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Chair

Mr. Leon Benoit

Standing Committee on Natural Resources

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● (1530)

[*English*]

The Chair (Mr. Leon Benoit (Vegreville—Wainwright, CPC)): Good afternoon, everyone.

We're here today pursuant to Standing Order 81(5) to examine the supplementary estimates (A) for 2015-16, vote 1a under Atomic Energy of Canada Limited, and votes 1a and 5a under Natural Resources. They were referred to the committee on Thursday, May 14, 2015.

We have one witness with us today, and others who, if need be, can be counted on, I'm sure. We have with us from the Department of Natural Resources, Kami Ramcharan, assistant deputy minister and chief financial officer, corporate management and services sector.

Welcome to you. Thank you very much for being here on such short notice. You do have a presentation, so go ahead with your presentation, please, then we'll get right to the questions and comments from members.

Ms. Kami Ramcharan (Assistant Deputy Minister and Chief Financial Officer, Corporate Management and Services Sector, Department of Natural Resources): Thank you, Mr. Chair. It's a pleasure to meet with the committee to discuss Natural Resources Canada's 2015-16 supplementary estimates (A).

Let me take a moment to briefly discuss my department's supplementary estimates. These estimates reflect the first change to planned budgetary spending since the main estimates. The supplementary estimates show current planned budgetary spending at $2.49 billion, which is an increase of $277.8 million from the originally approved 2015-16 budget of $2.21 billion, as outlined in our 2015-16 main estimates.

[*Translation*]

This increase is due to a number of factors across our operating vote, capital vote and our statutory authorities.

[*English*]

Within our operating and capital vote, there is a $231.3 million commitment to extend the nuclear legacy liabilities program for 2015-16. Launched in 2006, this program is implementing a multi-decade strategy to address long-standing Government of Canada liabilities, including radioactive waste, retired research facilities and related infrastructure, and contaminated lands at the Atomic Energy of Canada Limited research sites.

Significant progress has been made to date, and the 2015-16 funding will provide the necessary bridge to continue to control and reduce risks and liabilities at the sites until the restructuring of the nuclear laboratories is complete.

There's also a commitment of $5.3 million in operating funding and $38.6 million in capital funding for the federal infrastructure initiative to support the rehabilitation, repair, and modernization of many of Natural Resources Canada research facilities across Canada. From Dartmouth to Victoria to Alert, Natural Resources Canada's infrastructure projects will be carried out in 15 locations across Canada. Upgrades include things such as roofs, energy-efficient lighting, distribution panels, security systems, and energy-management control systems that will help our department move toward its goal of reducing greenhouse gas emissions and improving energy savings.

[*Translation*]

Additionally, the money will be used to make significant upgrades to laboratories that conduct critical research on our forests, geohazards, including earthquakes, and geosciences in both marine and land-based environments.

[*English*]

We will also be relocating a specialized geomagnetic calibration building from Ottawa to Fredericton. This specialized geomagnetic calibration building is used to calibrate equipment used in the national geomagnetic observatory network. This network provides measurements of the earth's magnetic field for navigation and to protect critical infrastructure such as power distribution and pipelines from the impacts of space weather.

These investments will not only help support Natural Resources Canada to continue to conduct leading-edge research, but they will also encourage job creation, economic growth, and long-term prosperity across the country.

Finally, there's $1.3 million in operating funds and $1 million in capital funds for the targeted geoscience initiative, a collaborative federal geoscience program to provide industry with the next generation of geoscience knowledge and innovative techniques to better detect deeply buried mineral deposits.

[*Translation*]

This initiative will continue to promote and support exploration and investment in Canada's mining sector, and to ensure that the sector continues to benefit from outstanding scientific research.

This is a collaborative federal initiative delivered in partnership with provincial and territorial geological surveyors and collaborators from industry and academia.

● (1535)

[*English*]

First funded in 2000 and renewed in 2003, 2005, 2010, and now in 2015, each renewal of the targeted geoscience initiative has been used as an opportunity to strategically refocus the program on the most pressing needs of mineral exploration and each phase has made significant progress in stimulating investment by and innovation in the Canadian mineral exploration industry.

The current phase of the TGI, phase 5, focuses on understanding the processes by which metals accumulate to form an economic mineral deposit. This new knowledge will allow exploration companies to expand their reach in targeted regions for exploration in order to discover a new buried mineral deposit at much greater depths and distances from known deposits. This initiative will support mining industries by developing knowledge and expertise to increase their competitiveness. It contributes to increased private sector exploration and successful discovery rates for base, precious, and other metals, grows the pool of highly qualified people available to industry, and extends the lives of existing mines and communities.

New geoscientific knowledge and methods provide industry with cutting-edge tools to stimulate private sector innovation and exploration for deeper mineral deposits and new emerging mining caps. More effective targeting of buried mineral deposits increases the likelihood of discovery and ensures the mining industry's long-term prosperity.

Exploration industry spending increased over $240 million in mining regions across Canada following the conclusion of phase 3 of the targeted geoscience initiative in 2010. The just-completed phase 4 has already outlined new regions of interest for mineral exploration, for example, a region that stretches from southeast Manitoba to northeast Quebec that is highly prospective for new nickel-chrome deposits.

[*Translation*]

Phase 4 of the targeted geoscience initiative released over 730 publicly available geoscience publications and delivered over 500 scientific presentations at conferences, workshops and events, helping industry in the development and planning of their exploration activities.

[*English*]

To date, the exploration industry across Canada has integrated over 50 new geoscience results that were developed during the fourth phase of the program. These have been used by industry to adapt their exploration approaches, for example, in Ontario's Ring of Fire region, in Saskatchewan's Athabasca Basin, and the Bathurst region of New Brunswick. TGI played a key role in training the next generation of highly qualified personnel with a fourth phase supporting over 133 students in their graduate-level research studies, equipping them with skills suitable for future employment in the mineral exploration sector.

In terms of statutory authorities there is also an increase of about $300,000, which is related to the statutory payments for the employee benefits plan. This includes costs to the government for the employer's matching contributions.

