

[Chairman: Mr. Pashak]

[10:02 a.m.]

MR. CHAIRMAN: Well, I'd like to call today's meeting of the Standing Committee on Public Accounts of the province of Alberta to order.

Before I introduce our special guests, I'd just like a motion to approve the minutes of the June 22, 1988, committee meeting. Moved by Mr. Ady. Any additions, omissions, corrections to the minutes? Hearing none, are you in favour of adopting the minutes as circulated?

HON. MEMBERS: Agreed.

MR. CHAIRMAN: Agreed.

Well, today we have with us from the Auditor General's department Mr. Ken Smith and Andrew Wingate. Our guest this morning from the government is the Hon. Les Young, the Minister of Technology, Research and Telecommunications. I'd invite Mr. Young to introduce members of his department that are with him this morning and perhaps make an opening comment, if you would care to, on the public accounts as far as it affects your department for the year ending March 31, 1987.

I'll start to begin a list. You can see that there are many members of the committee that already are indicating an interest that they'd like to put questions to you. So with that, Mr. Young, we are pleased to have you here this morning.

MR. YOUNG: Thank you very much, Mr. Chairman and members of the committee. I have with me today the chairman of the Alberta Research Council, whom you all know, hon. Fred Bradley, and two of my . . . Well, let's deal with the Research Council. Dr. Bob Green, who has had all of the financial details at his fingertips over many years -- he has been with the council how many years?

DR. GREEN: Thirty-plus.

MR. YOUNG: Thirty-plus years, so I think we can track most questions back. To my left, Deputy Minister Ken Broadfoot for the Department of Technology, Research and Telecommunications and Mr. Bill Whan, who is the financial officer for the department.

Now, in terms of a few opening comments, Mr. Chairman, I think that in view of the questions you are already having generated, I would simply remind the committee that the year under review is the birth year, if you will, of the department, the founding year. Regrettably it was also a year in which I had some personal difficulties healthwise, and for that reason some things didn't happen as quickly as I would have liked to have had them happen. However, if I can speak very briefly to the department, you will observe that there were a number of initiatives that had been undertaken somewhat earlier, including various centres and stimulants that had been put in place to advance, more quickly than would otherwise occur, technology and its adaptation in the province.

The Research Council, as you know, is the oldest of all of the provincial research councils, the most well established and, as I think, the most vital role of any research council save probably the federal one -- and dollars speak loudly here, so we'll give them that role -- but certainly of the provincial councils.

Because the ambit of the portfolio is so broad, I must mention the ACCESS corporation -- I didn't bring with me today representatives from that corporation but could undertake to an-

swer questions if there are any -- and then, of course, the very major Crown corporation, Alberta Government Telephones.

So with that, Mr. Chairman, because you have questions, I think it better to leave it open to see what direction committee members would choose to take.

MR. CHAIRMAN: Thank you very much, hon. minister. I begin, then, with Mr. Mitchell.

MR. MITCHELL: Well, what a treat; I'm first. That's a first too. Thank you.

To the minister and possibly to the director of the Alberta Research Council. I'm interested in the 70 research staff that were laid off, and I believe it was during this fiscal year. I understand that most of those positions have since been rehired. Could the minister please indicate why that layoff was undertaken when so shortly afterwards those positions were rehired?

MR. YOUNG: Well, first of all, a brief comment that I would like to offer, and then Mr. Bradley may wish to add, or perhaps Dr. Green. The initial reason, of course, was a budgetary one. It was part of the concern and response of the government to the very huge deficit that we were facing in the year under review. So the response was a reduction in budget, which led to those terminations from that point of view.

However, it's too simplistic to say that that was the only reason. Some of those positions, even though they were subsequently filled, are really transfers from one area of expertise to a different area of expertise. If you would like to get into that kind of detail, we can do so. But there were at least two factors involved. One was the response to a revised financial position, and the second was a repriorizing of the direction of the Research Council to focus it more on some of the emerging technologies and away from certain activities which the council had been doing. I think it would have been impossible to sustain some of the staff in those positions, irrespective of the downsizing which occurred, simply because of the redirection. Some of them, their skills are in areas which were not continuing to be pursued.

MR. MITCHELL: Everybody, I think, shares the view that we must balance the budget one way or another and eventually. There is an important distinction between cutting costs for the sake of cutting costs and investing in the future. Is it not the case that there are long-term risks to cutting in the area of research and development, since it is generally conceded that research and development has long-term payoffs for economic development and, particularly in a province like Alberta, for economic diversification?

MR. CHAIRMAN: I'll allow the minister to use his discretion in terms of answering it, but we're really getting a little bit over that line and into policy again rather than looking at the justification for actual expenditures during that period of time.

MR. YOUNG: Well, to respond very quickly -- and then I think Mr. Bradley would wish to respond somewhat as well -- certainly there are concerns, although there are hard decisions which have to be taken as well. There are concerns if one cannot maintain a sufficient peace of mind among research staff to keep the morale up. That's one factor. A second one is to assure for certain types of projects. Some of which the council do are term projects in the two, three, and four years, so therefore

it's important not to disrupt those either.

But as I pointed out, it was a shift, for instance, from the weather modification, one group involved there -- some shifting in some other areas as well, but certainly that one would get singled out -- to other initiatives. The concern has led us and the council to explore a better balance than existed in '86-87 of revenue sourcing from government grants to other external revenues. Now, in saying that, I have to say that external revenues to the council were also affected in that particular year, simply as a consequence of the economic turndown.

But finally, I would make this point, and it is borne out by the sexennial -- I believe it's called -- review of the Alberta Heritage Foundation for Medical Research, that outside committee that comes in and looks once every six years at the success of the foundation. There one would note that last year when that committee of experts looked at the activities of the foundation, they made the point that there is currently a very vital group of researchers but that some of those people will be found to be less able in their research than other potential researchers who could be supported and that it will be vital to the health of the heritage foundation to be able to turn off and not renew contracts for some of those researchers. That will be one of the major challenges, and they cite it as a major challenge in maintaining leading edge research in any area. That's a problem the council also must face.

Having given you those three dimensions of it, Mr. Bradley or Dr. Green?

