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21 November 2006

TransAlta Corporation
Calgary, Alberta Canada

Attention: Mr. Barney Woo, Manager, Business Development
Corporate Development & Marketing

Subject: Optimizing Yield Component of the Sale of the Binghamton Plant
Against Initial Investment While Satisfying Social Dimension Initiatives
For Urban Renewal and Growth for the County of Broome

Dear Barney,

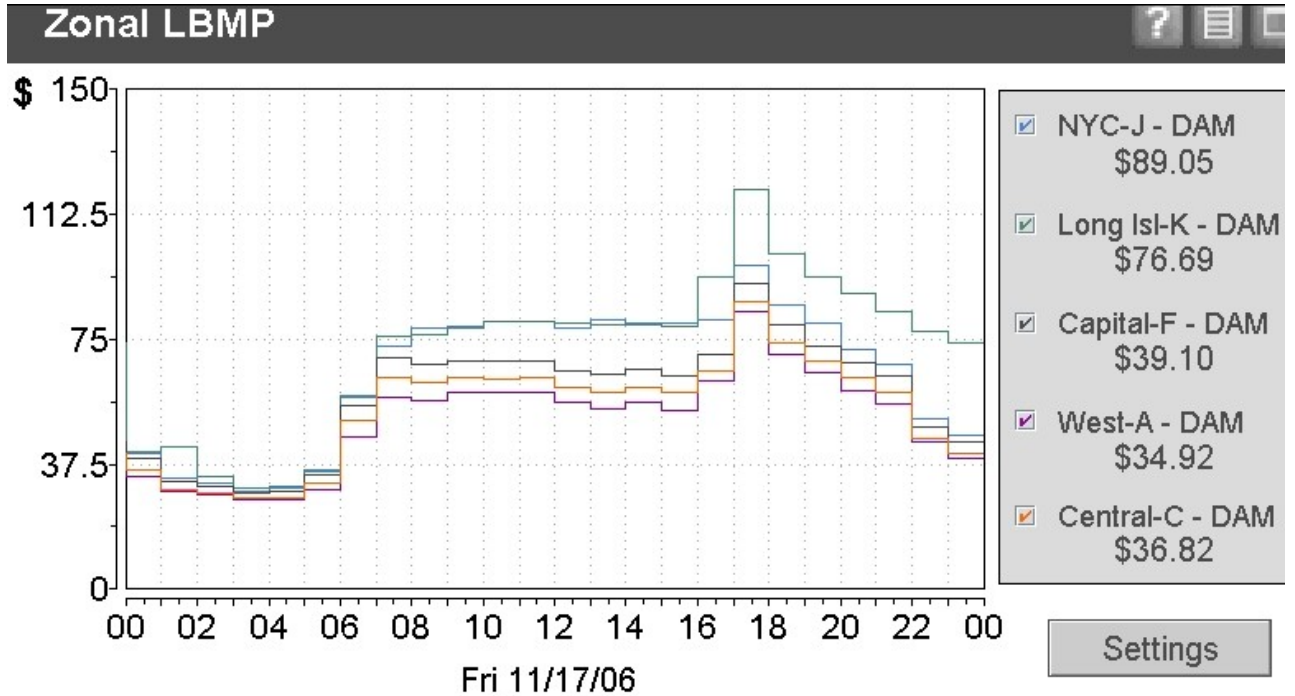
Greetings. It was good talking with you last week. As per your request, I am pleased to present the following assessment of potential scenarios for positive turnaround of the situation regarding the sale of the Binghamton power plant.

This report consists of three parts:

1. forming a Broome County American Public Power Association-affiliated electric, natural gas, district heating/cooling and telecommunications utility, with direct assistance provided by both TransAlta as consultants, and by the APPA itself. How this is achieved is clearly explained in the attachment "APPA Cookbooks." Ms. Ursula Schryver of APPA at 202-467-2980 will also be pleased to walk TransAlta's and Broome County's teams through the particulars of forming an APPA-type "ute";
2. contracting sales of electric power from the existing plant directly with the New York Independent Systems Operator (NYISO), which is the sole not-for-profit quasi-non-governmental "brokerage house" for merchant wholesale power within the State of New York, rather than as it is presently done, which is through the intermediary of NYSEG, and thence to NYISO. What could be made is clearly expressed in the examples provided in the attachment entitled "What NYISO is Paying Currently." Contract formulation procedure is clearly if not exhaustively described in the (4) attachments "NYISO Merchant Power-Only Agreement and Payment," "NYISO Procedures and Contract Desiderata," "Sample NYISO Utility Contract Agreements," and "TransAlta-NYISO Agreement Format;"
3. Formulating the design configuration of a plant to replace the existing power plant, if need be, to facilitate the sale of both the power plant and its associated contracts. This is described in the attachment "Powerplant Upgrade References."

Part One: Forming A New Utility for Broome County

One way for TransAlta and IPP Energy LLC to fiscally and positively resolve the present situation entails working through, amongst other scenarios, leveraging the plant into a much larger IGCC facility possessed of capabilities for a providing baseload minimum of 500 MW which would be transferred to Broome County's proposed APPA-affiliated county utility on a private-sector financed B.O.T. basis. Even with the existing plant transferred to Broome County's proposed new utility, there is money to be made. The graph shown below clearly illustrates but one day's buy/sell pricing offered by NYISO. TransAlta and IPP Energy need to contract directly with NYISO to make the new Broome County utility financially viable.



The administrative tactic to implement, to my mind, is to coach Broome County on their need to implement eminent domain immediately following on to their APPA utility formation over NYSEG contractual holdings with NYISO to enable Broome County to make their own contract, then re-negotiate terms and conditions for the supply of natural gas for the plant, over which terms and conditions, I believe also, Broome County can also exercise eminent domain "nationalization," as NYSEG does not own the pipeline (I believe Iroquois Pipeline does). All NYSEG owns are an armful of contracts and teams of line maintenance technician crews: if in fact they own the transmission easements and rights of way, then eminent domain can be exercised over that as well by the County, insofar as they affect the plant, existing or the proposed new one.

IPP Energy LLC therefore is in effect paying a broker to sell its power to another broker. It is my conviction that through facilitating for Broome County its own electric utility of which the Binghamton plant is but one cog in its machinery, and then forming a contract directly with NYISO, the "conga line" of brokers is narrowed down to simply one; the new utility may very well do the same thing to make possible direct procurement of natural gas through the Iroquois Pipeline, instead of continuing the potentially ruinous contract IPP Energy LLC currently holds.

Implementation of utility formation consists of contacting and working out a consulting deal with APPA's experts and TransAlta's contractual experts to formulate a joint solicitation to the County of Broome, which organization's key contacts are described in the attachment entitled "Broome County Contacts." From there, we make our prepared case to the County of Broome and bring them to the stage where they file for utility formation with the Federal Energy Regulatory Commission.

I feel also there is no need for us to tip our hand on the eminent domain "nationalization of NYSEG" power play. We can let them guess until Broome County is in place with its new utility before the new utility "pulls the trigger." Considering the many times NYSEG has destroyed potentially happy deals for this plant in the past, turnaround is certainly fair play.

I believe also we should leave the door open for the County and City to jointly own and operate the new utility, with ownership and revenue splits based on pre-costed proportional divisions of areas of responsibility: this limits Broome County's adversaries to simply one, NYSEG, and brings the City in onto the County's side, if the split in revenues and responsibilities is equitable.

Other profit centers for the new utility are as follows: broadband cable communications sales and service, district heating and cooling, natural gas distribution, power line maintenance, service contracting for the listed utility options, and manpower training for same through the local community college using U.S. Federal training grants, which are very abundant now, even for power plant operators and technicians. The potential revenue yields for all these potential opportunities should be evaluated prior to making the proposal to the County on a "thumbnail" broad-brush basis, but to generally accepted engineering standards for preliminary feasibility studies. This will make for a strong case from the start, as it all comes down to money, and if we are in effect selling the County TransAlta's plant, we are morally obliged to show them how they shall be paying for it. It is also sound common sense for us to conduct this form of study if we are to make the best deal while defining to ourselves whether or not TransAlta's best interests would be served by staying in this arena for the long term.

Part Two: Contracting with NYISO creates a circumstance providing Broome County and its new utility a much more lucrative and profitable arrangement than IPP Energy LLC presently enjoys. The procedures for establishing the contract with them is very much a “by-the-numbers” exercise with which TransAlta is very familiar. NYISO is a very helpful and reputable partner, and if need be, can direct TransAlta and Broome County to properly licenced and bondable documentation experts, digital setup firms for the bid/sell/reporting and contract payment resolution process, and rate negotiators for the project. I personally recommend Mr. Robert Friend in Market Relations as TransAlta’s contact, who can be reached through the main switchboard, or met with at their facility in Albany, New York.

A familiarity with the previously referenced attachments related to NYISO is required first, prior to calling NYISO to set up a meeting, as well as reviewing the various categories of data at their site at <http://www.nyiso.org>.

Part Three: Plant options for Binghamton are many and varied. One could easily propose twin 7FA's running on natural gas and enjoy a bonus from NYISO for providing grid stabilization offset load-following capabilities to compensate for the instabilities imposed on the grid by the many (indeed, perhaps too many) wind turbines being introduced in the NYISO grid. This offset would be based on formulae derived from a report which I have, which is a grid stability report from General Electric which shows that if the number of wind turbines exceed 10% of the base load capacity of the NYISO grid, there is no way the NYISO grid will meet NERC and NERA standards for quality of signal, stability of the grid overall, and symmetry requirements of distribution characteristics.

I feel that the best option, as Binghamton is located close to Pennsylvania's coal fields, is that an IGCC plant would be best suited to this area. My view of gasification technology as a new form of "rocket science" to be treated as a new research priority is that yet another boondoggle is being perpetrated for the sake of feeding consultants: to support this critical view, I offer the attached to show the technology is not only proven out exhaustively, but is ready to go on a commercial off-the-shelf basis, right down to the ammonium sulfate skids and steam reformers needed to change carbon emissions, nitrous emissions and sulfur emissions and slag into syngas (gasoil), fertilizer, and concrete mix. The largest engineering fly in the ointment thus far seems to be the labour intensive process of keeping the gasification units clear of slag and deposits, but in a labour surplus area such as is Binghamton, I daresay there shall be no shortage of strong backs eager to do the cleaning work needed. Eastman Chemical Company has been gasifying coal since the 1920's for the manufacture of photographic film and chemical dyes, and in Rochester, New York, their main facility has a coal gasification consultancy team which routinely provides expertise for such activities.

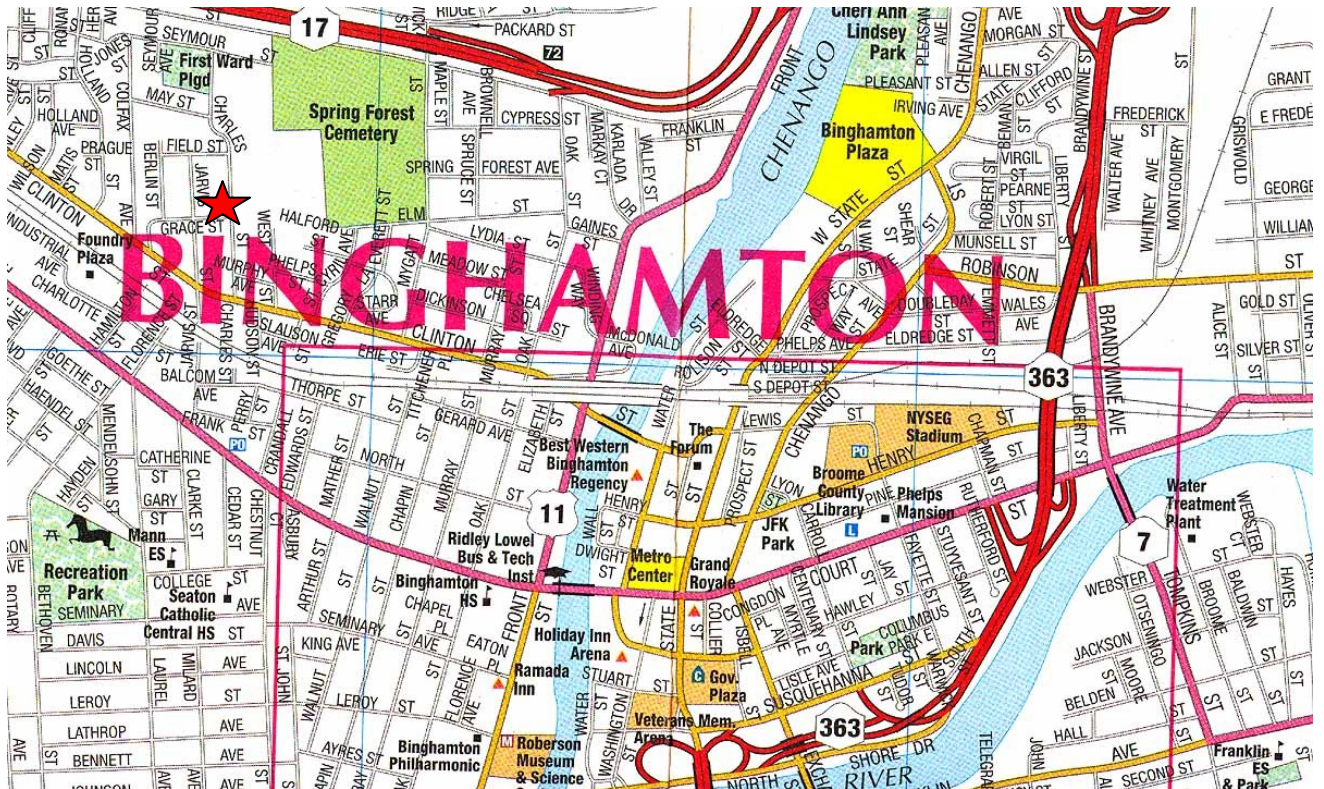
It would be my pleasure to run various cost scenarios of the sort I had done in 2004 for an IGCC plant for Wabamun, or you may run your own using the enclosed Excel IGCC cost benefit analysis software provided courtesy of the U.S. Department of Energy.

One of the factors which best suits TransAlta for an IGCC in Binghamton is the availability of so much needed coal grinding equipment, conveying equipment and ancillaries from the Wabamun plant for coal pre-treatment for feeding into gasifiers. As well, I feel based on the condition reports I wrote for the two Vickers 66 MW STG's that these would do well for a duplex bottoming cycle array for the IGCC process. There may be other TransAlta surplus assets which can be redeployed in this manner to create a profitable new asset to be sold to the new Broome County utility on a build-operate-transfer basis. Please note the attachment "Powerplant Upgrade References."

I believe the team for building the new plant should be TransCanada Turbines Limited of Calgary. General Electric's IGCC plant in Tampa, Florida, is a prime example of what can be done, but I think TransCanada Turbines can do it faster, cheaper and to a higher quality marque.

Financial services availability at this point in time is a buyers' market. The State of New York's financial incentives package is without peer in the U.S.A. for the benefit of Broome County's new APPA utility, and I am prepared to demonstrate that between steam sales, electric sales, cable service sales, and various IGCC byproduct sales, they should be able to more than carry the financial burden with grace and cheerful demeanor. Several options can be suggested and developed by me in this regard.

Please note the map below. The IPP Energy LLC plant is located at 22 Charles Street, just off of Clinton Avenue to the West on the map (the red star dotting the “i” in “Binghamton”). To run steam lines to service the County office buildings, the City office buildings, several large hotels, a community college, several schools and hospitals, two stadiums, a museum, the police and fire stations, several industrial enterprises, plus a shopping mall and downtown proper, steam lines need only extend less than ¾ of a mile to reach the farthest point out from the plant to the east.



It should also be added that the City of Binghamton and Broome County have received huge sums of money from the Federal Emergency Management Agency recently as well as grants for economic re-development owing to the huge flooding the City experienced in June of 2006. Now is a very good time to talk to both the City and the County of Broome.

SUMMARY: The range of options to be implemented for making the very best happen for this plant and this area while yielding maximum profitability to TransAlta is immense, and all are within the realm of feasibility. It remains only for us to make our case in a straightforward and systematic manner after first assembling the facts of the situation and evaluating them, to ensure we are crafting the best deal for all concerned.

Please take two weeks or more to review the material submitted, and divide it up between the appropriate specialists. There are 8 .ZIP files which add up to 11.9 Meg's of compressed information here, representing admittedly much work I had done on previous projects but with which you not familiar yet, especially the NYISO documents. Additionally, I have much, much more on IGCC technology, especially performance reports which are semi-public in nature I feel your experts need to read if there is interest in going ahead with this: I should add there is lots of U.S. Federal money including covenant financing specifically for building coal-fired plants in the U.S.A. which would apply to this project. Details on this are available as well.

Many thanks for your time in reviewing this report. I am at your service.

Best regards,
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5 December 2006

**Self-funding Steam Sales Based Electric Cooperative Formation for the Binghamton Plant:
An Alternative to Confrontation with NYSEG and the Community At Large**

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Attention: Mr. Barney Woo, Manager, Business Development
Corporate Development & Marketing

Dear Barney,

Good day to you. Having conducted an extensive amount of investigative legwork, the need for a "Plan B" presented itself, owing to the nature of the social and cultural environment of Binghamton and its longstanding fiscal problems which created this difficult negotiating environment.

The problems we face are several. The basic ones are:

1. Lack of money for this project
2. Absence of community support for anything which even remotely lacks a cachet of "green"
3. Lack of community drive and direct concern for its development
4. Laissez-faire attitudes and unwillingness to "rock the boat" on key issues
5. Total resistance on the part of NYSEG to alternative proposals for Binghamton plant reconfiguration to address TransAlta's and the community's need for economic growth

All five of these problems are addressed here in a manner everyone can live with, plus it gets the old plant sold and a better one put in its place which is owned and operated other than by TransAlta, enabling TransAlta to close the book on its participation in this region of New York State at a substantial profit. Furthermore, no one is put out of work by these proposed changes, and in fact many new and permanent jobs are created with the implementation of this strategy.

Item One: Lack of money

I enclose several applications for grants which relate to available funding from New York State Energy Research and Development Authority coffers if the Binghamton plant is reconfigured to provide district heating and cooling, with steam sales being the leveraging mechanism to make building a new plant happen. Any or all of these grant and cost-sharing applications apply to this proposed redeployment of the Binghamton plant facility capabilities.

Item Two: Absence of community support

I identify (10) ten potential steam sales customers ranging from schools to municipal governmental buildings within range of the Binghamton plant who would welcome a reduction in their HVAC costs with the

introduction of a district heating and cooling system based on the Canadian model. All are under a mile away and can be reached with 16" headers going through the existing sewage and water drainage mains, for which the County and City maintain free and clear easements (and through which they can run cable for their own digital cable network once their utility is formed). None of the individual loads exceed 20,000 pph at 250 psig. Estimated costs based on my "thumbnail" estimate and past experience would be in the neighborhood of \$40-50 million, to be paid for by Federally-underwritten electrical cooperative revenue bonds. Through helping Broome County and the City of Binghamton and its future steam customers set up a cooperative to NRECA (National Rural Electrical Cooperative Association) guidelines, we get the same "bang for our buck" as with forming an APPA utility, but for less initial outlay, with better construction cost underwriting options, and with shared responsibility and deployment of existing capabilities on the county's and city's parts.

As well, with the team of Behan Communications Inc. (<http://www.behancommunications.com>) under the direction of John D'Alessandro, their energy regulatory specialist, and with the aid of the law firm of Crane, Parente, Cherubin & Murray, highly respected and very experienced energy and utility attorneys in New York State, I feel the work can be done with existing TransAlta personnel, with me as liaison and project manager.

Item Three: Lack of community drive.

This type undertaking is laissez-faire proof, as all stand to benefit. Current heating and cooling bills are reduced, fuel handling fire hazards are reduced, many more people are put to work, both in construction and in permanent maintenance and administration, and Binghamton finally can offer real deals from an energy standpoint to developers involved in major housing, industrial and commercial undertakings. Impact on the environment would actually be reduced, as present steam resources would be tasked with additional duties, i.e., heating and cooling, per fuel BTU deployed: this makes of this a profoundly "green" undertaking.

Item Four: Laissez-faire attitudes.

All present "fixes" in place with NYSEG and the oil distribution people for heating applications would be shut down permanently by this district heating and cooling scheme.

Item Five: The Resistance of NYSEG

The proposed NRECA Cooperative described in the attachments can be set up totally independent of NYSEG's present deal with the Binghamton plant: not one sentence needs to be changed with the existing contract until it expires. How the transition from the present state of affairs to the new CHP (combined heat and power) district heating scheme should proceed along the following lines to avoid a confrontation with NYSEG:

Apply for the NYSERDA grants within the proposed NRECA cooperative on a contingent basis

Form the NRECA cooperative out of the funds base provided by awarded NYSERDA grants

Use the Binghamton plant and the NYSERDA grants as underwriting and collateral for underwriting the necessary loan to build the steam tunnel network

Build the steam tunnel grid and provide subcontract lease packages to customers for load-related equipment retrofits (absorption chillers, heat exchangers, etc)

Use the present 120,000-160,000 pph of 600 psig steam from the Binghamton HRSG to feed the proposed steam tunnel lines and their client base

Use the subsequent \$4 million to \$6 million additional annual revenue (based on \$3.50 to \$5.00/thousand lbs of steam per hour) to fund replacement of the present GE LM-5000 STIG with (2) LM-6000PE's currently in TransAlta's surplus asset inventory & to be retrofitted with HRSG's to essentially double generation capacity to be sold directly to NYISO through the new NRECA cooperative, which plant is to be transferred to the new NRECA Binghamton-Broome County cooperative. NYSEG would love to sell the new plant the natural gas,

which would in turn offset its losses with the retirement of the present plant with nary a blip in their revenues (in fact, it would actually put more money in their pockets while increasing everyone's wealth in this particular project's loop).

Other intriguing options for downtown Binghamton from a revenue generating standpoint:

There are literally hundreds of acres of unused and unrentable warehouse space which I believe the City and the County have taken over in lieu of property tax payment default which would be superb for conversion to hothouse/greenhouse cultivation and indoor arboretum malls for recreation and retirement community activities, as well as for commercial horticultural exploitation. Just in tradable emission reduction offsets, development of such resources would be invaluable to the proposed NRECA cooperative, though the relevance of this project as a potentially agricultural undertaking is not to be undervalued.

This steam can also be used for packaging of locally grown farm and dairy products, an activity the local US Department of Agriculture Extension Service would be glad to assist with helping implement.

To create urban development districts, there are several short lengths of street which could agreeably be closed off and turned into pedestrian only areas after the Charlottesville model, and even enclosed on a retrofit basis without violating Housing Preservation or "protected" status of associated historical buildings. This would also give a major boost to existing property values for the subject areas for "enclosure."

Both these options are directly contingent on plant development along district heating-cooling lines.

A full inventory of associated NYSERDA grant applications are enclosed, as well as descriptions of and contact points for the National Rural Electric Cooperative Association, who I am sure will be excited about working on this type project, and will ultimately be participating in the overall funding of the long-term project. Also, New York state private and public sector alternative funding sources are enclosed.

The facilities I envision being heated and cooled by the steam tunnel network are as follows:

1. Mann Elementary School
2. Foundry Plaza
3. Seaton Catholic Central School
4. Ridley Lowell
5. Binghamton High School
6. Best Western Hotel
7. The Forum
8. Metro Center
9. Government Plaza
10. Holiday Inn

Total steam load (estimate): 123,000 pph @ 250 psig, reduced to from 15 to 60 psig

Total length of 8" and 16" Schedule 80 & Schedule 40 steam headers: 15-20 miles, not counting return lines and pumps

Contracting cost: \$40-50 million

Annual gross billings: \$4 to 6 million, less lease revenues for retrofit steam heating/cooling appliances, maintenance, contracting and engineering

In summary, I feel the job can be done for minimal initial outlay, provide a high yield, and be done causing the absolute minimum of friction, and indeed make friends of former adversaries while making friends with the Binghamton and Broome County community.

Respectfully submitted,
Walter James (Walt) O'Brien, Technical Writer/Estimator