CONDITIONS OF SERVICE

In the Application, TransAlta requested approval of "the conditions to be applied to the proposed Rates, as described in Part 2 of this Application;" (Exhibit 1, p.12) In response to Board Undertakings (Exhibit 19), TransAlta provided a summary of its terms and conditions for the proposed rates as contained in part 2 of the Application, as outlined in the rates themselves and as further proposed in rebuttal evidence and at the hearing. The Board has summarized those terms and conditions of partial requirements service not contained in the rates as Schedule "C", attached to and forming part of this Decision.

Specific issues with respect to these terms and conditions of service follow.

Fort Macleod

Fort Macleod requested the Board "...give due consideration to the negative impact that rules that are too stringent or complex may have on the ability to introduce alternatives into the regulated utility market." (Argument, p.5)

4. TERMS AND CONDITIONS OF SERVICE

(a) Capacity Cap

EP

EP noted the evidence that capacity on TransAlta's export facilities was limited. EP also noted that the lead time to build new facilities could take up to four years. TransAlta was forecasting that export capacity would amount to 35 MW by 1998, according to EP's calculations. In view of the capacity problems, EP recommended that the Board impose a cap of 35 MW on the amount of export capacity that could be served under this rate in order to reduce the risk to AIS customers. (Argument, pp.7-8)

IPCAA

IPCAA considered that EP's proposal had appeared for the first time in argument and could not be tested by other parties. IPCAA submitted it would be unfair to approve such a proposal without giving other parties the opportunity to respond to it. (Reply, p.13)

IPPSA

IPPSA noted that this issue arose in argument, without evidence and without the benefit of cross-examination. Furthermore, EP's proposal seemed to arise from a concern that all firm capacity could be contracted out to parties other than itself. Since EP could as easily contract for the capacity as any other party, IPPSA did not see the need for any cap on capacity. If a party is adversely affected by capacity which is contracted out but not used, then

4. TERMS AND CONDITIONS OF SERVICE
(a) Capacity Cap

IPPSA proposed that party could seek redress before the Board. (Reply, pp.4-5)

REA/AAMDC

The REA/AAMDC agreed with EP as it was important to ensure equality of opportunity and access to the system. (Reply, p.3)

CAC/ACA

The CAC/ACA had two concerns with respect to this issue: (1) that use of AIS transmission capacity would limit the capacity available to AIS customers; and (2) TransAlta could require APL and EP to export on Rate 820, which might result in the loss of export sales. Both these results would be detrimental to AIS customers.

TransAlta

TransAlta stated:

> "EP's argument that 'there could be some loss of control of vital transmission assets by the Public Utilities Board' (p.1) has no basis, as the rates and terms of service under which such supposed loss of control would occur remain regulated by the Board.
>
> EP's suggestion that some benefits to Alberta customers could be lost if long term exports transpire (p.1) is implicitly premised on the concept that customers have some residual or quasi-ownership rights to the use of facilities beyond the right to service at regulated rates, a concept which Mrs. Beach for Calgary dismissed (5T537). EP's suggestion also ignores the benefits to customers of more intensive and efficient use of transmission facilities on a long-term contracted basis.
>
> Overall, a reading of EP's argument leads to the question of just what is it EP is really trying to achieve? The arbitrary suggestion of a 35 MW cap - never suggested for consideration as a cap in evidence -

4. TERMS AND CONDITIONS OF SERVICE
(a) Capacity Cap

> clearly has no foundation, and it amounts to an unneeded solution to an imaginary problem. EP was discussed in the hearing as the only existing generator with significant surplus realistically available for export (2T241), but as set out in the CAC argument (p.16), EP has applied to the National Energy Board for interruptible and short term exports only..."

TransAlta concluded that EP was merely attempting to prevent IPP generation in favour of its own facility. (Reply, pp.17-18)

Board Findings

The Board is not persuaded of any need to establish a cap on export capacity at this time. The Board notes that such a suggestion was not tested during the proceedings and agrees with parties that there is no basis for accepting EP's suggested 35 MW cap. The Board also notes that the revenue generated from export Network Service rates would provide an offset to the cost of constructing additional facilities, should a constraint on capacity arise.

4. TERMS AND CONDITIONS OF SERVICE

(b) Availability of Service on Existing Rates

TransAlta's proposed Rate 820 included the following wording:

> **"In order to be eligible for this Network Services Rate customers must have:**
>
> - ... All services from TransAlta at a service location on this rate and on the Generation Services or Temporary Energy rate if applicable."

Since Rate 830 was available only in combination with Rate 820, the net effect of this condition was that TransAlta proposed, absent eligibility for grandfathering, that a customer contracting for partial requirements services was not eligible for service under any of its other, full requirements rates. TransAlta stated: "This requirement is necessary to prevent self-generating partial requirements customers from manipulating the simplifying features of standard bundled rates to the detriment of other customers." (Exhibit 1, p.5)

The witness for the Co-generators, Dr. Schmidt did not agree with TransAlta's proposal as long as full requirements customers were not subject to TOLF charges. In the opinion of Dr. Schmidt, unbundling of services was likely to result in changing cost responsibilities. Therefore, until full service rates were adjusted, all rates should be charged on the same basis. Dr. Schmidt stated that a properly designed full requirements rate would not need this restriction as it would track load profiles properly. (Exhibit 10, pp.6-7)

The witness for Calgary considered that when the supplemental power requirements of a self-generator matched the load profile of an existing rate

customer and was separately metered at the customer's expense, then it should be served at that full requirements rate. (Exhibit 12, p.12)

The witness for IPCAA, Mr. Drazen, stated that this restriction was not necessary as Rate 790 was designed for high load factors. Customers taking Rate 790 at a low load factor would pay a high rate per kWh. In any case, TransAlta stated, in response to IPCAA.TAU-14, that it expected Rate 820 customers to be similar to Rate 790 customers.

Mr. Drazen submitted that TransAlta should follow the practices of other utilities which allow customers to take supplemental power at standard rates, even when those rate schedules are different from the standby rate. (Exhibit 14, pp.15-16)

In rebuttal evidence, TransAlta stated:

> "The requirement that a partial requirements customer must contract for any supplemental service on the proposed rates, and thereunder contract for appropriate levels of on-peak service under the GOLF and TOLF provisions, is necessary and appropriate, since the use by such a partial requirements customer of supplemental service will be less likely to correspond to the more averaged characteristics of the more homogeneous groupings which govern the design of standard bundled rates." (Exhibit 5, pp.8-9)

IPCAA

IPCAA considered that TransAlta was proposing the preclusion of combining self-generation and standard rates. TransAlta's proposal was based on the assumption that partial requirements customers need full requirements customers whereas the full requirements customers had no need for partial requirements

customers. In fact, any efficient utilization of the system benefitted all customers. TransAlta had imposed this restriction on the assumption that a partial requirements customer might have a greater negative impact on the system than a regular customer. This assumption was not supported by any evidence. TransAlta's evidence indicated that presently self-generating customers taking service on bundled rates were paying appropriate rates. IPCAA also considered that the restriction imposed by TransAlta:

> "...recognizes and distinguishes the 'good' full-service customers from the 'bad' partial-service customers. That concept is not just wrong but unfair. More importantly any implicit recognition of it will make it difficult to deny in future. The more appropriate approach is that all customers should be treated according to a common standard of fairness and access to utility-provided services." (Argument, p.12)

IPCAA noted its witness' evidence that there are scores of U.S. utilities which considered that the regular rate schedule would serve self-generating customers as well. Furthermore, the Board, in Decision E94034, had approved partial requirements rates for APL which permitted mixing of partial and full requirements rates. If this restriction were dropped, then much of the complexity of the proposed rates and intricacy of the proposed terms and conditions of service would be unnecessary, in the opinion of IPCAA.