MR. BRADLEY: Well, responding to the first and second questions, Mr. Young has outlined some of the parameters which the Research Council was faced with, but for specifics there were two long-term programs which came to an end in that fiscal year, one being the weather modification program, which is a five-year program. The contract was not renewed with us by Alberta Agriculture, so obviously we were faced with some decisions there in terms of staff in that area. The second area was with regards to a plains hydrology study which we've done with Alberta Environment relating to coal reclamation and the effect of coal mining in the plains area on the water resources. That contract came to an end. Plus if you look at our annual budget for that year, there was some \$5 million less in contract revenue, which is aside from the overall grant which we get from the provincial government.

So those are some of the reasons behind the decisions that were made at the Research Council to downsize in that period. As we also know, at that time there was a decrease in oil prices and our contracts from oil companies in terms of that research area. They were cutting back in terms of their budgets and thus had an effect on the Research Council also.

The question initially was that a number of these people have been rehired. There have been some transfers within the Research Council, but I would say there's probably been only 10 or 15 of those people who were laid off that were rehired.

MR. YOUNG: Could I just add to that? I suspect that the rehires -- and perhaps Dr. Green could confirm this -- were in the technologist area more than in the lead scientist area.

DR. GREEN: Yes, that's correct.

MR. YOUNG: And they're more adaptable, obviously.

MR. MITCHELL: Thank you. Does the minister have an es-

timation of what the total R and D expenditure of this government is as a percentage of gross provincial product for this particular year, for example? And could he indicate how that would compare with the similar figures for other provinces?

MR. YOUNG: Let's first acknowledge that there's a definitional question of R and D. But if we're talking about R and D as we generally know it, there is a study, and I didn't bring it in with me, or a summation that's prepared annually on this, formally done by Advanced Education. But I believe the number would be in the order of \$250 million in the year in question. As a proportion of gross provincial product, which I understood the question to be, that's a simple mathematics calculation from here on.

I would point out one of the real, if you will, questions about using that kind of a statistic. Alberta has a very high volume of at times high-value product in the energy industry, which is somewhat different, for instance, than if one were comparing with the Ontario situation where a great deal of it turns on manufacturing. So I think that certainly I would not use the statistic that you're trying to develop on an interprovincial comparison. Even on an international comparison, while it's an indicator, that is the most credibility I would give such an indicator. It is an indicator, but it certainly isn't a demonstration of effort. I think that's really what we would all like to get at, is some unassailable number or quantifiable indicator that we could say, "Well, because one province or one country is at 2 percent of gross national product or 3 percent, another country is performing less well if they are at some lower number." I think that really can be a very specious kind of thing to get caught up with, simply because of the difference in the economies.

MR. MITCHELL: Trends would be made . . .

MR. CHAIRMAN: Okay; Mrs. Mirosh.

MRS. MIROSH: Yes, Mr. Chairman, thank you. To the minister. Volume 1, page 7.35, the Alberta Government Telephones consolidated balance sheet.

MR. CHAIRMAN: Is that public accounts, volume . . .

MRS. MIROSH: One, 7.35. It shows that AGT increased its retained earnings from almost \$111 million in '85 to over \$173 million in '86. Could the minister detail for the committee the reasons for this increase?

MR. YOUNG: If I understand your question, you're asking: why the change, or how come the change?

MRS. MIROSH: Why the increase?

MR. YOUNG: Yes. There are a number of factors, and to some degree they've had discussion recently in the rebate or the credit note that was announced a week or 10 days ago that Alberta Government Telephones would be applying for. One of the factors is that it is impossible to do what the Public Utilities Board and Alberta Government Telephones have to do with precision; that is, they have to forecast based upon set rates what the net at the bottom line would be. What you're looking at is the net revenue. When you consider that their income in the year in question -- if you look at page 7.36, the income was \$1,067,142,000. So if you look at a change in revenue of \$60

million . . . Somebody help me with math. What percentage is that change in the net of a billion? It's .6 percent. So it's less than 1 percent.

Now, when the Public Utilities Board looks at the allowable return based upon the investment of AGT, it establishes, hopefully in advance, the rates which will apply. Underneath that determination are a whole lot of other calculations, the primary one, I think, being a guesstimate as to the nature of the economy during that time frame. As you can guess, it would take very little change in the economy to swing the gross revenues quite dramatically. In fact, because so much of Alberta Government Telephones' costs are fixed, a lot of their net revenue change turns, in my opinion, on the volume or the utilization of the system, which costs very little extra in marginal operating. So what we get in this case is -- well, .5 percent in total revenue change accounts for all of the change here virtually.

I don't know if I'm getting close to the response to your question, but there were also movements in interest rates, which are a significant cost, and as you know, interest rates on the average are declining through that period relative to what they had been. Secondly, Alberta Government Telephones because of the downturn had gone into a constraint mode in terms of their hiring. I think all of those factors, reduction in costs from what the trend line had been, et cetera, all contributed to that change in revenues. That is probably the biggest factor, as a matter of fact, because their operating revenues, while they went up for long-distance service, didn't on the overall change greatly from one year to the next.

MRS. MIROSH: Just for clarification. Are you saying that the increase in earnings in 1986 is related to the Public Utilities Board decision on telephone rebates?

MR. YOUNG: No, not the current one; I'm sorry. If I understand you, the current rebates are for the year 1987 and for 1986, but my memory tells me that about \$29 million of the total rebates announced were attributable to the year 1986.

MRS. MIROSH: Since we're on the topic of rebates, could the minister tell us whether the total amount to be rebated will be based on the increase of AGT's retained earnings?

MR. YOUNG: I'm sorry; I was looking at documents here, trying to sort myself.

MRS. MIROSH: The question is: could you tell us whether the total amount to be rebated will be based on the increase in AGT's retained earnings?

MR. YOUNG: Well, yes, in the sense that if they didn't have the retained earnings, they wouldn't have had money to rebate. It's the retained earnings that are considered to be in excess of the allowable earnings to be retained, and that's partly due to efficiencies. As I indicated, there's some volume change in long distance.