Mr. Chair, Natural Resources' 2015-16 supplementary estimates (A) clearly demonstrates how this department is committed to delivering on the Government of Canada's policy, program, and service delivery priorities and is doing so in a fiscally responsible manner.

Thank you, again, for the opportunity to appear before the committee.

The Chair: Thank you very much for your presentation.

I have to admit I didn't expect such an interesting and encouraging presentation to go with the supplementary estimates (A). There were not a lot of numbers there but that was very interesting. Thank you very much.

We go now directly to questions and comments. In the seven-minute round we start with the Parliamentary Secretary to the Minister of Natural Resources, Ms. Block, followed by Mr. Caron, and then Mr. Regan.

Go ahead, please, Ms. Block. You have seven minutes.

Mrs. Kelly Block (Saskatoon—Rosetown—Biggar, CPC): Thank you very much, Mr. Chair.

Welcome. It's good to have you join us for this conversation on supplementary estimates (A). I should welcome all of the other departmental officials who are here to support you if needed. It's great.

I'm going to focus my questions on the nuclear legacy liabilities program and the votes that are included in the estimates on these programs.

These estimates propose $231.3 million in operating and capital to extend the nuclear legacy liabilities program. I understand that this program has made significant progress in addressing long-standing Government of Canada liabilities including radioactive waste, retired research facilities, and related infrastructure in contaminated lands. I know you mentioned it in your opening remarks, but could you expand a little on this program for the committee.

● (1540)

Ms. Kami Ramcharan: Thank you very much.

Basically, we have been able to reduce the liabilities and risk associated with this program. This program has been around since 2006 and has provided over $1.1 million, so basically $1 million, in funding over nine years to implement to the program up to March 2015. In February 2013, the Minister of Natural Resources announced that Canada would undertake a competitive procurement process to seek a contractor that will continue to manage the operations associated with managing our nuclear waste, and we're in the midst of doing that right now.

The program was extended $231.3 million for this current year's worth of funding. It hasn't been extended into the future at this point, because with the introduction of that new contractor model, it is expected to move from the department over to the contractor to deliver that.

The funds will also be used to make further progress on highly enriched uranium reparation initiatives, continue decommissioning activities at AECL's Chalk River and Whiteshell Laboratories, and implement initiatives and activities to prepare for the transition to the government-owned, contractor-operated management model, including upgrading the software system for the waste inventory database and advancing strategies and planning for future work.

This liability program is also recognized as part of the overall help to support the reduction of the $6.3 billion that are recognized in the public accounts of Canada as an environmental liability.

Mrs. Kelly Block: Thank you.

In your opening statement, you mentioned that the supplementary estimates show an increase of $277.8 million from the originally approved 2015-16 budget, as outlined in the main estimates.

Can you just explain for us what happens between the tabling and the approval of the main estimates and now, just a few months later, when we are here looking at a request for an increase? Can you tell me about that?

Ms. Kami Ramcharan: It's somewhat complicated. In the main estimates, these are things that we know at the time that they're published, and they usually start publishing them during the 2014 fiscal year. What's published in the mains are those things we know about.

As things evolve and things progress, we have different announcements, different submissions that we would submit to seek additional funding, so we would have done that since the mains, and on these three specific initiatives. One is for our infrastructure projects, the other for our nuclear legacy liabilities program, and the third for our targeted geoscience initiative. The targeted geoscience initiative is a renewal, as I mentioned in my opening comments. The infrastructure program is new funding for the department. It's something that was recently announced and we did all the work associated with doing it, but we didn't do it in time for it to be published in the mains. That's why it's being published in the supplementary estimates. It would have been the same for the nuclear legacy liabilities program. We have subsequently done the work and now it's included in the supplementary estimates.

Mrs. Kelly Block: I guess my next question for you is this. How does this funding fit into our government's commitment to establish a GOCO model?

Ms. Kami Ramcharan: The one piece I will talk to is the nuclear legacy liabilities program, and that's about decommissioning our waste initiative and I have my colleague J.F. here, who does know a lot about that. Maybe what I'll do is invite him to speak to how that program relates to the transfer to the new model.

The Chair: Just identify yourself again and go ahead and make your comments.

Thank you for being here.

Mr. Jean-Frédéric Lafaille (Director General, AECL Restructuring, Department of Natural Resources): Thank you, Mr. Chair.

[*Translation*]

My name is Jean-Frédéric Lafaille, and I am the Director General of the sector called the Atomic Energy of Canada Limited Restructuring.

[*English*]

Thank you for the question. I think the question was about how this funding would relate to the implementation of the government-owned, contractor-operated model.

I will make a distinction from the nuclear legacy liabilities program that's been implemented for a number of years, and this will carry on going forward as there is a long-term plan to remediate any nuclear waste that's been accumulated over the past decades. That will carry on, but going forward it will be delivered under a different model. That model has it that a private sector company will be selected to actually manage the operations of the nuclear laboratories going forward, including the management of the waste that is currently being managed by the nuclear laboratories at Chalk River Laboratories, in particular, but also Whiteshell Laboratories.

The funding is being provided on a one-year basis to carry on the activities and will be renewed going forward to make sure that these nuclear wastes are being remediated over the long term. Does that answer the question?

● (1545)

Mrs. Kelly Block: Yes, I think so. It might have created another question, but—

The Chair: Quickly.

Mrs. Kelly Block: The legacy waste program will be looking at managing the nuclear waste that's been created. The GOCO will be managing the waste that is created. Is that what I heard you say?

Mr. Jean-Frédéric Lafaille: Thank you for the question.

There is currently a 70-year plan established by the nuclear laboratories to remediate all the waste that's been accumulated since the 1940s, so that has to go on. It will be managed by the new operator taking charge of the operations of the laboratories.

The new waste that will be created as a result of nuclear operations will have to be taken care of as well, and for this new waste being created, the nuclear laboratories will ensure that whoever is the generator of the waste will be asked to fund this, to make sure that funds are being set aside to ensure there will be funds in the future to enable cleaning up this waste.

Mrs. Kelly Block: Thank you.

The Chair: Thank you, Ms. Block.

Mr. Caron, you have up to seven minutes.

[*Translation*]

Mr. Guy Caron (Rimouski-Neigette—Témiscouata—Les Basques, NDP): Thank you very much, Mr. Chair.

I also want to thank Ms. Ramcharan for joining us.

You were here when we asked questions about the main estimates. I asked two questions then, but I did not get any clear answers. I would like to make sure that there is some follow-up to those questions.

The first question was about the $80 million added to the National Energy Board's operating budget. At the time, I pointed out that the funding allocated to the NEB had been reduced by 15% to 20%, but that the $80-million amount constituted support since the latest budget. However, no one could tell me what that amount would be used for, since the main estimates had sort of kept in line with the budget announced by the government.

Do you have more details on the breakdown of that $80-million amount for the National Energy Board announced in the federal budget?

[*English*]

Ms. Kami Ramcharan: I'm going to check my notes to see if I have some information that can help explain the National Energy Board numbers. I have so many pieces of paper.

Mr. Guy Caron: I understand Natural Resources is a large department.

Ms. Kami Ramcharan: Yes, and I want to make sure I give you the right answer. AECL has their own chief financial officer; we're just here representing the department.

I do have a response for you. With regard to how the 2015 budget funds requested by the National Energy Board will be used, the main responsibilities include the construction, operation, and abandonment of pipelines that cross international borders or provincial-territorial borders. The $80 million requested by the National Energy Board is dedicated over five years, starting in 2015-16. The funds support responsible resource development by contributing to the safety of energy transportation and infrastructure.

A portion of the estimates requested support the NEB's responsibility related to the safety of Canadians and protection of the environment during the construction, operation, and abandonment of pipelines. These activities include audit and compliance follow-ups, incident investigations, emergency management, post-decisions process management, and program support. The specific number of audits, inspections, emergency exercises, site visits and compliance meetings, and other compliance activities will be optimized to deliver the highest level of safety oversight. The remainder would support greater engagement with Canadians on NEB's role and mandate in the regulation and oversight of Canada's energy infrastructure.

Activities supporting this initiative include the communication officer duties, regulatory data collection and analysis, general public engagement, energy information collection and analysis, and program support.

Engagement with Canadians and public participation is also an important element of NEB's open and balanced regulatory process. The NEB plans to increase the number of opportunities for board members and staff to engage directly with Canadians. These activities strengthen the quality and credibility of decisions and recommendations. They also serve to inform the public of its role in our processes. The public is an important source of local and traditional knowledge about a project's physical site and potential impacts. Through public participation activities, project proponents can obtain information and better understanding to respond to public concerns and inform the public about decisions.

The NEB does not generate or participate in advertising campaigns. Notifications like the hearing order can be viewed on the NEB website and a public notice with the hearing order information is usually published in local newspapers.

That gives you a sense of what the money is for. It's pretty well for their regular operations.

● (1550)

Mr. Guy Caron: I have one quick follow-up on this. I was listening, and I'm not sure if I heard anything about supplementary funds specifically for the hearing process—especially with the expanded role of the NEB—for new pipeline projects.

I haven't really seen or heard anything related to this, except maybe for that last part that you mentioned.

Ms. Kami Ramcharan: Unfortunately, I don't have any additional information on the supplementary estimates for NEB. We'll have to get back to you with that information.

[*Translation*]

Mr. Guy Caron: I have one last question, and then I will let Mr. Rafferty take over.

Last time you appeared before us, I asked a question about the effectiveness of the $24-million advertising campaign to promote pipeline export projects toward the United States—more specifically, the Keystone pipeline.

Do you have more information about that campaign's effectiveness? A report was produced on the matter.

[*English*]

Ms. Kami Ramcharan: With respect to the advertising campaign, we did have an initiative where we had two years' worth of funding. In 2013, $30 million was allocated for the two-year stakeholder engagement outreach campaign. It involved two components. International stakeholder engagement, under the Go with Canada banner, supported development, testing, and execution of advertising in select Washington, D.C., print and online media, and in metro transit stations between May 2013 and May 2014.

Advertising yielded more than 95,000 unique visits to the Go with Canada website, with 90% of the visits from intended U.S. audiences in Washington, D.C. Results from the advertising evaluation conducted in February 2014 indicated that the advertising activities exceeded the Government of Canada's advertising standards and benchmarks.

In terms of our outreach fund, funding for federal departments and agencies to deliver tailored information and engagement projects targeting key international and domestic stakeholder groups...and there was grants and contributions funding to support—

Mr. Guy Caron: Sorry, I'll just leave some time for Mr. Rafferty. Could you table this document with us?

The Chair: You have one minute, Mr. Rafferty.

Mr. John Rafferty (Thunder Bay—Rainy River, NDP): Thank you, Chair.

Whenever the minister speaks, he always talks about the Ring of Fire, and those of us who live in northern Ontario know that there's virtually nothing going on there.

Ms. Joan Crockatt (Calgary Centre, CPC): I have a point of order.

The Chair: There's a point of order.

Ms. Joan Crockatt: I just wanted to say that I believe the officials are here for the supplementary estimates. It may be quite unfair as well, as it's not really what we're doing here, to ask them about points—

Mr. John Rafferty: It relates to her opening comments.

Ms. Joan Crockatt: Okay.

Thank you. Sorry.

Mr. John Rafferty: He's fond of talking about the Ring of Fire any chance he gets, but those of us who live in northern Ontario know that not much is going on.

You talked in your opening remarks about over 50 new geoscience results and that these are being used by industry to adapt their exploration approaches, for example, in Ontario's Ring of Fire region. You may know that the last two exploration firms there are in great danger of pulling out because nothing's going on there.

Can you explain what these geoscience results are that the industry is using in Ontario's Ring of Fire?

Ms. Kami Ramcharan: I can't speak specifically to the results that they're using, but maybe what I can talk a little bit about is what the targeted geoscience initiative tries to do on behalf of industries with regard to some of the exploration. Really what it's doing is focusing on new and innovative ways to look for deeper mineral deposits, reducing some of the risks for mineral exploration and helping improve the industry's global competitiveness while creating opportunities at home.

In budget 2015 we did have an allocation identified of about $23 million or $24 million over the next five years to stimulate the technological innovation needed to separate and develop chromite and other important minerals. According to the Province of Ontario, the Ring of Fire region is estimated to hold over $60 billion of in situ metal deposits of chromite, base metals, and platinum-group metals. So our estimate of the value of the seven most-advanced projects is between $31 billion and $54 billion, related to those types of minerals.

In the past four years $40 million of federal funds have been invested to support aboriginal capacity-building, as well as business and skills development in northern Ontario to support the initiative. Over three years, starting in 2013, $4.4 million has been invested from FedNor to support aboriginal communities.

Another $5.9 million was invested from the ESDC's—Employment and Social Development Canada's—skills and partnership fund to support skills training for aboriginal peoples in 2013, and $5.2 million was invested toward training and work experience for aboriginal participants in 2014.

So in addition—

● (1555)

Mr. John Rafferty: I'll check with these two companies that are left in the Ontario's Ring of Fire and find out how they're using these geoscience results.

Thank you.

The Chair: Go ahead, Mr. Regan, for up to seven minutes.

The Honourable Geoff Regan (Halifax West, Lib.): Thank you, Mr. Chair.

Thank you, Ms. Ramcharan and Mr. Lafaille, for being with us today, and to the others who are here supporting you.

Actually, I'm glad Mr. Rafferty added that, because I was going to ask if you could get back to the committee with an answer to the specific question that Mr. Rafferty asked.

Ms. Kami Ramcharan: I would have to know the name of the specific companies in order to talk about how we would help or support them in terms of the Ring of Fire.

Hon. Geoff Regan: My understanding was that it was the minister or you who said they were doing this, so you should know which ones you're supporting in the Ring of Fire, right?

Ms. Kami Ramcharan: We're supporting research; we're not supporting companies directly.

Hon. Geoff Regan: Oh, I see, so you're providing research and you don't know how they're using it. Is that what you're saying?

Ms. Kami Ramcharan: We could provide more information with regard to the research being provided to really look at exploration for minerals. My colleague here is responsible for the targeted geoscience initiative if you want to hear a little more about that.

Hon. Geoff Regan: I don't right now. It was his question, not mine, but it was of interest.

Ms. Kami Ramcharan: Okay.

Hon. Geoff Regan: Let me go on to something else.

When you were here on May 5 to discuss the main estimates, you told me that AECL funding for 2015-16 included $119 million from the mains and an additional $72 million announced in the April budget. Now we see another $164.9 million in the supplementary estimates (A). I assume that $164.9 million includes the $72 million announced in the budget to maintain safe and reliable operations at Chalk River. If that's the case, what is the additional $93 million required for?

Ms. Kami Ramcharan: Again, just from what I have in front of me, what's been identified in the supplementary estimates for Atomic Energy of Canada is $164.9 million, which is funding to support nuclear science and medical isotopes. That's what's in their supplementary estimates (A) as additional funding.

Hon. Geoff Regan: That's pretty broad. Has anything changed since the budget that would require $93 million more?

Ms. Kami Ramcharan: Again, as to what would change, I wouldn't be able to speak directly to their program. Maybe I could ask AECL to provide some additional information with regard to your question.

Hon. Geoff Regan: I would think that before saying yes to $93 million more for AECL, the department would want to know what it was for, right?

Mr. Jean-Frédéric Lafaille: I'm happy to answer that question, Mr. Chair.

If we look at the practice in the past, $102.1 million was always provided to AECL in the main estimates, and each year we'd look at the incremental amount that would be required to fund the operations of the laboratories. If you look at the past practice, what you see this year is consistent with the past practice. If you compare the numbers, they will be roughly in the same order of magnitude. That amount is to cover the entire operations of the nuclear laboratories.

Hon. Geoff Regan: Thank you.

In the main estimates $67 million was originally set aside for operations, while $35 million was earmarked for research and development. The supplementary estimates (A) state that the $164.9 million will go toward both activities, but it is unclear how the money will be divided. Are you able to give us a better breakdown of where that $164 million will go?

● (1600)

Mr. Jean-Frédéric Lafaille: I think we would need to refer to AECL to provide a more refined breakdown. What I could say is that within the entirety of the main estimates and supplementary estimates (A) and the budget, we would cover all the missions of the laboratories, which include science and technology, medical isotopes, and capital investment in the labs. For a more refined breakdown of this, I would need to refer to the nuclear laboratories to make sure they have the right numbers for you, but that would include the entirety of the funding the government will provide to the nuclear laboratories if you add up the main estimates, the budget, and the supplementary estimates.

Hon. Geoff Regan: Speaking of the fact that this money would support medical and industrial isotope production as well as nuclear science, how much has been earmarked for isotope production at Chalk River? Is there any funding for research into isotope production at any other facilities, such as the TRIUMF with its cyclotron particle accelerator?

Mr. Jean-Frédéric Lafaille: We distinguished the funding to AECL to produce medical isotopes out of the NRU reactor from the funding provided to companies that are looking at alternative ways to produce medical isotopes. From the first item of the money to AECL to produce medical isotopes that would be part of the overall funding, there are commercial contracts between AECL and the supply chain. I cannot go into the exact details, but the funding provided to AECL would cover the operations required to continue the production of medical isotopes until October 2016, which is the date at which the NRU reactor would cease to produce medical isotopes.

As for your second question regarding the alternative ways to produce medical isotopes at places like TRIUMF, the University of Alberta, or the Prairie Enterprise, Natural Resources Canada has a program in place to fund these three projects and they are developing technologies to produce medical isotopes that would not require a reactor. At TRIUMF and the University of Alberta they're using cyclotrons, for example, to produce medical isotopes. The programs we have in place at NRCan have been supporting development of these technologies. Since 2010, $60 million has been spent to support these Canadian technologies.

Hon. Geoff Regan: In terms of this development and this expectation of development of cyclotron-produced isotopes, is it the department's thinking that this will be the source of all medical isotopes in Canada in the future, that they'll come from cyclotrons, or do you expect that we will still have to get some from other sources?

Mr. Jean-Frédéric Lafaille: The medical isotopes market is really a global one. When we look at the future, and we've done a third party analysis of what is the projected demand and supply, which comes out of the OECD's Nuclear Energy Agency, the expectation is that supply will meet the demand even after the NRU ceases to produce medical isotopes going forward.

What happens after 2016? Really, the market dynamics will play out and we suspect that the projects that we've been funding through NRCan, cyclotrons and linear accelerators, will have a share of the market. At this point in time we don't know exactly which source of medical isotopes will actually be supplying the Canadian market, but it will be a global market. When we look at the analysis we're confident that supply is projected to meet demand.

Hon. Geoff Regan: Thank you.

The NRU will need to be relicensed to operate beyond 2016. How much of the AECL funding is being provided to meet licensing requirements and other regulatory obligations?

Mr. Jean-Frédéric Lafaille: I could not provide you with the exact number, but I know that part of the funding provided to AECL at this point in time would include the work that has to be done to put together the safety case that AECL would put before the regulator, the CNSC, to seek an extension of the licence for the NRU to operate beyond 2016.

The NRU is one of the main facilities at the Chalk River laboratory site that would need to be renewed in order to continue the operations beyond 2016. But certainly AECL is building the case now to renew that licence.

The Chair: Thank you.

Thank you, Mr. Regan.

We go now to the five-minute round, starting with Ms. Crockatt, followed by Mr. Trost, and then Ms. Charlton.

Ms. Joan Crockatt: Thank you very much, Ms. Ramcharan, for your edifying presentation. I learned quite a bit more than I thought we would learn today. It's great to have the opportunity to drill down into the supplementary estimates.

I was very interested to see that there's $277.8 million in additional spending being represented here, and I saw two main themes emerging from your presentation on what we're spending that $277 million on. One was protecting Canadians and the environment, and the other was supporting scientific research. I wanted to ask you about those two things if I could.

I was particularly interested in the $38.6 million in capital funding for some 15 research facilities across Canada. I think we often think of bricks and mortar as a static and dry topic, but I believe I heard you explain that a lot of the spending is actually going to be used to reduce GHG emissions and to enhance energy savings.

I wonder if you can tell us where this research funding is going for these 15 facilities and how we are supporting scientific research through it.

● (1605)

Ms. Kami Ramcharan: Thank you very much for your question.

Maybe what I can do is to sort of come back a bit.... Although we're only showing roughly about $40 million this year, the infrastructure initiative is actually $89 million over two years. What we see in our estimates for this year is the funding for this year, and then we'll have a subsequent amount in next year. The $89 million over two years will include funding in a number of different projects. I will go through them and give you some examples.

In Alert, Nunavut, we are going to be airlifting a new prefab structure to upgrade our research space in that environment. In Calgary, we have a variety of laboratory renovations to meet life-cycle renewal of heating and induction terminal units, air handling systems, laboratory fume hoods and exhaust fans, pneumatic control systems, and electrical distribution panels. In Dartmouth, Nova Scotia, a refit of our palynology laboratory will be implemented, and repurposing three dated labs to modern-day standards will be conducted.

In Devon, Alberta, we have pilot plant building upgrades, including electrical and ventilation system improvements to hazardous areas through the shipping and receiving centres. In Edmonton, we have the installation of a new fire suppression system in some building areas, electrical and ventilation system upgrades to meet life-cycle requirements, and the replacement of a water distillation system. In Fredericton, New Brunswick, we have roof and exhaust fan replacements and a chiller upgrade. As well, the specialized geomagnetic calibration building will be relocated from Ottawa and rebuilt at a site in Fredericton, far from magnetic interference.

In Inuvik, Northwest Territories, we will replace, upgrade, and extend roads to ensure access by scientific staff. In the national capital region, we'll do system upgrades and base building repairs to include fire alarm control panel replacements and switchgear updates. In Resolute, Nunavut, we will do investments to replace air quality handling units, furnaces, and fuel oil systems. We'll install cooling units for communication rooms and replace electrical controls and exhaust fans.

In Sault Ste. Marie, we'll have various upgrades to improve energy efficiencies from terminal heating units as well as replacements. In Sidney, British Columbia, we will do investments that focus on modification and repairs to our core sample facilities. In Sainte-Foy, Quebec, laboratory upgrades will include replacement of ventilation fans, and other recapitalization and repair.

In Val-d'Or, Quebec, replacements include window replacements and electrical upgrades. In Varennes, Quebec, there are investments in the replacement of HVAC pumps and various repairs. In Victoria, B.C., we'll have repairs, including distribution panels and security system upgrades.

All of these will help to support our science going forward, as well as helping to reduce our GHG emissions so that we can continue to be energy efficient in our buildings where we conduct our research.

Ms. Joan Crockatt: Great.

It sounds like you were really prepared for that. Thank you.

I'm wondering, too, how this expenditure will be of benefit to our scientists. How is that going to make our scientists more effective? How do you see the impact there, where the rubber hits the road?

Ms. Kami Ramcharan: These are the facilities in which our science works, and we haven't had significant investments in our buildings in NRCan for a very long period of time.

What we have is a bit of rust-out that's happening in our organizations. This kind of upgrade, these ventilation systems, heating replacements, and HVAC systems, will help them conduct their science in a more efficient and effective way. It will help to reduce some of the pain they feel sometimes when systems go down.

This will also help the potential for increasing our technology infrastructure as well, working with our colleagues in Shared Services Canada to replace some aging infrastructure there. We're really supportive and excited to have this opportunity to do that because we know it's going to help the longevity of our buildings going forward.

● (1610)

The Chair: Thank you, Ms. Crockatt.

Mr. Trost, you have up to five minutes.

Go ahead, please.

Mr. Brad Trost (Saskatoon—Humboldt, CPC): Thank you, Mr. Chair.

Since I had anticipated my colleagues would ask questions about a variety of other issues, I figured I might as well ask a few questions about the targeted geoscience initiative.

In your speaking notes, you laid out quite a few things that the targeted geoscience initiative does, such as innovative techniques to better detect deeply buried mineral deposits and to better understand the processes by which metals accumulate. You repeated again about greater depth and distance from known deposits. You talked about the publications that had been done, and I think about the grad studies that have been supported.

This is just a basic question. An extra $1.3 million in operating funds is not going to cover all of that. You'd spend way more than $1.3 million with just the things I listed. With the $1.3 million, what was particularly needing extra funding?

Ms. Kami Ramcharan: Overall, we have $22 million over five years for the targeted geoscience initiative. What you see in our supplementary estimates (A) is really our current year funding. We're going to use those resources to help further support our research and initiatives associated with the targeted geoscience initiative. We're going to be looking for new areas of prospectivity. For example, a new gold deposit has identified a key geological element for formation of gold deposits and created better exploration. That's an example of the things we're doing.

Mr. Brad Trost: Would this $1.3 million then be targeted more for more expensive mapping programs rather than for laboratory work, say, or for development of new technologies like a new magnetic system or a new gravity machine or something like that?

Ms. Kami Ramcharan: Maybe what I can do is ask my colleague Monsieur Daniel Lebel, who is here and is familiar with the targeted geoscience initiative, to speak more in depth with regard to your question.

The Chair: Monsieur Lebel, go ahead, please, when you're ready.

Mr. Daniel Lebel (Director General, Atlantic and Western Canada Branch, Geological Survey of Canada, Earth Sciences Sector, Department of Natural Resources): Good afternoon. I'm Daniel Lebel. I'm director general for the Geological Survey of Canada and one of the leads for the geoscience programs we have.

The principles behind the targeted geoscience initiatives are that these are time-limited and cyclical. We have programs that, for the last few cycles, generally last about five years. In this case, because the government always has the chance to decide whether or not to renew, these programs are arranged so that the funding is ramping up and ramping down. In every cycle, we have a full suite of projects that start and finish. It's not an ongoing program where these activities never end. We actually start with a very solid program.

In anticipation of the start of this program, we've been in the planning for about a year and interacting with industry. This first year will really be about planning solid activities. There are some staff who are supported by these activities and are coming on board, but not very many, because the program is highly dependent on the expertise that resides in-house in the Geological Survey of Canada, and then we leverage expertise that resides in universities.

Really, the first year is about starting this and having the best suite of activities. Moving forward, the funding will really ramp up—

Mr. Brad Trost: This would be a lot of planning: laying the groundwork, engaging grad students and professors, getting out project proposals, and things of that nature. This isn't to a point where you're already out there doing an EM or mag surveys or anything like that.

Mr. Daniel Lebel: Exactly, yes. We have two types of geoscience programming. We talked earlier, in the main estimates, about the geomapping program. This one is really geared towards research and innovation rather than doing surveys to do inventory-like—

Mr. Brad Trost: So this would be interested in advancing new equipment for geophysics, improved downhole or borehole geophysics, and projects of that nature.

Mr. Daniel Lebel: Yes, exactly. For example, borehole geophysics have been used to help develop ways to find new reserves of base metals through technology such as seismic technology and boreholes that had not been tested in the past.

Mr. Brad Trost: Microseismic...?

Mr. Daniel Lebel: These things are being adopted.

We had a study done over the course of the last phase of the program. We had somebody who's an expert in the field of geoscience interview companies from across Canada about all the uptake, the results of this program, and we have testimony from a range of these mineral companies that—

Mr. Brad Trost: This is where you would have gotten the information that Mr. Rafferty was looking for and what was also referenced in the notes. I think that was the Athabasca Basin in Saskatchewan and the Bathurst region of New Brunswick.

Mr. Daniel Lebel: Yes, exactly.

It varies. One of the most difficult questions in geoscience—we've been struggling with this for many years, and earlier there were some questions about performance of the program—is to attribute exactly the benefits from the program. Where we build a program structured on general principles, studies done some time ago indicate that for one dollar spent on public geoscience, you get about five dollars in investment in mineral exploration. In the end, you might even get over a hundred dollars of investment in terms of mineral development with the deposit coming online.

Of course, there are economic factors that work on this, so we've been working hard in the last few cycles to get to much closer metrics in interviews with companies so that we get some really interesting views. The mineral explorationists in Canada are some of the best in the world. As you know, the industry is based in Toronto on the stock exchange, the highest group of mineral exploration companies in the world, and we have geoscientists in Canada that are amongst the best in the world. Our programs really are framed as a knowledge infrastructure for that group of explorationists, so that they have not only new technology but ideas and ways of finding new mineral deposits in Canada.

● (1615)

The Chair: Thank you.

Thank you, Mr. Trost.

We have Ms. Charlton and Mr. Leef and Monsieur Caron left, and then we need just a minute or two for the votes so we can refer these to the House.

Go ahead, please, Ms. Charlton.

Ms. Chris Charlton (Hamilton Mountain, NDP): Thank you very much, Mr. Chair, and thank you very much for being with us today.

I'm particularly concerned about the medical isotopes, so I'm going to focus my questions on that area. You all know that about 20,000-plus patients undergo nuclear imaging procedures every week in our country. As we learned here not all that long ago, the system can be at times, and quite often is, rather fragile, so I want to talk a little about the supply of radioactive isotopes.

The pending shutdown of medical isotopes at Chalk River means that about 40% of the world's supply is going to vanish, if I understand that correctly. That shutdown is scheduled to happen in 2016. We know from budget 2015 that the government announced plans to postpone the shutdown of NRU until 2018, but are those two related? Are we still shutting down the production of isotopes in 2016, even though there's been an extension to 2018 for NRU?

Mr. Jean-Frédéric Lafaille: I'm happy to take this question, Mr. Chair.

The government announced in 2010 that the NRU reactor would cease to produce the medical isotopes called molybdenum-99 in October 2016. That policy stands. If you look at the projections from the OECD on this, supply is projected to meet demand after 2016, even though the NRU reactor would cease to produce medical isotopes.

Just to put this in perspective, there was a prolonged shutdown of the NRU in 2009-10. At that time the NRU was producing between 40% and 50% of the world's molybdenum-99. Currently, the NRU on average is producing 15%. It's been decreasing because of the policy that was announced to the world in 2010 that the NRU will cease to produce medical isotopes and will promote the entry into the market of alternative ways to produce medical isotopes. The problem with the market as it was in 2009 was its reliance on aging reactors, which were, each of them, single points of failure in the system. At the time the plan was to fix that problem by encouraging the promotion of other sources of supply to enter the market.

With regard to the specific question about the announcement in 2015 on the future of the NRU, the government decided to prolong the life of the NRU to March 2018, so the NRU would continue to carry out the activities that it does now, which includes research and development, the support of industry for testing, as well as medical isotopes. Medical isotopes will only be done in a backup capacity. Should there be an emergency situation internationally, let's say a shortage that could not be compensated for by any other means in the system, the NRU would keep the capacity to fill the gap in the market, so there would be a contingency or insurance policy, if you will.

● (1620)

Ms. Chris Charlton: That leads me in a bunch of different directions, and maybe I'm not understanding correctly. But whereas we used to produce 40%, you're saying we're now producing 15% of the world's supply? Right?

Mr. Jean-Frédéric Lafaille: That's correct.

Ms. Chris Charlton: Is that by design, or just because we're now laggards in production, so by definition we're falling further behind?

Mr. Jean-Frédéric Lafaille: No, it's because of how the market has evolved. The world has adjusted to the fact that Canada announced in 2010 that the NRU would cease to produce medical isotopes in 2016, and new sources of supply have come onto the market.

Ms. Chris Charlton: So other countries have clearly invested in new sources of supply. What are we doing to engage in that field? Specifically, the additional appropriations that are being granted to AECL here, how much of that is going to any kind of research on alternative production methods of medical isotopes here in Canada?

[*Translation*]

Mr. Jean-Frédéric Lafaille: The answer is twofold.

[*English*]

First, the government has committed to ensuring that NRU can produce until October 2016. That's part of the funding going to AECL, to make sure that this will continue until 2016.

Then there are programs in our department, Natural Resources Canada, that have supported the development of alternative technologies, based not on reactors but on cyclotrons or linear accelerators, and bringing them to commercialization in a 2016 timeframe. Those would be Canadian technologies that would be able to compete in the market to try to sell medical isotopes after 2016.

Now, we have to understand that this is a global market, so the fact that NRU has decreased its market share over time has been compensated by other sources. Really, the isotopes are traded globally. We haven't seen the shortage in the magnitude we saw in 2009-10, which means the market has really adapted to the situation. When we look at the projections from third parties, from the OECD, the projections tell us that there will be enough capacity in the system and enough supply to meet demand.

The Chair: Thank you, Ms. Charlton.

Mr. Leef, you have up to five minutes.

Mr. Ryan Leef (Yukon, CPC): Indeed, thank you, Ms. Charlton.

Thank you to our guests today. I was actually pretty interested in some of the questions one of my colleagues asked around your efficiencies and GHG reduction plans. You were very well prepared for that question, so congratulations on those initiatives. I think they're great.

We've talked a lot about program and service delivery. I think you would agree that a lot of the programs you're doing are wonderful, but we're nowhere without our employees at times, are we? I see here that you have a seemingly relatively small number of $0.3 million related to the employee benefits plan. I'm just wondering if you could expand a little bit on what that investment is for and what it will do.

Ms. Kami Ramcharan: It's definitely related to the overall salary we pay to our employees on a regular basis. As part of that, we have an employee benefits plan. That is statutory funding. It's not just part of our budget. When we have an increase in the overall cost for employees, when we increase in terms of the initiatives, salary budgets related to the targeted geoscience initiative, or anything related to the infrastructure program, we have an increase in the number of employees. Therefore, we need to have a bit of an increase in the number of statutory dollars we pay as they relate to employee benefits, which are statutory benefits.

Mr. Ryan Leef: Perfect.

Going back to the targeted geoscience initiative, you note on page 11 of your speaking points that there are 730 publicly available documents and that there were over 500 scientific presentations at conferences, workshops, and events. You note specifically that it is helping industry in the development and planning of their exploration activities. Perhaps I'll give you an opportunity to expand on that a little bit.

I'm also curious; when you're doing 500 scientific presentations and producing 730 documents, I would assume that within those presentations, within those documents, there is community uptake in this as well. We spend a lot of time talking about community consultation when we discuss responsible resource development plans. That includes our aboriginal communities' participation.

How broadly were those presentations available? Were they centralized in a particular part of Canada, or were they vastly used across Canada? What level, that you know of, did engage community uptake and not just industry uptake on these presentations?

● (1625)

Ms. Kami Ramcharan: Perhaps I'll turn it over to my colleague Daniel Lebel to respond.

Mr. Daniel Lebel: These publication presentations are largely technical, aimed at the geoscientist or explorationist community members who are very savvy about that sort of documentation, looking for breakthroughs in knowledge and science and new models, so that they can look out for the haystacks that are out there in nature and find the needles in them.

We have an array of meetings that we attend every year. We restrain ourselves in terms of attendance so that it's within reason, but at the same time we go so that connections are made. For instance, one scientist might present for several others when we attend these meetings.

Canada is a vibrant place for mineral exploration, so we have yearly open houses, as they call them, in each of the provinces and territories of Canada. Usually they happen in the fall just after the field season, so we have the mineral industry and provincial organizations that do some work in this field. People get together and it's part of networking and knowledge transfer face to face. Generally there are technical presentations that are made. It could also be through a poster presentation, because some of these things are really crowded—if you think about PDAC, for example, which gets into the multi-thousands.

We look for the best opportunity to do this knowledge transfer. Sometimes it is through workshops also with universities that are operating in this field.

With regard to bridging this knowledge to communities, we have examples through geoscience for mapping in the north where we're really reaching over to the communities of the north and letting them know that the first element of development is sometimes a mineral exploration company arriving in their territory. We try to bridge the knowledge with them so that they can build capacity in their own community to interact with developers that are coming there and know what this is about. It could take five or 10 years sometimes before the actual development, and there is a lot of chance it will not go the way people hope. There's a lot of chance that they don't quite find what they are looking for in that industry. It is high risk.

The Chair: Thank you.

We'll go now to Monsieur Caron and Ms. Charlton.

Go ahead, please, Ms. Charlton.

Ms. Chris Charlton: I just wanted to continue the conversation we started a little while ago. You were saying there are allocations that have been made by the department toward research and development of alternative types of isotopes. In those investments we are making, what is our goal with regard to what percentage of the market share we are aspiring to contribute?

Mr. Jean-Frédéric Lafaille: Since 2010 our department has invested $60 million in these alternative technologies. The policy has been that after 2016 the market should pick up what the health community finds to be the best medical isotopes that fit its needs, so the goal of the program really is to bring these technologies up to commercialization so it can compete with other sources of medical isotopes going forward.

The advantage of these technologies—

Ms. Chris Charlton: Is that the world supply or Canadian supply?

Mr. Jean-Frédéric Lafaille: They are Canadian suppliers but they can compete internationally. This is a global system, so they can sell the technologies wherever they would fit the market needs.

The advantage of a technology like the cyclotron, for instance, is that it is localized. As opposed to being a big reactor that produces a large volume of medical isotopes, these are smaller machines that are sitting in universities or S and T campuses or close to hospitals and really can provide medical isotopes on a regional basis. We have examples from our Canadian proponents who have successfully been producing a volume that could supply a large urban area such as Vancouver. TRIUMF had an announcement on this scale recently. The University of Alberta and the university in Sherbrooke in February, announced that the quality of medical isotopes produced is of the same purity as what we would find on the market, and linear accelerators also demonstrated they can produce volumes comparable to what is in the market, so they are making progress toward being able to compete in 2016.

On your specific question about market share, we cannot predetermine at this point in time what that would be.

● (1630)

Ms. Chris Charlton: It seems to me that, if we used to have 40% of the market and we dropped to 15% of the market—under a different program—we might have an aspirational goal if we're making pretty significant investments.

You're saying we have invested $60 million over the last five years, and now we're asking for additional appropriations of $164 million just for this year. If you break out that number of $164.9 million, how much of that is for nuclear science and how much of it is for medical isotope production?

Mr. Jean-Frédéric Lafaille: These are two different numbers. The $60 million that I have spoken about for Natural Resources Canada's programs is totally separate from the funding for AECL nuclear laboratories. The $164.9 million would not comprise the $60 million for supporting alternative ways to produce medical isotopes, if I understand the question.

Ms. Chris Charlton: Sorry, the $164 million will not go towards supporting...?

Mr. Jean-Frédéric Lafaille: None of it will go to supporting alternative technologies to produce medical isotopes. The $164.9 goes to AECL to fund their regular operations, which would include the operations of the NRU reactor, which, among other things, produces medical isotopes. I know it's a bit complicated, but you have the funding for alternative technology through NRCan programs, and then you have funding to AECL, which does many things including medical isotopes, and the two envelopes are separate.

Ms. Chris Charlton: I think I'm going to leave it there.

Thanks.

The Chair: You have one minute, Mr. Caron, or are you finished?

Mr. John Rafferty: I can ask a question.

With regard to the investments in cyclotrons in particular, because as you know, Thunder Bay is due to open one and I think to start its actual production in March, isotopes have very short half-lives. They're not going to be exporting any of this stuff, because it might have a usable life of only one or two or three days. None of this money is really going to go into exploring export markets or anything like that.

Mr. Jean-Frédéric Lafaille: You're quite right that the half-life of what we produce in the cyclotron is six hours. It goes from the cyclotron to the hospital to be used in nuclear medicine to do diagnostics and these kinds of procedures. What would be exported is not really the isotope itself but the technology, so if you're a large urban area and you want to secure your supply of medical isotopes, you might want to have a cyclotron somewhere in your urban area to fill the needs of your health community. You would export a technology as opposed to the isotopes.

Mr. John Rafferty: Some of this supplementary money would be spent on looking for markets for actual exports.

Mr. Jean-Frédéric Lafaille: It would be up to the proponents to decide what they want to do, what their market strategy would be. The NRCan program supporting alternative technologies will support them to get to that phase so they will have the technology ready so that all the regulatory approvals will be in place, and then they will have their strategy about how they want to bring that technology forward. In the supplementary estimates (A) funding is going to AECL including to maintain operations of the NRU reactor to produce the current medical isotopes until October 2016.

The Chair: Thank you.

Thank you very much to all of you from the Department of Natural Resources for being here today, Ms. Ramcharan, Mr. Lafaille, Mr. Lebel, and all the others at the back.

Members, let's quickly go through the votes here for the supplementary estimates (A).

ATOMIC ENERGY OF CANADA LIMITED

Vote 1a—Operating and capital expenditures.....$164,900,000

(Vote 1a agreed to on division)

NATURAL RESOURCES

Vote 1a—Operating expenditures.....$237,888,974

Vote 5a—Capital expenditures.....$39,586,996

(Votes 1a and 5a agreed to on division)

The Chair: Shall the chair report vote 1a under Atomic Energy of Canada Limited and votes 1a and 5a under Natural Resources to the House?

Some hon. members: Agreed.

The Chair: Thank you very much.

That is it for today's meeting. I will see you next Tuesday to start the review of the report, which the analysts have assured us will be out sometime.

The meeting is adjourned.