Since TransAlta's proposal had the potential effect of increasing industrial rates, IPCAA submitted that consideration of this restriction should be postponed until the next GRA, which was the proper forum to discuss rate increases. (Argument, pp.12-16)

IPCAA noted that the authority Red Deer was quoting with respect to the load profile and coincidence of self-generators was TransAlta. TransAlta had not produced any evidence in this regard with respect to either future or present self-generators. (Reply, p.10)

Calgary

Calgary submitted that it was in general agreement with TransAlta that partial requirements and full requirements rates should not be combined. Calgary agreed with TransAlta's premise that the load profile of the supplementary power takings of a co-generator would not likely match that of existing rates. However, in the event that such a match of load profiles did occur, Calgary considered that an exception could be made in this case and the supplementary power could be on a standard rate. (Argument, p.11)

Red Deer

Red Deer considered that the witnesses for the Cogenerators and IPCAA had ignored the evidence that a partial requirements customer would have a different load profile from a full requirements customer. Red Deer noted that a self-generator would likely base load its own generation, reducing the load factor but not necessarily the coincidence factor. Therefore, Red Deer agreed that partial requirements customers should not be eligible for service on bundled rates. (Argument, pp.4-6)

4. TERMS AND CONDITIONS OF SERVICE
(b) Availability of Service on Existing Rates

Red Deer noted that Calgary's witness had confirmed at the hearing that customers would take whatever advantage was available to them. Calgary's witness concluded that this was a risk to TransAlta. (Reply. pp.3-4)

IPPSA

IPPSA noted that TransAlta's reason for proposing this restriction was to prevent customers from manipulating rates. TransAlta had not presented any evidence that this was likely to ever occur. Even if customers were to switch between standard and partial requirements rates, there was no evidence that Rate 790 customers would either give or receive a subsidy. IPPSA submitted that TransAlta's proposal resulted in unjust discrimination between customers which could not be supported by the evidence or in law. (Argument, pp.10-11)

Cogenerators

The Cogenerators submitted that there should be no discrimination between partial requirements and full requirements customers. The witness for the Cogenerators had indicated that any rate is likely to contain customers with varying load profiles. Therefore, partial requirements customers with similar characteristics as full requirements customers should have available the same rates. The Cogenerators proposed, in the alternative, that full and partial requirements customers should be subject to the same TOLF and GOLF charges. (Argument, pp.1-2)

4. TERMS AND CONDITIONS OF SERVICE
(b) Availability of Service on Existing Rates

Lethbridge

Lethbridge interpreted TransAlta's position on this matter as:

> "..a concern related to whether or not with the incentive to shape the requirements for Rate purposes, that there will be both a potential of under-recovery of revenue from a standard rate class, or alternatively, a potential intra-class subsidy flowing for those customers who are able to manipulate the standard rate structures by way of their partial requirements to minimize costs on the standard rates. The prohibition on combination is driven by the differences in rate design of the standard rates and partial requirements rates." (Reply, pp.4-5)

Lethbridge submitted that any removal of the prohibition should wait until such time as rate design is examined in a Phase II proceeding. (Reply, pp.4-5)

Lethbridge disagreed with the position of IPCAA, that TransAlta was attempting to distinguish between "bad" and "good" customers. Lethbridge stated that it was neither bad nor good to act in an economic self interest but the differences in rate design between the standard rates and the partial requirements rates created the motive to maximize the individual customer's position. (Reply, pp.6-7)

CAC/ACA

The CAC/ACA considered it appropriate that partial requirement customers not be allowed to utilize bundled rates "...because of partial services requirements customers will enjoy benefits to the detriment of full service customers." (Argument, p.9)

4. TERMS AND CONDITIONS OF SERVICE
(b) Availability of Service on Existing Rates

PICA

PICA noted that Rate 790 serves a wide variety of customers whose consumption pattern may not match that of self-generators. In the opinion of PICA, the higher costs referred to in IPCAA's argument might equally be the result of self-generators not bearing their share of costs of the network, which are then borne by other customers. PICA submitted that the evidence on consumption patterns pointed to the need for a review of Rate 790 in TransAlta's next GRA. (Reply, p.1)

TransAlta

TransAlta considered that it was reasonable to expect self-generating customers to manipulate the simplifying features of bundled rates, if allowed to combine them with partial requirements rates. To the extent that was permitted, then customers on bundled rates would be disadvantaged and bear a disproportionate share of system costs. (Argument, pp.13-14)

TransAlta noted that APL had not unbundled its rates in the same manner as TransAlta nor had APL costed its rates in the same manner. Therefore, there was no reason for APL to apply the same restrictions on mixing of standard and partial requirement rates. Furthermore, IPCAA's witness, Mr. Drazen, had not provided any evidence on the rate structure or degree of unbundling practiced by U.S. utilities that allow supplementary service on standard rates. (Reply, pp.6-7)

4. TERMS AND CONDITIONS OF SERVICE
(b) Availability of Service on Existing Rates

Concerning the position of IPPSA, TransAlta stated that differentiation of rates and service availability between unlike customers did not at law constitute unjust discrimination. (Reply, pp.13-14)

Board Findings

The Board accepts TransAlta's proposal for the reasons advanced in its evidence and previously set out in this section. The Board considers the potential exists for partial requirements customers to manipulate the simplifying features of bundled rates to the detriment of full requirements customers, warranting the prohibition of partial requirements customers from receiving service at existing bundled rates. The Board notes that existing customers taking supplementary power on full requirements rates will not be immediately disadvantaged as a result of the offer by TransAlta to grandfather their rates. The Board notes that both Rate 790 and the Network Services rates are subject to review at the Phase II portion of TransAlta's next GRA.

4. TERMS AND CONDITIONS OF SERVICE

(c) Contract Term/Return to Standard Service

In Rate 820, TransAlta included the following terms:

> **"In order to be eligible for this Network Services Rate customers must have:**
>
> - A satisfactory long term contract with TransAlta including but not limited to:
>
> - a minimum contract term of 5 years;
>
> - an obligation to contract for transition to rates other than Network Services and Generation Services rates 5 years prior to such transition; and ..."

This had the effect of requiring minimum five year contracts and five years' notice of return to full requirements service for all partial requirements customers as Rate 830 was available only in conjunction with Rate 820. TransAlta proposed that a customer wishing to return to standard rates immediately would pay a premium on regular rates such that other customers would be indifferent to the requested change in service for a five year period. In response to information request IPCAA.TAU-41, TransAlta stated "...if the system was expected to be surplus in both generation and transmission for the 5 year period, the notice would be waived."

The witness for the Co-generators, Dr. Schmidt considered that TransAlta's proposal was based on the incorrect assumption that existing customers have a certain claim to existing production capacity. Since a utility builds and expands plant for all capacity requirements and not just for a certain customer class,

there was no reason for placing this restriction on partial requirements customers wishing to return to the system. (Exhibit 10, pp.11-12)

The witness for Calgary considered that it was reasonable for a returning customer to pay a different rate than an existing customer because:

> "By choosing to self generate all or part of their energy needs, they have rejected a regulatory system which establishes rates based upon the monopoly status of the generation function. TAU is no longer the sole provider of generation services. Therefore the rationale for establishing regulated monopoly rates for this new competitive market is no longer present and TAU's obligation to serve all generation requirements at similar rates has been altered." (Exhibit 12, p.11)

In rebuttal evidence, TransAlta stated that it was not recognizing any right or claim to assets by any particular group of customer. TransAlta was proposing this restriction on partial requirements customers in order to protect other customers from "service shopping" that might occur in its absence. (Exhibit 5, pp.11-12)

IPCAA

IPCAA noted that TransAlta did not require a full requirements customer to give notice or pay a premium upon commencing service. TransAlta's evidence was that new facilities could be constructed to serve new customers in as little as six months. TransAlta did not offer any evidence that self-generators returning to the system had, in the past, caused problems. IPCAA considered that, if the problem was really stranded investment, that contingency could be

prevented by contractual arrangements. IPCAA submitted that TransAlta should treat all customers equally. (Argument, pp.19-20)

