Backgrounder
Oct 29, 2001

TransAlta Keephills expansion - economic considerations

The following analysis shows that TransAlta has considerable financial flexibility with its Keephills project and could readily afford to install a higher level of pollution control technology than currently proposed.

TransAlta is promoting its new vision as an aggressively growing "pure play" generator and is promising shareholders high annual growth (15%) in earnings per share (EPS) and return on equity (ROE). At the same time the company wants to maintain its position as a low-risk utility with a debt to equity ratio of 50/50.

This contrasts with TransAlta's power generation peers who are also committed to aggressive growth but maintain investor quality debt while incorporating higher leverage into their capital structure. For example, the debt to equity ratio for AES is 83%, Calpine: 78% and NRG: 71%. [6]

The implications of selecting different debt to equity ratios are shown in the table below.[7] The total cost of the Keephills expansion is projected to be $1.8 billion. The company intends to raise half this money through external debt and the other 50% from internal financial resources (equity). It is evident that by advancing a debt to equity ratio of 75/25, typical of the capital structure employed by TransAlta's major competitors, the company could free up an additional $47 - $85 million per annum. Such increased cash flow could pay for the additional costs of expanding the facility's flue gas desulphurization (FGD) and adding on a process (such as selective catalytic reduction, SCR) to reduce nitrogen oxides,[8] while continuing to offer TransAlta shareholders 15-18% rates of return for their investment.

These numbers demonstrate that in order to achieve all of its financial objectives TransAlta must keep the cost of its capital investments (in terms of $ per MWh) as low as possible. The only means by which this can be done is if TransAlta selects the lowest-cost combustion processes and minimizes use of pollution control technologies.

TransAlta's shareholders may appreciate the low-risk/high reward benefits of ownership in the company. However, the Pembina Institute believes that Albertans will receive no unique benefits from the Keephills project and, if it proceeds, will instead be burdened with the environmental and human health liabilities associated with pollution from such a facility.

---

[6] Values reported for 2000.

[7] From the Pembina Institute submission to the EUB; online at www.pembina.org

[8] Based on its research of pollution control technologies, the Pembina Institute estimates the total capital cost of expanding the Keephills FGD and adding on SCR would range from $100 to $200 million (adding approximately 5-10% to the cost of the project). Annual operating costs for these facilities are estimated at $5 million/year. Applying TransAlta's investment parameters to this increased capital cost would incur a total annual *before tax* cost of between $20-35 million/year. However, if a debt to equity ratio of 75/25 were used (at rates of 7%/15%), the incremental *before tax* annual cost of these add-ons could be as low as $16-$27 million/year.

Comparison of alternative Debt/Equity financing options for the Keephills expansion project

TransAlta Proposal	%	Assumed Rate	Cost
Debt (after tax; tax rate: 36%)	50%	7%	40,320,000
Equity (after tax)	50%	15%	135,000,000
Income taxes (estimated)			75,937,500
Total Annual Cost of Capital			**251,257,500**
Option A	%	Rate	Cost
Debt (after tax; tax rate: 36%)	75%	7%	60,480,000
Equity (after tax)	25%	15%	67,500,000
Income taxes (estimated)			37,968,750
Total Annual Cost of Capital			**165,948,750**
Annual Savings If Option A Adopted			**85,308,750**
Option B	%	Rate	Cost
Debt (after tax; tax rate: 36%)	75%	9%	77,760,000
Equity (after tax)	25%	15%	67,500,000
Income taxes (estimated)			37,968,750
Total Annual Debt Service Cost			**183,228,750**
Annual Savings If Option B Adopted			**68,028,750**
Option C	%	Rate	Cost
Debt (after tax; tax rate: 36%)	75%	9%	77,760,000
Equity (after tax)	25%	18%	81,000,000
Income taxes (estimated)			45,562,500
Total Annual Debt Service Cost			**204,322,500**
Annual Savings If Option C Adopted			**46,935,000**
Keephills Expansion Capital Cost:			**1,800,000,000**