Chapter 8
Leasing of Equipment

Contents

Leasing of Equipment

Background

8.1 The question of leasing versus outright purchase has a direct connection to our Office's mandate. The Auditor General Act directs us to report where *"money has been expended without due regard for economy."* Based on various observations over the years as professional accountants, our staff has observed that one key area where economy can be compromised is in the decision to lease instead of purchase. Leasing, despite its attractiveness from a budget perspective, is often less economical than purchasing outright. This is particularly so in the case of the Province where most leasing companies could not match our low rates of financing.

8.2 Because of the requirements of the Canadian Institute of Chartered Accountants (CICA), leasing decisions can also generate somewhat complicated analysis in order to determine whether expenditures should be classified as operating versus capital. Given our responsibility for comments on the fair presentation of the financial statements, we want to ensure that this type of analysis is carefully performed and well documented. The goal should be to make the correct business decision, which is then correctly classified based on standard accounting criteria. In both government and business there is a long trail of case history to show that, in fact, the opposite can occur. That is, because an organization wishes to show a short-term advantage by classifying a lease as operating, it may structure its contracts to influence accounting classification decisions.

8.3 Because of this perspective, our Office decided to begin a study of equipment leasing transactions in the fall of 1997. In conducting that review one of the first documents we encountered was a *"Lease and Rental Expenditure Review"* prepared in July 1995 by the Office of the Comptroller.

8.4 In this report the Comptroller analyzed rental or leasing transactions in several departments in the areas of leased premises, heavy equipment, light vehicles, computers and photocopiers. A key finding was "for each asset category examined, leasing/rental decisions were not cost effective." This finding was qualified by indicating that this only applied to the sample of transactions selected and did not preclude that some rental/lease decisions may be cost effective.

8.5 The Comptroller's conclusion was as follows:

> *We recognize the importance of government to focus on restricting growth of the Province's net debt. However, current government practices of leasing/renting rather than purchasing assets because of limits placed on capital budgets and its levelling effect on budget expenditures are not always cost effective. Existing budget practices and purchasing policies are causing uneconomical financial decisions and are negatively impacting budget expenditures and the Province's net debt.*

8.6 The Comptroller had several recommended actions. Two that touched directly on our concerns over economy were:

> *Lease/rental versus purchase options should be fully analyzed, determining the cost to government over the useful life of the asset. Impact on the global budget (capital and ordinary) and the province's net debt should be considered.*
>
> *Administration Manual Policy Number AD-6701 "Present Value Analysis of Expenditure Decisions" should be strictly enforced and provide the basis for analysis and cost effective decision-making.*

8.7 We examined this policy and were impressed by a number of aspects. The objective of the policy is "to ensure that a comparative analysis of costs is performed as a partial basis for decision-making when major expenditures with cash disbursement options are contemplated." It goes on to specifically identify the purchase of equipment versus the lease of equipment as an example of when the analysis should be applied. It provides a description and example of the analysis that should take place. In our opinion, implicit in the policy is the notion that if the decision to lease is made despite higher costs, the decision should be supported by other considerations.

8.8 This policy gives an excellent description of when and how to apply the present value analysis. It also serves as a control to prevent departments from leasing simply to meet their current year's budget target and deferring costs to subsequent years.

8.9 It appeared from our reading of the policy, and the Comptroller's review, that if Departments diligently followed the policy, then many concerns over the economy of leasing transactions would be addressed. We decided, therefore, to examine a number of leasing transactions to determine the degree of compliance with this important policy.

8.10 In addition, we noted the Comptroller recommended:

The Province should review Administration Manual Policy Number AD-6203 "Classification of Expenditures", in regard to inconsistencies in defining capital expenditures.

8.11 This recommendation seemed to support our interest in the accounting side of leasing transactions. It provided us with a second government policy that we could use to develop criteria for an examination of equipment leasing transactions.

Scope

8.12 Our audit objectives were to ensure that decisions to lease were made with due regard for economy and that leases were properly recorded in the books of the province.

8.13 In carrying out these objectives we developed two audit criteria to assist us in our work. These were:

- leasing transactions should comply with the principles of Administrative Policy AD–6701 "Present Value Analysis of Expenditure Decisions;" and
- departments should record lease transactions in a consistent manner across government, ensuring the accounting reflects the substance of the transaction.

8.14 Our work covered five separate government departments as follows:

Department of Education – six leases for various numbers of personal computers;

Department of Supply and Services – standing offers for three separate types of photocopiers;

Department of Agriculture and Rural Development – one lease of a radial spectrometer and another for an infra-red analyzer;

Department of Municipalities and Housing – one lease for computer equipment and another for a lease of nine fire tankers; and

Department of Transportation – a lease for ten graders and, in addition, joint responsibility with the Department of Municipalities and Housing for the lease of the nine fire tankers.

8.15 We also corresponded with the Department of Finance and the Office of the Comptroller given their respective central agency roles in a number of the leasing transactions we examined.

Results in Brief

8.16 The analysis required in policy AD-6701 "Present Value Analysis of Expenditure Decisions" was not adequately performed in the leases we examined. Four of the five departments did not prepare any present value analysis to support leasing decisions. And although the Department of Education carried out a number of present value analyses, each lease we examined did not meet a number of the principles set out in the policy.

8.17 Some of the documentation we reviewed indicated that leasing was being pursued for budget reasons, not value-for-money reasons.

8.18 Based on our calculations, in almost every case leasing proved more expensive than buying.

8.19 A number of the so-called operating leases are actually capital. In addition, five operating leases in the Department of Education are in a grey area that suggests the Department may have additional capital leases.

8.20 If we could make a general comment, it might be that the quality of supporting analysis for decision-making needs to be improved.

8.21 Our detailed findings are presented in two distinct sections, organized by the two main criteria. First we deal with many key requirements of policy AD-6701. The second section deals with accounting considerations for the leases.

Compliance with Policy AD-6701

8.22 Our first criterion refers to compliance with the policy "Present Value Analysis of Expenditure Decisions". The objective of this policy is to "ensure that a comparative analysis of costs is performed as a partial basis for decision-making when major expenditures with cash disbursement options are contemplated." The policy notes that one example of such a decision is the purchase versus the lease of equipment. By requiring a comparison of the leasing option to an outright purchase, the policy recognizes the principle of due regard for economy.

8.23 In four of the five departments in our sample (Agriculture and Rural Development, Municipalities and Housing, Transportation, Supply and Services), we found no evidence of present value analysis on file. The policy requires that when leasing "every proposal should be analyzed with the potential lessee determining the cost of a leasing plan against the cost of raising the same amount of capital through long-term debt financing." This does not appear to have been done in these four departments.

8.24 In the other department in our audit, the Department of Education, we did find present value analysis on file for all six leases examined. In our opinion, however, the analysis required by the policy was not adequately performed. Although the Department carried out a number of present value analyses, each lease examined did not meet a number of the principles set out in the policy.

8.25 Officials in three of the five departments (Agriculture and Rural Development, Municipalities and Housing, Education), actually informed us that they were not aware of the policy prior to our audit. We maintained throughout the audit that since the policy has been in existence since 1977, its principles should have been complied with from that date.

8.26 We have segregated our findings regarding compliance with the policy according to two broad categories as follows:

- no present value analysis prepared;
- analysis prepared, but not in compliance with policy.

8.27 The first category is further sub-divided along departmental lines. Under each heading we discuss our audit findings and the related recommendations.

No present value analysis prepared

8.28 As noted previously, four of the five departments did not have a present value analysis supporting leasing transactions. For those four departments we prepared our own analysis of the present value of the leasing transaction versus the purchase alternative and presented the results to the departments. In each case examined, we found leasing to be more expensive than buying.

Department of Transportation

8.29 In the Department of Transportation we reviewed a decision to lease ten graders. The graders had an outright purchase cost of approximately $1.4 million. Based on our calculation, the net present value of leasing is $1.475 million. In other words, leasing added about $75,000 to the cost of the transaction.

8.30 There was no evidence that the Department had documented the extra cost of leasing or that the extra cost was offset by other considerations as required by the policy. The overriding consideration appeared to be that the funds to purchase outright were not available. This is consistent with one of the key findings of the Comptroller's Office in their 1995 report. They said "Because of limits placed on capital budgets, departments do not purchase outright even when it is cost effective to do so."

Department of Municipalities and Housing

8.31 In April 1995 the Department entered into a five-year lease for computer equipment for the Emergency Measures Organization. The equipment had an outright purchase cost of $159,500. The present value of the lease payments added between $17,000 and $22,000 to the cost of the transaction.

8.32 We reviewed a second transaction for a lease of nine fire tankers in August 1997. The fire tankers could have been purchased for a cost of approximately $1,015,000. Leasing added about $50,000 to the cost of the transaction.

Department of Agriculture and Rural Development

8.33 Both of the Department of Agriculture and Rural Development leases are discussed later under "Accounting considerations." The first lease was a four-year lease of a radial spectrometer. The second was a three-year lease of an infra-red analyzer. The net present value of leasing the spectrometer exceeds the outright purchase cost of $135,000 by about $5,000. The lease cost of the infra-red analyzer was a little over $2,500 more than the outright purchase cost of approximately $220,000.

8.34 It should be noted that in total the two leases added only a slight amount to the overall cost of the assets (slightly over 2%). However it does confirm our frequent observation that the cost of financing through leasing typically exceeds the Province's cost of financing. If all other factors are equal, this makes leasing the more expensive option.

Department of Supply and Services

8.35 Our approach with the Department of Supply and Services was somewhat different than with the other departments. We did not look at leases the Department negotiated for its own purpose. Instead, we looked at the guidance that the Department's Central Purchasing Branch gives to the purchasing decisions of other departments through the list of "Standing Offers." We examined and discussed with the Department three standing offers for photocopiers. In one of the three cases, we noted that one photocopier cannot be purchased outright. This makes it very difficult to perform a present value analysis of leasing versus an outright purchase.

8.36 In the other two cases, our calculations indicated leasing was more expensive than purchasing. The extra costs of leasing were $250 and $1,800 per unit respectively.

8.37 Although these amounts of $250 and $1,800 might appear to be small, if these additional costs are representative of the hundreds of photocopiers the Province has, the extra costs are significant. The Comptroller's 1995 report looked at a sample of 21 photocopiers and concluded that the extra cost of leasing rather than purchasing increased the cost to the Province by $46,000 over five years.

Correspondence with these four departments

8.38 Because of our concerns over due regard for economy and non-compliance with policy, we wrote to all four departments. We were concerned that no present value analysis was on file. Although the wording may have differed slightly from department to department, we made a common recommendation which essentially reads as follows:

> ***We recommended that in making future lease versus purchase decisions the Department comply with the requirements of policy AD-6701.***

Department of Transportation response

8.39 *In order to address the condition of the fleet, while purchasing equipment within the capital allotment, as approved by government, the decision was made to lease ten graders for the Department in September of 1996. The lease was necessary to ensure that the Department could meet its operational needs, particularly in heavy trucks and graders. Leasing, with the option to purchase, also allowed flexibility at the end of the lease term. In order to achieve the best possible terms, the financing involved was tendered. By properly managing leases, there should be no negative impact on meeting future budget targets.*

8.40 *As a result of the renewed capital program and leasing of equipment, the Department's fleet is starting to approach the optimum replacement time. The Department is now performing lease vs. purchase analysis, including potential cost savings of newer equipment, to evaluate the best alternatives and mix of replacement assets within the fleet. It should be noted that the extra costs associated with leasing must be weighed against the operational savings resulting from the ability to purchase other equipment within the capital allotment, and as such avoid costly maintenance on older assets.*

Department of Municipalities and Housing response

8.41 *The Department of Municipalities and Housing will advise responsibility centre managers of the necessity to follow the Present Value Analysis of Expenditure Decisions policy and to contact our Financial Services Branch for assistance in the analysis of lease or purchase decisions.*

Department of Agriculture and Rural Development response

8.42 *While the Department accounting staff did not conduct an official present value analysis, we were aware of the lease/purchase cost versus the outright purchase cost because the bids that came in through the tendering process were presented to us for analysis and decision on awarding the tender.*