Calgary

Calgary considered TransAlta's proposed notice period guaranteed against partial requirements customers taking advantage of short term generation costs only when they would be lower than embedded generation costs. The requirement also ensured that long term system planning could be carried out effectively. (Argument, pp.10-11)

Fort Macleod

Fort Macleod stated that TransAlta's position with respect to return to standard service ignored the present surplus capacity on the AIS. Requiring an IPP to delay returning to AIS service amounted to a penalty for leaving the system in the first place. Fort Macleod considered that it was unlikely an IPP would change back and forth from the system to its own power due to the commitment of capital funds, contract terms, the use of cheap fuel or the power coming from part of the IPP's process. Fort Macleod submitted that this condition be set aside until there was evidence of the circumstances envisioned by TransAlta occurring. (Argument, pp.2-3)

Red Deer

Red Deer considered that, for export contracts, the customers on standard rates should have more protection than was offered by TransAlta's standard

five year Rate 790 type contract. TransAlta's witness, Mr. Stoness, had provided several examples with respect to incurrence of stranded investment. Should stranded investment occur, Red Deer proposed that it be assigned directly to the Rate 820 class in any future cost of service study. (Argument, pp.11-13)

Red Deer considered that the position of TransAlta was consistent with the findings of the Joint Decision Gas Supply and Transportation Inquiry (E87128/87-C, December 29, 1987) of the PUB and Energy Resources Conservation Board (ERCB), which found at p.33:

> "The Boards recognize that some consumers, who have made their own arrangements for gas supply, may wish to return as sales customers of an LDC. The Boards believe that any consumer should be able to return to an LDC as a sales customer providing the consumer pays the fair and reasonable incremental costs associated with its return, and accepts the possibility that it may have a lower priority of access to supplies." (Argument, p.18)

Red Deer noted that IPCAA opposed the five year notice period for returning to standard service while taking the position that grandfathering was a necessary protection for currently self-generating customers. Red Deer considered this to be a "best-of-both-worlds" position. (Reply, p.4)

IPPSA

IPPSA noted that, in the opinion of TransAlta, there was no need for additional generation on the AIS until the year 2000. Under these circumstances, it

would be appropriate for TransAlta to waive the five year notice period for self-generators wishing to return to the system. (Argument, p.12)

IPPSA noted that TransAlta, at page 12 of Exhibit 5, proposed charging customers a premium when returning to the system before the five year notice period. IPPSA opposed any premium being charged when excess system capacity existed. (Reply, pp.5-6)

TransAlta

TransAlta stated that it had already addressed the matter of waiver of the five year waiting period in its response to IPCAA.TAU-41 and had indicated that it would be appropriate in certain circumstances. (Reply, p.9)

Board Findings

The Board considers a minimum five year contract term for both of TransAlta's proposed rates to be reasonable and consistent with contracts with full requirements customers. This minimum term appears to offer sufficient protection for full requirements customers.

The Board approves the requirement for a five year notice period for return to standard service. The Board considers that this restriction along with the minimum five year contract term ensures that long term system planning is not impaired by the proposed services. The Board notes that TransAlta will waive this requirement in the event that there is both surplus generation and

transmission capacity over the five year period and may request the customer to pay a premium so that all other customers would not be disadvantaged over the five year period. The Board considers the above terms and conditions are fair to partial requirement customers and also protects full requirement customers from system costs which might be incurred from "service shopping".

(d) Notice Period for New Service

In Rate 820, TransAlta included the following terms:

> **"In order to be eligible for this Network Services Rate customers must have:...**
>
> - Provided 12 months notice to obtain service on this rate."

IPPSA

IPPSA submitted that, when transmission capacity exists to accommodate an export customer immediately, it would be appropriate to waive the 12 month notice period for new service. (Argument, pp.12-13)

TransAlta

TransAlta stated that there was no issue with respect to waiver of the 12 month period for new service in appropriate circumstances. TransAlta had already stated its willingness to waive the requirement for standby services in its response to WCL.TAU-2. (Reply, p.9)

Board Findings

The Board considers a 12 month notice period for new service to be reasonable in order to facilitate the necessary system planning. The Board also considers it reasonable to waive the 12 month notice period when TransAlta considers it has both transmission and generation capacity available.

(e) Grandfathering

In an undertaking (Exhibit 19) in response to a Board question, TransAlta stated:

"The parameters for the administration of grandfathering are:

a. Customers currently self generating and taking service on standard bundled rates will be allowed to continue doing so after implementation of the proposed rates, so long as they do not alter significantly their existing load profiles or need for services to support their self generation. (Exhibit 1, p.7).

b. Customers currently self generating and taking service under the Standby Option (Option 11), will be required to recontract for their standby service under the Network Services and/or Generation Services Rates, and will be allowed to continue taking current supplementary service, if any, under standard bundled rates, as above.

c. The above grandfathering conditions will continue to apply if the load on the utility changes due to debottlenecking or efficiency improvements to existing customer's generation facilities, provided the remaining load exhibits a load factor and coincidence to system peaks similar to standard rate customers.

d. Grandfathering will end if the customer builds new generation facilities which significantly alter the load factor and coincidence to system peaks of the remaining customer load on the utility. At such a time, the Network and Generation Services rates would be required for customer's supplementary load.

e. Grandfathering will not apply if the customer builds new generation facilities which require network support from the utility. At such a time, the Network and Generation Services Rates would be required for the incremental service."

IPCAA

IPCAA considered that TransAlta's grandfathering proposal was necessary in order not to penalize customers who continue to do what they had historically done. IPCAA stated that TransAlta's grandfathering concept was vague and

ill-defined. IPCAA interpreted TransAlta's definition of a significant alteration of load factor and coincidence to mean that a customer who continued to reflect the characteristics of Rate 790 would be allowed to take service on that rate.

Concerning the term of grandfathering, IPCAA noted that a decision of the Board does not bind the Board in any future decision. Therefore, should the Board approve TransAlta's grandfathering proposal, the term would extend until the time of TransAlta's next GRA. (Argument, pp.17-18) IPCAA considered that a five year period for grandfathering was arbitrary and should be tested in a GRA. The objective of a five year period was not clear. IPCAA noted that loss of the ability to take power on standard rates would cost Dow $3 million annually and force Dow to take its 72 MW of load off the system. IPCAA also considered that the AIPA's proposal for a 10% change in parameters to be arbitrary and was proposed after the hearing when it could not be tested. IPCAA considered that there was ample opportunity to consider in the future what constituted a significant change in load profile.

According to TransAlta, the costs which might be imposed by future self-generators had not materialized and was not an issue with existing self-generators. Calgary took a position similar to this. If the issue was a future one, then it should be reserved for discussion at some future date, in the opinion of IPCAA. (Reply, pp.9-11)

4. TERMS AND CONDITIONS OF SERVICE
(e) Grandfathering

Calgary

Calgary submitted that grandfathering in perpetuity was inappropriate and that any grandfathering should be limited to five years. Calgary considered that the matter of load profile changes of existing self-generators should be monitored over the five year period. (Argument, p.11)

Red Deer

Red Deer submitted that, in addition to the proposal to grandfather existing self-generators, TransAlta must also grandfather provisions for future co-generation that exist in contracts with wholesale customers. (Argument, pp.7-8)

For self-generators, Red Deer considered that grandfathering "forever" was excessive. Red Deer noted the comment of Mr. Drazen that the reason for grandfathering was that self-generation could not be "unbuilt". Therefore, Red Deer considered that an appropriate period of grandfathering would be the life of the self-generating facility. (Argument, pp.24-25)

IPPSA

IPPSA supported grandfathering but considered it inappropriate to create a special class which would be treated in a preferential manner. IPPSA proposed that grandfathering extend only to the end of the service life of a customer's self-generating equipment. This would preserve the principles of customer

contracts and balance the interests of new and existing customers. (Argument, pp.20-21)

Lethbridge

Lethbridge agreed with TransAlta's proposal for grandfathering based on TransAlta's evidence that no customer on present bundled rates was receiving a benefit for which it was not paying. Lethbridge further agreed that there should be no retrospective effect on customers' investment decisions as a result of the proposed rates. However, Lethbridge was concerned with the perpetual aspect of TransAlta's grandfathering proposal. (Argument, pp.8-9)

REA/AAMDC

The REA/AAMDC considered that the basic issue with grandfathering was the discretion which TransAlta should be permitted in ending grandfathering for a particular customer. The REA/AAMDC considered that all customers should be moved to new rates as quickly as possible. However, TransAlta should recognize any benefits of self-generators who support the system and establish a system of credits for these. On this basis, the REA/AAMDC recommended that grandfathering not exceed five years. (Argument, pp.14-15)

AIPA

The AIPA noted that TransAlta proposed grandfathering for co-generating customers on existing bundled rates provided that the customer did not "significantly" alter its load profile. In the AIPA's opinion, this begged the

question of what was significant. Therefore, the AIPA proposed that grandfathering be permitted only as long as the customer's demand, load profile and coincidence factor did not change by more than 10%. The AIPA agreed with TransAlta that grandfathering should terminate when new facilities are required to serve.

The AIPA considered that grandfathering of existing contracts should be for a minimum of five years. In certain cases where customer investment had not been amortized, the AIPA considered that grandfathering could be negotiated over a longer term. (Argument, pp.5-6)

In reply argument, the AIPA elaborated on its proposed parameters for grandfathering. The AIPA noted that increases in demand and coincidence factor would have a negative effect on other customers. However, an increase in load factor was a positive development for the system. Therefore, the AIPA proposed that the conditions for continued grandfathering of a customer's contract should be permitted if: a) customer demand increases by less than 10%; b) customer load factor decreases by less than 10% from the minimum rate class range; and c) customer coincidence factor increases by less than 10% from the maximum rate class range. (Reply, pp.1-3)

CAC/ACA

The CAC/ACA considered that the issue of whether a self-generator benefitted the system or not was irrelevant to the issue of grandfathering. The

4. TERMS AND CONDITIONS OF SERVICE
(e) Grandfathering

CAC/ACA submitted that "...just because in the past they were on a rate that did not reflect the benefits they received to the detriment of other customers should not be a reason that they should continue to receive a beneficial rate in the future." (Argument, pp.9-11)

PICA

PICA stated that it did not object to the proposed terms and conditions of service for Rates 820 and 830. However, any grandfathering should extend only so far as the next GRA when the appropriateness of self generating customers taking service on bundled rates can be reassessed. (Argument, pp.1,3)

PICA considered that IPPSA's proposal would merit consideration only if the investments made by self-generators were made redundant by the introduction of partial requirements rates. However, TransAlta's proposal was for a change in rate structure and not for a change in service. In the opinion of PICA, this confirmed PICA's proposal that grandfathering should extend only until TransAlta's next GRA and a general review of the rates approved by Decision E92070. (Reply, p.1)

TransAlta

TransAlta stated that it had made its proposal with respect to grandfathering certain customers in recognition of investment decisions made in the past by those customers. TransAlta stated that its proposal for perpetual

grandfathering was appropriate since, when a customer did not alter its load profile, other customers were no better or worse off than prior to the introduction of the new rates. (Argument, p.8)

TransAlta noted that administration of IPPSA's proposal to extend grandfathering over the life of the customer's equipment was problematic. In addition, the customer could alter behaviour to the detriment of other customers and still retain grandfathered status with IPPSA's proposal. (Reply, p.13)

Board Findings

The Board does not approve TransAlta's proposal to extend grandfathering in perpetuity. However, the Board does approve the balance of TransAlta's proposals for grandfathering existing service as it protects the investment made by customers on the basis of rates in existence at the time the investment was made. The Board notes that the number of customers eligible for grandfathered status may well be reduced by the time of the next GRA and directs TransAlta to address the matter of grandfathering and the parameters for its administration at the time of its next GRA.

With respect to Red Deer's suggestion that TransAlta must also grandfather provisions for future co-generators that exist in its contracts with wholesale customers, the Board considers that the appropriate rate to be charged to wholesale customers who generate a portion of their own load is a matter to be

examined at such time the wholesaler elects to generate a portion of its own load.

(f) Consolidation

The Board approves the terms and conditions of service associated with Rates 820 and 830, as compiled in Exhibit 19, with the exception of TransAlta's proposal for grandfathering in perpetuity. The Board has extracted those terms and conditions of service not embedded in the schedules for Rates 820 and 830 and placed them in plain English format in Schedule "C", attached to and forming part of this Decision. The Board has also incorporated its findings on network support credits, as noted in Section 3(a)(3), and its findings on waiver of notice requirements, as noted in Section 4(d) of this Decision. The Board approves these Terms and Conditions for Partial Requirements Service to be effective on all consumption on and after January 1, 1995.

5. OTHER MATTERS

(a) Treatment of Revenues

In evidence, the witness for Calgary, Mrs. Beach, stated:

> "Calgary recommends that TAU be directed to establish a deferral account to track the net revenues from the Network and Generation Services rates. Total revenue collections should be netted against variable fuel and O&M costs and any costs related to additional customer facilities installation expenses unique to these new services. At the time when the net revenues in this account become material, say in excess of $1.0 million, TAU should have in place an easily administered mechanism or revenue adjustment procedure which passes the financial benefits of these new services to full requirements rate payers annually." (Exhibit 12, p.4)

Calgary further recommended that TransAlta be allowed to keep 10% of the revenues from these new services in order to encourage the company to develop new competitive services within its service territory.

In rebuttal evidence, TransAlta indicated that the revenues it was expecting from its proposed new services was small:

1995	($0.1 million)
1996	($0.1 million)
1997	0.2 million
1998	1.5 million

Furthermore, customers presently receiving supplementary or "humalong" service would be grandfathered. Therefore no extra revenue could be expected from existing customers. Since the revenues were not expected to be material, a deferral account was not warranted. Furthermore, removal of the revenues

5. OTHER MATTERS
(a) Treatment of Revenues

to a deferral account would work against TransAlta's goal of avoiding a rate increase until after 1996. (Exhibit 5, pp.12-13)

IPCAA

IPCAA did not support Calgary's proposal. IPCAA did not consider TransAlta's forecast of revenues from these rates to be distinguished from its forecasts of other revenues. There was no evidence that TransAlta's forecast might be in error. IPCAA submitted that it would be more appropriate to consider a deferral account if and when there is evidence that forecasting difficulties are significant. (Reply, p.12)

Calgary

Calgary noted Board Decision E93053, dated October 7, 1993, wherein the Board apparently accepted the need for a deferral account when forecasting difficulties were significant, particularly with new services. Calgary submitted that this was the case in the current application. Although TransAlta forecast little revenue from the proposed rate, TransAlta's witnesses admitted several times that the potential existed for a great deal of revenue from existing entities in the province with the ability to export. Calgary estimated that $3 million could easily result from export of 100 MW of EP's surplus capacity. Therefore, Calgary submitted, it was difficult to forecast exactly what the revenues from export might be.

5. OTHER MATTERS
(a) Treatment of Revenues

With respect to standby and network support revenues, TransAlta indicated that it presently had customers who were considering self-generation, although it was difficult to know which ones would take advantage of the opportunities created by the new rates. TransAlta indicated that it would actually experience a revenue decrease in 1995 of $100,000 due to the new rates. However, Calgary submitted this only considered existing customers moving to the new rates and did not account for any new business. Calgary submitted that the conditions existed for a deferral account. Should the cumulative revenues in the account reach a significant level prior to TransAlta's next GRA, Calgary submitted that TransAlta be directed to file a revenue sharing adjustment method. (Argument, pp.5-7)

Calgary considered that TransAlta had mischaracterized its deferral account proposal. For example, the matter of a deferral account was a clearly different matter from its proposal for an annual report. TransAlta was as unable to forecast such benefits as reduced transmission costs as it was unable to forecast revenues. This uncertainty was the basis for Calgary's proposal.

Calgary considered that Red Deer misunderstood Mrs. Beach's clarification on the components of the deferral account. Mrs. Beach wished to acknowledge the possible $100,000 reduction in standby revenues in 1995. Calgary did not propose to include any hypothetical lost revenues for the actions of partial requirements customers in the absence of proposed rates. (Reply, pp.1-2)

5. OTHER MATTERS
(a) Treatment of Revenues

Fort Macleod

Fort Macleod submitted that a deferral account could be put in place without the problems suggested by TransAlta. (Argument, p.4)

Red Deer

Red Deer noted that Calgary's witness had agreed at the hearing that any revenues in a deferral account should be offset by lost revenues from other services. The revenues might be volatile as it might or might not include exports from Genesee 1. Red Deer stated that it was unwilling to assume the risk associated with such a deferral account. (Argument, pp.18-19)

REA/AAMDC

The REA/AAMDC noted that there could be losses from firm services as well as revenues from the new services. The REA/AAMDC further noted the difficulties in calculating the benefits from project deferrals. Because TransAlta had committed itself to no rate increases for three years, the REA/AAMDC submitted that TransAlta was correct, that a deferral account was not needed in this instance. (Argument, pp. 13-14)

AIPA

The AIPA considered it was appropriate to initiate a deferral account in this instance as there was no history of revenues from the proposed services. The AIPA noted that there might be some migration from bundled rates to the partial requirements rates. In the interest of fairness, the AIPA proposed that

5. OTHER MATTERS
(a) Treatment of Revenues

the loss of revenue from bundled rates should be subtracted from the revenues held in the deferral account. (Argument, pp.11-12)

CAC/ACA

The CAC/ACA considered it appropriate to set up a deferral account because of the uncertainty regarding forecasts of revenues. In this regard, the CAC/ACA noted EP's application to the National Energy Board to export 115 GWh of short term power, 1,000 GWh of short term firm energy and up to 3,000 GWh of interruptible energy during the 1994 to 1999 time frame. (Argument, pp.15-16)

TransAlta

TransAlta noted that Calgary's proposal for a deferral account seemed to be coupled to its proposal for an annual report. TransAlta submitted that sufficient information could be provided in the absence of a deferral account. Calgary's proposal also seemed to be motivated by a desire to capture the benefits of partial requirement rates for full requirement customers. TransAlta's goal in proposing the rates was to meet new needs of customers, not to provide benefits to existing customers. In any case, the new rates will provide benefits only in the long term and result in reduced revenue in the short term.

TransAlta noted that Mrs. Beach had acknowledged that a deferral account should be established only in exceptional circumstances. In the opinion of TransAlta, the circumstances of the present proposal did not merit the creation and administration of a deferral account. (Argument, pp.15-16)

5. OTHER MATTERS
(a) Treatment of Revenues

TransAlta stated that Calgary's position that a deferral account was administratively simple was contradicted by the testimony of its own witness, who confirmed that numerous considerations and reconstructions would need to go into its calculation. Furthermore, Calgary had not demonstrated a need for a deferral account. TransAlta noted that the gross revenues until 1998 were less than the variance in any one year for the deferred export revenue account. TransAlta submitted that Mrs. Beach had not considered the retrospective nature of a deferral account when recommending one. (Reply, pp.19-20)

Board Findings

The Board is not persuaded of the need for a deferral account on the basis of the evidence brought forward. The Board notes that TransAlta's forecast of revenues from its proposed rates does not appear to be any less accurate than its forecast of revenue from other rates. The Board considers that the degree of variance can be reviewed at the time of TransAlta's next GRA.

(b) Annual Status Report

Calgary noted that there was no precedent for these rates and the experience should be carefully documented. Calgary proposed an annual report including detailed information such as numbers of customers taking Network and Generation Services rates, unbundled revenue data, detailed load and usage pattern information, customers switching from full to partial requirements, information on credits and surcharges, any impacts on reliability and transmission constraints, energy balancing activities and the appropriateness of the ±5% imbalance requirement and loss calculations. (Exhibit 14, p.5)

In rebuttal evidence, TransAlta stated:

> "TransAlta recognizes that the provision of new services in an evolving industry will be of interest to the Board and other interested parties. To the extent that filings in ongoing regulatory proceedings do not provide data reasonably required by parties, TransAlta will be willing to provide such data, subject to customer confidentiality concerns." (Exhibit 5, p.14)

EP

EP supported Calgary's proposal for a detailed annual status report, especially the information on surcharges and credits. EP proposed adding to the report "basic information on firm export capacity sales". (Reply, p.1)

Calgary

Due to export wheeling and independent power production, more parties will be involved in system planning and operations in the future. Calgary submitted

that the effect of the new rates on economic dispatch, load balancing and system reliability should be closely monitored in order to prevent undue cost consequences on full requirements customers. (Argument, pp.7-8)

Red Deer

Red Deer considered it of the utmost importance that the revenues and costs associated with the proposed rates be monitored and filed with the Board and intervenors on an annual basis. (Argument, p.19)

REA/AAMDC

The REA/AAMDC "strongly" supported Calgary's proposal for annual reporting of the effects of the new rates. (Argument, pp.13-14)

Board Findings

The Board agrees with Calgary's proposal respecting an annual status report. Much of the rate design and intervenor evidence was based on assumptions or projections concerning customer behaviour which, because of the absence of actual experience with these rates, was the best way to proceed under the circumstances. The Board considers that a report on actual experience will be of considerable value in confirming or modifying the assumptions and adjusting the rate design, if required.

The Board considers that the report should include, at minimum, those items proposed by Calgary and others for reporting, i.e. numbers of customers

5. OTHER MATTERS
(b) Annual Status Report

taking Network and Generation Services rates, unbundled revenue data including information on firm export capacity sales, detailed load and usage pattern information, customers switching from full to partial requirements, information on credits and surcharges, any effects on reliability and transmission constraints and fuel costs, energy balancing activities and the appropriateness of the ±5% imbalance requirement and loss calculations. The Board considers that this data can be presented in a manner which preserves customer confidentiality.

(c) Arbitration

In an undertaking (Exhibit 19) in response to a Board question, TransAlta provided a list of matters arising from its Network and Generation Services which it considered could be adjudicated by the Board in the event of disputes between TransAlta and its customers:

"a) The determination of the required contracted capacity for network support by a customer;

b) The application of grandfathering, or the end of 'grandfathering';

c) The calculation of incremental losses in connection with export transmission service;

d) The credits toward network support services charges,

i) the existence or level of credits for deferral of transmission facilities,

ii) the existence or level of credits for benefit-sharing for savings in generation facilities.

e) The calculation of a premium for returning customers."

IPCAA

IPCAA noted that any customer can take a complaint to the Board. Sections 51 and 72 of the Public Utilities Board Act provided the Board with broad jurisdiction in the matter of complaints. Therefore, TransAlta's proposal added nothing that did not already exist in legislation. (Argument, pp.18-19)

Board Findings

The Board considers that the matters suggested by TransAlta for possible future adjudication are already provided for in the Board's enabling legislation.

5. OTHER MATTERS
(c) Arbitration

Therefore, the Board will not add anything in this regard to the terms and conditions for partial requirements rates in this Decision.

5. OTHER MATTERS

(d) Green Power

IPPSA noted that the Alberta Department of Energy had issued a report on Potential for Cogeneration and Generation from Waste in Alberta. The report concluded that there was great potential for such generation but that electricity was presently too cheap to make its development economically feasible. The report however cited changes to electricity rates and export policy as policies which could make the economics attractive. (Exhibit 17, p.11)

The witness for Suncurrent, Mr. Liddy, stated that the Application removed the opportunity for retail wheeling that had been presented to generators of "green power" by TransAlta's original Network Access application. Suncurrent considered that consumers would be willing to pay a premium for "green power" but the current regulatory environment was not conducive to development of clean energy sources. Suncurrent requested that the Board take into consideration the excellent wind resources in Southern Alberta when considering the Application. If "green power" sources were not developed, Suncurrent submitted that Alberta would one day need to import power to meet clean air standards. (Tr. pp.654-660) In response to Board questions, Mr. Liddy stated that he defined "green power" sources as small hydro, wind, biomass, solar power, photovoltaic and geothermal generation. (Tr. p.663, ll.5-19)

REA/AAMDC

The REA/AAMDC considered that the Board did not have the jurisdiction to deal with the issues raised by Suncurrent. The REA/AAMDC also considered

that this was not the time to open up the market to competition to alternatives such as green power. (Argument, p.16)

Board Findings

The Board, in the current application, has approved rates for export and other partial requirements rates based on the embedded cost of service. Therefore, there has been no barrier created to "green power" which is economical relative to other existing sources of power. The Board considers "green power" is, therefore, not precluded from proceeding in an economical, orderly manner by the Board's approval of the proposed rates.

Additionally, the Board considers that many of the issues raised by Suncurrent do not lie within the Board's jurisdiction. The Board considers that matters such as the subsidization of "green power" are matters of public policy and would be better pursued in that arena.

6. ORDER

IT IS HEREBY ORDERED THAT:

(1) The rates set out in Schedule "A", attached, are hereby fixed and approved to be effective on all customer consumption, estimated or actual, on and after January 1, 1995.

(2) The Standby Rate Option 11, set out in Schedule "B", attached, replaces Standby Option 11 set out at page 38 of Schedule "A" of Decision E92070 dated December 8, 1992 and is hereby fixed and approved to be effective on all customer consumption, estimated or actual, on and after January 1, 1995.

(3) The Terms and Conditions of Service for Partial Requirements Rates, as set out in Schedule "C", attached, are hereby fixed and approved to be effective on all customer consumption, estimated or actual, on and after January 1, 1995.

(4) Nothing in this Order shall bind, affect or prejudice the Board in any way in its consideration of any other matter or question relating to TransAlta Utilities Corporation.

6. ORDER

Dated at Edmonton, Alberta this 4th day of November, 1994.

PUBLIC UTILITIES BOARD

(Signed) A. CALISTA BARFETT

ACTING CHAIRMAN

(Signed) N. W. MACDONALD

MEMBER

CERTIFIED A TRUE COPY

ACTING SECRETARY

FOLLOWING ARE

SCHEDULES "A" "B" AND "C"

AND

APPENDICES "1" "2" AND "3"

ATTACHED TO AND FORMING PART OF

PUBLIC UTILITIES BOARD

DECISION E94076

DATED NOVEMBER 4, 1994

PUBLIC UTILITIES BOARD

(Signed) A. CALISTA BARFETT

ACTING CHAIRMAN

(Signed) N. W. MACDONALD

MEMBER

November 4, 1994

SCHEDULE "A"

November 4, 1994

Network Services Rate

Rate 820

Effective January 1, 1995
for consumption from
January 1, 1995

A Network Services customer will be billed the following:

Network Charges

- **Support Charge:**
  $6.70 per month per kW for the first 500 kW of contracted capacity
  $5.02 per month per kW for the next 1500 kW of contracted capacity
  $3.12 per month per kW for all contracted capacity over 2,000 kW

  Plus

- **Usage Charge:**
  $6.70 per month per kW for the first 500 kW of contracted capacity
  $5.02 per month per kW for the next 1500 kW of contracted capacity
  $3.12 per month per kW for all contracted capacity over 2,000 kW

The Usage Charge will be multiplied by the customer's contracted Transmission On-peak Load Factor (TOLF).

Where are the Charges Applied?

- The contracted capacity will be determined at the delivery point.
- In the case of export customers, the delivery point is taken to be adjacent to but on the Alberta side of the provincial border. This means that customers generating for export must generate sufficient capacity and energy, in On-peak and Off-peak hours, to make up for losses to the provincial border.

In order to be eligible for this Network Services Rate customers must have:

- On-site parallel-operated generation.
- Given sufficient termination notice as specified in any existing contracts with TransAlta.
- Provided 12 months notice to obtain service on this rate.
- All services from TransAlta at a service location on this rate and on the Generation Services or Temporary Energy rate, if applicable.
- A satisfactory long term contract with TransAlta including but not limited to:

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

- a minimum contract term of 5 years;
- an obligation to contract for transition to rates other than Network Services and Generation Services rates 5 years prior to such transition; and
- a 1 hour prior notice required for use of Temporary Energy in combination with this rate for customer generation backup.

- Approved time-of-use metering.

What Restrictions Apply to Use of the Network Services Rate?

- Use of this Rate is limited to network services, export transportation and standby or supplemental power.

What are the charges for exceeding the contracted use?

- *Capacity Overuse Charge:*
  - In the event that a customer exceeds the contracted capacity, the customer will be billed an overuse charge for Transmission Support and Usage, using the kW amount that the customer exceeds the contracted capacity times the relevant charges, doubled, times 12 months.

- *TOLF Overuse Charge:*
  - In the event that a customer exceeds the Usage as contracted in the annual TOLF in the on-peak period, the customer will be billed an overuse charge for Usage, using the percentage amount the customer exceeds the TOLF times the Usage charge, doubled, times 12 months.

- *Energy Imbalance:*
  - Where an export generation supplier is not buying capacity under the Generation Services Rate, the cumulative monthly difference since commencement of service on this Rate between the on-peak supply adjusted for losses and the contracted on-peak load at the Alberta border interconnection point cannot exceed 5%. If this difference exceeds 5%, TransAlta will have the right to do any of:
    - Bill the customer for appropriate service under the Generation Services Rate.
    - Install matching tripping schemes, at the customer's expense, to make the generation equal to the load.

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

Definitions:

- ***The kW of contracted capacity*** is normally determined by the connected capacity of the customer's transformer. However the kW of contracted capacity could be lower than the connected transformer capability at TransAlta's discretion (and with the customer's concurrence) where:
  - The customer's transformer is sized at the next standard size above its load requirement, or
  - the customer requires duplicate transformers for reliability reasons.

  For export customers, contracted capacity will be the contract kW delivered to the provincial border.

  In no event will the kW of connected capacity be less than 50 kW.

- ***The Transmission On-peak Load Factor*** (TOLF) is contracted and calculated by dividing the average kW usage of the transmission system for power delivery during the on-peak periods of the year by the kW of contracted capacity.

TOLF On-peak Periods * *:*

Time Period	April-Sept.	Oct.-March
8:00 a.m. to 4:00 p.m.	*"On Peak"*	
4:00 p.m. to 9:00 p.m.		*"On Peak"*

* *For TOLF purposes, weekends and holidays are excluded from the On-peak period.*

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

Generation Services Rate

Rate 830

Effective January 1, 1995
for consumption from
January 1, 1995

A Generation Services customer will be billed the following:

Capacity Charge

- **$2.35** per month per kW of contracted capacity

Plus

- **$10.43** per month per kW of contracted capacity multiplied by the customer's contracted Generation On-peak Load Factor (GOLF)

Energy Charge:

- **1.1¢** per kWh of energy consumed
  - For exporting customers, the kWh consumed will be calculated based on the difference between:
    - the kWh delivered at the provincial border; and
    - the kWh generated by the supplier, less losses incurred in transmission to the provincial border.

In order to be eligible for this Generation Services Rate customers must have:

- A satisfactory long term contract with TransAlta.
- Given sufficient termination notice as specified in any existing contracts with TransAlta.
- Provided 12 months notice to obtain service on this rate.
- Contracted under the Network Services Rate.

What are the charges for exceeding the contracted use?

- *Capacity Overuse Charge:*
  - In the event that a customer taking service from TransAlta exceeds the contracted capacity, the customer will be billed an overuse charge for capacity using the kW amount that the customer exceeds the contracted capacity times the Capacity charge, doubled, times 12 months.

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

- *GOLF Overuse Charge:*

  - In the event that a customer exceeds the Usage as contracted in the annual GOLF in the on-peak period, the customer will be billed an overuse charge for Capacity, using the percentage amount the customer exceeds the GOLF times the Capacity charge, doubled, times 12 months.

Definitions:

- ***The kW of contracted capacity*** is normally determined by the connected capacity of the customer's transformer. However the kW of contracted capacity could be lower than the connected transformer capability at TransAlta's discretion (and with the customer's concurrence) where:

  - The customer's transformer is sized at the next standard size above its load requirement, or
  - the customer requires duplicate transformers for reliability reasons.

  In no event will the kW of connected capacity be less than 50 kW. For export customers, contracted capacity will be the contract kW delivered to the provincial border.

- ***The customer's Generation On-peak Load Factor*** (GOLF) is contracted and calculated by dividing the average kW usage of TransAlta generation during the on-peak periods of the year by the kW of contracted capacity.

GOLF On-peak Periods are:

Time Period	April-Sept.	Oct.-March
	"On Peak"	
8:00 a.m. to 4:00 p.m.		
4:00 p.m. to 9:00 p.m.		*"On Peak"*

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

SCHEDULE "B"

Standby Power Option (Closed)

Option 11

Effective January 1, 1995
for consumption from
January 1, 1995

How is a Standby Power customer's bill calculated?

A standby power customer's bill is increased by the **Standby Power Charge:**

Standby Power Charge: $4.25 per month per kW of standby power

Which services are billed on the Standby Power Charge?

The Standby Power Charge is applied to services supplied under satisfactory long term contract for which TransAlta holds standby power available for use during temporary periods of breakdown or scheduled maintenance of customer-owned generating facilities.

Which services are eligible for the Standby Power Option?

The Standby Power Option is available until July 31, 1995 for customers who had contracted for this option prior to January 1, 1995.

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

SCHEDULE "C"

November 4, 1994

Terms and Conditions of Partial Requirements Service

1. *What are the Terms and Conditions of Partial Requirements Service?*

The Terms and Conditions of Partial Requirements Service, which set out TransAlta's standards and practices, have been approved by the Public Utilities Board and apply to TransAlta's partial requirements customers. By accepting service on partial requirements rates (Rates 820 and 830), a customer is deemed to have accepted the Terms and Conditions of Partial Requirements Service.

These Terms and Conditions of Partial Requirements Service are effective January 1, 1995 and will remain in effect until new Terms and Conditions of Electric Service are approved by the Public Utilities Board.

2. *What are the Terms and Conditions Applicable to Network Services Rate 820?*

This rate is required only where an interconnection is necessary for the sustained operation of the customer's system. Firm service is provided under this rate, not interruptible service.

This rate is available:

- To operators of on-site parallel-operated generation
- Alone for export
- Alone for Network Support (voltage and frequency support, short circuit capacity, etc.)
- With the Generation Services Rate for system support (instantaneous backup or supplementary power)
- With Temporary Energy Rate 720 (on 1 hour notice) for scheduled maintenance or interruptible maintenance power
- With Unused Investment Option 10

This rate is not available:

- For retail wheeling, or
- In combination with standard bundled rates (absent grandfathering)

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

3. *What customers are eligible for grandfathering and how will it be administered?*

The parameters for the administration of grandfathering are:

- Customers currently self generating and taking service on standard bundled rates will be allowed to continue doing so after implementation of the proposed rates, so long as they do not alter significantly their existing load profiles or need for services to support their self generation.

- Customers currently self generating and taking service under the Standby Option (Option 11), will be required to recontract for their standby service under the Network Services and/or Generation Services Rates, and will be allowed to continue taking current supplementary service, if any, under standard bundled rates, as above.

- The above grandfathering conditions will continue to apply if the load on the utility changes due to debottlenecking or efficiency improvements to existing customer's generation facilities, provided the remaining load exhibits a load factor and coincidence to system peaks similar to standard rate customers.

- Grandfathering will end if the customer builds new generation facilities which significantly alter the load factor and coincidence to system peaks of the remaining customer load on the utility. At such a time, the Network and Generation Services rates would be required for customer's supplementary load.

- Grandfathering will not apply if the customer builds new generation facilities which require network support from the utility. At such a time, the Network and Generation Services Rates would be required for the incremental service.

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

4. *What are the Terms and Conditions Applicable to Generation Services Rate 830?*

This rate is available, in combination with the Network Services Rate 820:

- To operators of on-site parallel generation
- For standby service for exporters
- For system support services to on-site load (instantaneous backup, scheduled maintenance or supplementary power)
- With the Planned Interruption Credit Option 12

This rate is not available:

- For retail wheeling, or
- In combination with standard bundled rates (absent grandfathering)

5. *How are Capacity and/or Transmission On-peak Load Factor (TOLF) and Generation On-peak Load Factor (GOLF) overuse charges applied?*

- The first accidental overuse will be forgiven, if the customer has made reasonable efforts to install equipment or implement practices to limit its peak.
- On the second occasion, the overuse charge will be applied.
- On the third occasion, the overuse charge will be applied and, as well, TransAlta will require the contracted amount to be reset.

6. *How are losses (kW or kWh) for export transportation calculated?*

- Made up in kind (on peak/off peak) by the customer.
- On an incremental basis for the initial term.
- On an average basis for subsequent contract terms.

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

7. *How are facilities deferral credits and system support benefits calculated?*

- In a situation where TransAlta has a planned expenditure on a capital project within the next five years, and the project is deferred due to a contract with an IPP under the Network Services Rate, a credit would be calculated based upon the present value of the saving. The credit will be shared with the customer on a negotiated basis, and would be payable monthly up to a five year period. If more than one Network Services customer is responsible for a deferral, each customer will receive a proportionate share of the savings. The sharing of the savings for deferral would target the minimum level required to induce the customers to locate so as to create the savings.

- Credits for generation benefits will be calculated in a similar manner to the credits for transmission facilities deferrals outlined above.

8. *Does the partial requirements customer sign a contract with TransAlta?*

For both Rate 820 and 830, a long term contract of five years or more is required. The partial requirements customer is required to contract for the maximum expected capacity at the delivery point or export point and for the maximum expected TOLF and GOLF, depending on the combination of rates selected.

A partial requirements customer is required to provide 12 months notice to TransAlta prior to obtaining service on these rates. However, TransAlta may waive this requirement if it considers that sufficient transmission and generation capacity exists.

Increases in contracted amounts or return to standard bundled rates will be met prior to the end of the five year notice, provided:

- Such capacity was expected to be available up to the end of the five year period from the date recontracted; and

- The Customer pays a premium, where necessary, on the Network Services Rate or the standard bundled rate, so that all other customers would not be disadvantaged for the 5 year period.

9. *What Terms and Conditions of Service apply to the present Standby Service (Option 11)?*

Customers will be required to terminate service under Option 11 by July 31, 1995 and continue service under one of the standby options provided under the new Network and Generation Services Rates, namely:

- Instantaneous backup under the Network Services Rate and the Generation Services Rate.
- Scheduled maintenance services under the Network Services Rate and the Temporary Energy Rate.
- Network Support under the Network Services Rate only (no energy).

The Terms and Conditions of Electric Service apply to all of TransAlta's customers and provide for other charges, including an arrears charge of 2% per month.

APPENDIX 1
TRANSALTA UTILITIES CORPORATION
NETWORK AND GENERATION SERVICES RATES APPLICATION
COST OF SERVICE FACTORS IN RATES

AIS Upstream Costs by Voltage Level				
	Residential	Large Industrial	General Service	Total
Production				
- Energy	$81.8	$160.5	$189.4	$431.7
- Demand	$199.3	$192.9	$394.2	$786.4
HV Substations	$20.1	$24.6	$40.1	$84.8
HV Transmission	$30.7	$37.7	$61.3	$129.7
138 kV Transmission	$22.3	$36.9	$41.6	$100.8
138/25kV Substations	$18.2	$38.2	$31.9	$88.3
Distribution	$5.4	$0.0	$0.0	$5.4
Total Transmission	$96.7	$137.4	$174.9	$409.0
Total Energy	$81.8	$160.5	$189.4	$431.7
Total Demand	$296.0	$330.3	$569.1	$1,195.4
Total Cost	$377.8	$490.8	$758.5	$1,627.1

TransAlta Upstream Costs by Voltage Level				
	Residential	Large Industrial	General Service	Total
Production				
- Energy	$41.9	$82.2	$97.0	$221.1
- Demand	$112.0	$108.4	$221.6	$442.0
HV Substations	$11.0	$13.5	$22.0	$46.5
HV Transmission	$17.1	$21.0	$34.1	$72.2
138 kV Transmission	$7.2	$16.5	$11.1	$34.8
138/25kV Substations	$10.5	$24.6	$16.0	$51.1
Distribution	$4.4	$0.0	$0.0	$4.4
Total Transmission	$50.2	$75.6	$83.2	$209.0
Total Energy	$41.9	$82.2	$97.0	$221.1
Total Demand	$162.2	$184.0	$304.8	$651.0
Total Cost	$204.1	$266.2	$401.8	$872.1

APPENDIX 1
TRANSALTA UTILITIES CORPORATION
NETWORK AND GENERATION SERVICES RATES APPLICATION
COST OF SERVICE FACTORS IN RATES

	TransAlta and AIS Cost Weighted Demands			
	Residential	Large Industrial	General Service	Total
TransAlta				
Energy (MWh)	4,909,700	10,680,800	10,399,700	25,990,200
Production Demand (MW)	836.4	885.6	1,523.3	3,245.3
Transmission Demand (MW)	836.4	1,155.6	1,534.9	3,526.9
Cost weighted	836.4	996.5	1,526.5	3,359.4
AIS				
Energy (MWh)	7,515,540	14,567,291	17,484,215	39,567,046
Production Demand (MW)	1,304.0	1,248.2	2,602.8	5,155.0
Transmission Demand (MW)	1,304.0	1,603.8	2,627.6	5,535.4
Cost weighted (Note 1)	1,304.0	1,398.3	2,611.0	5,313.3

	TransAlta Costs Out Of EEMA			
	Residential	Large Industrial	General Service	Total
Production				
- Energy	$53.42	$117.68	$112.66	$283.76
- Demand	$130.21	$136.87	$230.70	$497.78
Total Production	$183.63	$254.55	$343.36	$781.54
Transmission Demand	$63.10	$98.55	$102.00	$263.65
Total Demand	$193.31	$235.42	$332.70	$761.43
Total Cost	$246.73	$353.10	$445.36	$1,045.19

APPENDIX 1
TRANSALTA UTILITIES CORPORATION
NETWORK AND GENERATION SERVICES RATES APPLICATION
COST OF SERVICE FACTORS IN RATES

Rate 820 Calculation

TAU Transmission Demand Cost / TAU Transmission Demand	=	$263.7 x1,000,000 / 3526.9 x 12	=	$6.24	/kW/month
Network SupportCharge/TOLF (50% each of TransAlta Demand Cost) :				$3.12	/kW/month

	Rate 790 Blocking	"Distribution Increment"	50% split	Rate 820 Network Support	TOLF Portion
Rate 790 Demand Blocks					
First 500 kW	$17.90	$7.15	$3.58	$6.70	$6.70
Next 1500 kW	$14.55	$3.80	$1.90	$5.02	$5.02
Over 200kW	$10.75			$3.12	$3.12

Rate 830 Calculation

TAU Generation Demand Cost / TAU Generation Demand	=	$497.8 x1,000,000 / 3,245.3 x12	=	$12.78	/kW/month
Fixed Portion of Demand	=	22.5% x $12.78 / 100% + 22.5%	=	$2.35	/kW/month
Variable Portion of Demand	=	$12.78 -2.35		$10.43	/kW/month
TransAlta Unit Energy Cost TransAlta EEMA Energy Cost / TransAlta Energy	=	$283,760 x 100 / 25,990,200 MWh	=	1.1	cents/kWh

Sources: BR-TAU.2, TransAlta 1992 Forecast Refiling

Notes:
1) Weighted cost not derived from AIS proportions in 1992 forecast.

APPENDIX 2
TRANSALTA UTILITIES CORPORATION
NETWORK AND GENERATION SERVICES RATES APPLICATION
RECALCULATION OF "DISTRIBUTION INCREMENT"

EXISTING RATE 790 DEMAND BLOCKING

	Block 1	Block 2	Block 3	Totals
Demand Units	6,354,000	2,801,000	12,204,000	
Demand Unit Charge	$10.75	$10.75	$10.75	$10.75
Increment	$7.15	$3.80	$0.00	$2.63
Total	$17.90	$14.55	$10.75	$13.38
Base	$68,305,500	$30,110,750	$131,193,000	$229,609,250
Increment	$45,431,100	$10,643,800	$0	$56,074,900
Total	$113,736,600	$40,754,550	$131,193,000	$285,684,150

MODIFIED RATE 790 DEMAND BLOCKING

	Block 1	Block 2	Block 3	Totals
Demand Units	6,354,000	2,801,000	12,204,000	
Demand Unit Charge	$10.75	$10.75	$10.75	$10.75
Increment	$5.31	$2.25	$1.31	$2.63
Total	$16.06	$13.00	$12.06	$13.38
Base	$68,305,500	$30,110,750	$131,193,000	$229,609,250
Increment	$33,739,740	$6,315,260	$16,019,900	$56,074,900
Total	$102,045,240	$36,426,010	$147,212,900	$285,684,150

Source: AIPA Argument, p.10

APPENDIX 3
TRANSALTA UTILITIES CORPORATION
NETWORK AND GENERATION SERVICES RATES APPLICATION
500 KV EXPORT TRANSMISSION RATE

500 kV Transmission Cost Ratio				
1992 500 kV Transmission Costs / TAU Transmission Demand Cost	=	$25,000,000 / $263,650,000	=	0.0948

500 kV Export Rate Calculation							
TAU Transmission Demand Cost / TAU Transmission Demand	=	0.0948 / 3,526,900 kW	x	$263,650,000 / 12	=	$0.59	/kW/month
Network Support Charge/TOLF (50% each of 500 kV Demand Cost) :						$0.30	/kW/month

500 kV Export Transmission Rate			
	"Distribution Increment"	500 kV Network Support	500 kV TOLF
Customer pays all connecting facilities	$0.00	$0.30	$0.30

EXAMPLES OF APPLICATION OF 500 KV RATE		
A) 100 MW (25% TOLF, 60% L.F., 5% losses)		
1. 100 MW x 0.60 L.F. x 730 h/mo. x .95 =	41,610,000	kWh/mo
2. $0.30 /kW/month x 100,000 kW =	$30,000	
3. $0.30 /kW/month x 100,000 kW x .25 =	$7,500	
4. Total Monthly charge =	$37,500	
5. Unit Energy Charge (line 4/line 1) =	**$0.0009**	/kWh
6. Unit Energy Charge (Rate 820) =	**$0.0058**	/kWh
B) 100 MW (85% TOLF, 25% L.F., 5% losses)		
1. 100 MW x 0.25 L.F. x 730 h/mo. x .95 =	17,337,500	kWh/mo
2. $0.30 /kW/month x 100,000 kW =	$30,000	
3. $0.30 /kW/month x 100,000 kW x .85 =	$25,500	
4. Total Monthly charge =	$55,500	
5. Unit Energy Charge (line 4/line 1) =	**$0.0032**	/kWh
6. Unit Energy Charge (Rate 820) =	**$0.0243**	/kWh

Source: IPPSA Argument, Appendix 1, pp. 24-26