I guess I should make the other point on behalf of AGT while I have the opportunity. In the financial restructuring, which there has been some public question about, Alberta Government Telephones, significantly, has more debt as a proportion of its capitalization than most utilities. It has in the order of 90 percent debt, and most would have in the order of 50 percent. When the regulator looks at the allowable return, it permits a higher allowable return on share equity because that's part of the

whole function of being a shareholder. The return on your shares can go up; it can go down. It moves at the risk of the market and the economy. But when one is looking at debt, it's a fixed amount, so the only base on which the Public Utilities Board allows a measure to be taken is, in fact, that 10 percent or so of equity that's held, and it's a very narrow thing. I mean, I think it's remarkable that either the PUB or AGT management can come that closely. To me it is a problem.

I will say to the committee that I think what we have . . . And we are looking at alternatives, modifications to the regulatory system. We can create a situation where the public is confused as to the trend of costs over the long term, and that's undesirable. I think it's important from the family budget planning point of view to know what the long-term real trend in a cost of service should be. When we have a situation such as we currently have, where the rates were established and then suddenly there is a rebate, it I think is slightly misleading. Now, in terms of the total family budget, you know, the price of one month's telephone, I guess, on an annual family budget isn't that significant. Nevertheless, I think it is confusing to consumers, and it's a condition which we should try to correct over the longer term.

MR. CHAIRMAN: Thank you very much, hon. minister. Before I recognize the next member of the committee, perhaps I should just point out to our guests in the gallery that this is a meeting of the Public Accounts Committee of the province of Alberta. We have as our government minister with us this morning the Hon. Les Young, who is the minister of science and technology. We're reviewing expenditures in his department for the fiscal year that ended March 31, 1987.

With that I'd recognize Mr. McEachern.

MR. McEACHERN: Thank you, Mr. Chairman. I wanted to follow up to some questions that were just being asked about Alberta Government Telephones. When the minister was saying that AGT has a small proportion of equity compared to debt, was he suggesting, then, that AGT or the government may be looking for some way to increase that equity as a proportion?

MR. YOUNG: Yes, that's what we are looking at. Because then if there would be an increase . . . Let's say that there's a million dollars worth of debt in the company, okay? -- just to take a fictitious company. There's a 10 percent interest charge allowed, and the company . . . I'm doing this without even having thought of it, so I'll probably get myself in trouble. But the company earns \$150,000 after the operational costs are eliminated. So the Public Utilities Board would subtract from the \$150,000 the interest charge of \$100,000, leaving \$50,000. Now, on equity, if there would only be \$100,000 worth of equity, the \$50,000 looks like a huge return on that small equity base. On the other hand, if you had \$500,000 of equity, you'd have a much smaller proportion of return on the equity.

I think the current situation makes it very difficult for management. They can so easily be accused of gouging in this situation, if one wants to be nefarious about it.

MR. McEACHERN: I understood the problem, and your illustration is a good one to further clarify it. But I guess what I was trying to get at is: is the government actively seeking maybe partners for AGT or having AGT go to the stock markets instead of borrowing debt money or any of those kinds of notions?

MR. CHAIRMAN: Again, we're getting out of . . .

MR. McEACHERN: Well, I didn't start this line of questioning, actually. The previous member did, and the minister did get us into this. So I think it's a fair question.

MR. CHAIRMAN: Well, I'll let the minister use his discretion. Maybe for the benefit of the minister I should point out that I try to keep the members of the committee onto the public accounts for that year that ended March 31, and I try to have them refer to an actual line or item somewhere in the accounts.

MR. YOUNG: Mr. Chairman, I appreciate your efforts and also the role of the committee, so I'll just simply say that the government hasn't made any decision about the kinds of questions most recently raised by the hon. Member for Edmonton-Kingsway.

MR. McEACHERN: Okay; thank you. Then I will switch back to where I had intended to get in on the questioning. On page 77 of the Auditor's report, there is a recommendation with regard to the Alberta Research Council, number 43:

It is recommended that the Alberta Research Council develop and implement immediately procedures to facilitate the identification of fixed assets that are held but not owned by the Council.

There's quite a long explanation there. I'm sure the chairman of the Alberta Research Council has looked at that page and perhaps would have some comments about the Auditor's recommendations and what the research council has done about them.

MR. BRADLEY: Well, thank you, Mr. Chairman. We've had continuing discussions with the department of the Auditor General with regard to this to identify a program which can resolve this fixed assets question. A program is now under way, and I think it's being done to the satisfaction of the Auditor General.

MR. SMITH: We're aware of the activities the Research Council is undertaking, and we're quite satisfied they're taking a reasonable approach. We're in the process of our annual audit at this time, and it should conclude towards the end of the summer. We expect that if they're successful in their efforts, we may be in a position to not have to qualify the financial statements for the first time in a long time this year. That remains to be seen. We're not at the point where we can conclude that yet.

MR. YOUNG: My understanding is that the methodology being followed by the council is very acceptable to the Auditor General. So it's now a matter of: has the methodology been applied to it's full completeness?

MR. CHAIRMAN: Thank you.
Mr. Ady.

MR. ADY: Thank you, Mr. Chairman. My question comes from volume 1, page 7.37. It has to do with the investing activities of AGT. I see that the cash used for investing activities was \$226,973,000 in 1986. Could the minister outline what sort of investments AGT makes? Is it within the corporation or outside?

MR. YOUNG: Well, yes. I can tell you right off the top what AGT does for investments. AGT is a 50 percent shareholder and source of funds to NovAtel. This is far and away the largest

investment. NovAtel currently employs -- I say currently -- in the order of between 500 and 600 people, I believe, between 300 and 400 of them in Lethbridge, the largest single other group in Calgary for its research in some manufacturing facility there, and the balance in a marketing role in different parts of the world. NovAtel, as you know, makes radiotelephones, has a very significant share of the world market, and for that reason is a major employer in the city of Lethbridge.

Within the last year -- and this is getting us beyond the scope of the accounts today -- NovAtel has introduced some automation, a considerable amount of automation as a matter of fact, and is now regarded as one of the most up-to-date plants. It has been able to substitute the manufacture of off-shore components, to do it in Canada, in Alberta, more cheaply than they could bring them in from -- I've forgotten exactly where -- Korea and Taiwan. So they were substituting Canadian manufacture within the last year for those sources of supply, which also has the effect of giving much better quality control. Quality control or lack thereof in a couple of products which were brought in offshore turned out to cost NovAtel dearly, not in the current year you're looking at but in the subsequent fiscal year. So that problem had to be overcome. That is one of the investments. [interjection]

Well, I think Alberta Telecom would . . . In the fiscal year in question, I think there may have been \$10 million invested. That's a venture capital company intended to stimulate technology application in Alberta, and the company is doing that.

Finally, the other is ATI corporation, which is marketing product outside of Alberta and doing ventures, well, as far as the Middle East, and I think China is currently one, and the United States and Thailand.

MR. CHAIRMAN: Supplementary, Mr. Ady?

MR. ADY: Yes, thank you. Could the minister explain if there is some rationale behind AGT's investments, some strategy? Does the government give them a mandate to make investments? Is it internal, or can they invest at their good pleasure?

MR. YOUNG: Some strategy behind . . .

MR. ADY: Well, some guidelines. Is AGT bound by some guidelines for their investment or can they invest at their good pleasure?

MR. YOUNG: Well, first, their investments are watched very carefully, at least in terms of the implications to the cost of telephone service. That's watched by the Public Utilities Board to ensure that the drain there doesn't impact rates. Secondly, their investment has been in telecommunications -- almost 100 percent in telecommunications -- but it's been to some degree in the area of support. For instance, one company, Idacom, which it's supporting, is in the electronics aspect of, again, telecommunications to a large extent.

But it does support Alberta companies, and any of the companies I've spoken about are . . . Well, all the investment has gone to promote Alberta companies. I've mentioned the electronics and telecommunications area. It has made an investment in the Alberta Telecommunications Research Centre, along with several other companies. The reason for that is that it gives AGT access to some very advanced research. Of course, through that we also promote the development of graduate students on the leading edge of their particular technology. In-

directly, I guess, one could say there is a support for certain university staff who hold joint positions with the Alberta Telecommunications Research Centre and with universities.

MR. CHAIRMAN: Last supplementary.

MR. ADY: Yes. Finally, on that same page 737 in volume 1, I note the increase in investments. In 1986, \$31,436,000 was lost as compared to \$1,525,000 in 1985. Could the minister comment on that difference and what really happened there?

MR. YOUNG: Mr. Chairman, I think most of that would be attributable to NovAtel. I don't want to be unfair to NovAtel in making that observation, but NovAtel had its start-up pains and its growing pains as well and I think has finally emerged through that process. But it has been longer, as most entrepreneurs find out, than they ever dreamed it would be. The learning curve has more curves in it than they had anticipated always, and I would have to say most of that explanation is due to NovAtel.

MR. CHAIRMAN: Mr. Moore.

MR. R. MOORE: Thanks, Mr. Chairman. I refer to volume 2, page 23.4, vote 2, under the section Financing of High Technology Projects. I see under reference 2.0.10, Laser Technology, that in your estimates there is nil. However, you spent \$15 million actually. Now, could the minister comment on this project and why it was not included in the estimates?

MR. YOUNG: Well, first of all, why it wasn't included in estimates. That was an investment -- and I'm going to describe it that way -- that wasn't foreseen. You'll recall that in the year 1986-87, the year about which we're speaking, the province was in a severe recessionary position. We were losing a number of companies, and we decided as a provincial policy to use our financial muscle that we had developed over the boom years. As a consequence of that, the amount you mention is to purchase equity in General Systems Research Inc. That is a company specializing in laser cutting systems and, in fact, was and is a leader in that niche of laser development. It has very imaginative and dynamic leadership.

I should also point out that it had another characteristic which it was felt was worthy of preserving, and that is special skills in a sector of the aeronautics industry. It had acquired the manufacturing capability from Northwest Industries, and while the equipment perhaps was not the most modern, the staff was pretty unique in that respect. It has a special discipline that enabled it to meet military specs. They knew how to produce product that was precise and of a quality the military requires, and that's very important in the aeronautics area.

Subsequent to the investment . . . Mr. Chairman, I realize I'm getting beyond the scope of the mandate this morning, but subsequent to that time, I can tell you that General Systems Research has sorted itself out in terms of divesting a number of associated ventures it had become involved in, has produced a laser cutting machine, and within the last number of months has begun to sell this at very competitive prices and with capabilities which were unknown in that particular market to this point. That's number one. Number two, it has been able to requalify itself for the aeronautics industry and has actually been getting contracts from the United States -- to a considerable extent they're from the United States -- and has been required to not

bid on some of these contracts simply because it doesn't have the capacity currently to be able to do that.

Finally, it is at this point in time a contender for the F-18 wing tanks, which is a very major contract, a \$60 million contract in total. I don't know whether it will be successful. It has teamed up with expertise in the construction of that kind of product, expertise it has acquired from Britain -- British Petroleum actually -- so I think it's a very vital company, and I believe it has now turned the corner and will in fact assure that Edmonton retains a spot on the map in laser cutting machines, which of course means that we attract to Edmonton businesspeople who have an interest in that. That helps in some other ways in terms of our business expansion. It keeps us with a base on which we can build for the aeronautics industry, and if this other contract proves out, there will be a very substantial increase in the company and its growth. The company is expanding with new equipment now.

MR. CHAIRMAN: Mr. Moore, a supplementary?

MR. R. MOORE: Thanks. The minister covered a lot of ground there for me, and I appreciate that. But I have several other situations and I know I have only two supplementaries, so I'll make it all in one big supplementary, if I could, Mr. Chairman. I see it as the same sort of situation where no estimates were made and money was expended. On the same page, under 2.0.12, Computer Systems Development; 2.0.14, Research Park Multitenant Facilities; 2.0.17, Computer Security Service; and 2.0.18, Application for Tomography -- whatever that is -- Technology: could the minister just touch on these situations? They weren't in the estimates, yet we spent the money. Could you tell me what tomography is?

MR. YOUNG: Okay.

MR. CHAIRMAN: Okay. I think the member's trying to get the justification for the expenditures without them having them appear in the estimates.

MR. YOUNG: Okay. I come back to the point that this was the birth year, really, of the department. We did not have a handle on what might be coming down the pike at us. To be very candid, I guess I would have to say that the discipline that is now applied in these areas wasn't then being applied by the predecessor department either, so in a sense we were having to respond to what we thought were some good initiatives and having to do it by special warrant. Our current budgeting system is different in that we have allocations. We would use special warrants only for very special -- there might be some, but they would be very rare indeed, not in the numerical quantity you observe here.

To be somewhat more precise about what the expenditures were for, Teknica Resource Development, under the computer systems heading, 2.0.12: that was to purchase shares in that company. That's a geophysical/geological company in Calgary. They are a very advanced company in terms of computerization and electronic interpretation of data and manipulation of data. Also, in that year D&S Knowledge Systems: we purchased shares in that company, again a computer company with expert software, and again for the geophysical area because it was log analysis we were interested in. We have tried to assure in most cases in these requests that we look most seriously at those which maintain Alberta's leading edge in an industry that is established here. That's why you'll see the oil energy exploration

industry showing up in these two.

We approved, for the Research Park Multitenant Facilities under 2.0.14, some funding for construction of a facility in both Edmonton and Calgary. The amount, I think, was not very large in those. It was roughly only \$157,000 that year. Subsequent expenditures were greater, but they were built into the estimates. Under 2.0.17, a company, Dial-Guard Ltd., was provided a loan. Dial-Guard had come up with a system to protect intrusions into computer systems; I guess that's the best and simplest way of putting it.

Again, in 2.0.12 and 2.0.17 we're really seeing the strength of the electrical and electronics portions of our two universities, which are very, very strong, and now the Research Council, and also at work at that time, the requirement on engineers, of which we have, proportionate to the rest of North America, a very large concentration in Alberta, to find a way to make a living when the oil industry wasn't doing so good. So they took their expertise that they were developing in the companies, teamed it up with some from the universities, and we've seen a flowering of niche developments in the electronic area, but having application to the energy and computing industries. It's been very beneficial. In an indirect way it's a silver lining in a very dark cloud, if you will. It's spread the economic base in Alberta.

The final one, Tomotechnology Inc., was to fund a company which believed it had found a way to do nondestructive testing of cores -- that's the drill cores -- and it's really the CAT scan in human or medical terms. It's applying the CAT scan process to drill cores to try to discern, without breaking up the cores, what would be in the cores.

MR. CHAIRMAN: Mrs. McClellan.

MRS. McCLELLAN: Thank you. My question is out of volume 1, page 5.154, on the Alberta Research Council. I notice, first of all, that the grants contributed to the Research Council from the government out of the General Revenue Fund and the Alberta heritage savings fund for 1987 were \$4.3 million and in 1986, \$8.8 million. This is to me quite a significant drop, and I guess I would like the minister or the chairman of the Research Council to comment on this decrease and the effects it might have on technological research in the province.

MR. BRADLEY: Which page was that again?

MRS. McCLELLAN: Page 5.154. Volume 1.

MR. YOUNG: Oh, volume 1. Yeah. I think we've found it now.

MR. BRADLEY: And which were the figures you were relating to?

MRS. McCLELLAN: Well, the 1986-87 revenue from the province through general revenue and through the Heritage Savings Trust Fund. The 1987 is considerably -- well, 50 percent -- lower than the 1986 contribution.

MR. BRADLEY: We had a number of special-purpose projects which were going forward in those years. One was the development of the biotechnology facility, which is a short-term initiative in terms of the funding we receive from the General Revenue Fund for that specific facility, which was to build a toll fermenter facility. We are now going to get up to some 30,000

litres of capacity, which we would provide to the private sector to develop products or scale up production so they could get into a commercial basis. So we would be basically a scaleup facility for private-sector initiatives.

We have one contract now, which is very interesting, with Biosis, in which they're using a biological pesticide to kill certain types of insects. But this is the type of facility there. So those were a special purpose grant for a specific purpose there.

With regard to the grants from the Heritage Savings Trust Fund, basically those grants went toward the development of the Electronics Test Centre, which is providing services to small electronic firms in western Canada to basically test their instruments.

MRS. McCLELLAN: Thank you. You partially answered my second one, and that was on the biotechnology toll facility and the types of projects or the nature of that research, and you did identify one specific area. Would you consider if there are others that you could enlarge on, or is that the main one? I hope this applies to grasshoppers, I might add.

MR. YOUNG: Actually, maybe Dr. Green should take a shot at this, but my understanding of the particular product that is being manufactured . . . Let me correct myself. I think it's fair to say that the Research Council has been instrumental in developing the process by which commercial quantities of this biological pesticide could be produced and stored. And that's been the trick. It's a naturally occurring nematode, and it attacks certain kinds of pests. My recollection is -- and perhaps I should have Dr. Green speak to the types of pests -- I don't think it's going to attack grasshoppers. I think it attacks only soil-dwelling ones. Dr. Green?

DR. GREEN: Mr. Young is correct. It attacks grubs and pests that are in the soil. I don't need to go into the gory details of how it attacks them, but it basically eats them up. It does not attack insects that are above the ground.

MRS. McCLELLAN: Just for clarification then, that is the main thrust of what this toll facility is . . .

MR. YOUNG: That's one product only. It could and is now being used by -- how many companies have contracts with you now?

DR. GREEN: Between five and 10, depending on the time.

MR. YOUNG: Well, in total, since the facility started?

DR. GREEN: Probably in the order of 20 companies that we've had contracts with so far.

MR. YOUNG: And each one is a different product. So while we're talking about Biosis, that's sort of our lead product. That's the company that we provided additional support to because they are committed to build a \$20 million plant in Edmonton, and I think their commitment to start building is within the next 12-month time frame. It'll supply their total North American and possibly even worldwide market from here for that particular biological pesticide. I don't want to conjure up images of great destruction from this pesticide, because it has to be applied under very stringent conditions or else it doesn't survive. It has to be applied where sunshine doesn't hit it, so that

means late afternoon or evening, and then it develops over the course of the evening and goes into hiding, if you will, looking for its prey. But any sunshine kills it, as does cold weather, and what happens is that the total population of that nematode reverts by the end of the season, by the end of the annual cycle, to the same position it was in in the normal conditions. It just dies. So it has to be reapplied.

MR. CHAIRMAN: A question of clarification to a rather lengthy point, so would you consider that your final supplementary?

MRS. McCLELLAN: I think it's a very important point as a person in agriculture and the concern we have for the environment and the chemicals we're using. I guess we're spending a significant number of dollars in that area, and I'm very pleased to hear they're being spent in that way. Thank you.

MR. CHAIRMAN: So you will accept that as your final supplementary?

MRS. McCLELLAN: Yes.

MR. CHAIRMAN: Thank you.
Mr. Musgrove.

MR. MUSGROVE: Thank you, Mr. Chairman. I would like to commend the minister on his savings in the year of restraint in operation of administration, but I notice on page 23.4 of volume 2, vote 1.0.1, there was a fairly significant reduction. As a matter of fact, the operation of the minister's office was less than 50 percent of the estimates. Now, did this cause a lot of problems to be able to operate a minister's office with only 50 percent of the estimates?

MR. YOUNG: Well, as you know from the hours we sit in the evenings sometimes around here, due to my judgments it's a kind of skinflint operation that's run. Seriously, there was a substantial reduction in the minister's office during that time frame. I won't say that we're staffed the way I'd like to be, but on the other hand, we're getting by.

MR. MUSGROVE: I see in Financial and Administrative Services there was also about a 50 percent cut. Could the minister tell us how this was possible?

MR. YOUNG: Well, in some of the accounts -- and maybe Mr. Whan or Mr. Broadfoot will want to comment on this, but again we get back to the problems of the start-up year in trying to anticipate and project. The department, as I've related in estimates, was originally expected to be in the order of 80-plus persons. We are, in fact, currently at 53 positions. So it's substantially less than was originally anticipated. Some of the estimates that you see were reflecting the original anticipation, which was very abruptly adjusted in the fiscal year you're witnessing. That's why you'll see major shifts occurring. So it was, if you will, part of our guesstimating at the initiation of the department.

MR. MUSGROVE: In vote 1.0.4, Research, Planning and Coordination -- well, there was a substantial cut in that whole vote, but in that one in particular. Was that because there were some people in the estimates that were not hired?

MR. YOUNG: Well, that's right. We didn't hire to the point that had been provided for in the original estimate. That's the explanation. I think you asked: Research, Planning and Coordination. We have a component which, first of all, tries to develop some longer term plans for the department and which grapples with some of the questions which were raised this morning. I think in the very first line of questioning, it was what indicator would be a fair one as to the level of support for research. That's the kind of question this component of the department struggles with, but it also evaluates various projects, works with universities, et cetera.

MR. CHAIRMAN: Final supplementary; is that correct, Mr. Musgrove? That's it?

Mr. Brassard.

MR. BRASSARD: Thank you, Mr. Chairman. My questions relate to the Auditor General's report, and they're on page 77, recommendation 43. In that recommendation the Auditor General recommends that

the Alberta Research Council develop and implement immediately procedures to facilitate the identification of fixed assets that are held but not owned by the Council.

My question, then, would be to just how the council has responded to that request, if at all.

MR. YOUNG: That's been in part answered earlier on. I guess the other I'd add, because I don't think we expressed this in giving the original answer: we've now satisfied the Auditor General with the methodology or process. The question is the completeness of the process.

The additional point of information I'd give is that the Research Council, as one of its programs to transfer technology, goes into joint ventures with private-sector partners. In the process of the joint venture, both parties put money into a pot. They actually create, I think, physically a separate account, and both parties put money into it. They also agree beforehand upon the mix of human resources that each will contribute. If they have to purchase equipment from that account -- I think that's where the Auditor General was raising questions. Who owns that equipment or those assets which are purchased out of that shared account? That's the process which is now under way and is being clarified.

Again, we're getting fairly early on in the stage where the joint venture project was under way. I think the fiscal year we're looking at would have been the second year as a joint venture project. So what we're talking about is to that degree a problem which was relatively new. Now, I can't say whether the Auditor General had been troubled by some other problems before in terms of identification of assets.

MR. BRASSARD: Well, I apologize if I missed the earlier comment on that, Mr. Minister, and if you've already answered this, then I'll pick it out of the Blues, if you'd indicate. But have you been apprised of the ongoing value of the infield inventory? Are you aware of just what this ongoing value is, and are you aware of just how the council plans to establish a suitably cost-effective system for controlling its custody and use? Do you know how much is out there?

MR. YOUNG: Personally, I can't answer your question. I've satisfied myself that the methodology is known and the process is under way, so over to Dr. Green and we'll put him on the hot

seat.

DR. GREEN: Thank you, Mr. Young. This issue relates to supplies that research organizations use in their R and D activities. It's really symptomatic of a problem that every R and D organization in the country has with its auditors. The R and D organization is arguing that there is no problem, this is the way we must do business, and the Auditor is saying, "We are concerned that this is not under control." So the first step we had to do on this item was to meet with the auditors, visit our labs, and determine whether or not there is a real problem. This we have done. We have now agreed on a procedure that we will put in to monitor the usage of supplies by our different research laboratories in our different research locations, and this will determine whether or not there is a problem. If there is a problem, then we will control it. The issue at the moment, really, was a difference of opinion as to whether a problem existed.

MR. BRASSARD: Well, to answer my question, are you aware of just how much money is out there, how much money in investments is out there?

DR. GREEN: Yes, we are. Our fixed assets are in the order of \$44 million. Mr. Young has already explained that we have these counted; this is under control. The annual purchases of supplies are in the order of \$1.5 million to \$2 million, and a lot of these are, essentially, immediately used.

MR. BRASSARD: My final supplementary, Mr. Chairman. On page 78 of the same report, under the section of Partnership Investment, I note that the Auditor General was concerned that the Research Council "contravened section 4 of the Alberta Research Council Act" by investing in equity securities of an Alberta enterprise. Has the Research Council, therefore, informed the minister about their response to this concern? If so, could he detail that response?

