

## Legislative Assembly of Alberta

Title: **Wednesday, May 16, 2007** 7:00 p.m.  
Date: 07/05/16  
head: **Committee of Supply**

[Mr. Shariff in the chair]

**The Deputy Chair:** Hon. members, we shall call the committee to order.

head: **Main Estimates 2007-08**

**The Deputy Chair:** As we conducted ourselves this afternoon, which was a precedent, with the new system that we have, the first 10 minutes were allocated to the opposition members, and they could share the 10 minutes among themselves, followed by 10 minutes for ministers to respond to the questions that were raised, and that would go back and forth. As you know, with the understanding that we have, the first hour and a half will be between the members of the Liberal caucus and the ministers responsible. The following half hour will be allocated to the members of the New Democratic caucus, and following that one hour is allocated to any other member that wishes to participate.

We shall begin with the first hour and a half by calling upon the hon. Member for Edmonton-Centre.

**Ms Blakeman:** Thank you very much, Mr. Chairman. I just wanted to take this opportunity, while people were settling into their places, to express my appreciation for everyone's willingness to embark upon this experiment. We had the first version of it this afternoon, and it went pretty well. I did want to underline that from the Liberal caucus we are approaching this in an attempt to have it be less adversarial than you might sometimes find in a budget debate and, indeed, more collaborative and collegial. We really are trying to explore the best possibilities for those issues that cross over more than one ministry.

You will find that the issues that we've chosen – and we did circulate to the government ministry staff the subjects that we were hoping to deal with today. Essentially, that's industrial development and health impacts in the northern oil sands area, development and health impacts in what we're calling Upgrader Alley, and then a sort of miscellaneous category in which there were a number of issues.

We look forward to this. We really are seeking information from the government on possible collaboration on ways that across the ministries, particularly around health impacts, we're able to monitor and evaluate. Once again, I express my appreciation to the ministers for the willingness to try this – having seen this afternoon, I already have a few ideas about how I would change it – but also to the staff who join us on the floor tonight for coming along for the ride with us. We appreciate it.

As the chairman has outlined, we will work in 10-minute segments from our side, sharing the 10 minutes among the three of us, and we ask that you be willing to do the same thing so that we can have a back-and-forth exchange.

With that, I will take my seat. Was there an arrangement for them to start, or may we begin?

**The Deputy Chair:** Well, maybe what we can do is we can have the ministers just introduce their staff and then allow the Member for Edmonton-Centre to take the first 10 minutes. Hon. ministers, would you like to just introduce your staff for the record?

We'll begin with the Minister of Energy. Would you like to introduce your staff for the record?

## Energy Environment Health and Wellness

**Mr. Knight:** Thank you, Mr. Chairman. With me this evening to engage in this discussion with members of the opposition I have Mike Ekelund, the assistant deputy minister of oil development; Anne Denman, associate executive director, electricity division; and Doug Borland, director of financial services for the Department of Energy.

**The Deputy Chair:** The Minister of Environment.

**Mr. Renner:** Well, thank you, Mr. Chairman. Joining us once again – I guess that they must have enjoyed themselves so much last time – my deputy minister, Peter Watson, and assistant deputy ministers John Knapp and Bev Yee. We have a new face that has joined us this evening, that I think will be very helpful to the discussion at hand, and that's Kem Singh, who is the approvals manager for the northern region in Alberta Environment.

**The Deputy Chair:** The hon. Minister of Health and Wellness.

**Mr. Hancock:** Thank you, Mr. Chairman. I'm pleased to have with me today, of course, the never-failing – she told me to say that – deputy minister, Paddy Meade; our executive director of public health surveillance and environmental health, Alex MacKenzie; and my assistant Sean Yam.

**The Deputy Chair:** The hon. Member for Edmonton-Centre.

**Ms Blakeman:** Thank you very much. I'm the first person chosen to speak on our side. Mostly I'm concentrating on the first category that we outlined for you, which is development and health impacts in the northern area, obviously focusing around the oil sands. We're all aware that the Fort McMurray region has experienced rapid growth in the past decade, obviously flowing from the government of Alberta's economic development and energy policies. We certainly have experienced unprecedented investment and growth there.

My question is: how is the government of Alberta prepared for this continued growth in that particular area? In other words, how could Albertans feel confident that their health would not be jeopardized as a result of this growth? Can you help us understand why the government chooses to drive the growth at the rate that it's currently at? Why is that choice being made? Why does it need to be at the rate of growth that it's at? It certainly is very high, and I think a lot of the issues that we see flowing are as a result of that, so maybe you could help us understand your choices there.

I think we have a number of independent studies and reports that have looked at continued growth up into 2020, and I'm referencing particularly Strategy West's assessment that if all the oil sands projects are built and meet their start-up dates, we would have the bitumen production moving from, it looks like, over a million barrels per day to over six million barrels per day by 2020. This is increasing oil sands production by 463 per cent over a 15-year period.

What will the environmental and health impacts be for such a dramatic increase in production there? How does the government know about the heavy development over a long period of time and what its impact will be on people? Specifically, what studies or reports or analysis has the government done to this point that would help them understand that or plan for that? I'm also wondering if any additional analyses have been commissioned or are in the works.

Can you tell me or give me some detail about what you're expecting there?

I'm also interested in what indicators the government is choosing to use to monitor health impacts. What are those indicators that you are using to monitor? From the studies that you've already done, assuming that you've done studies, have there been any adverse health effects that have been identified, and what are they?

The environmental impacts. I'm just going to quote, if you'll allow me, from the Radke report on page 22.

While the benefits are enormous, the impact on the environment is undeniable. The key issues relate to the amount of surface and ground water used in the extraction process, the overall impact on the quality of surface and ground water, levels of greenhouse gas and other air emissions, land disturbance and the size of the footprint on the land base, land reclamation, and impacts on wildlife and endangered species.

I'm wondering what the government knows about these impacts on the areas of health and well-being. What environmental indicators is the government using from any of these three departments we're looking at tonight? Which of those is being monitored or all of them together? Or how are you doing the analysis?

I'm interested in knowing whether we're taking long-term action to ensure that we don't impact our health and well-being negatively, so it would be helpful to know which ministry is taking responsibility for conducting cumulative assessments to measure the long-term impact on health.

I was interested to hear that there is an environmental health person working in the Department of Health and Wellness, but for my purposes I'm wondering which ministry takes the lead on this. Is that minister able to tell us how the health of Alberta's population is being considered when deciding on the pace of development?

Can the ministers, all of you as a team or individually, provide a list, preferably in writing, of all of the government-commissioned reports within the last 10 years relating to health impacts of industrial development in northern Alberta? That's sort of a repeat of the question I started with, but I'm getting quite specific now.

7:10

On a slightly different topic I note that Dr. John O'Connor, a physician in the Northern Lights health region, has raised concerns about the high amounts of arsenic that have gone into the water, and a higher than average rate of rare cancer, which is his firm belief. Now, the results of an Alberta Health study found that Dr. O'Connor's claims were untrue or unfounded, and the minister of health is on record about that, but I also note that the government study was criticized as incomplete. I'm wondering what is the status of studies that are being conducted currently by the department of health or any other department in the Fort Chipewyan area.

I also note that when we look specifically at aboriginal health, a number of toxins have been released or found in water bodies like Lake Athabasca. These are relied on heavily by aboriginal populations. Is the government of the opinion that the water sources in northern Alberta are safe? Could you provide me with whatever backup documentation has you believe that?

I'm going to move on and talk more generally about the health and the general population in northern Alberta, particularly in the Northern Lights health region. I think we can all agree that the dramatically increased population in that area has had a major impact on health care delivery in that region. The northern health region health professional shortage has resulted, some would feel, in a lower quality of care for patients or, certainly, for more restricted care in that they've had to close some areas of the hospital, so there are wait times in emergency rooms to see physicians and for surgical procedures. I think health professionals are a bit frustrated. The

population growth has also had implications for the entire community when it comes to STD rates, communicable diseases, nutrition, and the availability of emergency services.

That's sort of to set up this next section. In the Radke report recommendation number 10 was that

a substantial increase in manpower (FTE's) should be provided to Alberta Environment and Alberta Sustainable Resource Development to focus on cumulative effects, [environmental impact assessments], research, policy development, monitoring and enforcement in the oil sands areas. Some new resources should also go to Alberta Health and Wellness to support the [environmental impact assessment] process.

That's from the Radke report on page 133.

My question is: how much money and resources are going to go towards environmental health impact assessments? Is this a function of the Department of Environment or the department of health? If it's a joint project, which minister is taking the lead on that?

Again, could I get a list of the research projects that are being conducted by or for the government pertaining to cumulative effects of oil sands development in northern Alberta? I'm wondering if ministers are conducting studies about future health and environment impact as the development increases in intensity. We know what we're dealing with today. What happens when that intensifies by severalfold? What are we dealing with there? Is the government aiming for some plans towards that?

I'm particularly interested in what indicators the government is monitoring for long-term, low-dose effect and if anybody has looked at what the occupational injury rate is or an injury rate from working, essentially, in that area. Is it increasing commensurate with the rate of growth overall? That is actually a question, if we had the minister of EII, that we could have pulled her in on. I'm wondering, in addition: what work has the government done in monitoring and evaluating data on any connection between growth and increasing rates of domestic violence, drug use, alcohol use, and suicide rates?

That's the end of my first 10 minutes that just went by in a flash. Thank you very much.

**The Deputy Chair:** Hon. ministers, we have 10 minutes, and it's up to you three how you would like to take the 10 minutes. We'll begin with the hon. Minister of Health and Wellness.

**Mr. Hancock:** Well, thank you, Mr. Chairman. I will start on some of the issues relating to the health side, but we've plenty of time – well, not plenty of time but have most of the time, I hope, for Environment because a number of the questions fall in the Environment area. Then a couple relating to the pace of development might well fall to Energy.

First of all, we did have the Radke report to talk about the impact on the northern oil sands area, particularly the Fort McMurray area. That report was responded to at the end of February with some substantial additional resources, particularly on the health side, which allowed us to deal with some of the more immediate issues relative to building capacity, the community clinics which will be needed, and some of the other issues with respect to retention of staff. Some of the issues around wait times, for example in emergency, have actually ameliorated somewhat as a result of the additional resources that have been applied.

We're working very closely with the health authority. In fact, we've provided the health authority with some management assistance to assist them through the transition process going forward because there were issues with respect to their ability to retain even the management staff that was necessary to do long-term planning and implementation relative to workforce strategies and

growth. So we have been working very closely with the Northern Lights health region in that area, provided them, as I say, with additional assistance to improve their capacity to be able to deal with these issues as well as the resources to be able to deal with these issues.

Alberta Health and Wellness leads a review process which includes health assessment, but we work, obviously, with Environment in that area.\* That process includes cumulative impacts of development. We're working co-operatively with Environment in that area. Environment deals with the water quality issues, and I'll leave those comments to my colleague.

With respect to STDs and communicable disease rates, as I've indicated in the House and publicly, we are concerned about the increase in STDs – and by that I'm not referring to short-term disability – not just in the Fort McMurray area. It's not isolated to the Fort McMurray area; it's actually spread across the province. While the nature of the mobile population in that area is a concern from a health issue in terms of behaviour, drug use, STDs, and other areas, and increases the use of portions of the health system, that's something that's probably true in most resource towns. That's an area that the health authority there certainly has to be prepared to deal with and that we need to deal with.

There were questions relative to Dr. O'Connor and the allegations that there was a higher rate of cancers in the Fort Chip area. We've done a review of the area. An examination of the cancer registry data does show that the rates of cholangiocarcinoma, leukemia, lymphoma, and other cancers are not elevated in residents of Fort Chip. Data related to other health conditions was examined by Health and Wellness. The prevalence of Graves' disease, rheumatoid arthritis, and congenital anomalies were not elevated in Fort Chip. The treated prevalence of asthma and chronic obstructive pulmonary disease was lower among residents of Fort Chip. The population being treated for lupus appears to be elevated for both Fort Chip and the Northern Lights health region compared to the rest of Alberta, but there's no difference in the data rates between 1995 and 2005.

The long and short of it is that the doctor has not provided his evidence to us that there is an increased rate despite being requested to do so. There is no good reason to withhold that data because cancer is supposed to be reported, so that data should have been available if it was there. The concentrations of arsenic, for example, in moose meat are the same in Wood Buffalo as in Yukon, and the long-term, low-dose analysis of sulphur dioxide and hydrogen sulphide exposure are under review at the present time.

I think I'll leave some time for my colleagues. You gave us a full raft of questions in the 10 minutes, which can't possibly be answered in 10 minutes, so I'll leave a little bit of time for Environment.

7:20

**The Deputy Chair:** Hon. Minister of Environment, you have about four minutes and 47 seconds.

**Mr. Renner:** Thank you, Mr. Chairman. It's evident that it's easier to ask questions in 10 minutes than to answer them. I will do my very best to deal with at least some of the issues that were raised, and I'll do so by talking about some of the studies.

The member asked what kind of studies have been completed. I think it's important that we do talk about the fact that air quality monitoring, for example, has been ongoing in the Fort McMurray area since the 1970s. We have extensive monitoring that continues to be carried on by an excellent organization that we fund, WBEA, Wood Buffalo Environmental Association. This association is an excellent organization. It's a community-based organization that

does air monitoring throughout the Wood Buffalo region. The results of that monitoring are available. I believe they even have a website, and the public is able to access that website and find out the extent of the monitoring.

We have a very extensive study that was done in the '90s, the northern river basins study. That included the Peace River, the Athabasca River, the Slave River, and Athabasca Lake. It deals with the issue of possible contaminants in the river. That study, which was a very extensive study, did not find evidence of industrial contaminants other than some evidence of nutrient loading as a result of some of the effluent from pulp mills and also evidence of nutrient loading as a result of agricultural activity in the region. In both of those cases work is ongoing as we speak to reduce and mitigate the issues surrounding those two operations.

Often mentioned and talked about is the fact that there are these tailings ponds that are associated with oil sands projects. People are always questioning whether or not those ponds are in fact leaking or if there is anyone checking to see. There are wells that are located around all of the tailings ponds that are monitored on a very regular basis by Alberta Environment. The dikes themselves that surround the tailings ponds are regulated and treated under exactly the same regulations as major dam structures, so the engineering that's associated with them has to be monitored on a regular basis. There are reporting requirements the same as there would be for an earthen dam on a river somewhere else in the province. From that aspect we have a very high level of confidence that we are not exposing the ecosystem and the watershed to any risk of contamination due to the chemicals that are contained within the tailings ponds.

There's also an interesting aspect to WBEA, the Wood Buffalo Environmental Association. They have been doing work on ambient air quality and water quality, and they also have an ongoing program that monitors human exposure by actually having volunteers wear equipment and monitor what individuals are exposed to on a regular basis. From that perspective I think we've got a pretty good handle on the overall situation with respect to the air and water quality in the region.

I don't think I have enough time, but I do want and, please, give me the opportunity to get into a discussion on how we see ourselves dealing with environmental regulation in the oil sands on a go-forward basis and from a cumulative impact. Some of the work that we've got, as the member knows – in the mandate letter that I had, one of the mandates was to develop cumulative impact, and I would be more than pleased to discuss it later on in the evening.

**The Deputy Chair:** Hon. Minister of Energy, I'm sorry we couldn't get to you, but through the evening there'll be many opportunities for you to put your remarks on the record.

**Mr. Knight:** Thank you very much, Mr. Chairman. I'm sure I'll survive.

**Mr. Hancock:** Mr. Chairman, I'd like to make a very quick correction.

**The Deputy Chair:** Yes, hon. Government House Leader.

**Mr. Hancock:** I misspoke. Environment leads the environmental impact assessment. Health leads the human health portion of it. I just wanted to be clear on that.\*

**The Deputy Chair:** The hon. Member for Calgary-Mountain View.

**Dr. Swann:** Thank you, Mr. Chairman. I want to congratulate the

\*See right col., para. 10

\*See left col., para.2

government, too, for this initiative. It's cross-ministry. It's trying to look at the bigger picture and includes at least three ministries in this case for what is, clearly, an important integration that's needed in our understanding of where we're going and how we're getting there and what some of the impacts are. I hope we can count on some written responses where we're unable to have the time to hear oral responses.

I guess one of the first questions that I would ask is whether you folks meet periodically or whether this effort tonight has stimulated you to start discussing some issues that you haven't before discussed and planned together on. Is there an opportunity to do more of that in your busy schedules? It's clearly an important dimension of governance now as we're dealing with multifactorial issues and complicated social, economic, environmental impacts.

I wanted to ask also for clarification about the health impact assessment that you mentioned and the environmental impact assessment and the cumulative impact assessment. We seem to throw around these terms a lot. At least part of what we need to be clear about is that when we're talking about a cumulative impact assessment, which I understand the Environment minister has talked about repeatedly since coming into his position, what we're talking about is a look at the total load on a river system, for example, existing and planned, and how that relates to the capacity of that bioregion to sustain over time those impacts. In other words, are we living beyond the environmental capacity of a particular bioregion?

There are other ways of thinking about cumulative impact assessment, and I think that maybe the minister of health might have been referring to ongoing impacts over many, many years and the cumulative impact on people. When I'm using the term and I think when the Environment minister is using the term, we're calling for – and I think he also has been calling for – a better assessment of the total impact of human activities on a bioregion and anticipating into the future what new developments will occur and will overstretch either the watershed or the airshed or the human capacity to deal with those impacts. So when I ask the health minister, which I want to do, “What indicators are you using for health impact assessment and over what period of time?” I want to ask that in the context of clarifying that that's not what I was referring to by cumulative impact assessment.

One thing that I've raised in the past is: when are we going to have health authorities that are capable of doing independent health impact assessments? At the present time it appears that most health impact assessments are done by the industry through consultants, and we haven't developed the capacity in health regions to do that.

On the other hand, where do we have the capacity to do cumulative impact assessment within the Environment department? This is a specialized area of study that clearly needs expertise and a serious commitment of dollars and time to do a good assessment of what that bioregion is capable of handling in terms of human beings and roads and activities of all kinds: industrial, agricultural, whatever it is that that whole bioregion is expected to cope with over the next 30, 40, 50 years.

Having just touched on those issues that arose from the discussion, I wanted to just take a step back and ask whether the ministries have talked at all about the idea of genuine progress indicators and whether in terms of thinking about sustainability we actually are developing some dialogue about what genuine progress would look like. The Pembina Institute, for example, has a series of 50 or so indicators that would tell us in fact: while our economic progress may be going like this, what is our quality of life doing? In some cases it may be going down. In some cases it may be flat. In some cases it may be going up. On issues, for example, like those that my colleague from Edmonton-Centre raised, STD rates and poverty

rates and low birth rates and issues that have more to do with affordable housing and the arts, some of the social determinants of health: in other words, are we getting anywhere closer to looking at the total picture of our development in the province, or are we just going to continue to look at GDP and somehow throw in some indicators around health status or social indicators? Can we integrate those in some way and decide on at least a two- to three-year basis: is our genuine progress increasing, or are we actually declining in some areas that we need to be examining?

7:30

Well, to get to the specific areas around Upgrader Alley, which I was going to spend some time on, as you're well aware, there are a lot of people concerned about the pace and scope of development there and emissions: oxides of nitrogen and sulphur, volatile organics, particulates, ammonia, and fluoride, interestingly enough, from the Agrium plant, with high levels depositing on vegetables and some folks being requested not to eat their vegetables, not to grow vegetables. There are some real health concerns there, and I don't know that we're dealing effectively with these people, who are increasingly looking for answers and not necessarily getting them.

Assuming that we are committed to doing cumulative impact assessments, the Upgrader Alley is a prime candidate for cumulative impact assessment. What is that watershed capable of handling in terms of human activity and water withdrawals and emissions into water and airshed emissions? People are seriously wondering, as I am, how we're measuring that. How will we decide when we've reached the limit of that particular bioregion?

Have you already established a baseline health status for people in that area that are downwind, particularly from the upgraders, so that we can over time make some assessment about whether their health status is improving or worsening? Are there some key indicators that you'll be monitoring over time in the Upgrader Alley area so that, again, we can say to people with some confidence not just that the health risk assessment was fine but: “Here are the indicators we've been measuring. This is why we think we're doing this in a sensible, appropriate pace and scope. We are going to act on aberrations to those indicators. We're going to stop things or change things if we see any indication that things are going badly.”

Alberta Environment reports indicate that there are intermittent exceedances of SO<sub>2</sub>, benzene, and fluoride. What are we doing about those to communicate with people that we know what these are doing and that we know of some of the health effects and that they should not expect that any more frequently because we're getting a handle on some of those intermittent exceedances that happen to all industries at times? I think that fundamentally people are saying: what is the health impact that we've been experiencing now, and what can we expect in the future, and how can we have confidence in these ministries that were actually monitoring the things that we care about as people in this region?

Have you considered issues like climate change in some of these assessments? There are indications that we are up against a very serious set of impacts around air quality and also now around warming, which is going to affect water significantly according to the experts. We've already lost significant amounts of surface water. Groundwater is dropping in a number of areas in central Alberta. We don't fully understand that, but we have to plan for worst-case scenarios or at least precautionary approaches to development as a result of understanding that climate change is a very serious issue affecting mostly Alberta, I would say, of all the 10 provinces. We are likely to have the most serious impacts. How are we factoring that into our development, the appropriate pace and scale of development?

Finally, I'd like to say just a few words about reclamation issues generally in the area and the concerns that many of us have that there's been a lack of accountability of industry to get onto reclamation, to ensure that we know what it is we're looking for in a reclamation and remediation site, that we have independent assessment of that rather than simply taking the word of consultants hired by the industry, and that we do more auditing to assess whether we are getting what we think we're getting from some of these contaminated sites.

Again, it's a potpourri of questions and comments, but I hope they'll be useful to guiding our discussions. Thank you, Mr. Chairman.

**The Deputy Chair:** Hon. ministers, who would like to go first? The hon. Minister of Environment.

**Mr. Renner:** Thank you very much, Mr. Chairman. I'll pick up where I left off in talking about cumulative impact because I think it's key as we go forward.

Traditionally, Environment departments of one kind or another have dealt with the regulation of development in a very prescriptive manner, where we go on a project-by-project basis. For example, we do deal with cumulative development today, but we only consider in an EIA the existing development and the announced or confirmed, planned development.

I think we need to go further than that, and we intend to go further than that. The way you go further than that is not by trying to develop the perfect plan and prescribe the perfect plan for what development is going to occur where and how much emission is going to be from this and this and this. We want to kind of turn the whole thing upside down, where we have a serious discussion and more than just discussion – based on science, based on sound science, based on hearing from all of the relevant stakeholders – about what is the acceptable level of impact that mankind through industrial development and human activities can have on the environment without creating a situation where our quality of life is not what we feel is acceptable.

I'm not saying that that's going to be a simple matter, but I believe that we can do it. Once we've done that, then that becomes our basis for regulations, and we don't have to be so prescriptive as to say: you have to do this, this, and this. We simply say: "Where's your application? Fine. How is that application going to fit into what's already here, what's already planned, and still live within the guidelines that we've established? If you can show us how you're going to do it, be my guest. If you can't, then we're going to have a difficult time dealing with this."

Where some have said that the government needs to be putting on the brakes and stopping development, no, we don't believe that that's our role. We believe we have a very legitimate role to protect the environment. We have a very legitimate role to determine: what is the maximum impact that we're going to have? But it's not up to us to decide which projects should go ahead, which should not go ahead. That should be based on the proponents of the projects and how they can use their technology, their innovative capability to fit in within that predetermined level of impact.

That's where we see this going. Frankly, we will be making some detailed announcements shortly, but I don't think it comes as any great secret if I put on the record tonight that the Industrial Heartland, as we prefer to refer to it rather than Upgrader Alley, is one of the areas where we see an opportunity to truly pilot the concept, to understand in a relatively confined area how we can deal with issues around airshed quality, issues surrounding water, limitations of water, water quality, what the development can have, and some of the other quality-of-life issues that have been referred to.

How we bring all of that together under one umbrella, I think, is something that we can all get very excited about. I'm not going to get into any more detail tonight because we're, frankly, in the formative stage now, but we have made a commitment that that's a direction that we want to go, and once we've got enough detail in place, we will be coming forward with more detail on the issue.

Let me just talk very, very briefly about reclamation. The member talked about climate change, and we're not going to resolve any differences that we have on the strategy that we've chosen to deal with climate change. I don't think that either the member or myself are in disagreement over the seriousness of climate change. We are in a disagreement over what the strategy is that we should be taking as a government and as a province to deal with climate change.

7:40

That being said, we believe that we are taking this very, very seriously, and we do so by dealing with existing industry, talking about the reductions in CO<sub>2</sub> emissions from existing industry, and then we also say: well, we acknowledge that there will be new players coming onto the scene. Those new players, yes, will be producing CO<sub>2</sub>. They don't get a free ride. They're expected to use the absolute latest and best technology, BATEA, and they also will be expected to continue to green their technology and their equipment by having reductions over time as well.

We believe that we have set the agenda for that industrial growth to come not at the expense of the environment but in conjunction with sound environmental policy. I've also said many, many times that by investing in the technology surrounding CO<sub>2</sub> and greenhouse gas emissions, we want to reach a stage where we have management of CO<sub>2</sub>, not necessarily elimination of the production of CO<sub>2</sub> but the elimination of the release of that CO<sub>2</sub> into the atmosphere.

With that, I think I'll turn some time over to the health minister.

**Mr. Hancock:** I think my colleague has dealt with most of the environmental impact side of this. A couple of things I want to specifically deal with. On the question of whether we meet periodically, you should be aware that there is a cross-ministry approach to this. In fact, there's a deputy ministers Sustainable Development Co-ordinating Council. There's an assistant deputy ministers committee on environmental management, and there's an environmental impact assessment leadership team. Health plays a strong role in all of those with respect to the health impact side of any of those assessments. In fact, we also play on the climate change team.

There is co-operation and collaboration between ministries, and of course our public health area and environmental health is a fairly strong and growing area of concern for us because we do need to do more on the quality-of-life side and the impact on quality of life and those measures. We make sure now or look now at quantifying the effects to make sure that there aren't any unacceptable health risks, but we need to do more on the quality-of-life analysis.

With respect to the RHAs' ability to do health impact assessments, we actually are of the view that that should be reserved to government to do it cross-ministry rather than do it on a stand-alone basis with a health authority. We're looking, as you are probably undoubtedly aware, at how to enhance our ability to really deal with the public health aspects and assurance area, that's so important not just to that region but to the whole province. We're currently working on a program in that area. But specifically relative to the RHAs' capability of doing those, we believe that it does fall within the government's purview to do the quality assurance role, whether it be water or air or health impact assessment, and that's something that's best done cross-ministry.

**Mr. Renner:** If I have a little bit of time left, I'd like to just talk a little bit about the monitoring that's going on with respect to the Industrial Heartland because we've got two excellent organizations on the ground right here in the capital region. On the air side, the Fort Air Partnership, similar to WBEA, that we talked about in the Fort McMurray area, is a community-based organization that does an excellent job working on air monitoring.

This format of having each of the opposition parties bring forward questions at different times is a little confusing because I answered the question of the NDP, and then all of a sudden I realized: well, you haven't heard the answer.

I think that it's very important that we continue to have this community-based monitoring. The analogy that I used the other night was that it's very similar to a Neighbourhood Watch program. If we want to ensure that we're having an impact on reducing crime in a neighbourhood, we enlist Neighbourhood Watch. Yes, we still have police, we still have the enforcement side of things, but police can't be everywhere all the time, nor can we get the buy-in from the neighbourhood that this is important and that we should be there. That's why I've become very much a believer in these community-based organizations from a watershed and airshed perspective.

**The Deputy Chair:** The hon. Member for Edmonton-Gold Bar.

**Mr. MacDonald:** Thank you very much, Mr. Chairman. It's with interest that I participate in the cross-ministry debate or discussion this evening. I was looking through the Auditor General's report for the department of health, and I don't know if I'm going to have an opportunity to get my questions on the record in regard to that or not, but I would like to start off with coal-bed methane. Now, currently there are over 6,000 coal-bed methane wells that have been drilled, with predictions stating that there could be over 50,000 wells drilled in the next decade. While the future economic potential of coal-bed methane to Alberta is significant – I think we have a bright future – the economic considerations cannot and should not outweigh the potential negative effects to water quality that are a potential danger in coal-bed methane drilling.

The day before yesterday I had an opportunity of appearing before the royalty review. I can assure the hon. Minister of Energy that many of his officials were there, and they seemed diligent. They were working hard. They were about, as they say. But I certainly think that we should, first off, have a royalty rate that is similar to what our neighbours to the south have. In fact, when we suggest that there's a royalty rate of 12 and a half per cent for coal-bed methane production, it's even less than what our neighbours to the south are collecting in royalties. The current low productivity well allowance is simply a giveaway. It's a massive incentive to develop the industry, in my opinion.

Certainly, we should have an immediate increase in the royalties. I know that freeholders have shown me the contracts that they have signed with land agents for the development of coal-bed methane underneath their properties, and the freeholders are negotiating anywhere between 15 and 17 per cent. So for the Crown to settle for next to nothing, I think, is – well, if this was a military operation, I think neglect of duty would be the charge.

With coal-bed methane, now, not only are the royalties an issue, but what happens when the wells are drilled? Also, with coal-bed methane drilling in some cases to increase production there is a process called fracturing. Hydraulic fracturing is a common technique used to stimulate the production of oil and natural gas. I'm not going to bore the minister and his officials with details on fracturing. They know fully well how it works and why. But can the minister tell us if his department has conducted an independent

scientific review of the adverse effects that coal-bed methane drilling can have on human and/or animal health? Also, can the minister please tell us what potential long-term effects exposure to heavily contaminated water due to methane migration can have on human health? What effects can this have on animal health as well? What will be the potential impacts to water quality, both surface and ground, if coal-bed methane drilling increases to the estimated 50,000 wells that are to be potentially drilled in the next decade?

The EPEA, section 40, mandates that the government must conduct studies to predict what the adverse environmental effects of a proposed activity will be. Can the minister tell us, if you can do this, what studies have been conducted to determine the environmental and human health impacts that increased coal-bed methane activity could have, and what steps are being taken to ensure that this does not happen?

7:50

Now, we've all heard of the individual cases. The hon. Member for Calgary-Mountain View has talked passionately about this. He has brought individual cases forward. But the high methane content present in Dale Zimmerman's water and Jessica Ernst's water poses a risk of explosion if subjected to flame or spark. It's completely unacceptable that people's lives are at risk due to the actions of industry. Now, I know we're going to hear this story – at least, I hope we don't hear this story – well, it's naturally occurring in some wells, and it's just something that we have to live with. Certainly, there would be incidents like this, but I think that in these two cases that explanation just doesn't have any validity.

What will the effects of exposure to contaminant water be? Already we have seen residents' burns, skin irritations, and irritated and burning eyes. There are serious implications of exposure to water with extremely high methane content as well as other toxic chemicals. These need to be addressed immediately, before coal-bed methane development continues.

Now, risks to animal health. We hear this from farmers almost on a weekly basis. We get a call or two to the office. Dale Zimmerman has reported that his livestock refuse to drink the contaminated water. However, when they are forced to drink this water, they become sick and bloated. I don't know how they could be forced to do that. I don't know how that works, but maybe we can get an explanation from Mr. Zimmerman on that one, not the minister.

There are no assurances that when his cows give birth, the calves will be healthy. What are the implications to livestock as well as to their offspring from exposure to contaminated water? Will they be healthy, or will they have serious complications ranging from deformities to being stillborn? These are questions that cannot be answered by industry and by government, and these must be answered before coal-bed methane drilling is allowed to expand as rapidly as it is.

In fact, we're debating a bill here in the Assembly on an interbasin water transfer to Bashaw and also the village of Ferintosh. It was just before Christmas, about 10 days before Christmas, that I had an opportunity – and I see that some of the Environment officials who are joining us in the Assembly tonight were present at the very same meeting west of Rimbey. This was an oil company from Calgary who wanted to use water from the aquifer that Rimbey uses. The town of Rimbey has a licence for, or I believe they consume, 1,600 cubic metres of water a day from this aquifer, and this oil outfit wanted to take about the same amount, 1,600 cubic metres a day, for enhanced oil recovery. The farmers are, as I'm sure are the officials who are joining us tonight, well aware and will certainly back me up that the farmers and the landowners that were present at that meeting were very concerned about this proposal, very concerned indeed.

If anything, the bill that we are discussing on Bashaw and Ferintosh should tell us that we can't keep coming back every session with an application for an interbasin transfer. I think that if the citizens of Rimbey or the farmers west of Rimbey who were present at this meeting before Christmas were here this evening, they would tell us that we have to change our practices, that water is such a precious element, not a commodity but an element of life, that we should use it wisely and very, very carefully.

With the fracturing fluids, while this government maintains that a primary nitrogen water-based fluid is used for injection in shallow fracturing operations by industry, there remain questions about whether other toxic fluids are used to increase pressures. Now, there are concerns that these are highly toxic fluids. Will they contaminate aquifers if present in only trace amounts? Again, we have evidence in Dale Zimmerman's gas analysis that there is ethane and pentane present in his water.

Thank you.

**The Deputy Chair:** Hon. ministers, who would like to go first? The hon. Minister of Energy.

**Mr. Knight:** Well, thank you, Mr. Chairman. It's certainly a pleasure to join the discussions here this evening with respect to the main estimates and budget for the Department of Energy. Some way or another I'd really like to connect my comments to Energy's budget, but it might be a bit difficult considering the questions that I need to answer.

Initially, I think, the hon. member asked about coal-bed methane and health effects with respect to coal-bed methane. I would suggest that over the last number of years there have been some extensive studies done with respect to health, both human health and certainly animal health with respect to animals living in the vicinity of natural gas production facilities. I could indicate to the hon. member that there were no adverse effects found with respect to the studies.

Coal-bed methane: of course, the suggestion that there could be as many as 50,000 wells drilled in the province of Alberta. Again, I would have to indicate to the members that although that's a number – and perhaps at some point in the future we might reach a number like that – the exploration activity with respect to coal-bed methane in the last couple of years in the province of Alberta has declined dramatically, in fact. I'd also like to indicate that out of the wells that have been drilled in the province of Alberta to date, about 90 per cent of them are in the Horseshoe Canyon, and it's dry. There is no dewatering necessary with respect to those particular wells.

In the area a little bit northwest of Edmonton, where there are some production wells in coal-bed methane in the Mannville, in fact, the dewatering process and the handling and treatment of the brackish water – and I might also suggest that this particular water, Mr. Chairman, is about twice as salty as sea water. I know that there have been indications here on the floor previously that no water is unusable, and I would agree with that. What happens in this particular case is that this brackish water is returned to underground saline reservoirs, so it's going back to the ocean, where it probably originally came from.

The suggestion that royalty rates for coal-bed methane are not suitable and the assumption that the reason that the royalty rates are low is because of the low productivity section that is evident in our royalty system. I think, again, there is a variation of royalty rates in the province of Alberta depending on the history of the wells in question, the time that they were drilled and brought into production, and also their capability to produce. So rate of production certainly is taken into consideration. I would suggest that royalty rates need to reflect the economic rent that's available, and that's why there is a section in the royalty regime that deals with productivity.

8:00

Certainly, Mr. Chairman, for some of the wells that we have in Alberta I would suggest that this 12 and a half or 15 per cent royalty rate may be too high to allow for economic production of some low-productivity wells. On the other hand, when you look at high-productivity wells, of which we have a number as well, that rate may be and is in certain circumstances too low. The idea that somehow or another you can make a comparison and pick a number from a freehold contract and try to compare that to the royalty system in the province, the member's attempt at making some comparison there, is a difficult one simply because the 15 to 17 per cent that the freehold owner would negotiate with a company that they were going to get involved to work on production on their freehold land is a profit-share and bears little resemblance to Alberta's royalty rate.

One of the reasons that these companies can go and get involved in freehold operations and still manage to do very well and pay the freehold mineral owner 15 to 17 per cent or whatever number it might be is simply – there are a number, but one of the reasons is that there's no bonus bid been paid on that real estate. If you look at a normal coal-bed methane well where there's been a purchase made with respect to a bonus bid to do the exploration in the first place, I'd suggest to you that trying to take 15 to 17 per cent off the top after the fact would probably make those particular pieces of business not economic.

The majority of the remaining questions, Mr. Chairman, had to do with water and the management of water and the assessment and ongoing monitoring of the water resources, and for those questions I believe that I would defer to the Minister of Environment. That's more likely in his purview.

**The Deputy Chair:** Hon. Minister of Environment, you have two minutes and 48 seconds.

**Mr. Renner:** Thanks, Mr. Chairman. I want to talk very briefly about this whole issue of monitoring of wells and following up on investigations with some interesting statistics. The member mentioned that about 6,000 coal-bed methane wells have been drilled. I'm not sure if that's an accurate figure, but it sounds reasonable to me. To date we have received 95 complaints. We have investigated each and every one of them. Seventy-six of those files have now been closed, and the reason that they're closed is because there was found to be no connection between coal-bed methane and the issue that the complainant was dealing with. In most cases the issue came down to an issue of well maintenance, and we talked about that in question period the other day. It is critical that the owner of a well on a regular basis shock that well with chlorine bleach and chlorine and do so in an appropriate manner. We encourage, again, all owners of wells to consult an expert and find out exactly how that should be done on an ongoing basis. So that leaves 19 files that are still open, and for many of those we anticipate, once we get further information and further results from some of the monitoring that is ongoing, that we may be able to resolve those issues as well.

Let me talk, for example, about the case that the member brought forward for Mr. Zimmerman, who claimed that there were problems with the water from his well and it was causing health problems with his cattle. As a part of that investigation we solicited veterinary experts. We had two different veterinarians who participated in the investigation, and they were able to find no connection, no reason to believe that there was any link whatsoever between the health of the animals and the water that was in the well that they had tested.

The other thing I want to bring to the attention of all members is

that with respect to groundwater that's allocated to the oil and gas industry, only about 7 per cent of all groundwater applications are for oil and gas. The balance are for everything else.

**The Deputy Chair:** Hon. members, before I recognize the Member for Calgary-Mountain View, I just want to inform all of the officials that are present here today that should you wish your glass to be replenished with water or require any coffee, please just raise your hand, and one of the pages will come and help you.

The hon. Member for Calgary-Mountain View.

**Dr. Swann:** Thank you, Mr. Chairman. I neglected to thank all the staff that are here tonight, especially my old colleagues from health. Nice to see you again.

The Fort Chip issue was raised and then the cancer review. I guess there's a problem with small numbers. There's a problem with which cancers we focused on. I think that more and more people are asking for a more comprehensive look at what's been happening at Fort Chip. With very small numbers it's impossible to make conclusions that there is or there is not a significant impact in terms of cancer rates up there. I would encourage you to look at a broader scope of indicators and a health impact assessment. It was mentioned that arsenic, for example, in meat is significantly elevated but that it's elevated elsewhere. Well, that doesn't make it any more safe to eat arsenic-contaminated meat. What are we doing about establishing a clear understanding of where arsenic is going in our wild meats?

[Mr. Prins in the chair]

The Minister of Environment indicated that cumulative impact assessment is an ongoing commitment. I guess I would have to ask if it's enough of a commitment to slow development until you have the cumulative impact assessment done. If you say that you're committed to setting limits on development based on a cumulative impact assessment, when are we going to see an indication that you will actually withhold approval until you get the results of your cumulative impact assessment? It's no good to say that you're working on it and that you're continuing to look at cumulative impact assessment as a tool and then continuing to approve every application that comes through the EUB. This is not leadership, and this is not what Albertans are looking for. You're losing the confidence of a lot of Albertans with this continued discussion of cumulative impact without any effects on our approval rates.

When we talk about the need to monitor air emissions in the Industrial Heartland, if you will, it is clear that you were monitoring 20 emissions, but there are 200 emissions coming out of the stacks of the Industrial Heartland. People don't feel confident that we're necessarily monitoring the significant toxins. Indeed, they want to see signs that we know exactly why we're not monitoring some things and why we are monitoring other indicators.

More and more people have been raising concerns about the EUB process and the lack of transparency, the lack of accountability, the lack of real meaningful public involvement in some of these processes and the restrictions of who's got standing and who doesn't have standing at these hearings, especially on public lands, where nobody has standing. This clearly undermines the credibility of an organization that continues to approve 98 to 99 per cent of all applications that it receives.

I think there's a serious need from a public credibility point of view to look at the way this organization functions and the way it seems to represent industry interests, but it doesn't represent the long-term public interest. Increasingly, people are getting agitated

about this, and we're hearing more and more and seeing more and more evidence that they're not going to accept this for much longer.

Coal-bed methane the Minister of Environment talked about and indicated that the vast majority have not been able to conclude any impacts from resource development. I guess I would have to ask if isotope testing was done in all those cases. Without isotope testing it's impossible, again, to say whether there is or there isn't evidence of industry impact. It's not good enough to say that we found methane and that there's some bacteria and therefore the cause is bacteria. People are also getting very tired of being told that they don't maintain their wells very well, when they've had dramatic increases in gas and they've had dramatic changes in volume since oil companies have moved into town.

8:10

There's a huge credibility gap coming here, and unless we see an independent assessment of some of these results that you're giving us, Mr. Minister, again we're going to see a tremendous erosion of confidence in what we're doing here as government.

The Zimmerman issue is a key one. This man has lost 12 animals in the last year. We don't know anything about the postmortems of those because he couldn't afford to do the postmortems. He's also had a delay of 18 days in the delivery of his calves. That's the first time in 30 years that he's been calving that he's had a delay of 18 days in his calving. We know from the WISSA study that delays in conception are associated with H<sub>2</sub>S and other hydrocarbon emissions. Could there not be a connection between this man's delayed conception, delayed delivery, and emissions from some of these that are now, presumably, being consumed in the water in this case of these animals?

There are a lot of issues that are unclear and unaddressed as far as we on this side are concerned and the public are concerned. There's an increasing credibility gap between what our government departments are telling us, what our regulators are telling us, and what people are experiencing on the ground in terms of their air and their water and their health issues. I think we have to take a serious look at these issues.

I would again ask to hear some indication of what health indicators you are using to monitor and establish health impacts over time in the Industrial Alley in the Fort McMurray area, in the Rosebud area, where there's clear evidence from independent testing that hydrocarbons have migrated from deep resource wells into five individuals' water wells. Those are the only ones that we've done some independent testing on. However, you have not found that. This is interesting, and again it raises serious questions about why we're not getting the whole picture and who do we believe and are we just fearmongering? [interjection] I don't believe we are. Are we reflecting what this government has been in denial about? That's the question, and increasingly people are raising it with us, and it's very difficult to stand up and defend some of what's been going on: neglect, in some cases, of our groundwater. Only starting baseline testing a year ago. How does that reflect confidence in how we're monitoring our most vital resource, groundwater? That's only one aspect of what we're dealing with here.

I didn't want to provoke unnecessarily the issues here, but I do want to say that these are the issues that I'm dealing with on a day-to-day basis, all in the context of climate change and increasing anxiety, that we're not taking leadership on the most vital issue on the planet today.

Thank you, Mr. Chairman.

**The Acting Chair:** Go ahead.

**Mr. Knight:** Mr. Chairman, thank you very much. I'll just take a



minute to address a couple of the situations, particularly the one around the fact that there's migration of methane to potable water. That's absolutely true. It's been true for I don't know how many years but certainly thousands of years.

The wells around my grandfather's farm in the area between Hythe and Beaverlodge, that part of the world, you could light every one of them, I think. I know that you certainly could light his. They used to have these little situations there. It was interesting, actually. When we were young there, in the wintertime, particularly at times in the spring and fall when the snow wasn't really deep, at night you'd see these odd little flickers of flame that would burn for no particular reason. Nobody lit them. They're just there. Methane. Natural escape of methane.

On the Peace River, north of the town of Peace River – so we're talking about downstream from the town of Peace River. At a place called Tar Island – well, actually, the natural gas leakage in the river is not quite at Tar Island, but it's close. There's a situation there, and I've been there and actually done it: lit the gas that's leaking out of the middle of the Peace River – right? – and made a flare that would certainly be, I'd suggest, a little dramatic in a room like this, cover three quarters of it at least. It's there. Natural methane in potable water is absolutely nothing new.

To suggest that the Alberta Energy and Utilities Board is for some reason a second-rate organization: I really take exception to that. I would suggest to you that for all the years that the ERCB, the PUB, and then, joined together, the EUB have served Albertans, they have done an exemplary job. I would suggest to the member opposite that there are a number of countries around the world that continue to come to Alberta to see how we make this system work.

Further to that, I would suggest to you that there have been stresses, strain, increased numbers of applications for these members, the very good, by the way, people serving the public of the province of Alberta. Numbers of applications are increasing to the point where it gets a little difficult for them to manage. They have done a very good job of it. I intend to restructure the EUB into an energy resources conservation board and an Alberta utilities commission so that these two pieces of business – because they're a bit confused at this time in the public's eye. There are different cultures and different reasons for a public utility commission to exist and a resources conservation regulatory authority to exist. We'll clarify that. If that's part of the problem, we're going to resolve that. It won't be all that long, and we'll have some discussions on the floor of this Legislature with respect to that issue.

Thank you.

**The Acting Chair:** Thank you. Either of the other ministers?

**Mr. Hancock:** Thank you, Mr. Chair. One of the questions that was asked was: can we do a more comprehensive study with respect to the cancer rates in Fort Chip? I guess I'll have to answer as I've answered a number of times: you can't get any more comprehensive than a hundred per cent. They've looked at every case, and the information is there. A review of the death registrations indicated 161 deaths of Fort Chip residents for the years 1983 to 2005, an average of seven deaths per year, a range of one to 13 deaths per year. The most common causes of death were heart disease, at 24.7 per cent. For the province of Alberta heart disease accounted for 25 per cent, so that's basically on the provincial average.

All cancers, 20.3 per cent. All cancers for the province, 28.6 per cent, well below the provincial average. With respect to poisoning, injury and poisoning, 16.5 per cent. Now, there's an issue we've got to get a handle on. And respiratory disease, 11.4 per cent. Given the rate of diabetes, hypertension, renal failure, injury and poisoning

mortality, a focus on reducing the risk factors for those events would lead to improvement of the overall health status of that community.

[Mr. Shariff in the chair]

I mean, there is cancer in that community; there's cancer across the province. We want to deal with it. We've put \$500 million into a legacy fund to deliver \$25 million out so that we can do colorectal screening, we can do prescreening on cancers, and we can fight the causes of cancer right across the province. But there's no indication from the examination that was done of a hundred per cent of the cases that cancer is higher there than anywhere else.

The doctor who has been claiming that despite being required by law to give evidence of that has not done so. So I would be very interested if he has evidence or if there is any evidence that suggests otherwise because we've had a very comprehensive look at this, and all the indications that we have indicate that that's not the case. There are issues that can be dealt with in that community like there are in every community. When you look at the higher rates for some areas in that community, those are the things that we really need to be focusing on to find out what's causing those.

Now, with respect to the question of arsenic the member didn't quote me, but he misinterpreted what I said, because I didn't say that there were higher incidents of arsenic in moose meat. I said that the incidence of arsenic in moose meat was the same in Wood Buffalo as in Yukon, which was a test thing. The other test was east of Edmonton, and it was the same, relatively, as east of Edmonton. The analysis of arsenic that was done, the independent investigation that Alberta Health and Wellness did, engaged experts to assist with the investigation in collaboration with Alberta Sustainable Resource Development and local aboriginal communities. The report found that there was no difference in arsenic concentrations in moose and in cattail root in the Wood Buffalo region as compared to the reference samples from Yukon and from east of Edmonton.

**8:20**

That was the report that was released to the community March 28 at a town hall meeting. It included evaluating the methodology that Suncor used to generate the predicted arsenic-related health risk that caused the issue to become a public concern, reviewed the arsenic exposure limits, evaluated the predicted health risk using alternate methodologies, and collected samples of moose, deer, and cattail root to establish existing arsenic levels. So let's be clear. I didn't say that there were elevated arsenic levels; I said that they were comparable to the reference samples. That was the information that was made available. The study did not indicate a higher degree of concern with respect to arsenic in that area.

Now, with respect to the role of Health and Wellness in monitoring the health of Albertans one of the ways that we do that fairly comprehensively is through enhanced disease and syndromic surveillance; i.e., lab data for unusual sets of symptoms and syndromes, including a connection with the poison and drug information service data. So we're surveilling the data to see if there are any unusual spikes, any unusual indicators on that side as well as the other health indication surveillance has done.

**The Deputy Chair:** We still have about a minute and 20 seconds. Any minister?

**Mr. Renner:** I'd like to in that short period of time address this question of cumulative impact and the question that the member asked: if we're going to do cumulative impact, why don't we just stop everything right now until we get it done? Well, the answer to

that is very simple: because we're not in a crisis right now. We're recognizing that we need to do adequate planning, but we have done, as I said, all of this monitoring. As of today the ambient air quality in the oil sands area, for example, is very good. The acid disposition is below thresholds already established. Water quality is good, and we've set caps on water withdrawal from the river.

We don't need to put some kind of a moratorium in place. We don't need to stop everything while we figure out this cumulative impact. We can do them in parallel. And if there are one or two more applications that are approved in that process, it's not going to have a significant effect on the overall. As I indicated, once we've got this cumulative impact process under way, then the approval procedure goes upside down. Approvals depend upon: how do you live within our restrictions?

**The Deputy Chair:** Hon. Member for Edmonton-Centre, you have five minutes.

**Ms Blakeman:** Thank you very much. I'm grateful to get a second at bat here. Lots of stuff to cover in this. I'd like to loop back, if I might, and pick up some additional questions around the – I'm sorry; I'm looking for the term that we all agreed on – Industrial Heartland issue. I'm noting that in the Environmental Protection and Enhancement Act division 1, section 40, is around the environmental assessment process. It lays out, you know, supporting the goals of environmental protection; integrating environmental protection and economic decisions at an early stage of planning; predicting environmental, social, economic, and cultural consequences of a proposed activity and assessing plans to mitigate adverse impacts; et cetera. I'm sure you're very familiar with this section.

I'm wondering if the government is able to tell me from any ministry whether section 40(c) has been followed and whether there have been any studies that were done to predict environmental, social, and cultural consequences of adverse impacts resulting from the addition of the upgraders that have already been approved or are likely to be approved for this Industrial Heartland.

I'm also wondering about whether there's any evidence that adding these additional upgraders to a fairly intense industrial area already would not have negative impacts on water quality and quantity. Have there been any modelling scenarios that have been conducted utilizing past and present data on water quality and water flow and future projected statistical data to give an idea of how much water will be consumed under these additional 10 upgraders? What treatment capacity would be needed to guarantee safe drinking water? The obvious question to follow that: is that waste treatment or water treatment capacity online? Is it being planned along with the rest of this?

You know, one of the problems we've identified is that we don't know how much groundwater we've got. I'm sorry. Is that right?

**Dr. Swann:** Mapping it.

**Ms Blakeman:** Mapping it. Is there a baseline estimate of how much groundwater is actually in the area? Has anybody done this? Energy or Environment or Health or anybody?

I'm also looking for any kind of statistical or scientific analysis to determine the relationship between groundwater and surface water in this area and if these studies have been completed prior to allowing these developments. And, I suppose, if not, why not?

I also note under the Public Health Act, section 3.3 sub 4 – and I'm coming in halfway through here – that denying a development permit for the project on the grounds there is likely to be an unacceptable negative impact on the water supply of nearby

landowners. I'm wondering if the minister is satisfied – or have indeed the requirements been met? – that the approval of these upgraders can satisfy the requirements under the Public Health Act in that particular section and if there's been any involvement from the minister of health with the Minister of Environment in order to meet these prescribed requirements under this particular section.

Part of it is that if these water requirements couldn't be met, would the approval still go ahead on the assumption that it would catch up? Part of what I'm hearing tonight is that there would be no hesitation step, no slowing of any development here if it looked like there might be a problem or if there was a signalling of it. Am I reading this right, then? If there was a negative impact that was identified, would the upgraders continue to proceed at the pace that they wished to proceed at? I think that's what I was hearing the Environment minister say in a different context. I'm checking it for this one in particular.

I'm not going to have enough time. I'm going to try and come back later and talk about the Turner Valley gas plant site, which involves Environment and Health.

Thank you.

**The Deputy Chair:** Hon. members, the hour and a half allocated for the Liberal caucus has now lapsed. The next half-hour is allocated between the ND caucus and the ministers, and the ND caucus is indicating to me that he would prefer to go in chunks of five minutes, back and forth, if that is okay with all three of you. That's agreeable.

The hon. Member for Edmonton-Calder.

**Mr. Eggen:** Thanks, Mr. Chairman. You know, due to the time constraint I'm certainly going to move rather quickly. I presume that we have an agreement to get some answers in writing if we don't have the time to do it otherwise.

I'm glad to see Energy, Environment, and Health brought together here. There's a certain synergy of value that we have to assess that perhaps we're not doing in the fullness of time, measuring all of the cumulative impacts, perhaps, where a given energy megaproject might have a long-term impact on health, or an environmental initiative that we put in place might have some constraints on our energy program. Working together like this, at least in principle, we certainly do have some potential.

I'm going to use a framework of water and cumulative impacts, living conditions and health, and then some energy initiatives for my questions. I'm going to start with water. In the Athabasca River tar sands companies are currently allowed to continue withdrawing water even when the river levels are dangerously low. The municipality of Wood Buffalo states that Alberta Environment has not had the opportunity or the resources to undertake a review to determine whether there is sufficient available water to support all of the projects. This extends as well to the North Saskatchewan upgraders that we are seeing being proposed along with other initiatives downstream here from Edmonton. I would like to ask: why has the province granted licences for projects that together could in fact endanger the North Saskatchewan River flow?

8:30

Alberta Environment spokesperson Lisa Grotkowski, in fact, said that the department has taken a general look at the river and is confident that it could supply all the upgraders, but how can a general look, so to speak, replace a cumulative assessment actually seeing how much water is required? As well, in relation to that, then I would like to ask: why is it that the province has not prioritized the assessment of the combined impact of all of the mining operations

on the Athabasca River side as well? These are cumulative impact assessment questions in regard to water flow. Of course, we see that the water flow of these rivers is not to be banked on. You know, we have changes in the flows and have over the last 20 years seen significant decreases in those average flows for those two rivers, so I'm very concerned about that.

As well, then, talking about, I guess, cumulative impacts, in 1999 the province recognized the environmental management frameworks, and we sort of saw this evolve to the Cumulative Environmental Management Association, or CEMA, from 2000. This is a network that is meant to look at the cumulative impacts. This was targeted for completion in 2002 but has not been released. However, the pace of projects in the interim still has not slowed down.

In Alberta we've seen that when protected areas are established after subsurface rights are granted, options for protection are actually constrained because the existing mineral rights trump the protected land designation. I would like to ask: why cannot the reverse be true and, in fact, the protected portion of that equation be trumping the mineral rights?

You know, we've had more than, in my assessment, 3,224 oil sands leases that have been issued to date, and the operations are affecting almost 50,000 square kilometres. I'd like to ask: does the government plan to have an environmental management framework before or after projects for the exploitation of the rest of the tar sands region are granted? This is a very important consideration. In relation to that, will the framework modify the actual 10-year regime to ensure that decisions include a cumulative environmental assessment of the region?

As well, just as sort of one of my own personal questions in regard to this, has the government considered putting aside equivalent tracts of land that would be protected in perpetuity to somehow counter the permanent destruction that is incurred at any given tar sands mining site? We've not seen much success at all with reclamation, so perhaps a protection equivalency program could seek to mitigate some of the destruction that we're seeing in the northern boreal forest.

The provincial land use . . . [Mr. Eggen's speaking time expired]

**The Deputy Chair:** The hon. Minister of Environment.

**Mr. Renner:** Well, thank you, Mr. Chairman. I have to say at the outset that I'm disappointed in the questions that have come forward because if I'm not mistaken – and I stand to be corrected – at least half of the questions that the hon. member brought forward were exactly the same questions that he asked two nights ago standing in this very place, particularly with respect to the Athabasca River. I talked about the water withdrawal from the Athabasca River. Like I say, I stand to be corrected, but I think I answered those questions. However, I'll do it one more time.

The issue on the Athabasca River is one that we have dealt with in the form of the IFN, the in-stream flow needs. We did a scientific analysis of the river, and we determined that there are three different and distinct rates of flow that the river is historically at. At high flow there are huge amounts of water, and there is relatively little impact from water withdrawals. At a middle stage, the yellow stage, we've designated that one as green. We have the yellow stage, where there's a little less flow, where we've reduced the amount of water that can be withdrawn. I think the most important is that at the red stage, which is primarily at winter when the river is frozen over, that's the lowest stream flow, and that's the point that we have indicated that there is a maximum of eight cubic metres per second that can be withdrawn. That amounts to about 5 per cent of low flow. It's an insignificant amount related to high flow, but it's 5 per

cent of the low flow, which is, frankly, well within the range of error for even determining the flow.

It is, in our estimation, the most restrictive, protective covenant on any river system in North America. That same kind of analysis will take place on the North Saskatchewan River, so when we begin to deal with the cumulative impact, the planning that I've been referring to earlier with respect to the Industrial Heartland, we will have that same kind of scientific analysis on the North Saskatchewan, and we'll have that same determination on what is the maximum withdrawal that can be taken from the river at any given time and not affect the ecosystem.

I want to make this abundantly clear to all members, to the last two members that have talked about licensing and permitting for upgrader plants in the Industrial Heartland: no licences have been issued. No applications have been received. We haven't done all of the analysis that the member refers to for determining whether or not there is available water, whether or not there is this, this, and this because we haven't even received an application to know what we can base that upon.

I did indicate, however, that it is the intent for us to use this as a pilot project, to look at cumulative impact to determine what is the maximum amount of impact that would not significantly impair the quality of life, impair the quality of the ecosystem, the health of the ecosystem, the quality of the airshed, all of those things. At the end of the day, when it comes time to deal with the applications, which in all likelihood will be coming forward – we have every indication that there will be applications coming forward. But as of this point the only EIA that's under way is for the Redwater application. No other applications have come forward to date, so it's all at this point at the discussion stage.

We're being proactive, as the member suggests that we should be, by looking down the road, reading the newspapers, hearing what individual companies have in mind and announcements that have been made. We should be preparing ourselves. We should be getting ready for it. We should be doing it proactively, and we are going to be doing that. But we do not have environmental impact assessments under way simply because we don't have applications that have been received at this point in time.

**The Deputy Chair:** The hon. Member for Edmonton-Calder.

**Mr. Eggen:** Okay. Thank you. I would like to continue on, then, with the second section that I had indicated, which is talking about living conditions and health. Alberta emits significant industrial air pollutants, and these pollutants include certified emissions such as sulphur dioxide and nitrogen oxide, which have adverse effects on forest, fresh water, soils, and human health. They are the main precursors, as well, of acid rain, which contributes to the acidification of lakes and streams and such like. Health effects include breathing problems, respiratory illnesses, changes to the lungs' defenses, and worsening respiratory and cardiovascular disease. I would like to ask in a general sense: how does the province plan to deal with the acidification of water due to acid rain, and how does the province plan to prevent and attend to respiratory problems associated with the high acidification of these emissions?

The regional municipality of Wood Buffalo, which includes the city of Fort McMurray, is suffering perhaps the most acute strain from development. We've heard quite a number of interesting submissions and reports from this area. According to the regional municipality of Wood Buffalo it is particularly interested in the deficiencies of quality-of-life indicators identified by the Federation of Canadian Municipalities, which include a wide range that I do believe are not just health indicators but quality-of-life indicators:

affordable housing, social infrastructure, local economy, natural environment, personal and community health, personal financial security, and personal safety.

8:40

Particularly in regard to health care delivered through the area of the regional health authority in the Fort McMurray area, Northern Lights has difficulty delivering community health facilities, community care facilities in the community. The number of acute-care beds is lower than the provincial average, et cetera. I just was, in fact, at one of the EUB hearings up in Fort McMurray in August, and the emphatic request by the regional authority was to slow down the pace of growth so that the quality of life and some of these health indicators can be recognized. I was wondering why the province is not attending to this request from the population of the municipality, which otherwise probably has the best finger on the pulse of the overall health of the community of Wood Buffalo. In the face of the incapacity of infrastructure to keep pace with the project approvals up there, you know, are we in fact perhaps precipitating the decline of quality of life in that region, and what could we do to turn that around?

Some communities are also very concerned that the cumulative impacts of resource development on the environment have direct implications on the health of individuals. As the minister has pointed out, although we haven't had formal approvals of the industrial development to the northeast of Edmonton, certainly we will expect that to indeed happen. You know, it's important to be proactive, I believe, in regard to these issues in terms of acidification and the monitoring of carcinogens in the environment so that we can be preventative in regard to these issues.

What programs together cross-ministry, with the three ministries here available, do we have available to assess the overall impact of human health in regard to this rapid pace of development? This is an interesting discussion that I would like, you know, people to reflect on here in the province. Would this assessment or ongoing sort of revealing of this information be available as the oil sands projects continue to be approved?

You know, I note that the core business of the ministry of health is to lead and participate in continuous improvement in the health care system. However, this is at odds with the pace of development and the delivery of this core business pledge by the ministry for continuous improvement . . . [Mr. Eggen's speaking time expired]

**The Deputy Chair:** The hon. Minister of Health and Wellness.

**Mr. Hancock:** Thank you, Mr. Chairman. So much to say and so little time. The hon. member started off, I think, by saying that he was up there last August, so he has missed most of a year of progress in terms of health. Certainly, as I indicated in earlier questions tonight, there was a report done by former deputy minister Radke with some good support, some very good people on the committee. They did an analysis of a number of things relative to the development and the impacts of development in the Fort McMurray area. One of the areas that they focused on was health.

The issue that was raised, as I understand it, in the hearings previously was that there needs to be something done to ameliorate the impacts of rapid growth from the health authority's perspective, the increased population issue, and the shadow population issues, and how they deal with their ability to deal with that. That was their concern. Well, we've addressed that concern. We've added a significant – in fact, I think the Northern Lights health authority: 81 per cent increase in their budget – 81 per cent. Now, if that's not a significant addressing of the issue, I don't know what is.

Where does that money go? Well, a lot of that money went for the purposes of addressing their staffing issues because that was one of their primary concerns. The northern allowance, which they asked for as their primary concern: the first meeting I had with them almost immediately after I was appointed to the ministry, the issue hit the table as to what we were going to do with respect to the issue. They were particularly concerned about what was happening over the Christmas season and then following that.

So we started working with them immediately on that issue. I started working and the staff in the department were working with them over that period of time. I met with them as soon as I could in January, and we talked about what they needed in terms of being able to address some of the issues. We addressed those as soon as we possibly could through attending at Treasury Board.

One of the first issues that they had concern about was physician coverage, and we put in place a program. We worked with the AMA to provide for coverage at the hospital. There were some concerns. I mean, some of the doctors in the area were asking for about \$2,400 a day to provide coverage at the hospital because they had to take that time away from their very busy practices. We did better than that, Mr. Chairman. We provided \$1,200 per day and brought people in to help.

Now, that did impact other areas of the province. That's not a long-term solution, but it allowed the doctors who were there to continue to serve their patients and supplemented the resources that were there. That's the type of response that we made in the short term to immediately deal with the issues and then brought the resources to the table to help them with the northern allowance issue so that they could retain staff. The early report on that is that it has been very effective for them as a tool, as they expected. And we made the commitment to the community health facilities that they need in order to continue to sustain that population.

The hon. member asked about health status and points to our role in health status. Well, of course, that's very important. That's not just a Fort McMurray issue, to be frank. That's an Alberta issue. If we want to be able to sustain the acute-care health system, we have to be focused on health status. There are so many issues around that. We are very concerned about monitoring health status and making sure that if there are any spikes – and as I indicated earlier, we're doing enhanced surveillance, monitoring the data through disease and syndromic surveillance, lab data, looking for unusual sets of symptoms and syndromes, looking for unusual occurrences. But our clear focus is on encouraging all Albertans to take responsibility for health status, and that can very much be focused on in the Fort McMurray area.

Living conditions and health and quality of life are very important, and there are issues relative to quality of life that have to be dealt with in a fast-growing community. Government across the board has moved on those with respect to making sure that there's land available so that more housing units can be made available because housing quality is certainly an indicator of quality of life. Building bigger, more expensive houses doesn't enhance necessarily your quality of life, but making sure that you have living units available is certainly important.

Respiratory problems averted through analysis and environmental impact assessments to make sure that no unacceptable health conditions will exist . . . [Mr. Hancock's speaking time expired] I would be happy to come back with more.

**The Deputy Chair:** The hon. Member for Edmonton-Calder.

**Mr. Eggen:** Thank you, Mr. Chair. Five minutes doesn't last long.

That's for sure. Perhaps what I would like to do is try to not bring up so much but, instead, focus on a couple of issues more specifically.

A statement of the Environment minister intrigues me, and he mentioned this the other night as well: looking for a Neighbourhood Watch model for environmental concerns and for health concerns as well, perhaps, as a way to engage the public in the way that industrial and drilling and energy initiatives in their environment – perhaps become more educated about those and participate. You know, certainly I encourage this as well, but what I've seen in the last couple of years or so is that municipalities do want in fact to engage in having more of a say in what sort of industrial activity or drilling activity is occurring in their area, but often they will be rebuffed at a higher level.

**8:50**

Say the Strathcona county was trying to place some limitations on sour gas well drilling in areas close to populated regions. You know, this is, I believe, an indication of this interest in the Neighbourhood Watch model. But then the reality of it is that often the municipalities or local groups will in fact be at odds. It's more of an adversarial situation set-up rather than a consultative approach, the same that I could see so often with EUB meetings, as evidenced by the 500 kV line, the controversy that's happening now in Rimbey. I mean, I want to encourage the idea, but then the reality is something else, and it ends up more of a combative model than a consultative and collaborative approach.

I would perhaps like to ask if there is any initiative that might be coming from either the Energy or the Environment group where we could see the actual consultation taking place on the decision for any given energy project or drilling project or electricity lines, where the municipality actually does get a say in whether or not these things go forward.

As well, certainly, the issue in regard to health and sour gas is an issue that I'm very concerned about because we're not necessarily seeing the full picture unfolding. Different anecdotal stories that I hear from different parts of the province, you know, suggest that the sour gas emissions, in fact, do cause health problems not just for humans but for livestock and such, so I was wondering if there was an initiative between Alberta Health and perhaps Energy and Environment to consult more specifically on the effects of sour gas emissions on livestock and human health as well.

Also in that vein one of the difficulties that I have categorically between Energy and Health and Environment is that so often when we're dealing with any given energy project, be it an approval in the tar sands with heavy oil or a coal plant or what have you, it seems that Health or Environment are less able to step in and shut down or to have the definitive say on a coal plant or on a tar sands project, as opposed to the EUB perhaps having the final say. So I would just like to see more of a collaborative approach between these three ministries.

**The Deputy Chair:** The hon. Minister of Energy.

**Mr. Knight:** Thank you very much, Mr. Chairman. Initially, I'll just address some of the concerns here, I think, with respect to the Industrial Heartland area and some of the questions around sour gas. Certainly, the Industrial Heartland area in the province of Alberta is a strategic region, and it will have strategic importance for the province and, most certainly, for the energy industry as we move forward. Industrial development in the area will improve the growth of the value-added sector in the province, and we'll do this taking into account and consideration all of the necessary environmental

and other approval processes that are currently and will in the future come into play in the province.

All of these projects, upgrading projects or any other projects that would move ahead in the Industrial Heartland, require Alberta Environment and EUB approval. Mr. Chairman, I would suggest to you that the health of Albertans and the health of our environment is top of mind during any approval process. The EUB guidelines in place ensure that any Albertan who may be affected by the development of energy or any facilities can participate in the process. The best interests of Albertans are a priority when we consider industrial development in the heartland or in any other part of the province of Alberta.

Suggestions that there should be municipal consultation or that we would initiate some form of consultation on a well-by-well basis or, you know, some kind of an idea that we can micromanage each one of these pieces of business that would come before the EUB by consultation and have municipal consultation on each well that's proposed in the province of Alberta would be, I would suggest, an interesting exercise because although we've had a little decline in activity in 2007, in 2005 there were, just wells alone, 24,000 some-odd wells drilled in the province of Alberta. Mr. Chairman, I think it would be quite an interesting process if we had a consultation on every one of those projects.

Sour gas accounts for roughly one-third of the total gas that's produced in the province of Alberta. Of course, the concern with respect to sour gas is that it contains more or less degrees, concentrations, of hydrogen sulphide. Hydrogen sulphide, Mr. Chairman, most certainly is toxic to humans and animals.

**The Deputy Chair:** Hon. members, the time allocated for the ND caucus has now lapsed. The balance of the time, which is one hour, will now be allocated to any member of the Assembly that wishes to participate. It will be in 10-minute time slots.

The chair will now recognize the Member for Edmonton-Manning, and I'd request him to please introduce his guest to start with.

**Mr. Backs:** Thank you, Mr. Chair. I'm very pleased to introduce Robin Williams from Edmonton. Actually, her family is from the great Alberta community of Fort Assiniboine. She's here to help today. Thanks for coming.

I'm very pleased to rise. This is the first day I've been up on these debates. I'm very pleased and honoured to be able to stand in this Legislature to question the minister and departments. To start with, I must say that I think the 9.5 per cent increase in funding for the health authorities is a good move. I mean, it's far above inflation and all the rest of that, but I think there are many areas where we can gain cost savings in the long term and try to ensure the health of Albertans.

Now, the issue of home care is one that has come home to me quite a bit in the last little while. I've talked with a recipient with MS in my constituency office just a couple of days ago who is having great difficulty getting home care largely because of the issue of getting attendants who will actually be working in the industry and the shortage of people working in the industry. The difficulty in that is increased, and it's severe.

**9:00**

I raised this to some degree in speaking to Seniors this afternoon, but one area I saw in a presentation to an economic development conference in Camrose last fall, I believe it was, where an aboriginal leader spoke to the great success that they were having in Saskatchewan with training individuals from northern reserves in Saskatchewan to get their qualifications in various health care professions.

They moved into the urban centres of Saskatoon, North Battleford, and other areas to provide assistance in the shortages that Saskatchewan was having in that area. My one question is whether the minister is, in terms of training – and some of that goes to other departments, of course – trying to encourage that in terms of trying to find some ways to deal with the staffing problems that we have in so many of our health care and long-term care types of processes?

Now, the removal of the home-care ceiling. I think that was a very good move. I am just wondering what the total cost might be, on average, per individual for this type of funding. It's something that I must speak to a little bit personally because my mother was always a strong advocate for home care, going back 30, 35 years. She would even attend conferences and lobby in Ottawa and do other things. This is a very strong development in this area. I hope that it helps in the funding and will be a very positive development for many Albertans.

The Northern Lights health authority has been a great concern for many people in my riding because there are many Edmontonians that work and are that shadow population in that area and, you know, live on living-out allowance or fifth wheels or many in the camps. The provision of proper health care, the ability to access health care is an issue for many of them. I was up there just a few weeks ago and met with a number of the municipal officials, the mayor and such, and talked about the continuing problems. There is certainly a look by the government to try and deal with those problems by some of the ways that it has dealt with the community clinics, the northern allowances, some of the other factors, to try and deal with what are essentially labour issues and cost issues with a burgeoning population and a large shadow population.

I guess one question is: is there any true and hard estimate of what that shadow population does average out to in a year – I know it's up and down and up and down – and what the projected costs are in terms of health care funding for the Northern Lights authority?

Another area that I think is important in the health care area – and I'm just going to concentrate on Health for now and maybe, hopefully, get up again to speak about Energy and Environment. Now, I've lost about 85 pounds since December, and it's a good thing. Part of that is not having to sit in long caucus meetings and listen to . . . Sorry about that. I diverge.

You know, that's consistent workouts, and it's going to the gym, and it's changing diet a little bit. Wellness is important.

**Mr. MacDonald:** Eighty-five pounds?

**Mr. Backs:** Eighty-five pounds, yes. It certainly is a factor in health and certainly is a factor in making things good.

Being at the health care centre in my area, I'm getting a lot of questions. I'm seeing posters, actually, and they're asking me questions about these posters, about whether the ministry will support some extension of wellness accounts – I know that there are some for provincial government employees – in a larger area or to encourage them with private employers and, perhaps in the next budget, to look at some sort of a tax credit that is similar to some of the measures that are done for children at the federal level. I proposed a children's recreation tax credit as a private member's bill idea a couple of years ago and was pleased to see the feds kind of move a little bit on that idea. It at least gets a little bit of money for children into the hands of parents. Many people in my health club are asking about whether or not this type of thing could be extended for all individuals in our society and say that it, indeed, would be and could be a great saving for the health care system.

Now, again, primary care networks are a great success on the part of the department and the government and the health authorities in

our province and have very much increased the confidence in health care provision in our province by what has happened with hips and such. I guess another question is: what might be other additions to the list of these team approaches, and how might they be considered in 2010 in the three-year look forward on that?

I've also had raised with me some of the issues on the personal touch in terms of complaints. Capital health had a new restaurant information system, and just reading a little bit from an article here about getting waited on with a personal touch: Capital health launched a pilot project to offer information from the latest restaurant inspection reports via the Capital Health Link telephone line, but instead of having a Health Link worker give the information, inquiries are being returned by the actual health inspector who performed the most recent inspection on the restaurant in question. Now, that's only a temporary measure, but it's an interesting sort of pilot program. I've had it raised to me because somebody brought forward the article and said that, you know, they are interested in the same type of approach being brought forward, perhaps, on a province-wide basis and maybe even extended to such things as accommodations, rental accommodation, or even motels and such. There was a clear desire to ask on that particular point whether or not that might be some sort of possibility even if in the future.

The health care system. I must commend the minister for many positive approaches that have been brought forward. The communications on the part of the department have been, I think, very well done.

Thank you.

**The Deputy Chair:** The hon. Minister for Health and Wellness.

**Mr. Hancock:** Thank you, Mr. Chairman. Those questions all seemed to be in the area of health, so I'll see if I can handle most of them for the hon. member.

Home care, getting attendants. The workforce strategy is a very important piece. It's one of my mandates. Obviously, while a lot of the focus seems to be publicly on where we get more doctors and where we get more nurses, the actual area of significant need is really on the personal care side. How do we make sure that people have access to appropriately trained personal care attendants to manage their living needs so that they can live independently if possible if they can live in their own homes with support where needed and also, of course, in residential accommodation, whether it's a designated assisted living or long-term care?

Getting personal care attendants and making sure that they're appropriately qualified. The hon. member will know that we have a new set of standards in place with respect to care, and that's being applied to continuing care and privately run facilities as well as to health authorities in terms of those care standards. But that adds some complications because now that there's a set of accreditations that are required, people are concerned that the income levels are not such that a person would actually be inspired to get the accreditation because it's not necessarily compensated for in income. Other service businesses are perhaps being too competitive in that area, so it's difficult to attract people to the field. So that's an area that we need to deal with. We need to get more personal care attendants. We need to make sure that they get access to the accreditation of the standards that they need so that we can serve well.

**9:10**

There are some very important things happening in that area. Alberta just signed an agreement with Capital health authority, for example, to make some training positions available on the aboriginal side, as the hon. member mentioned. Careers: the Next Generation

Foundation the hon. member will be familiar with, and Alberta Health pays for a special focus on aboriginal students in the health area.

I just came back from meeting with the East Central health board, and they're talking about things that they're doing in co-operation with NorQuest and with Grant MacEwan with respect to the workforce and involving local residents who perhaps have capacities that are underutilized. I think they told me they deal with 17 different advanced education institutions in terms of making courses available to local residents so that they can get the capabilities that they need to be consistent players and to be participants in the system, including discussion about a health care aide curriculum piece which could be added to the high school curriculum available just as courses are in cosmetology or other areas which would lead to a student graduating from high school with the appropriate accreditation in hand to enhance their ability to move immediately into the workforce if that was their desire and give them a leg up on a health care profession if that's where they wanted to go. So there are some very interesting things happening in that area.

Now, the hon. member talked about Northern Lights, particularly with respect to the shadow population. First of all, I should say that we're working with Northern Lights and Peace Country health to better define the whole concept of shadow population and a mechanism to count and what type of formula might work to include them in a funding formula. But having said that, there are some things that should be of interest.

First of all, in reviewing the health care data, it would seem to be clear that apart from emergency services most of the shadow population goes home for their health care. That home may be here in Alberta or it may be in other parts of the country. But there's no evidence, at least on the surface – and, as I say, we have a task force that will be looking into this in more depth – that there's a huge impact on those health regions from the shadow population other than, as I say, with respect to the provision of emergency services.

In fact, I would point to the data that we have with respect to our funding allocation for this year. The Northern Lights health district has actually paid an export of \$17 million. Now, I don't know whether we actually make them pay that or whether we just account that. [interjection] We just account it, but the suggestion would be, actually, that they send more people out than they bring in. If the shadow population was getting medical services in that area, the health data should reveal an import because they would be paid because the residency of the shadow population would be their home residency and the import/export formula should account for that.

As I say, we're not dismissing that area. We're looking at it very seriously. That's been a concern of both Peace Country and Northern Lights. We want to know the impact of the shadow population, but the surface evidence would suggest that that's not as big an issue as it's made out to be, and there may be other issues that the person should be looking to.

The hon. member mentioned wellness, and I'm glad he did because that's one of my favourite topics. If we want to have an acute-care system that's there to take care of our parents when we need it and our children when we need it and, heaven forbid, ourselves from time to time, we have to make sure that fewer people need the system. That's the only way it's going to be sustainable in the long term. This is a long-term issue because wellness is not something that you can accomplish and measure on a day-to-day basis, notwithstanding the hon. member's mention of weight loss. You know, this is a long-term project. I'm sure the hon. member knows, as I know, that weight loss can be fickle. It needs to be sustained over a long period of time.

The issues of wellness, though, are very, very important for us.

We can talk about all the acute-care delivery. We're going to expand. We know that we're going to expand the delivery of acute-care services. It's been exponential over the last 15 years in terms of the number of services that are delivered, the number of hip surgeries and heart surgeries, the number of MRIs, and the number of scans. It's been exponential in terms of its growth.

We can do more for more people because of the new techniques, new technologies, new drugs. We're doing hip surgery on 90-year-olds that we weren't doing before on 70-year-olds. If we're going to do that – and we are – then we need to make sure that fewer people actually need those services by increasing the health status of Albertans. To do that, we need to make sure that Albertans take responsibility for their health status and are supported by the health care professionals through PCNs and others in their community to make sure that they can take care of their health status.

Now, one of my favourites, of course. The PCNs are a great way of bringing a team approach to health care delivery and leveraging the health care resources, making best use of the health care resources, the health care personnel that we have so that doctors can do what doctors are well trained to do, that nurses can work to their capacity, that dieticians and pharmacists and other health care professionals can work as a team.

We found that approach to be so supremely effective with the bone and joint team, the Bone and Joint Institute process, and the steering committee. Yes, we put more resources into that project, but what we learned from that project was that by re-engineering the process and using a team approach and using health care professionals for the health care needs and using support people to help them to expand their capacity, we could take the same amount of resources and do a whole volume more of work and improve the access times and improve the results.

So we need to take the learning from that and translate it to other areas. The process engineering is what is really important, coming out of that, to show that the teamwork approach really does enhance our ability to deliver the services. That can be used not just on hips or knees; that can be used for any skeletal processes. It can be used in ambulatory care. It can be used right across the board, and that's very important learning that we have from that to be applied.

Now, the Auditor General commented on food audits in the 2005-2006 annual report. As a result of the issues raised by the Auditor General and issues raised in general by the community, we are moving to develop a process to address public disclosure of restaurant inspections. In fact, the project that the member referred to with respect to Capital health is in fact the pilot project that they're doing on our behalf to work out the kinks, to deal with the systemic issues that might have to be dealt with so that we can take the learnings from that and develop the system for a province-wide system of reporting that's appropriate. The recommendations from that pilot are expected in December 2007, and then we should be able, if it's successful and if the details work out, to expand it across the province.

**The Deputy Chair:** The hon. Member for West Yellowhead.

**Mr. Strang:** Thank you very much, Mr. Chairman. I've got a few questions that I'd like to leave for the Minister of Energy. The department's 2007 to 2010 budget plan states that "installed generating capacity will need to increase in order to keep pace with Alberta's growing demand for electricity . . . [pending] enhancements to Alberta's transmission system to ensure access to market." What kind of generation is being looked at for increasing Alberta's electrical capacity, in particular coal-fired generation?

Another question, Mr. Chairman. The business plan commits the

minister to developing an integrated, co-ordinated approach to research that supports clean-coal technology. How far along are these efforts, and how will this tie into plans for more generation capacity?

There's some talk about Alberta as a stable, reliable source for energy, but a lot of the discussion is about oil and gas, and that's natural gas. Coal is not such a prominent part of the discussion. What is being done to promote Alberta's coal outside the province?

Another question: what is being done to improve well site cleanups?

9:20

A lot of my constituents in West Yellowhead have been complaining that utility companies are not doing actual meter reading for months, and then they're charging large amounts on one month's bill to make up the difference. What sort of recourse is available to these individuals? The department's business plan says that metering policy recommendations will be developed to support advanced metering technology in the retail market. Is this something that can rectify this situation? Will there be guidelines preventing this sort of situation?

Another question, Mr. Chairman. The department has a significant increase in its budget for biofuel initiative. From \$5 million in 2006-07 it then jumps to \$41 million in 2007-08. The estimates are on page 128. What sort of work will be done to utilize wood debris left over from timber harvesting in biofuels?

Another one is on the orphan well abandonment program, which had its budget cut from \$13.5 million in 2006-07 to \$13 million in 2007-08. The estimates are on page 132. What I'd like to have the minister explain is: why these cuts?

Now, if I can jump into Environment. Many people in West Yellowhead are concerned about climate change. It was reported in March that 7 per cent of Ontario's greenhouse gas emissions result from logging in the province's boreal forest. What kind of effect is logging having on Alberta's carbon dioxide emissions? Is increased logging due to the mountain pine beetle going to have a greater effect?

West Yellowhead constituency office is getting a lot of calls from people looking for grants to help make energy efficient improvements to their home or for buying environmentally friendly vehicles. There have been a few small-scale programs run by Climate Change Central and Energy Solutions Alberta that have helped people make those sorts of upgrades. Are there any plans for new grants like these?

There is some concern from the residents in West Yellowhead about a possible contamination of water because of drilling new wells. The minister said that there are studies under way to see what effect coal-bed methane development has on groundwater and that there are a number of monitoring wells and there are ongoing programs for water testing. What sort of testing is being done, and when can we expect the results from these studies? Are the studies going to be ongoing or one time only?

When Bill 205, the Environmental Protection and Enhancement (Conservation and Reclamation) Amendment Act, 2007, was hoisted, the minister committed to moving forward right away to improve reclamation standards. What sort of progress has been made on improving these standards?

If you can get back to me if we run out of time, I'd certainly be pleased to have those answers from both ministers. Thank you, Mr. Chairman.

**The Deputy Chair:** Would any ministers like to respond? The hon. Minister of Energy.

**Mr. Knight:** Well, thank you very much, Mr. