[Deputy Chairman: Mr. Hyland]

[10:02 a.m.]

MR. DEPUTY CHAIRMAN: I'd like to call the meeting to order. The chairman isn't going to be here this morning. He may be here this afternoon; I'm not sure.

This morning we have the Minister of Technology, Research and Telecommunications, the Hon. Les Young, reporting on 'hree or four things. He is responsible for Alberta Heritage Foundation for Medical Research, although we have them come in separately; the Electronics Test Centre and microchip design facility, which are two that haven't had any money put into them in about the last two or three years; and then the individual line service which, if you look through the report on page 36, is one that has had the largest amount of moneys put into it in the last year.

With that, I wonder if the minister has any opening comments.

MR. YOUNG: Well, yes, Mr. Chairman, I could just update the committee on the individual line service, if that would be helpful. The very latest report to the end of . . . There's always about a three-week lag in my receiving these reports, so what I have is a status report to the end of August of 1988 on the individual line service. During the month of August conversions were done for 2,038 customers from the multiparty service to individual line service, bringing the total for the year to 21,899. I won't stand on those 99, but the 21,900 give you an idea of where it's at. Approximately 20 percent of the target of 107,000 lines to be converted have been converted, just over 20 percent.

Also, to give you a feel for how the \$110 rebate ... You'll recall that we announced the charge would be \$450 per household or per subscriber, and the Public Utilities Board imposed a charge of \$560, so we're rebating \$110. We do the rebate after the installation and try to do it before the billing, which isn't always possible. But in the month of August 2,570 cheques were sent out for a total of \$238,000, and to this point, out of the 21,900 lines that have been converted, 19,350 have received their rebates. So we're pretty much up to date on that payment.

What's called the XMI refund -- that is, the charge for the private service where individuals had subscribed for a private service and paid to have it put in and then had to pay a carrying cost -- during the month of August there were 840 of those kinds of subscribers who were in exchanges which were converted. The payment was \$1.5 million. We have caught up pretty much to the payments to residences for that particular fee and have in fact paid out \$5 million-plus for refunding of the line charges for the people who had put in private line service at their own cost. By now, I guess, the cheques have gone out to the commercial establishments. They were a little more complex to do, and it took us longer to run that through the computer. But the cheques were to have gone out last week, and I have no indication that they didn't go.

We've had a few people who had private line service, disconnected it before the program hit their exchanges, and they've been applying. But there are very few who have made that application, about 30 in total in the province. They've also been paid out.

The number of phone calls on the program has been reducing. We keep a close record of calls that we receive from people to determine what kind of general information they're asking for or what particular problems they're having, and that's so with the converter as well as for the individual line service system. The further we get into it, the more those calls appear to be

reducing after we got over the hump of getting it running more smoothly. A lot of the calls, as one would expect, had to do with "When am I going to get my rebate, and what's the rebate about?" Of course, as we get the backlog caught up, that problem is disappearing as a source of phone calls.

In short, Mr. Chairman, I think the program is running just about as it had been hoped it would for this current calendar year. One of the highest numbers of phone calls turns on "When am I going to get my service?" We can't get it there fast enough.

MR. DEPUTY CHAIRMAN: Are there any questions? I've no indication of members.

Vermilion-Viking.

DR. WEST: Yes. I appreciate the work that's being done in this area. Being in a constituency where Minburn was one of the first hooked up, I can attest to the fact that this is almost like the invention of the telephone itself to these people in rural Alberta, because it really means a lot to them to have their privacy.

A couple of questions come up quite often on the putting in of the private telephone lines. Could you explain if there are any major trunk lines being put in? If so, are they carrying any capabilities such as the new fibre-optic lines they talk about for increased computer, I guess, usage on them and the possibility of carrying television signals through? Are we looking at any of that while we're putting in the private lines?

MR. YOUNG: To answer the first part of your question, there are some fibre-optic trunkings going in. We're part of a system right across Canada, and I think that system will be complete across Canada this year. I'm not a hundred percent certain of that; I'm sorry. I haven't briefed myself on it recently. But certainly we have used fibre optics within Alberta; they were used from the games site into Calgary. We're not looking at it currently for delivery of video in rural areas.