MR. YOUNG: Well, the investment in question is a commitment to a form of investment vehicle called SPURT. SPURT is an investment vehicle put together by a number of private-sector firms and some government investment. The original intent was that it would make investments in entrepreneurs who are just getting off the ground and by each of a variety of parties putting in a small amount of money -- \$100,000 or \$50,000, I think, was the lowest it went. I think one of the corporations was Trans-Alta; I'm not sure. There were 10 anyway. But they put in in the order of \$50,000 and said, "That's what we will agree to commit to the Research Council," for various reasons -- put in \$100,000, I believe it was. The government was supposed to match this in some manner, depending upon the drawdown as projects were identified. The private sector was managing SPURT, and they assigned, I think on a part-time basis, one person to look into the various projects that came along.

They've had . . . Well, I guess you're not asking how successful SPURT was, so I won't go into it. They've had some success. But the Auditor General identified that the Research Council had moved beyond its mandate in doing this. The corrective action is in the process of being completed, and I'm sorry I didn't check on it recently to find out where it's at. Rather than amend the capacity of the Research Council to do this, because the government had also -- through then Economic Development, now Technology, Research and Telecommunications -- made the commitment, we deemed that since it was

coming out of the public purse, there should only be one pocket from which it should come. So we will be folding the \$100,000 commitment of the Research Council back into a government department and getting the Research Council out of SPURT. That's how we'll satisfy the Auditor General.

MR. BRASSARD: Thank you.

MR. CHAIRMAN: Mr. Taylor.

MR. TAYLOR: Yes, Mr. Chairman. First, following along the hon. Member for Chinook's questions, 5.154 in volume 1, it may be towards the Auditor General, really, because I know the hon. Mr. Bradley explained a bit why the cut in '86-87. We did get a \$4 million cut in revenue. Yet an organization went ahead and spent more on Manpower than it did the year before. It spent more on Supplies and Services than it did the year before; it spent more on Overhead than it did the year before, giving me the impression that maybe you're not as competently managed as you should be if you're getting \$4 million less in income.

But I wonder whether some rather imaginative accounting went into balancing the books by reducing the amount that went into Fixed Assets from \$6.9 million to \$1.8 million. Being an old financial juggler from years past in public corporations, this was often the place you caught up on all your sins in management. I'd just like to address it to the Auditor General. I'm just wondering why such a huge drop in fixed assets, which coincidentally seems to try to push you back into balancing the budget when you overspent, really, in Manpower, Supplies, and Overhead, because you did get \$4 million less in income. Was there some pretty imaginative accounting that went into that? This is to the Auditor General.

MR. SMITH: Could I ask for a clarification with regards to the decrease in Fixed Assets? Are you talking about a decrease in . . .

MR. TAYLOR: Yes. It went from \$6.9 million to \$1.8 million in order to get the budget to come out a little . . . Well, I'm not saying it did in order to keep it out, but I suspect it did. I'm wondering why such a huge drop.

MR. SMITH: Of course, I think that would relate to some of the previous answers that were given, in that there is less activity in some of these special projects during the period of time, and therefore there's less investment in fixed assets. This isn't really a balance of fixed assets. It's the expenditure that's gone towards the acquisition of fixed assets.

MR. TAYLOR: Well, less expenditure but higher Manpower, higher Supplies and Services, higher Overhead: it's a little hard to figure out what you've been doing there. Nevertheless, I'd like a comment to supplement that.

MR. CHAIRMAN: Perhaps the minister would like to comment.

MR. YOUNG: Well, very briefly, I'll give a general answer. When a new initiative is undertaken, such as the Electronics Test Centre, there is the capital outlay necessary to put it in place, and then there is a higher front-end operational subsidy, if you want to look at it in terms of subsidy, than in subsequent years. That certainly is the case in the Electronics Test Centre,

where we tried to have it move toward being self-sustaining. So when you see changes in a schedule, what we called here a special purpose revenue, which I think is what you're looking at on page 5.154, you're looking at the result of decisions that were taken a year or two previously coming to fruition or completion in terms of development, and they may be offset by other decisions taken for a new initiative. But that was not the case in this particular year. It's a natural phenomenon in this business.

MR. TAYLOR: A supplementary then. Now, it's a phenomenon I'm quite familiar with, and I don't want to use up all my supps trying to see what legerdemain the accountants used to work it out. I just notice your costs going up on one side and going down on the other side a convenient amount.

MR. YOUNG: With respect, it's not legerdemain. It's the policy-making process.

MR. TAYLOR: Okay.

The next thing is in the income and revenue. Wherever I look, whether it's 5.151 or 5.154 income, the different areas that you have for income, I'm a little puzzled that the only income you seem to show is general revenue and the heritage savings fund grants; in other words, everything for the provincial government. Now, the Alberta Research Council has been around for a long time, everything from weather modification to nematodes that'll go out and attack people in the middle of the night or attack unloved bacteria in the middle of the night and all this type of thing. Surely there must be some income being generated somewhere. Is this just all for the good of capitalism, or is the income taken in someplace else in the books of the government?

MR. YOUNG: Well, hon. member, this is one of those occasions when I can ask you to please adjust your set. At page 5.151, Alberta Research Council Statement of Revenue, Expenditure and Equity for the year March 31, 1987, if you look under Revenue, you'll see two major headings: grants, to which you made reference, and Contract Revenue, which you overlooked. Contract Revenue there is shown in 1987 as \$16,204,000, compared to \$21 million the previous year. As I expressed earlier this morning, what we are seeing in that change is the impact of the recession upon the private sector, which was otherwise having work done on a contract basis.

MR. TAYLOR: Don't get me wrong, but I guess I'm going to have to use a supplemental on this. I assumed that contract revenue was, as the term said, contracts that you made with the private sector, and they pay you so much an hour, so much a project. I'm looking for the type of revenue that's ongoing from patents and from investments and from work done by the Alberta Research Council. In other words, don't we try to retain a royalty for anything new that we developed or sent out that private industries own? Like the nematode, probably: did it pass to Jim Gray's outfit in Calgary for nothing? In other words, usually most research organizations -- and I used to have one a number of years ago -- slowly build up a source of funding that's on licensing and on royalties and so on. I assumed contract revenue was just -- you know, you've got 15 chemists running a test somewhere, so you charge. What I want to find out is: where is the ongoing revenue? Why isn't there any? If there is some, where the hell is it hidden? Ongoing revenue -- not from work, from ideas that were sold or invested. How

about the guy who invented the grass, for instance . . .

MR. YOUNG: A perfect answer arranged for you, hon. member. Mr. Bradley, then Dr. Green, and then maybe I will take a shot at giving you a complete answer.

MR. TAYLOR: Just for example, the grass obviously . . .

MR. CHAIRMAN: A rare opportunity for questioning in the time you can . . .

MR. BRADLEY: The Research Council is basically involved in applied research. A number of patents have been awarded to Research Council scientists; for example, the hot-water process which is being used in Syncrude. But by the time that technology was out there in the private sector, the ability for the Research Council to recover any benefit from that -- that was discovered back in the late '20s, I guess, for example.

We work with private industry to assist private industry to develop perhaps technology they have, to improve upon it. We don't have a great deal of revenue which comes in from the patents which we have, but there are a number of patents which Research Council scientists have received which the Research Council, if they were developed in the private sector, would receive some revenue back on. But I'd like to have Dr. Green elaborate on that a little bit further.

DR. GREEN: The Research Council does not receive any significant amount of revenue from patents. As Mr. Bradley says, we do have a number of patents. When we do work for clients under the category of the contract revenue, which represents about half our income, typically the patent is turned over to the client because the client has paid. Commercialization takes place in the client's company and the benefit returns to the province rather than to the Research Council, which is in accord with our strategy. For a number of other programs -- we do a significant amount of work with AOSTRA, for instance. The patents that are developed out of that work are turned over to AOSTRA to do the marketing and the commercialization, because AOSTRA gets involved in the commercial end of that. So it's not an intent of the Research Council to accrue the patent benefits to itself but to see them come back to the province.

MR. YOUNG: If I can, then, just sort of wrap up the broader perspective of it. Two things to be noted: one, that we consider the value of the Research Council to be very much the transferring of technology and the application and, really, promoting our private sector. We've questioned the efficacy of trying to retain the council in some very minor revenue role in some of these things, so whether it would even be worth the effort of chasing . . . Secondly though, we are also looking across the board in the public sector, trying to assure that there is a policy which is fair to the public purse and also to the private sector and to the employees involved.

MR. CHAIRMAN: In view of the hour -- Mr. Taylor had a request that he be allowed to use Mr. Mitchell's supplementaries.

MR. TAYLOR: I'll forgo that.

MR. CHAIRMAN: Yes. Because there is one other member of the committee who had indicated he would like to put a question. That's Mr. Nelson.

MR. TAYLOR: [Inaudible] one more supplementary.

MR. CHAIRMAN: Well, you've had your supps.

Mr. Nelson, if I could just limit you to one question rather than your supps?

MR. NELSON: Let's see. I'll try to keep it to one. I've got a few here. I guess I'd like to go to page 5.130 in volume 1. I'm sorry; it's page 5.129 of volume 1. Sorry, Mr. Chairman; I had this all lined up and then I got myself into a bit of a pickle here.

My question was related to ACCESS, and it was related to page 5.144. Considering the fact the government had constraints placed on it as far as expenditures were concerned, during the year ended March 31, 1987, ACCESS Network of course overexpended their budget by some \$1.25 million. The revenue to ACCESS was down \$235,000. I'm just wondering what effects are the decreases in revenue and the increases in these costs having on the normal operations of ACCESS, and has the government given any consideration to privatizing this corporation?

MR. YOUNG: The answer to consideration of privatizing ACCESS is really that ACCESS is made up of several different components: the radio station, CKUA; the television component; and related to the television component, the reproduction and supply to educational institutions of educational materials, both audiovisual and print. We did consider discontinuing CKUA as part of the ACCESS operations, because in a direct educational sense it is not very widely used. It lends itself, as a matter of fact, quite well to certain types of educational usage -- at least that's the opinion of some experts -- but that's not the apparent opinion as represented by practice of teachers. So they have more and more discontinued using it.

On the other hand, when discussion of CKUA got going, there was a sizable chunk of the public who believed it had a very special place and should be retained. As a result of that strong feeling, a committee was established of some of those who held that strong feeling, and it has reported to me on, number one, efficiencies that might be -- and there aren't very many -- number two, some future directions to enhance what CKUA is now doing.

In terms of the impact on the television and audiovisual portion of ACCESS, we found that the system, as then in operation in '86-87, provided for something less than efficient usage of the tapes that were being produced by ACCESS. It was cheaper from the school boards' and teachers' point of view to write in, get a tape, use it once, send it back. ACCESS paid the mailing

charges and paid the dubbing fees, and they just responded to a very small fee. We increased the fees, and then it was more economic from a school board's point of view and a teacher's point of view to start building up a library of these programs, and that reduced the charges to ACCESS substantially. Then we found out that we could download the programs at night on VCRs during the nonpublic part of the broadcasting hours. That would cut out mailing charges, and mailing charges were the largest single component of the whole cost. So we've affected some significant economies as a result of those changes.

MR. CHAIRMAN: In view of the hour I'd like to thank the hon. minister and his associate, the hon. Fred Bradley, and members from his department for coming before the committee this morning. We found their answers very helpful.

I'd just like to announce that next week the minister who will be before the committee is the Hon. Rick Orman, Minister of Career Development and Employment. The week after that we had scheduled the Minister of Energy. However, both myself and the cochairman of this committee and the Auditor General and at least one or two other members of his staff will be in Halifax for a conference. In the case of Mr. Moore and myself, it will be a conference of Chairs of Public Accounts Committees of Canada. What's your pleasure with respect to whether we should meet on that date? Now, I don't know whether we're going to be in session then or not, but . . .

MR. R. MOORE: Mr. Chairman, I'd like to move that we cancel on July 13 -- because some of us will be away involved with public accounts business, and the Auditor General will be away too -- and that the Minister of Energy be rescheduled for July 20.

MR. CHAIRMAN: Any discussion on the motion? Are you agreed?

HON. MEMBERS: Agreed.

MR. CHAIRMAN: Agreed; thank you.
Okay, Mr. Moore.

MR. R. MOORE: I move we adjourn.

MR. CHAIRMAN: Thank you very much. Are we agreed?
Agreed.

[The committee adjourned at 11:34 a.m.]