

NORTHWEST TERRITORIES PUBLIC UTILITIES BOARD

IN THE MATTER OF

Northwest Territories Power Corporation

General Rate Application for the Test Years

2006/07 and 2007/08

- Reply Argument -

Submitted on behalf of:

TOWN OF INNUVIK
HAMLET OF FORT SIMPSON
HAMLET OF FORT LIARD

(The Thermal Generation Communities)

July 3, 2007

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1. Introduction

This Reply Argument is submitted on behalf of the Thermal Generation Communities (TGC) whose participants, for purposes of this proceeding, include the Town of Inuvik, the Hamlet of Fort Simpson and the Hamlet of Fort Liard.

In preparing this reply, the TGC received and reviewed submissions filed on behalf of Northwest Territories Power Corporation (NTPC) and the City of Yellowknife, Town of Hay River and the Town of Fort Smith (the Hydro Communities [the “HC”]). While the TGC submits its Argument provides a comprehensive discussion and analysis of TGC participants’ positions in relation to matters arising in the current proceeding, certain issues raised in the argument of NTPC and other parties require further comment.

Sections addressed in Argument and not requiring further comment at this time have been deleted from this submission. Silence on any issue should not be construed as agreement with the positions or recommendations of any other party in this proceeding.

2. Affiliate Transactions and Code of Conduct

NTPC’s argument against the need for a properly constituted inter-affiliate code of conduct appears to be aimed at avoiding any external scrutiny of its affiliate transactions.

NTPC has taken the position “the costs of yet another proceeding should be avoided – costs that the TGC suggest should also be borne by the Hydro Communities.”¹ While this issue properly should be considered a Phase 2 matter (as noted in TGC Argument)²,

¹ NTPC Argument, page 66, L1-3

² TGC Argument, page 12

we note the HC have endorsed the evidence and recommendations proffered by the TGC on the issue of inter-affiliate transactions³.

Conveniently for the NTPC, its argument ignores many of the important issues that serve to warrant implementation of an inter-affiliate code of conduct, as recommended in the evidence filed by TGC.

First, NTPC omits any references to the implications arising from the newly formed parent, NWT Hydro Corporation, with its mandate to “ensure a continuous supply of electricity adequate for the needs and future development of the Northwest Territories.”⁴ The nature and potential scale of the additional inter-affiliate transactions that arise from the creation of this new parent and the NTPC’s new subordinate role only provide a greater impetus for development of a comprehensive inter-affiliate code of conduct principles document. This issue was previously discussed in the TGC Argument, and therefore will not be repeated here. We also noted the HC raise many questions as to how inter-affiliate transactions with the NWT Power Corporation will be recorded⁵.

Next, NTPC notes Mr. Merani has not suggested NTPC was “doing anything wrong in how it addressed inter-affiliate transactions”⁶. While this is correct, this position should be addressed in its proper context. That is, at this time no evidence has been disclosed that NTPC is doing anything wrong as it relates to the issue of recording inter-affiliate transactions. On the other hand, there is no evidence NTPC is doing everything that is right either. As a matter of regulatory policy and principles, the Board should not take action on this issue only when it is revealed that something is amiss; intervention at that point would simply be too late. Rather, a properly constituted inter-affiliate code will provide a useful tool for all parties, including NTPC, and ensure affiliate transactions are properly recorded, fully transparent and auditable.

³ HC Argument, page 7-8

⁴ Northwest Territories Hydro Corporations Act, Section 5 (1)(c)

⁵ HC Argument, pages 5-6

⁶ NTPC Argument, page 65, L34-35

NTPC states the issue in this hearing is not “whether the ATCO Group code of conduct should be adopted for the Corporation ... the issue is whether the checks and balances identified by the Corporation and tested in this hearing provide sufficient transparency...”⁷ NTPC is incorrect in this assessment; there is no suggestion that an inter-affiliate code of conduct is not needed. The record, fortunately, is clear. A proper reading of the actual evidence will indicate Mr. Merani has clearly recommended a review of the ATCO Code, along with other similar codes of conduct which have received regulatory approval in other jurisdictions, with a view to preparing a NTPC-specific code of conduct:

MR. AZAD MERANI: I think we've canvassed this area earlier on, Mr. Lee. I was suggesting to you that the ATCO Code be used as a model, not exclusively replicating every word of that ATCO Code, and making it a Power Corp Code.

Again, if you go back to my evidence, sir, at page 5 and 6, my suggestion is not to transcribe the ATCO Code at all, verbatim. I'm suggesting that NTPC provide, no later than its next GRA, its own comprehensive code of conduct and compliance plan modeled, not duplicated, after the ATCO Code.

And my -- my clarification this morning to you, sir, was that we've now got several references to other codes including the rebuttal evidence references to the two (2) other Canadian jurisdictions; I mentioned to you the OED (sic OEB).

There's a plethora of codes out there, sir, and all I'm suggesting is that there be some willingness expressed by NTPC to work with, perhaps, the parties to develop a comprehensive code that would basically codify what NTPC's doing internally, anyways if -- if those procedures are consistent with the codes that we've seen other -- in other areas as far, as shared services are concerned, as far as for-profit affiliates are concerned, I think that's -- that -- that's all we're recommending at this stage.

Maybe there's a misapr -- miscon -- misapprehension on what I'm recommending. I'm suggesting that -- that some document be developed at or before the next GRA and I would suggest, sir, that perhaps -- and I -- this is from experience in dealing with major undertakings in Alberta, it's always better to work with customers before the filing of such documents than to fight it out at a public hearing.⁸

⁷ NTPC Argument, page 65-66

⁸ Tr. Vol. 3, page 29-31

In its Argument, NTPC described the processes that it supposedly undertakes with respect to inter-affiliate cost tracking mechanisms and budget processes, and proper attribution of these costs.

The Corporation clearly recognizes the importance of having appropriate and rigorous “checks and balances” in place to govern inter-affiliate transactions and prevent cross-subsidization among affiliates. As noted by Ms. Goucher, the Corporation took “...great pains in identifying any costs that were related to our non-regulated operations. ... We reviewed all of our activities related to the non-regulated subsidiary and operations and we did not include those as costs for the regulated customer in this rate application.”⁹

The tangible evidence available to the Board and Interveners in this matter is far less substantial than the position asserted by the NTPC. The net total information provided by the NTPC to meet an adequate degree of regulatory transparency is a single paragraph in Rebuttal evidence that identifies a sum of \$1.51 million that related to shared services included in its 2005/06 financial statements¹⁰. We should note there was absolutely no supporting documentation for the amounts and transactions that make up the \$1.51 million in 2005/06. Simply put, the Board and Interveners are supposed to endorse the NTPC and blindly trust in the purported internal review processes. However, in spite of NTPC’s claims it has provided sufficient evidence of the “checks and balances” in place, it did not provide the shared services amounts related to the Test Years 2006/07 and 2007/08. The implied NTPC position is simple: “trust us ... we have excluded the correct amounts from the Test Year Revenue Requirements”.

The TGC query the value of providing unsupported historical data for 2005-06, particularly in light of the complete absence of the corresponding data for the test years. Even the most basic analysis of whether the amounts are appropriately included in or excluded from the Test Year Revenue Requirements must, of necessity, take into account

⁹ NTPC Argument, page 66-68

¹⁰ X12, NTPC Rebuttal Evidence (page 6):

In the Corporation’s 2005/06 financial statements, there were:

- \$0.6 million in operating and administration expenses related to non-regulated operations;
- \$0.8 million in labour and related costs charged to non-regulated activities;
- \$0.01 million in shared services associated with non-regulated activities including computer usage, financial reporting & management services; and
- \$0.1 million in net interest expenses related to non-regulated debt.

an assessment of both historical and forecast levels of these expenditures or revenues. Such analyses cannot be undertaken in a vacuum as explained by the TGC witness:

MR. AZAD MERANI: Sir, you used the word "basis" a couple of times, and my take is you cannot base anything on -- on -- in a vacuum. You have to have some basis for applying, what I call checks and balances to ensure that the amounts that you're siphoning off to your non-utility regulations are the -- are amounts that are - - comply with some principles.

And those principles can only be followed consistently if they're -- if they're qualified in some sort of a document. Whether it's the ATCO Code or some other code, you need a set of guiding principles so that everybody knows whether it's the Board, customers or the utility, that those principles are being followed on a consistent basis, year over year.

So, let me give you an example. If we have 1.5 million in '06/'07 as the total value of transactions, we do not know what they will be -- what they were for prior years, but if we had a codified document that told us that the labour cost, for example, are being allocated in a certain fashion, and they follow the code of conduct that the overhead rate that is being applied to work that is done for the affiliates, is a fully burdened overhead rate.

See, those are the kind of checks and balances that we don't have at this time. And I'm suggesting to you, sir, that the only way that you can get some proper understanding and assurance and transparency that those princ -- those principles are being followed is by encoding them in sort of a document.¹¹

The intent behind having a Board-approved inter-affiliate code of conduct is simply to achieve an adequate degree of transparency. The current approach recommended by NTPC requires the Board and customers blindly trust the NTPC's allocations, without any oversight or review. The NTPC stance is simply contrary to the principles of utility regulation. By analogy, if the Board were to accept such an approach for all other aspects of NTPC's operations, there really would be no need for regulation.

Based on all of the foregoing, the TGC submit the Board direct NTPC to file as soon as possible an inter-affiliate code of conduct, modelled after the ATCO Group code approved by the Alberta EUB Decision 2003-040, as well as inter-affiliate codes of conduct for other utilities that have been approved by their respective regulators. As noted in TGC Evidence, such a code of conduct will provide assurance:

¹¹ Tr. Vol. 3, page 27-28

- a) regulated operations do not subsidize the non-regulated operations undertaken by the Corporation;
- b) non-regulated subsidiaries do not subsidize the regulated operations;
- c) confidentiality of customer information is protected; and
- d) no preferential access to utility services is provided to the non-regulated operations.¹²

Further, as noted in TGC Argument¹³, the Board should direct NTPC to file its inter-affiliate code of conduct as soon as possible in 2007, and develop this code via a collaborative approach involving the NTPC, Board staff, customer representatives, as well as interested stakeholders.

Summary: -

NTPC, its argument ignores many of the important issues that serve to warrant implementation of an inter-affiliate code of conduct, as recommended in the evidence filed by TGC. First, the nature and potential scale of the additional inter-affiliate transactions that arise from the creation of its new parent and the NTPC's new subordinate role only provide a greater impetus for development of a comprehensive inter-affiliate code of conduct principles document.

Next, as there is no transparency supporting inter-affiliate transactions, evidence at these hearings does not confirm or deny if the processes and checks and controls are sufficient or not. In addition, the only evidence respecting amounts related to affiliate services is related to the 2005/06 amounts included in NTPC's financial statements. However, it does not provide the amounts excluded from the 2006/07 and 2007/08 Revenue Requirements, and rationale for changes from 2005/06. A properly constituted inter-affiliate code will provide a useful tool for all parties, including NTPC, to ensure affiliate transactions are properly recorded, fully transparent and auditable.

¹² X10. Evidence of TGC, page 4, L20-25

¹³ TGC Argument, page 13-14

The Board should direct NTPC to file as soon as possible an inter-affiliate code of conduct, modelled after the ATCO Group code approved by the Alberta EUB Decision 2003-040, as well as inter-affiliate codes of conduct for other utilities been approved by their respective regulators. Further, as noted in TGC Argument, the Board should direct NTPC to file its inter-affiliate code of conduct as soon as possible in 2007, and develop this code via a collaborative approach involving the NTPC, Board staff, customer representatives, as well as interested stakeholders.

3. Generation Sources other than Diesel

NTPC conditions adopting the TGC evidence on this matter, and to aggressively and proactively pursue alternate energy funding, on it being provided with additional manpower:

Absent consensus from NTPC's customers that additional resources should be applied to seeking out and reporting on third party funding for alternative energy projects, the Corporation submits that its current program is reasonable and nothing further is required from the Board.¹⁴

The TGC submit the foregoing proposal is, at a minimum, very surprising. No evidence has been filed or presented that justifies the need for NTPC hiring a single full time employee, (about 1,800 hours/year), to seek out funding for these alternate energy generation mechanisms and make appropriate reports to the NWT PUB. Curiously, NTPC has encountered no difficulties when required to allocate resources to identify and "investigate potential sources for alternative fuels for many of the communities in the NWT"¹⁵. Nor did NTPC seek additional resources during the planning or execution of the alternative energy projects it has completed prior the Test Years:

¹⁴ NTPC Argument, page 69

¹⁵ X7, Response TGC.NTPC-9 (c) (iii) identifies the following alternative fuels: (1) Hydro from the Bear River to supply Deline, Normal Wells, Fort Good Hope, Inuvik) (2) Natural gas to supply electricity to Tulita, Fort Good Hope, Fort Simpson, and Wrigley (3) Natural gas to supply Fort Liard (4) Natural gas to Tuktoyaktuk (5) Mini-hydro for Lutsel K'e (6) Hydroelectric power for Wha Ti (7) Wind power projects in

Alternative energy projects completed include:

- District Heating in Fort McPherson.
- Supply of residual heat in Fort Simpson to water intake facility.
- Supply of residual heat in Wha Ti to the school.
- Photovoltaic in Jean Marie River - project in conjunction with band and NWT (ENR). Photovoltaic at the NTPC head office building.
- Micro turbine in Inuvik since September 2002.¹⁶

Hence, the NTPC's stated requirement for "additional resources" just to investigate the availability of external funding is, at best, suspect. In our view, no additional funding for external resources is needed over and above what the Board will approve in the context of this 2006/08 GRA¹⁷.

NTPC's apparent reluctance to display any initiative to seek external funding is surprising. The TGC have provided evidence¹⁸ respecting the availability of federal funding dollars to defray the high costs of alternate forms of generation, the concerns society has in general about the carbon emissions and the need to incorporate and internalize into the Corporation's resource planning all of the relevant costs. Given the present Federal legislative regime concerning greenhouse gases ["GHG"], carbon emissions and the amelioration thereof clearly have financial implications to the Corporation and ratepayers. This evaluation would include, for example, consideration of both the potential carbon offsets that may be necessary if the diesel-only focus is continued, as well as any carbon credits available as a result of diesel-displacement. To this end, the following TGC position was advanced:

Cambridge Bay, Kugluktuk, Rankin Inlet and Sachs Harbour and wind energy resource monitoring in Tuktoyaktuk, Holman, Paulatuk, Inuvik and Yellowknife (8) Immersion hydro for Fort Simpson (9) fuel additives to either improve engine efficiency or reduce emissions.(10) voltage regulators that lower customer's consumption (11) study of biofuel technology

¹⁶ X7, Response TGC.NTPC-9 (c) (iii)

¹⁷ As noted in TGC Argument (page 16), NTPC has recently received a \$650,000 grant from the Eco-energy program for mini-hydro projects in Lutsel K'e and What Ti. No additional staff/labour resources were needed to receive this grant.

¹⁸ X10, Evidence of TGC, page 8; X11; Response BR.TGC-2 (a); Tr. Vol. 3, pages 55-62

The TGC note that several other statutes address environmental matters, particularly the *Environmental Rights Act*¹⁹ and the *Environmental Protection Act*²⁰ may be relevant. The TGC suggest that Section 48 requires that the Board to at least consider environmental matters, and particularly should prefer those alternatives that that are economically feasible and sound, provide reliable service to the consumer, and have the least short-term and long-term negative environmental impacts²¹.

The enhanced requirement to consider environment matters as part of the Corporation's resource planning, now more than in the past, was further explained by Mr. Merani as follows:

We're suggesting given the current awareness of the global impact of CO2 emissions; given the fact that there are projects out there that may qualify for the funding that are -- that is available from various sources; that, you know, in the past where these projects might have been uneconomic, you know, it - - it might be an appropriate time now for the Board to consider projects that may not be entirely economic to do on a cost benefit analysis. But when you take into account the extraneous factors such as the CO2 emissions, such as reductions in - - as a result of reductions in CO2 emissions there may be a possibility to get some green credits.

All of those, sir, are new issues that have not really been before the Board in the past. So I think we've got a new awareness of -- there's a new paradigm -- and I'm just suggesting that the Board is not constrained in its consideration of resource planning to -- to consider just those costs -- sorry, just those projects that have historically been before the Board.

So in other words, those projects that are -- that are so-called marginal projects that -- and a number have been identified both in your -- sorry, a number of projects have been identified primarily in your -- in your IR response; I think it's TGC-9. And so it's -- it's along those lines, sir, that we're suggesting that environmental issues be considered to -- considered as part -- part and parcel of the overall resource planning of the Utility²².

The TGC appreciate it may be difficult to quantify the cost of greenhouse gas (GHG) offsets or credits as the marketplace to trade these credits has not yet taken concrete form in Canada; however, the only evidence is that these credits have a value and that value is not zero:

¹⁹ *Environmental Rights Act*, R.S.N.W.T. 1988, c. 83 (Supp.).

²⁰ *Environmental Protection Act*, R.S.N.W.T. 1988, c. E-7.

²¹ X11, Response BR.TGC-2 (a)

²² Tr. Vol. 3, pages 56-57

MR. AZAD MERANI: I do not think that's a prudent way to go, sir. A prudent way for me would be to look at these projects and -- and look at what environmental credits you can bank and perhaps use --

MR. STEPHEN LEE: Bank at what value, sir, though; that's what I'm trying to understand. Should we assume a value or should it be worked into the economics once a value can be determined?

MR. AZAD MERANI: There is a value, Mr. Lee, it's just not as well-developed a value right now, but it's not zero. So, you know, if you were to assume a certain value and -- and the European market obviously is much more developed than the Canadian market, but I understand there's an exchange in Montreal that's now looking at trading on the -- as far so -- as far as the greenhouse credits are concerned. So it's a developing market if I can call it that.

So I -- I don't think it's prudent to deem it to be zero. There is a value and I would suggest to you that if a project is -- economics are very marginal it might be that the value of the credits that you deem might be just enough to make the project feasible²³.

The other point to note is that the TGC evidence is intended that NTPC consider and assessment the environmental and GHG impacts for all projects filed for approval by the Board at the next GRA. Hence, while the GHG credit market and offset costs may not be completely developed at this time, given the pace of change seen in this area and the impending Federal requirements, a robust trading market in carbon offsets is a reasonable expectation by the time NTPC files its next GRA. This issue was elaborated on by the TGC witness as follows:

MR. AZAD MERANI: So, as I mentioned before, sir, we're not looking at the next two (2) test - - next two (2) years that are the test years, we're looking at figuring out some sort of environmental credits into your next GRA or even before that.

So I'm not suggesting for a moment that you ascribe a value to the projects that you have on the table in this GRA, but it's something that the Company should consider for its future projects.

And I -- I quite agree with you, sir, that, you know, it is really difficult to figure out exactly what level of credit will make a project go from a net negative to a net positive MPD (sic NPV), for example. But as we were told yesterday, there are a number of projects that are not even based on MPD (sic NPV) analysis, they're based on reliability and other considerations.²⁴

²³ Tr. Vol. 3, page 58-59

²⁴ Tr. Vol. 3, pages 61-62

With respect, NTPC has both a legal²⁵ and a social responsibility to seek out all funding mechanisms that may alleviate the high cost of diesel generation in the thermal communities. NTPC is not being required to be on “the leading edge of alternative energy research and development”, that kind of approach would understandably require additional staff and resources. All that is being requested of NTPC at this time is to be proactive in seeking out funds available for alternative energy generation in the thermal communities. Quite frankly, considering its vision statement as laid out in its 2005/06 Annual Report²⁶, the TGC remain surprised by the extent of resistance and negativity from NTPC on this issue. Based on the TGC evidence filed, TGC’s IR Responses and cross-examination, the TGC submit NTPC should be directed to comply with the following:

Customers expect NTPC to take an aggressive and proactive position in pursuit of whatever external funding is available for any green projects that may serve to reduce the dependence on diesel fuel and capitalize on the touted environmental benefits. To this end, NTPC should file quarterly reports of all its efforts to obtain funding from all levels of government to kick start projects to deliver electrical energy from ‘green’ sources and replace diesel fuel thermal power generation. NTPC should also report on any available private and/or public funding for projects using and exploiting renewable, and/or low-emission energy sources and comment on the viability of such endeavors. Finally, I recommend NTPC also be directed to report on the status of each of the renewable projects noted in TGC.NTPC-9 (c) (iii), pages 4 to 6, as noted above, as well as any other feasible, renewable projects with external funding²⁷.

In addition, any GHG credits NTPC becomes entitled to as a result of undertaking renewable energy projects prior to the next GRA, or credits earned from prior such projects, should be recorded in a deferral account for disposition at the next GRA.

²⁵ See discussion in X11, Response BR.TGC-2 (a)

²⁶ 2005/06 Annual Report, X11, Response HC.NTPC-1: Vision Statement states: “We will provide environmentally sound, safe, reliable, cost-effective energy and related services in the Territories...”; at page 2, the Chairman’s report states: “Our opportunities are enormous. In a time that is marked by increased resource development, expanding energy demands and the need for environmental friendly energy sources. NTPC, NTEC (03) Ltd. and Sahdae Energy Ltd. are positioned to be key players in delivering on these opportunities”

²⁷ X10, Evidence of the TGC, page 8

Summary: -

NTPC's opposition to take any steps to seek out funding for alternate modes of electricity generation that would wean the thermal communities of their diesel-dependency and reduce fuel costs is contrary to its Vision Statement, and in our view, contrary to its obligation to demonstrate the projects it undertakes from amongst the various alternatives reflect the least short-term and long-term negative environmental impacts. NTPC's argument that it requires additional resources is not plausible given that it has successfully undertaken alternate energy projects in the past without a requirement for additional resources and external funding.

Given the availability of federal and other external funding sources in respect for renewable energy, and the growing societal concerns respecting CO2 emissions from the use of thermal fuels, NTPC needs to incorporate in its resource planning options a consideration of all of the costs, including impacts of carbon emissions. The Board should direct NTPC to:

- (i) file quarterly reports of all its efforts to obtain funding from all levels of government to kick start projects that deliver electrical energy from 'green' sources and replace diesel fuel thermal power generation;*
- (ii) report on any available private and/or public funding for projects that use and exploit renewable, and/or low-emission energy sources and comment on the viability of such endeavors; and*
- (iii) report on the status of each of the renewable projects noted in TGC.NTPC-9 (c)(iii), pages 4 to 6 as well as any other feasible, renewable projects with external funding.*

In addition, any GHG credits NTPC becomes entitled to as a result of undertaking renewable energy projects prior to the next GRA, or credits earned from prior such projects, should be recorded in a deferral account for disposition at the next GRA.

4. Fuel Efficiency - Town of Inuvik

NTPC in its argument disagrees with the evidence filed by the TGC that suggests a 5% increase in the fuel efficiency be incorporated in the computation of fuel efficiency rate for Inuvik with the addition of the third diesel engine:

The third Inuvik gas engine is not likely to have a better fuel efficiency than the existing gas gensets that are only 4 to 5 years older. Further, manufacturer's fuel efficiency ratings are not useful for GRA forecasts. As Mr. Kerr noted, manufacturer's ratings "...are based on one (1) hour of continuous operation at those loads, but it does not take into consideration any fuel consumed to warm up or cool down the engine." Clearly the manufacturer's fuel efficiency ratings do not reflect real world conditions, which a GRA forecast is intended to mirror, and should not be applied in this case²⁸.

With respect, NTPC has missed the totality of the issue before the Board. As noted in the TGC Argument²⁹, there were 4 issues the TGC examined in arriving at its recommended 5% reduction. Contrary to any misapprehension NTPC may have, the manufacturer's suggested fuel efficiency rating was only one of these four issues considered by the TGC in its recommended increase in the gas fuel efficiency.

In addition, the TGC recommendation specifically took into account the impact on gas efficiency during the warming up/cooling down process. The TGC submits its Argument sufficiently addresses the limited issue raised by NTPC, and as well, provides a comprehensive assessment of why the fuel efficiency for Inuvik should be increased by 5%, from 3.399 Kwh/cubic meter to 3.569 Kwh/cubic meter for the Test Years.

Summary: -

²⁸ NTPC Argument, page 69

²⁹ TGC Argument, page 19

While NTPC appears to be focused on the TGC's use of the manufacturer's suggested fuel efficiency rating, the TGC evidence clearly lays out four different issues considered by the TGC in its recommended increase in the gas fuel efficiency. In addition, the TGC recommendation specifically accounted for the impact on gas efficiency during the warming up/cooling down process. The TGC submits its Argument sufficiently addresses the limited issue raised by NTPC, and as well, provides a comprehensive assessment of why the fuel efficiency for Inuvik should be increased by 5%, from 3.399 Kwh/cubic meter to 3.569 Kwh/cubic meter.

5. Fuel Stabilization Funds

a) System-wide FSF Rider versus community-specific rider

The TGC filed evidence in support of separate community-based Fuel Stabilization Fund rate rider as opposed to the current postage stamp based rate rider in which a single rate rider applies to all diesel communities³⁰. In argument, NTPC responded that there is “no basis in evidence to conclude some communities are perpetually subsidizing others in the Diesel Fuel Stabilization Fund”³¹.

The TGC witness acknowledged the TGC evidence “table APM-3 did...not quite illustrate in the same manner that the company files [its monthly Fuel Stabilization Fund], but the principles remain the same.”³²

The TGC further notes that the rationale for applying a single rate rider to all diesel communities was the underlying assumption or expectation that the delta in fuel prices (from that approved by the Board) would affect all communities equally:

³⁰ X10, Evidence of TGC, pages 9-11

³¹ NTPC Argument, page 63

³² Vol. 3, Tr. page 74, Lines 14-16

The Board also considered the prudence of having only one fund for all diesel communities. The Board appreciates that while there are significant differences in fuel prices among communities it believes that any *incremental rise or fall in fuel prices would affect all communities equally*. The Board therefore accepts this parameter of the proposal as being reasonable as well³³. {emphasis added}

The TGC have now provided evidence that clearly indicates the delta in fuel prices does not affect all communities equally. For example, Appendix APM-3 of the TGC evidence³⁴ shows that while the landed cost, fuel service charges and the fuel tax are the same across all diesel communities, the delivery/transportation rates vary from a low of 8.38 cents/Kwh (Jean Marie River) to a high of 39.19 cents/Kwh for Colville Lake, with an average rate of 19.61 cents/Kwh. Under the postage stamp concept inherent in the existing FSF mechanism, all diesel communities would be charged an average delivery/transportation rate of 19.61 cents/Kwh (assuming no changes from the Board-approved forecast rate for the landed cost, fuel service charges or fuel tax). Thus, in this example, Colville Lake's delivery/transportation rate increases from 8.38 cents/Kwh to 19.61 cents/Kwh.

This concept was also illustrated at the hearing³⁵ using the September 2006 FSF filing submitted to the Board³⁶. In that example, the average increase amounts to 8.69 cents/Kwh. However, the rate increase to Wha Ti is 4.30 cents/Kwh; hence if the September 2006 FSF filing had resulted in a rate change, customers in Wha Ti would be paying 8.69 cents/Kwh on the postage-stamp basis, significantly more than the 4.30 cents/Kwh it would pay on a community-based basis. Likewise, all of the other communities that have community-specific adjustment (in Col. H of X12, Table 1, page 13) lower than the 8.69 cents/Kwh will end up subsidizing those communities with price adjustment greater than 8.69 cents/Kwh. The point to note is that even if the other changes in the components of the fuel price (landed cost, fuel service charges and fuel tax) increase or decrease by the same amount, as long as there are differences in the

³³ NWT PUB Decision I-97, page 28

³⁴ X10, Evidence of TGC, Appendix 3, Col. A-D

³⁵ Col. 3, Tr. pages 73-75

³⁶ X12, NTPC Rebuttal page 13, Table 1

actual delivery/transportation costs on a community basis, these differences are averaged out under the postage stamp rate implicit in the FSF mechanism.

For all of the foregoing reasons, as well as reasons noted in the TGC Argument³⁷, the TGC recommend the FSF Rider be managed on a community by community basis as opposed to the current postage stamp methodology.

Summary: -

The TGC submit there is sufficient evidence on the record to demonstrate that the underlying assumption used by the Board in Decision 1-97 to approve a single postage stamp FSF rider does not hold true at the present time: i.e. the delta in fuel prices (from that approved by the Board) does not affect all communities equally. Differences exist in the delivery/transportation costs for each community both on a forecast and actual basis. When the postage stamp concept is applied to the design of the FSF Rider, these delivery/transportation costs are averaged such that communities with lower than average delivery costs per Kwh will be subsidising communities with the higher delivery costs per Kwh.

The Board should therefore direct NTPC to manage its FSF on a community by community basis.

b) Using Forecast versus Actual Heat Rates in FSF

In response to the TGC evidence respecting the need to use actual fuel efficiencies rather than the last GTA-approved forecast fuel efficiencies for the diesel communities FSF, NTPC stated:

³⁷ TGC Argument, pages 23-24

The Corporation noted that while the change suggested by the TGC would remove the Corporation's risk related to fuel efficiency on the portion of the fuel price that is different from the GRA forecast included in base rates, NTPC would still be at risk for efficiency for the GRA forecast price of fuel. Therefore, the TGC proposal would have minimal consequences³⁸.

It appears to the TGC that NTPC has misinterpreted the TGC's recommendations.

For clarity, what the TGC has recommended is that NTPC should not be at risk for any changes in fuel efficiency:

Thus, should the actual heat rate be an improvement over the forecast approved in the last GRA, an over collection results.

A simple example illustrates this point. In Attachment APM-5, it analyzes a scenario wherein there is an improvement in the heat rate from 3.50 (forecast basis) to 4.00 (actual). All other parameters used in the determination of the forecast and actual cost of fuel per Kwh are held constant. The results indicate the volume of fuel required is reduced. In particular, 35,714 litres less is required than forecast in this example. As the forecast and actual price per litre did not change, there is no price variance as such. Therefore, the only variance is related to the volume variance of \$26,786, and represents the excess fuel costs paid by customers.

Accordingly, my recommendation is when the FSF is trued up, NTPC should replace the forecast (last approved by the Board) with the actual heat rate for the most recent year³⁹.

Therefore, it is not clear how any plain reading of the TGC evidence, that is to replace forecast heat rate with the actual heat rate, could be interpreted as suggesting the adjustment be only limited to the "compounded efficiency and price variation."⁴⁰ In fact, the TGC evidence clearly demonstrated by way of an example (as noted in the above quote) the benefit accruing to NTPC if it kept the efficiency variance and in Footnote 17 of the TGC evidence which stated:

See also TGC.NTPC-3 (b)" "...NTPC used the average fuel efficiency of 3.502, which reflects the plant fuel efficiencies approved in 2002/03 on a weighted average basis for 2006/07 generation. This results in only changes in fuel prices

³⁸ NTPC Argument, page 62

³⁹ X10, Evidence of TGC, Pages 11-12

⁴⁰ X12, NTPC Rebuttal Evidence, page 14, L19-20

being recovered through the interim rider. *NTPC remains at risk for any changes in efficiency.*” {Emphasis added} Had NTPC used the forecast 2006-07 average fuel efficiency rate of 3.599 [Schedule 3.3.1], the “keep up” portion of the FSF Rider would have dropped from 10.27 cents/Kwh to 10.00 cents/Kwh, decrease of 2.7% as shown in Attachment APM-4.⁴¹

As well, the TGC provided further elaboration in response to a PUB IR response:

The proposal advanced only relates to fuel costs, and currently only the price variance is trued up, not the volume variance (i.e. only one half of the total variance is trued up). Fuel efficiencies drive the volume of fuel required and therefore impact the actual cost of fuel. *Since the price variance is trued up, so should the volume variance.*

In essence, under the TGC proposal, both the price and volume variance are trued up so that the Company is held revenue neutral. As new engines are installed in years post the GRA, the continued use of the 3:2:1 weighting factors described in Response BR.NTPC. 6 (b) may not reflect the improvement in fuel efficiencies from such newer engines. The tilt, if any, is therefore to the benefit of the utility as it charges customers based on a weighted average calculation of fuel efficiency that may be materially understating the actual fuel efficiency for the true-up year in question.⁴² {Emphasis added}

As noted in the TGC Argument⁴³, the TGC’s position was also the subject of cross examination at the hearing. For all of the foregoing reasons, as well as reasons noted in the TGC Argument⁴⁴, the TGC recommend the Board direct NTPC to commence using the actual heat rates in place of the last Board-approved heat rates, in the computation of FSF Rider.

Summary:-

The TGC recommended NTPC should not be at risk for any changes in fuel efficiency, and not just that portion related to the “compounded efficiency and price variation” as has been suggested by NTPC. Not only was this clear in the TGC evidence, but it was also further expanded on and clarified in Response BR.TGC-3 (b) as well as at the hearing itself. For all of the foregoing reasons, as well as reasons noted in the TGC

⁴¹ X10, Evidence of TGC, page 11-12

⁴² X11, Response BR.TGC-3 (b)

⁴³ TGC Argument, page 23-24, Tr. Vol. 3, pages 76-77

⁴⁴ TGC Argument, page24-25

Argument, the TGC recommend the Board direct NTPC to commence using the actual heat rates in place of the last Board-approved heat rates, in the computation of FSF Rider.

6. Sales Forecast

NTPC notes its corporate wide 2002/03 actual sales varied from the Board-approved forecast by less than 1%, and has argued that this correlation provides support for NTPC's approach to load forecasting."⁴⁵ While the aggregate variability (all the pluses and minuses) for all thermal communities may net to less than 1%, in 2002/03, it is meaningless to look at this result since rates are set on a community-specific basis, and what really matters is whether NTPC has demonstrated an ability to accurately forecast sales at this level. The TGC submit NTPC has not demonstrated any such ability. As noted in Appendix 1 of the TGC Argument, there are material differences as between the 2002/03 forecast and actual sales volumes for NTPC's thermal communities, ranging from a low (actual less than forecast) of 19.0% in Fort Liard to a high (actual more than forecast) of 41.80% for Paulatuk. Thus, any suggestion that NTPC's has demonstrated forecasting accuracy at the community level is therefore unfounded and should be rejected by the Board⁴⁶.

With respect to the preliminary actuals filed in X32 which show a net aggregate under-forecast of 1.2% for the 2006/07 Test Year, again we notice some significant and material variances from forecast at the community-level basis, ranging from a low of 15.2% in Tsiigehtchic to a high 24.2% in Colville Lake. Again, in the absence of zonal or postage stamp rates, these variances will have a material impact on the final rates set for each community.

⁴⁵ NTPC Argument, page 8, L12-16

⁴⁶ See also NTPC's evidence at Tr. Vol. 2, page 59 where it states given the "massive challenge" in forecasting for the very small thermal communities, it is not possible to meet the kind of forecasting accuracy that a large utility would use.

Given the inherent difficulties in forecasting at the community level as acknowledged by NTPC, the TGC reiterate its recommendations that the 2006/07 and 2007/08 sales volumes be increased by 1.17% on an across the board basis to all thermal communities⁴⁷.

Summary: -

Aggregate variability in the 2002/03 sales volumes for all thermal communities is not a meaningful indicator of forecast accuracy at the community level. As rates are set on a community-specific basis, what really matters is whether NTPC has demonstrated an ability to forecast accurately at the community-level. For the prior test year 2002/03, NTPC's has not demonstrated such forecasting accuracy. This trend has continued as shown in the actual results filed for 2006/07, which confirm substantial differences between actual and forecast sales volumes at the community level continue to be an issue for NTPC. In the absence of zonal or postage stamp rates, these variances will have a material impact on the final rates set for each community. Given the inherent difficulties in forecasting at the community level as acknowledged by NTPC, the TGC reiterate its recommendations that the 2006/07 and 2007/08 sales volumes be increased by 1.17% on an across the board basis to all thermal communities.

7. Argument of Hydro Communities

The TGC has reviewed the issues contained in the Argument of the HC as they relate to the determination of the 2006/07 and 2007/08 Revenue Requirement that affect all customers of the NTPC. We are in general agreement with the HC in the following areas (references relate to the June 18, 2007 Argument of HC):

Section 2.5	Miscellaneous Revenues	Pages 13-14
Section 3.1	Salaries and Wages	Page 15

⁴⁷ TGC Argument, page 35-37

Section 3.5	Brushing Expenses	Pages 18-19
Section 3.6	Travel and Accommodation	Page 20
Section 3.7	At-Risk Compensation	Pages 21
Section 3.9	Site Remediation Costs	Pages 23
Section 3.11	Return on Rate Base	Pages 25ff
Section 5.2.1	Working Capital	Page 55
Section 5.2.2	Reserve for Injuries and Damages	Pages 56-57

8. Terms and Conditions

The TG has reviewed the NTPC's response⁴⁸ to some of the issues raised by Board counsel in the hearing in respect of its proposed changes in the Terms and Conditions. Based on this review, the TGC concur with the proposed changes, as revised in the NTPC Argument.

⁴⁸ NTPC Argument, Section 7, page 54ff