8.43 *I believe this process certainly ensured that we received competitive prices and the best possible deal on the interest.*

8.44 *In future I have instructed our Chief Financial Officer to again ensure that Policy AD-6701 is followed.*

Department of Supply and Services response

8.45 *While the photocopier contract prices photocopiers for various financing options, the Central Purchasing Branch does not evaluate or require justification by individual departments for their purchasing decisions. I believe this is their responsibility. Many factors affect a purchasing decision by a department including, but not limited to price,* *changing program needs, variable services demands, budgets, and emergency or unforeseen events affecting a department's financial decision making.*

8.46 *I have raised the issue of comparing lease financing to "government" financing in the past, and confirm that Board of Management review the larger projects/purchases. Board has, however, acknowledged that on these smaller value items, departments can have the final say.*

8.47 *I agree it is important, therefore, that individual departments (the lessee) continue to evaluate the financial options in their purchase decision. It is however incumbent on us to provide sufficient options to allow departments to do the evaluation. The trend, I understand, both here as well as other provinces is toward rental only policy for convenience copiers due to rapid changing technology and anticipated life of these machines.*

Concluding comments on these departments

8.48 We were pleased to see a commitment by all four departments to present value analysis. The first paragraph of the Department of Supply and Services response eloquently summarized a common element of our discussion with departments included in the audit. We noted repeatedly in our audit that the policy does allow for departments to use discretion when deciding whether or not to lease. It alludes to the fact that present value analysis is a "partial basis for decision making." It goes on to add, "analysis does not preclude the considered judgement and intuition of the decision maker as to which is the best choice from a standpoint of experience and knowledge." In our opinion, however, if there were qualitative factors that may have caused the Department to favour the higher cost alternative, it would have been prudent to document these factors in the lease files. In other words, the reason for the decision must be adequately documented.

Analysis prepared, but not in compliance with policy

8.49 The Department of Education was the only one of the five departments sampled that carried out present value analysis. Since their files contained this analysis, there was actual documentation we could use in applying some of the detailed sections of the policy. We had, in fact, developed sixteen detailed sub-criteria which we believe focus on many requirements of policy AD-6701. We shared them with a number of departments but in most cases the point was moot. If the departments had not carried out any form of present value analysis, there was no point in asking a detailed series of questions as to whether the analysis was done in accordance with policy. Thus this section of the chapter deals exclusively with the six leases we examined in the Department of Education. We believe, though, that a fairly thorough discussion of the Department's analysis is important for illustrative purposes. The policy provides excellent guidance to departments by requiring "a comparative analysis of costs.....as a partial basis for decision making." However, if this analysis is not carried out correctly, departments run a risk of uneconomical decisions. Based on our calculations, we have concluded that risk is real. In almost every case, leasing proved more expensive than buying.

8.50 It should be noted that five of the six leases were the subject of presentations to the Board of Management. In our opinion, this further focused our attention on the importance of examining the details of the policy. The importance of the quality of analysis in support of a decision is heightened given that the Department's presentations to the Board showed leasing produced significant savings over outright purchasing. This was contrary to our findings. For this reason, among others, we had concerns about the quality of information presented to decision-makers.

8.51 We are not reporting each of our findings for each of the detailed sub-criteria for each and every lease. We are instead focusing on certain key elements of the policy where we feel compliance can be improved.

Interest rate not always documented

8.52 As noted earlier, many leasing companies cannot match the Province's low rate of financing. If all other factors are equal, this makes leasing automatically more expensive than purchasing. Because of this reality, one of our sub-criteria says:

> *The interest rate implicit in the lease should be clearly documented and verifiable to allow the Department to determine if the lease offers a financing advantage over the Province's financing rate.*

8.53 Only two of the six leases we reviewed had clear documentation in this respect. In the two cases where the information was available, the lessor had an implicit interest rate of 7% versus the Province's rate of approximately 5.9%. Clearly, the Province's cost of financing was cheaper.

8.54 In a couple of the other cases, we tried to determine the implicit rate based on other information disclosed in the lease contract. In these cases we also found that the calculated rate exceeded the Province's own financing rate.

8.55 One can see the value of having the financing rate disclosed. Disclosure of the implicit interest rate immediately shows to the decision-makers that the lease could be more expensive. The lessor will have to come up with some other considerations, or there will have to be qualitative factors brought into play, in order to make leasing a good value-for-money decision.

Outright purchase price not obtained, or obtained and not used

8.56 Drawing on sections of the policy, we developed a sub-criterion stating "an outright purchase cost should be determined for the same asset or assets as specified in the lease proposal." This information is important for the analyst to have in doing an accurate comparison of the lease option to the purchase option. Otherwise the analyst has to guess at what price the department may have been able to purchase the same quantity of equipment it was leasing. As we will discuss later in this chapter, the purchase price information is also important to good accounting decisions.

8.57 In only one of the six leases we examined did the Department use an outright purchase price for the same quantity of units that it leased. In two other cases the Department had fairly recent information on a bulk purchase price but did not use it in its calculations. Instead, in most of its analyses, the Department appeared to be relying on an estimated purchase price loosely based on the government's standing offer.

8.58 The problem with using this approach can be shown by illustration. One of the leases we looked at was a lease for 2,479 workstations dated 1 November 1997. The computers are to be returned by 31 October 2000.

8.59 The actual purchase price quoted by the supplier on 15 July 1997 was approximately $1,630 per unit. Instead of using this $1,630 figure, however, the Department's present value calculation for the purchase option was based on the Province's standing offer for an equivalent computer (approximately $2,000 per unit). The standing offer, though, assumes a department will be purchasing one or relatively few units at a time. It does not take into account the volume discounts that would be available by ordering 2,479 similar units at one time. In fact, the standing offer notes that for cases where a department is purchasing a large number of units it can seek a separate tender.

8.60 The Department's analysis, then, was not comparing two equal options. The lessor was building a volume discount into its figures but the Department was using a low volume price for calculating the purchase option. By using the price of $2,000 for the purchase option, the lease option appeared much cheaper. It is an unfair comparison in terms of the requirements of the policy.

8.61 The Department's rationale for using the standing offer price is that if it had to purchase the units, it would have purchased a much smaller quantity and therefore would not qualify for a volume discount. The Department states its method of analysis compares the lease price with the cost of similar microcomputers that it would have purchased in a historical pattern. This historical pattern, with the exception of some major initiatives, was to distribute funds to the school districts and have the districts buy units from the government or educational standing offer.

8.62 Further, departmental staff said that they would have never purchased outright this quantity of computers for two reasons. The first was that they did not feel the budget was sufficient to permit this. The second was that "*We were solving a refresh problem. This problem is that computers in important courses were ageing and again there was no mechanism in place to ensure regular refresh.*"

8.63 However, policy AD-6701 clearly states "every proposal should be analysed with the potential lessee determining the cost of a leasing plan against the cost of raising the same amount of capital through long-term debt financing." Instead, the Department has computed a price at which it believes it could have bought a few units, and multiplied that by "many" units, in this case 2,479 computers. The resulting number does not represent the cost of the alternative of purchasing 2,479 units en masse.

8.64 The Department did not in fact perform the type of present value analysis required by the policy. The comparison that is being made is between leasing a high volume of computers with purchasing a low volume of computers many times.

8.65 A final observation we would make in this section, is that since the Department did not always have good purchase information to perform its analysis, this also means it did not always have the necessary information to make the purchase. Without obtaining such information, one could question whether purchasing was ever a serious option.

Residual value not based on documented evidence

8.66 Another of our sub-criteria reads:

> *The residual value should be based on documented evidence at the time of entering the contract.*

8.67 The term residual value refers to what the computer would be worth at the end of the period contemplated in the analysis. Section 14 of the policy states:

> *Where alternative expenditure projects have unequal lives, comparisons may be made either over the useful life of the long-lived project, or over the useful life of the shorter lived project. This policy recommends that what the residual values will be at the end of the longer lived project be estimated. This makes sense primarily because the decision maker should extend his or her time horizon as far as possible. If he or she is considering a long lived project, serious consideration should be given to what would be done in the time interval between the termination dates of the shorter lived and longer lived projects.*

8.68 In comparing a purchase to a lease, a time interval or unequal lives does become a concern. Most of the leases are for three years. At the end of the three years a leased computer must be returned to the lessor. If the Province had bought that same computer, it could continue to use it for the remainder of its useful life. Perhaps another year, maybe longer.

8.69 This raises the question then, of what time period should one consider and, therefore, what residual value should the analyst use in the calculation? In some leases we examined, the leased units can be bought at the end of the lease term based on a buy-out option negotiated by the Province. In these cases one might say the best estimate of residual value the analyst has is the price stated in the buy-out option. Then the two alternatives can be placed on equal footing by comparing the lease payment stream plus the eventual buy-out to the cost of purchasing the item at the outset.

8.70 Another method would be to match the cost of leasing a computer for the three-year term to the cost of purchasing the computer and then disposing of it at the end of three years. The relevant residual value in this case is what value the Province could get out of the computer at the end of the three-year period. It could be a price the Province would get by selling a unit to a third party. (This appears to be the method most often used by the Department.) Or it could be an implied value for putting the computer to an alternative use elsewhere in government. But whatever the case, we return to the principle of our sub-criterion: the residual value should be based on documented evidence at the time of entering the contract. In the analysis we looked at, this was not so.

8.71 In most of its analysis the Department used a residual value of 10% of the purchase price. This was an estimate of what it could sell the computers for at the end of three years. This may or may not have been reasonable. There was nothing on file to indicate the source of this estimate. When this became the subject of discussion during our audit, the Department provided a variety of current literature regarding the resale value of computers.

Reasonable buy-out options

8.72 The policy states:

> *One of the principal disadvantages of lease financing is that the lessee does not own the asset; any residual value after the basic lease period goes to the lessor.*

8.73 One of our sub-criteria is:

> *Given that "not owning" is cited as a disadvantage of leasing, lease agreements should provide a buy-out option at a reasonable price.*

8.74 We were pleased to find that four of the six leases did have a buy-out option, although with one of these we did have a concern as to whether or not it was at a "reasonable price." In that case, the

Department could purchase the equipment at expiry for the lower of 22% of the original cost or fair market value as determined by the lessor. In fact, as we discuss later under Accounting Considerations, the Department did decide to effectively exercise the option at 22% in 1997.

8.75 It would seem in hindsight that allowing the lessor to determine fair market value might have placed the Department at a disadvantage. One departmental document dated June 1997 estimated the value of the equipment at 16%.

8.76 In such a situation it may have been beneficial to have an arbitrator determine fair market value. The Department has actually instituted such a clause in another of its leases.

Advantages of owning not documented

8.77 Another of our sub-criteria is that:

> *Careful consideration should be given to the relative advantages of owning versus not owning and the results should be documented in the files.*

8.78 We did not find any such documentation in the files. We realize we have the benefit of hindsight, but it seems rather unfortunate that no such discussion was documented, at least in the case of the one lease the Department already bought out.

8.79 When the lease was originally approved by the Board of Management, the Board Minute noted approval was conditional on "negotiating a lease arrangement with the supplier which when discounted on a present value basis is equal or less expensive than direct purchase." In other words, it was enforcing the requirements of Policy AD-6701.

8.80 The Department did a present value analysis and we were able to review a copy. The Department calculated the present value of the lease option at $1,114,151 as opposed to $1,114,535 for the purchase option. This was a difference of only $384.

8.81 For a lease of this magnitude, the Department's own calculation of a difference of only $384 means the options are indistinguishable. Even based on its own numbers, one might say the Department gave up the benefits of ownership for only $384.

8.82 As discussed earlier, the Department exercised the buy-out option in this lease in 1997 because it deemed the units were still valuable to its programs.

8.83 One of the major factors it considered in exercising the buy-out option was its estimate that it would cost $400 per unit (or $120,000 in total) to prepare, pack and ship the units back to the lessor. This cost may seem high, but the Department informed us that each unit would require significant technician time to erase confidential material from the memory. In fact, one departmental document we reviewed estimated the cost even higher at approximately $140,000.

8.84 In our opinion, at the time of the original purchase and lease decision, the Department should have known that the computers were being put to a use which carried with it such a significant cost of data transfer.

Qualitative factors not documented

8.85 Policy AD-6701 does not prohibit a department from accepting the more expensive of the two alternatives. Section 5 notes that a comparative analysis of costs is performed as "*a partial basis for decision making*." Section 7 adds:

> *The analysis does not preclude the considered judgement and intuition of the decision maker as to which is the best choice from the standpoint of experience and knowledge.*

8.86 Based on this, one of our sub-criteria reads

> *Other key factors such as "considered judgement" of the decision-maker should be appropriately documented in departmental records.*

8.87 In one of the leases we examined the Department provided us with information indicating that the lease of certain computers was estimated to cost $4,740 more than purchasing. This was not immediately apparent in the submission to the Board of Management as the $4,740 excess was combined with the Department's estimated savings on another lease with a totally separate vendor.

8.88 In our view, this lease was an occasion where these qualitative factors should clearly have been discussed. If there were valid reasons for proceeding with this more expensive lease option, the Board of Management and other decision-makers should have been informed.

No, or limited, evidence of review

8.89 One of our criteria relates to the importance of a review of documentation supporting a decision. Our sub-criterion stated:

> *The recommended decision and the supporting documentation should be subjected to review by an appropriate senior official (or officials) to ensure the numbers used in the present value calculation are adequately supported and challenged, and that the calculation is done accurately.*

8.90 This criterion is based on a section of the policy which states:

> *While the present value method will indicate the optimum expenditure decision on an economic basis, the answer is only as good as the data input to the technique.*

8.91 We previously noted how two totally separate leases were combined in one analysis.

8.92 We are concerned about the fact that the Department provided the Board of Management with an analysis that combined two distinct transactions. In its submission to the Board of Management, the Department projected net savings of leasing over purchasing of $924,323 for the two leases combined.

8.93 In most of the leases we examined we had concerns that the documentation supporting the decision did not seem to have evidence of review. In this case, however, we noted that the copy of the Department's submission to the Board of Management contained a number of hand-written notes showing evidence of some review and/or consultation. The notes indicated some involvement by the Office of the Comptroller, a senior financial officer in the Department of Education and the Budgets Branch of the Department of Finance.

8.94 We were surprised that on the documents reviewed, not one indication was available that any of these officials challenged the fact that leases were being lumped together in one calculation. Neither was there any indication on file that the huge net savings forecasted in the Department's present value analysis were questioned. The Department's submission to the Board showed savings of $924,323[1] over a net present value of purchasing of $4,529,243 (roughly 20%). No one appears to have documented the logical question of how can leasing be so much cheaper than buying. No one asked 'how can the Department be saving 20%', especially since the expectation would be that the lessor would have a higher financing rate than the Province. No one appears to have documented a concern that the Department was comparing the cost of leasing many units to the cost of purchasing one unit many times.

8.95 On another lease we found some errors and/or omissions that may have been detected had a review been conducted by an appropriate senior official. In one example, already mentioned, the Department predicted savings of $384 by leasing versus outright purchase.

8.96 We reviewed the Department's present value calculation and found two errors. The purchase option included 11% provincial sales tax while the lease option did not. In addition, the present value of the lease payments was calculated as if the payments were due at the end of the month. Payments were actually due at the beginning of the month. These errors amounted to approximately $130,000, turning the $384 savings into a significant loss.

---

1. Our calculations showed the lease savings were probably closer to $90,000. This is one case where the three-year lease appears to save money.

8.97 We have discussed earlier how this lease was later bought out at 22%. The buyout was actually arranged by a third party vendor who on 1 October 1997 packaged the 22% buyout with a separate lease of 264 servers and 271 workstations. The leasing company financed this new lease of 264 servers and 271 workstations and, in addition, purchased the used servers and workstations to lease back to the Department. This old lease was due to expire in December 1997.

8.98 This combined lease was actually two transactions. Similar to the previous case, they were combined in a submission by the Department to the Board of Management.

8.99 The Board of Management gave authorization on 16 July 1997 to the Department to buy out the old lease and lease the new equipment in this combined lease, based on projected net savings of leasing over purchasing of $69,694. As we have earlier noted, this combination approach obscures valuable information in the decision-making process.

8.100 According to our understanding of the events, the new lessor paid the 22% residual value as required in the conditions of the old lease. It also made a payment to the first lessor of $155,000 which represented principal and lost interest for four months remaining in the original lease. It was effectively buying out the lease, early, on the Department's behalf.

8.101 This settlement appears excessive. Had the Department continued paying for the remaining lease term, it would have paid only $105,513. Then the Department could have exercised the same 22% buy-out of $242,039 (or perhaps even a lower rate given its estimate that the computers were worth 16% of the original price). Therefore, the cost of waiting to the end of the lease to buy the computers would have been $347,552. This is about $50,000 less than the sale price to the new leasing company of $397,189. This is not due regard for economy. A wait of four months would have saved considerable funds.

8.102 Again, we return to our point in this section. A review may have questioned some of the key assumptions in this case.

Looking ahead

8.103 In our opinion, the analysis required in policy AD-6701 "Present Value Analysis of Expenditure Decisions" was not adequately performed in the leases we have examined. Although the Department carried out a number of present value analyses, each lease examined did not meet a number of the principles set out in the policy.

8.104 The policy provides excellent guidance to departments by requiring "*a comparative analysis of costs……as a partial basis for decision making*." However, if this analysis is not carried out, departments run a risk of uneconomical decisions. Based on our calculations, in almost every case leasing proved more expensive than buying.

8.105 This finding is consistent with the Comptroller's 1995 review. In the section "Key Findings" the Comptroller stated:

> *For each asset category examined, leasing/rental decisions were not cost effective. When compared to build/purchase options, lease/rentals led to higher cumulative budget expenditures and net debt to the Province over the useful life of the asset.*
>
> *Purchase versus lease/rent options should be fully analyzed, determining the cost to government over the useful life of the asset using present value analysis.*

8.106 The Comptroller went on to recommend:

> *Administration Manual Policy Number AD-6701 "Present Value Analysis of Expenditure Decisions" should be strictly enforced and provide the basis for analysis and cost effective decision-making.*

8.107 Let us look at some of the key sub-criteria based on the policy where we found weaknesses in compliance:

- The interest rate implicit in the lease should be clearly documented and verifiable to allow the Department to determine if the lease offers a financing advantage over the Province's financing rate. – Only two of the six leases had clear documentation in this respect.
- An outright purchase cost should be determined for the same asset or assets as specified in the lease proposal. – This was only done in one of the six leases. In two others, the Department had a recent purchase price but did not use it in the analysis.
- The residual value should be based on documented evidence at the time of entering the contract. – In most cases residual value was set at 10% without any supporting documentation on file. The number may well have been reasonable. It just wasn't supported.
- Careful consideration should be given to the relative advantages of owning versus not owning and the results should be documented in the files. – As discussed, this was not done.
- Given that "not owning" is cited as a disadvantage of leasing, lease agreements should provide a buy-out option at a reasonable price. – Four of the six leases did have buy-outs.
- Other key factors such as "considered judgement" of the decision-maker should be appropriately documented in departmental records. – The Department did not believe this to be a requirement of AD-6701 and therefore excluded it from the discussion.

8.108 A consistent theme in this chapter is the deficiencies in the quality of the supporting analysis behind decisions. For instance, if the purchase option is to be clearly examined, a department should get a quote from the supplier for the same number of units it intends to lease. Not only does this provide the department with the information it needs to do a proper analysis, it also allows it to clearly separate the acquisition decision from the financing decision. This financing issue leads directly to another point. The department should know the implicit interest rate in the lease so it can compare the lessor's financing rate to that of the Province.

8.109 Another important area is discussion of qualitative factors. We believe a department should clearly document the other qualitative factors that influence the decision. Sensitivity analysis should be carried out to allow decision-makers to understand the impact of various estimates.

8.110 It seems quite simple in principle, yet as the Department of Education has informed us, it is sometimes difficult to meet all the principles of properly documenting decision-making in the face of various pressures to do things quickly.

8.111 On the other hand, the pressures of the hectic administrative and program environment would seem to make policy AD-6701 even more relevant. The rigour imposed by the requirements of the policy would add a quality and consistency to the supporting analysis behind the decisions. The decision-makers should have confidence that the recommendations were supported by a meaningful analysis consistent with the requirements of the policy. Because of the inherent value of policy AD-6701, we made the following recommendations.

Recommendations

8.112 We recommended the Department of Education review the requirements of policy AD-6701 to ensure that the key elements of the policy are complied with in future leasing decisions. We suggested that our sub-criteria be used as an input to this review.

8.113 This leads to several more specific recommendations.

8.114 We recommended that in future lease versus purchase decisions:

- **an outright purchase cost be determined for the same asset or assets as specified in the lease proposal;**
- **the residual value should be based on documented evidence at the time of entering the contract;**
- **careful consideration should be given to the relative advantages of owning versus not owning and the results should be documented in the files;**

- **the analyst should use sensitivity analysis to provide an immediate financial measure of possible variances in forecasting;**
- **other key factors such as the "considered judgement" of the decision-maker should be appropriately documented in departmental records; and**
- **the recommended decision and the supporting documentation should be subjected to review by an appropriate senior official (or officials) to ensure the numbers used in the present value calculation are adequately supported and challenged, and that the calculation is done accurately.**

8.115 To cover those cases where the Department decides to lease, we added a further recommendation.

8.116 We recommended that all lease agreements should provide a buy-out option at a reasonable price. Consideration should be given to such factors as dispute resolution and using an arbitrator to determine fair market value.

8.117 During our discussions with the Department, we found a fairly high acceptance of our sub-criteria. The Department appeared supportive of adding a standard checklist to the policy. This working paper would list key requirements of the policy and a senior financial officer or other key official could sign it off. This would ensure the department properly documented its present value analysis of expenditure decisions.

8.118 We recommended the Department of Education develop a standard working paper or checklist to assist in the implementation of policy AD-6701.

Accounting Considerations

Policy requirements

8.119 Our second criterion refers to the appropriateness of the accounting classification. Section AD-6203 in the Province's Administration Manual sets out the Province's policy for classification of expenditures. The policy draws on CICA recommendations to define when a lease should be accounted for as a capital lease. That is, if substantially all the benefits and risks of ownership of the asset transfer to the Province, the Province has effectively purchased the asset and the accounting should disclose this. Three indicators of this transfer are:

- there is a reasonable assurance the Province will obtain ownership at the end of the lease;
- the lease term is such that the Province will receive substantially all the economic benefits from the leased equipment. This is deemed to be the case if the lease term is 75% or more of the economic life of the equipment; and
- the lease conditions are such that the leasing company is assured of recovering its investment in the equipment during the life of its lease

agreement with the Province. This is deemed to be the case when the present value of the lease payments is 90% or more of the fair market value of the asset.

Several leases classified incorrectly

8.120 All of the leases we examined were classified as operating leases by the respective departments. In our opinion, however, several of the leases are capital in nature.

Too late to correct three leases

8.121 In the case of the Department of Agriculture and Rural Development we examined and discussed the two leasing transactions. The first was the four-year lease for the radial spectrometer finalized in March 1997 with a net present value of approximately $140,000. The second was the three-year lease for the infra-red analyzer finalized in June 1997 with a net present value of approximately $220,000.

8.122 The Province's policy says that a lease should be classified as a capital lease if "there is a reasonable assurance that the lessee will obtain ownership of the leased property by the end of the lease term." Both these leases end with the ownership of the equipment automatically transferring to the Department. The equipment purchases are capital in nature and they should therefore have been accounted for as capital leases and capital expenditures.

8.123 We encountered a similar situation in the Department of Municipalities and Housing. In April 1995 the Department entered into the five-year lease agreement for a computer system for the Emergency Measures Organization (EMO). The system had a present value of approximately $175,000.