The technological problem that exists with fibre optic is that the fibre optic is a signal carrying data in light form. In other words, it's light rather than an electric pulse. The difficulty has been to cheaply convert the electronic signal to the light pulse at the junction and also to protocol those light pulses in a cheap way, cheap meaning in a methodology that is so inexpensive that it can be used for the individual subscriber. If we could overcome that, I think the prospect of providing a capacity for a large volume of data, including television signals, would exist.

Now, there is research going on at the Alberta Telecommunications Research Centre. I don't want to speculate too much, but they think they may have unlocked part of that difficulty in a fairly economic way. But the jury is still out on that. From my point of view, we really don't know for sure yet. It is a very powerful medium, however -- the optical -- and it has some advantages. It's less susceptible to interference because it's strictly a light pulse, and it doesn't get bent by magnetic forces and that sort of thing, which does happen with the electronic signal on a wire.

I also believe the technology for manufacturing fibre-optic cable or wire -- it's not wire -- has improved to the extent that it's pretty much a trade-off between copper and fibre optic at this point. But the big problem has been in the interface between the telephone and the cable, and then when you join a single subscriber into the exchange itself, how to handle it at those junctures.

DR. WEST: Just as a... Could I have my follow-up supplemental? The program, when it was announced, was estimated at \$500 million to put in the private line, and we see we've drawn down \$48 million by the coming up of 1989; it's the end of '88. Do you see a major drain on the budget in one specific year? If it's to be completed by '91, then it looks like there's a tremendous amount of money left to be drawn out. When would be the biggest draw on this \$500 million to the construction and to the implementation?

MR. YOUNG: We're looking at that from the point of view of the ability to spend the money economically in terms of personnel and equipment. I believe it will reach a certain level and hold at that. I think the AGT experience has been that if they get beyond that, they're in some difficulty in terms of the quality of work. There is a swing element, I think, and that is the switching costs, which are part of that \$500 million. There was a delay factor. They had to order the switches and then get them in to put them into the exchanges, and I can't tell you whether there is some bulking in that end of it or not. That's about \$230 million worth, by recollection.

DR. WEST: Thank you.

MR. DEPUTY CHAIRMAN: Okay. Calgary-Forest Lawn, followed by Lloydminster, followed by Calgary-Mountain View.

MR. PASHAK: Well, perhaps a follow-up to the previous set of questions. You're taking roughly \$20 million a year out of the heritage trust fund, as I understand it, at the moment. Over the next four years that's only another \$80 million; it's going to come away short of the \$500 million. Is there going to be suddenly a big appropriation for the \$230 million you mentioned?

MR. YOUNG: Yes. Only a portion of it, of course, was scheduled to come out of the Heritage Savings Trust Fund -- about half. So there will be an increase, and I think we will see an increased expenditure. Well, in order to meet our targets, quite bluntly, we have to increase the amount of expenditure on the program in the coming years. But the question is: at what level? I think we'll be looking at another \$10 million or \$12 million per year. Between \$10 million and \$15 million, I think, is likely where we're going to land as the amount of money we can use most effectively in the program. Beyond that it becomes indigestible, I think. You can put the money in, but I don't think you get value for it.

MR. PASHAK: Might I conclude? I'm looking at this from a Calgary perspective, where we've had an ongoing individual private line service. Is the funding for this program going to then, in terms of what you've said, come out of funding other than the heritage trust fund? And if so, are existing subscribers going to in any way wind up paying for the costs of this extension of service?

MR. YOUNG: Well, I think one has to understand that the switching element of the program was a speedup of what would have been an ongoing program of AGT in any event. I mean, they have to move from the electronic switches -- well, they weren't electronic; I'm sorry, I can't reach for the correct term right now -- the kind of switches they had to the electronic type switches, digital switches. They had to do that anyway because

they're gradually bringing that in throughout the whole system. It is going to be a considerable saving in terms of operating the system to have the digital switches there and much greater capacity for them. Now, we have those in part of the system, so it was just a matter of radiating them through the system. What happened is that there is a kind of lifetime projected for certain telecommunications equipment. The adoption of digital switching is happening faster than that sort of norm the industry had previously been accepting. You know, I don't think the amount of capital investment by the company as such is going to be tilted in any particular manner. It's just that this became a priority in terms of the upgrade of their system.