8.124 According to the policy, a lease should be classified as a capital lease if substantially all the risks of ownership of the asset transfers as a result of the lease. One of the indicators of risk transfer is that the present value of the lease payments is 90% or more of the fair market value of the asset. Our calculations show that the present value of the lease payments is actually more than 110% of the original fair market value of the asset. For this reason we believe the lease should have been accounted for as a capital lease.

8.125 The proper treatment of capital leases requires the present value of the lease payments to be expensed when the lease is entered into. Instead, the Department is expensing the lease payments when they are made over the five-year leasing period. This caused an understatement of ordinary expenses of about $140,000 in 1995-96 and an overstatement of expenditures of about $35,000 in fiscal years 1996-97 through 1999-2000.

8.126 In both of these departments we noted that a significant portion of the terms of the leases had already expired. Given that, we concluded there is probably not much that can be done to meaningfully correct the accounting errors. There must, however, be controls put in place to ensure that government policy is followed. Therefore, we made the following recommendation to both departments.

Recommendation

8.127 We recommended that the Department take appropriate steps to ensure that government policy AD-6203 is followed.

Department of Agriculture response

8.128 *We agree that Policy AD-6203 was inadvertently overlooked and should any purchases of this nature occur in future, we will ensure that the Policy is adhered to and the purchases are capitalized.*

8.129 *Just to clarify our decision to lease-purchase, this came about as a result of a budget problem in that funds did not exist to outright purchase these two large pieces of laboratory equipment. In the case of the equipment for the Soils Laboratory, this was more or less an emergency or urgent purchase because the old equipment ceased to function and was deemed not worth repairing.*

8.130 *The Dairy Laboratory Analyzer lease-purchase on the other hand, was planned in advance and a net budget was obtain and approved by Board of Management. In fact the cost of the equipment including the lease interest is being fully recovered from the Dairy Industry with no cost to the Province.*

Department of Municipalities and Housing response

8.131 *The Department of Municipalities will advise responsibility centre managers of the necessity to follow the Classification of Expenditures policy and to contact our Financial Services Branch for advice on categorising lease transactions.*

At least one lease in the Department of Education is classified incorrectly

8.132 As noted, the Department of Education classified all six of the leases we examined as operating leases. One lease, however, clearly is capital in nature. And our analysis has raised enough questions about the other leases to suggest that the whole question of capital versus operating needs to be more clearly addressed.

8.133 The particulars on the capital lease are as follows. On 1 October 1997 the Department leased 264 servers and 271 workstations. In addition, the leasing company purchased used servers and workstations from a third party to lease back to the Department. This third party was already leasing these servers and workstations to the Department and the three-year lease was due to expire in about four months.

8.134 In our opinion, the buy-out of the used servers and workstations and the related lease back to the Department is clearly capital since it results in the Department owning the assets at the end of the lease term. The other part of the lease covering the 264 servers and 271 workstations is capital as well. We have noted the Department determined that the fair market value of the new computers after four years is zero. Therefore, it has effectively acquired the benefits and risks of ownership. In other words, the Department will consume 100% of the economic life of the asset, clearly meeting the 75% rule set out in the policy.

8.135 This misclassification caused an understatement of expenditures in 1997-98 of approximately $1.5 million. In each of the subsequent three years it results in an overstatement of expenditures of about $400,000. In the final year of the lease the overstatement drops to approximately $200,000. Because our recommendations were provided to the Department prior to finalyzing the financial statements for 1998-99, we felt there may be an opportunity to correct the accounting error. In other words, to date the error has only been recorded incorrectly in one fiscal year.

Recommendation

8.136 Therefore, we recommended that the Department classify this lease as a capital lease.

Other leases in the Department of Education may also be misclassified

8.137 The policy lists three distinct conditions, any one of which would cause a lease to be classified as capital. We noted that for the six leases audited, there was not adequate documentation on file (such as a systematic checklist with appropriate supporting back-up) to ensure that these "operating" leases did not meet any of the three indicators specified in the policy. In one of the files we did find some documentation on the classification decision, but it appears that all three questions were not adequately addressed. In the case of another lease, a departmental document said:

> *The Department has consulted with the Comptroller's Office on this matter and it is agreed that this is an operating lease and not a capital lease.*

8.138 But we could not find any documentation on file that showed how all three indicators in the policy were addressed.

Indicator #1

8.139 With regard to the first question of reasonable assurance of ownership, we cannot be conclusive. We do know that the Department has already bought out the lease referred to above.

8.140 None of the other leases have expired. And the Department's position is that, unlike the case already noted, it does not intend to own the computers at the end of these other leases.

8.141 There are a couple of factors, however, which we would like to present for consideration. First, in three of the remaining leases, the Department has negotiated a buy-out or purchase option. This indicates the Department could become an owner at the end of the lease term. The buy-out rates vary between 7.5% and 17% of the original purchase price. Buying may seem to be a convenient option as these leases expire.

8.142 We also noted that all the leases expire during the school year, not after the year has ended. Educational programming considerations may combine with budgeting concerns, making it difficult for the Department to replace classroom units in the middle of an academic year. This may cause the Department to rethink its ownership decision as time passes.

8.143 These factors aren't conclusive in determining reasonable assurance of ownership. But they do point to ownership as a consideration that should be addressed and documented as part of each leasing decision.

Indicator #2

8.144 The second indicator relates to the lease term and the economic life of the equipment. The policy dictates that the Province will receive substantially all the economic benefits from the leased equipment if the lease term is 75% or more of the economic life of the equipment.

8.145 Most of the six leases examined are for three-year terms. If the units are assumed to have an economic life of four years or less, then the Department has entered into capital leases. That is, it has consumed 75% or more of the economic life. With rapid changes in technology one could argue that four years of economic life is on the generous side. Such a view is supported by the Department's estimate that it could recover no more than 10% of the purchase price if it sells a computer after three years. Further, in the one lease in our sample with a four-year term, the Department assumed a unit would have no resale value for purposes of its calculations. In effect, for this lease at least, the Department has estimated four years is the sum total of a computer's economic life.

8.146 Of course, one could counter that in the school system a computer has a much longer economic life than four years. For example, older units could be "pushed down" to a lower grade where the educational program was not so dependent on the latest technology.