MR. PASHAK: Just seeking clarification, then, in terms of what I think I'm hearing. That is that although the overall cost of the rural telephone program is in the neighbourhood of half a billion dollars, a good portion of that cost is really cost that had to be met in any event because it had to do with provision of digital equipment that had to be provided in any event by the system.

MR. YOUNG: It may have been over 10 years rather than over five, for instance, in the normal course of upgrading equipment. The problem is that the whole telecommunications industry is much more dynamic now than it has ever been, and the speed of change is faster. What has been done here is a determination that if we're going to do the individual line service program, it has to have the switching capacity; therefore, we lump it together and make a program out of it and move more quickly on it

MR. DEPUTY CHAIRMAN: Assuming that the last question was clarification, you have one left.

MR. PASHAK: For clarification, I think I can appreciate the minister's position that this has to be done and it's necessary for the system. But my concern is more with the way the costs are being allocated. We've got a half a billion dollar program, some of which is being financed through the heritage trust fund, but also part of it seems to be financed through the system itself as part of a necessary replacement of equipment. Is that correct?

MR. YOUNG: Yes, because in urban centres some of this change had already occurred before the program was announced for rural. So the rationale, if I can approach it this way effectively, was that the cost — how to express it — that didn't make commercial return as far as AGT was concerned was for the individual line service from the exchange to the rural subscriber. That's what the Heritage Savings Trust Fund is paying for; it's that component of it. That's why we're paying it, and the individual rural subscriber is paying the \$450 as well.

MR. DEPUTY CHAIRMAN: Okay. I see a puzzled . . .

MR. PASHAK: Just a final question, then, if I may, Mr. Chairman. Would it not have been easier to see this whole program in its true perspective if an amount of money had been set aside from the heritage trust fund for a rural electrification program and another amount of money had been set aside specifically for the purpose of upgrading the existing telephone operation?

MR. YOUNG: That's a matter of opinion.

MR. DEPUTY CHAIRMAN: Just one correction. I think you meant to say "rural telephone," not "rural electrification."

MR. PASHAK: Pardon me.

MR. DEPUTY CHAIRMAN: Member for Lloydminster.

MR. CHERRY: Thanks, Mr. Chairman.

Mr. Minister, I guess, like the Member for Vermilion-Viking, a bouquet of roses to you. I know that in the constituency I represent, a certain portion has been turned over already. I think one of my questions to you is: are you on schedule as far as the completion date for turnover is at this time?

MR. YOUNG: We're on schedule for the amount of money that was allocated for this year. I can't tell you whether the placement of new switches may, in fact, be a little bit ahead of schedule. I think, if anything, that could be the case. In terms of the completion of the program, we're on schedule if we can get enough funds in, as I indicated in response to the previous questioner. We would have to have a higher expenditure level per annum in the going out years than we have had this year. On the other hand, this was a phase-in year where it started in the previous ... I'm trying to get my fiscals and annuals sorted out here. I think it's fair to say it started in the previous fiscal year but didn't really get under way to the degree that it currently is. I think now AGT feels it is a fairly smoothly operating program, and we feel, from the point of view of administering it, that it's running quite smoothly. We're now in a position to move it up to the level -- or the volume, if you want -- of installations that would be necessary. It will require more money on an annual basis from here to the end of the program, however.

MR. CHERRY: Okay. I guess my other question is: the little black box, as I call it, which I'm sure has a better name than that, on the party lines now that we have put in — as they are converted over to ILS, there's been considerable dollars spent on that. What happens at the end of the program? Will we be able to turn around and sell these to some other area? In other words, I guess what I'm saying is: will we be able to get some of our money back from doing this?

MR. YOUNG: The original contract provides for a resale to the company for part of the money. Yes.

MR. CHERRY: Thank you.

MR. YOUNG: For units not damaged. If we damage them, then we swallow that loss.

MR. DEPUTY CHAIRMAN: Calgary-Mountain View.

MR. HAWKESWORTH: Thank you, Mr. Chairman, and welcome this morning to the minister. I wanted to ask a question on page 43, I guess. It has to do with the Alberta investment division investments. Under provincial corporation debentures is the Alberta Government Telephones Commission. I notice that the outstanding debentures in '88 versus 1987 were reduced by around \$200 million. If I look at the note at the bottom of the page there to that section, it made a comment that during the year debentures amounting to almost \$84 million were redeemed prior to maturity. I was just wondering whether you were aware of whether the Alberta Government Telephones

Commission redeemed any of their debentures prior to their maturity in the past year. Would you be aware how much, if any of that amount . . .

MR. YOUNG: I'm sorry. I could get you the answer to that question; I don't have it at my fingertips. I don't know if... No, I don't have it at my fingertips, and I can't get it instantaneously for you. But I can do it if it's important to you.

MR. HAWKESWORTH: Okay. Then let me at least put another question or two on the record, and perhaps you could get back to me later on whether, over the long-range plans for AGT, they intend to look to the trust fund for any kind of refinancing. Do you know whether those kinds of discussions... Where will future financing of AGT come from? There's over...

MR. YOUNG: If you're speaking to the additional financial requirements of AGT, given our current budgetary situation, I would anticipate, subject to other developments that I couldn't anticipate -- but I wouldn't anticipate -- that AGT would go to the public issue. Well, by that I mean it might be a private placement or whatever, but not through the Alberta Heritage Savings Trust Fund. And that would, of course, currently carry a government guarantee with that placement. So we stand behind AGT, but some placements have been done in that manner in the last year.

MR. HAWKESWORTH: Just looking over the longer term then, to the minister, Mr. Chairman, there's slightly over a billion dollars outstanding. Would it be fair to anticipate that given a \$200 million reduction in debentures this year, if that trend continues, in five years' time, more or less, it might be feasible to assume that very little of that billion dollars, those debentures, would be outstanding from the trust fund to AGT? I guess what I'm asking is: over the long run, as these debentures mature, even if some of them are being redeemed prior to maturity, in essence the commission is divesting these debentures and replacing them with public issues and there'd be very little in the way of trust fund investment in that corporation over the longer term.

MR. YOUNG: Current policy, I think, would take us in that direction. The speed of change or the timing you suggest -- you know, using your premise it's a mathematical response I can give you. But leaving aside policy decisions, whether or not it would change at that rate I think would probably turn on the kinds of conditions that attach to the debentures, and I have not studied those to be able to advise you. I suspect that those debentures which it was possible for AGT to rollover, presumably at a lower interest rate, they've probably already acted upon. So I wouldn't want to project a straight line of \$200 million a year turnover there, assuming there weren't policy decisions that were different.

MR. PASHAK: This question perhaps may be better asked of the Provincial Treasurer, but I'll put it forward anyway. I'm interested in the fact that the money that's been spent to date on the rural telephone program is called an investment. Perhaps I use the language a little differently than others do, but if you have an investment, it seems to me there's an expectation of return. Wouldn't that be more properly called an expenditure?

MR. YOUNG: It seems to me the hon. Member for Calgary-

Forest Lawn has gotten us back into the debate we've had before about whether an investment as described under the Alberta Heritage Savings Trust Fund is an investment if it can't be realized in a financial sense. That gets us back into a much more longstanding debate, and I think you've correctly attributed to the person who should respond in that debate.

MR. PASHAK: I'd like to change the subject then, for a supplementary question, if I may, Mr. Chairman, and that is that as part of a preparation for these hearings we visited, among other places, the AOSTRA test site in Fort McMurray. I found that to be a very informative experience, to say the least, and I was quite impressed by what we saw there particularly. Is that . . .

MR. DEPUTY CHAIRMAN: I think AOSTRA is getting into the Minister of Energy.

MR. YOUNG: Yeah.

MR. PASHAK: Completely? It's not under science and technology?

MR. YOUNG: No. We have ...

MR. DEPUTY CHAIRMAN: Do you want to take a shot at your first question and see if there's any relationship, then, to the science and technology? Then we'll find out.

MR. PASHAK: Well, maybe I should just clarify that. I'm just going by the index here, and I just assumed that AOSTRA came under — I know there are some appropriations under Energy, but I didn't know whether that came under . . . That's completely under the Minister of Energy then, is it?

MR. YOUNG: Yes, it is. The only way that it relates is that we do try to have an across-government purview. A representative, for instance, of AOSTRA sits on that interdepartmental committee which actually is called a technology research advisory committee, which tries to have an overview of those initiatives across all of government, including institutional ones that are sort of quasi-government. So from that angle, and also because the Alberta Research Council does do some of the research carried out by AOSTRA — in other words, AOSTRA funds the council, but that's done on a contractual relationship, using council facilities — it's not viewed as a budgetary item from our perspective.

MR. PASHAK: I'd like to ask a general question on the subject. I would assume, then, that you're familiar with this particular project, and funding for that project, as I understand it, is being transferred out of the... The amount of money that's been allocated under the heritage trust fund has basically been spent, and there is funding now coming through the General Revenue Fund. I guess my question would have to do with continuing support from that committee you just mentioned for this particular AOSTRA project.

MR. YOUNG: Well, I don't know that I can answer your question. I'm not sure I understand it exactly. But if you're making a representation that that's a good expenditure of funds and it should be continued, that's the way I'm interpreting it, and as such, I hear your representation.

MR. DEPUTY CHAIRMAN: Maybe it's a question you can repeat or a comment you can repeat also when the Minister of Energy is before us. Is that all, Barry?

Okay. Innisfail.

MR. PENGELLY: Thank you, Mr. Chairman. Good morning, Mr. Minister.

MR. YOUNG: Good morning.

MR. PENGELLY: Could you tell me and the members of the committee -- and it would help me when I'm speaking to constituents: what are the criteria for deciding the order in which exchanges are converted? For example, I live across the river from Mirror, which was the first one, and I had a little difficulty explaining why they were the first one and ours isn't till 1991.

MR. YOUNG: Well, the main criterion has been the availability of switching capacity. I think it would be fair to say that at the outset it was also a situation where if there were excess plowed-in capacity, that was also a factor. I think, however, that that as a factor is pretty much exhausted now, and we're talking primarily in terms of switching ability.

There have to be new switches. Each switch is custom designed. In fact, a digital switch is really a small computer programmed in a certain way for that given exchange. That's why there is a sequence; they can't put all of these switches in at one time, obviously. It's primarily an engineering function, an engineering decision based upon their ability to change those switches -- well, first of all, get them manufactured and get them installed. I couldn't tell you, and probably should be able to, whether within a given region there is a regional feature as far as a main switch is concerned. What we have is a host or a mother switch situation and then a series of smaller switches which feed into that. So you have to have the host switch plus the subswitches, if you will, and the whole system has to relate together, it's arbitrary in that sense. I've tried to determine whether I could make any changes in it, and I really run into some tough-minded engineers who say absolutely no. And it would pose a difficulty if I could, because I don't know who I would put first out of all the many demands that we get.

MR. PENGELLY: Thank you.

MR. YOUNG: [Inaudible] if I could just add on to the response. You must have more than one exchange in Innisfail, and some would be going before '91, I would assume. I haven't looked specifically.

MR. PENGELLY: Bowden has it now.

MR. DEPUTY CHAIRMAN: I'm glad to hear that's what the minister's answer is. I was a little afraid it was that they picked the exchanges where the MLAs live and put them to '91 so we could never be accused of having first preference on the program. Because the same thing happened where I live. I think it's on '91 or something.

MR. PENGELLY: Supplementaries?

MR. DEPUTY CHAIRMAN: You've still got two more.

MR. PENGELLY: So what it is, Mr. Minister, is the switching

capacity.

MR. YOUNG: The switching capacity.

MR. PENGELLY: Yeah. I would assume, then, that Mirror already had that capacity or very close to it.

MR. YOUNG: Yes, that's what I understand. Right.

MR. DEPUTY CHAIRMAN: Innisfail, is that it? Lacombe.

MR. R. MOORE: Thanks, Mr. Chairman. Mr. Minister, I followed very closely the privatization, putting the private lines in, and I really have no question related to that, because it is worth while. And I understand some of the problems that Innisfail touched on, that they all couldn't be first; there are some who have to be last. That happens in every constituency. But when I look over the areas you're responsible for where heritage trust fund money is involved, I think I really have no questions. And when I looked at your list a moment ago, Mr. Chairman, there was nobody else with any questions, so I move we adjourn.

MR. PASHAK: I don't think we should let the minister off the hook quite so easily. He's also responsible for the Electronics Test Centre, and I would like to get some further comment on that, if I may put some quick questions.

MR. DEPUTY CHAIRMAN: Just a minute. We have a motion. Is the member willing to hold the motion till at least we get some . . .

MR. R. MOORE: I'll hold the motion if Mr. Pashak has a question.

MR. DEPUTY CHAIRMAN: That's the easiest way of doing it. Calgary-Forest Lawn.

MR. PASHAK: Thank you very much. I'd like to thank the Member for Lacombe.

I believe in your opening remarks you said there is no further appropriation for the Electronics Test Centre.

MR. YOUNG: Out of the Heritage Savings Trust Fund, no. Now, there is out of the departmental budget. Well, I have to qualify that. Since you use the illustration of the Electronics Test Centre, that's really been folded in as a budgetary component of the Research Council but is operated as a distinct unit of the council at the moment. But there is indirectly through my budget, the TRT budget, a transfer to the Research Council, a transfer to the Electronics Test Centre, in that manner. I guess you're asking -- and if the committee doesn't mind, I can give you a very quick response. The Electronics Test Centre, I think, has been functioning quite well. It has been very effective in picking up the business in Alberta and, for that matter, a good chunk of what's in western Canada. We are looking at ways of enhancing it still further, because there are some needs for which it doesn't have equipment, which might make it a more powerful force.

The centre is doing more than testing, and I guess that's inevitable, even though it wasn't contemplated originally. It's giving seminars on manufacturability; in other words, when a product comes in, it examines the product and does what's required. But it also advises that if you construct this product a

little differently, it's easier to test; if you ever have problems with it, the warranty will cost you a lot less if you build it a little differently. And so it's been giving advice on testability and manufacturability, warrantability, a number of features, all of which are very constructive for our local manufacturers and, for that matter, other manufacturers who are getting the advice. They are trying to -- because the test centre is not at break even, and won't be as long as it's heavily involved or heavily engaged in that stimulative exercise, which I think, personally, is a valuable one from the point of view of our industry. But assuming that aside, they need a higher volume, and they're working at ways of getting more volume into the centre. But we would have to go beyond Alberta and become a service area beyond in order to make it a truly viable operation, and that's proceeding. It's a marketing challenge in that sense.

MR. DEPUTY CHAIRMAN: If there are no further questions, do we now take ... There's nobody else on the list for questions. If there isn't, I'll take the motion from the Member for Lacombe.

MR. HAWKESWORTH: I just wanted to follow up my previous question. Could I ask the minister to perhaps write to me when he's checked into that question about the debentures? I'd appreciate...

MR. YOUNG: Mr. Chairman, it was my understanding I would write to Mr. Hawkesworth and give you or the chairman of the committee a copy. If other members of the committee want copies, we'll be happy to provide them to everybody.

MR. DEPUTY CHAIRMAN: Correct me, but I think normally the minister has responded to the chairman and the response has been shared with all members of the committee.

MR. YOUNG: I'll follow your direction, sir, and will respond to the chairman. That had to do with the debentures for AGT, I believe. We have the question; I know the question's been noted. We'll pick it up.

MR. DEPUTY CHAIRMAN: Okay.

MR. HAWKESWORTH: Just clarification generally for the committee, not for the minister.

MR. YOUNG: Thank you.

MR. HAWKESWORTH: I thank the minister for his appearance this morning.

Do we have the dates that hadn't been firmed up? Last week we were going to ask some people to appear or schedule them to appear. Have you got an update on that, Mr. Chairman?

MR. DEPUTY CHAIRMAN: The secretary tells me we're still waiting for dates for the Premier and Mr. Johnston, and we don't have a firm date from the medical research yet. So we have... The secretary says the Auditor General can be fitted in once the other two are scheduled, because he feels he can move his time a little easier. Okay?

All those in favour of adjournment? Carried.

[The committee adjourned at 10:45 a.m.]