8.147 The problem with the "push down" argument, though, is that if one agrees that because of it a lease does not meet the second indicator, it then becomes a valid reason for a lease being capitalized under the first and third indicators. That is, since an older computer still has considerable intrinsic value in a school system, a value that exceeds use in a commercial venture, then the Department is much more likely to exercise a reasonable buy-out option (the range in the leases we examined is 7.5% to 17%). Indeed, this is what happened already with one lease we examined. The Department saw a 22% buy-out as an excellent opportunity to place older computers in a spot where none or few were being used before. In fact, in its presentation on this matter to the Board of Management the Department said:

> *There is a requirement for the existing equipment to be redistributed within the school administrative areas to*

> *improve productivity and as a result, the Department would like to purchase it rather than return it to the lessor.* ***The equipment is still very functional and would fulfil the requirements of this area*** *(emphasis ours).*

Indicator #3

8.148 The third indicator might be termed the 90% rule. The lease is determined to be capital if the present value of the lease payments is 90% or more of the fair market value of the asset.

8.149 In most of the tenders or requests for proposals for the leases, the Department did not obtain an outright purchase price from the supplier. This makes it more difficult to positively determine whether the present value of the payments exceeds 90% of the fair market value of the computers.

8.150 In our opinion, however, the approximate price of the computers between the wholesale vendor and the lessor can be either calculated from, or is evident in, the lease. If these calculated prices are assumed to be equivalent to a provincial purchase price, all but one or two of the leases would be capital leases under the third indicator.

Conclusion re classification issues in Department of Education

8.151 As already noted, one of the Department's leases is clearly capital. We are recommending that the accounting error be corrected immediately. When we examine the remaining leases under the Province's three indicators for capitalization, the Department's accounting classifications move into, at best, a grey area. It would seem appropriate to review each of these so-called operating leases in some detail and properly document the classification decision. Since the Department has a number of other leases that we have not tested, it would be appropriate to extend the review to all of its operating leases.

Recommendations

8.152 We recommended for future requests for proposals and tenders for leases, that the Department obtain an outright purchase price as one of the options. This would enable the Department to more easily determine and document the appropriate accounting treatment for the leases. And it would allow the Department to separate the acquisition decision from the financing decision.

8.153 We recommended the Department evaluate all its present leases and clearly document its reasons for accounting classification decisions. All three conditions of the administrative policy should be addressed and documented in the exercise. Any changes resulting from the exercise should be discussed with the Office of the Comptroller to determine the impact on the financial statements of the Province.

8.154 We also recommended that the Department take appropriate steps to ensure that the administrative policy is followed in the future.

8.155 We recommended that the Department develop a plan to deal with both the educational programming and technology replacement issues associated with the expiry of leases within an academic year.

Department of Education response to our recommendations on both compliance with policy AD-6701 and accounting considerations

8.156 *The Department has evaluated the observations outlined in your report and we maintain that our decision to lease computers was the best alternative at that time.*

8.157 *Our position is based on the following advantages of leasing computers;*

1. *Computers have an extremely high rate of obsolescence. By leasing, we are able to replace computers every three years and thus provide schools with relatively current hardware.*

2. *By leasing, our equipment is always on warranty and we are able to financially penalize the supplier if our strict warranty deadlines are not met. For example, under the terms of the leasing agreement, we can withhold lease payments if warranty work is not performed to our satisfaction.*

3. *The purchase price of computers is continually dropping while the processing power is increasing, which makes purchasing and owning computers less desirable. Furthermore, as processing power increases, software companies add features that require this additional processing capacity. By leasing approximately one third of school computers, we can expose students to newer software products and enhanced learning opportunities.*

4. *Overspending our budget to purchase a large quantity of computers in order to reduce the price per unit was simply not an option. Nevertheless the Department benefited from large volume discounts by leasing in large quantities. For example the implied cost in one lease was $1,626, a savings of $817 per unit when compared to the regular provincial government purchase cost (standing offer) of $2,443.*

5. *Leasing allowed for a large number of computers to be introduced in schools as quickly as possible. This enabled more students the opportunity to be exposed to up to date computer technology.*

6. *There are over 15,000 computers currently in use in New Brunswick schools; 5,000 of which are leased. As noted above, there is a constant need to refresh a portion of these computers in order to keep up with the need for more computing power. Leasing is an important component of*

our overall strategy to continuously replace older computers in our schools.

8.158 *With regards to the emphasis placed in your report on the importance of policy AD-6701 "Present Value Analysis of Expenditure Decision", we are of the opinion that aspects of this policy are outdated, especially in terms of deciding whether to lease or purchase microcomputers and servers. This policy was written in 1977 before the introduction of microcomputers and at a time when many assets increased in value and obsolescence was not an important issue. There is also a need to place more emphasis on the importance of the non-financial benefits of leasing. The Comptroller's Office has advised us that they recognize that this policy needs to be revised.*

8.159 *We do agree with the need for improving the quality of supporting documentation and it is our intention to do so in the future, particularly with regards to the non-financial benefits of leasing.*

8.160 *It is important to note that this response has been prepared after consultation with the Department of Finance and the Comptroller's Office, which participated in the original assessment of leasing versus purchasing computer equipment for schools.*

8.161 *We firmly believe that we made the correct decision, both financially and educationally, in our assessment to lease rather than purchase computer equipment for the public school system. We are confident that students, parents, teachers and the taxpayers of New Brunswick have garnered tangible benefits from this decision.*

Our concluding comments on the Department of Education response

8.162 We have included the Department's response in its entirety. We have the following observations on their comments.

8.163 The Department is of the view that aspects of policy AD-6701 are outdated. If this is in fact the case, then we would have expected to see the policy changed or amended. No department should be able to exempt themselves from all or part of a government policy.

8.164 We are of the view, however, that the policy is still valid and the various points raised by the Department as "non-financial" benefits of leasing could have been included as qualitative factors in the decision-making process. Section 7 of the policy states "*The analysis does not preclude the considered judgement and intuition of the decision maker as to which is the best choice from the standpoint of experience and knowledge.*" Providing information on "non-financial" benefits will enable decision-makers to weigh their significance, when being asked to select a more expensive alternative.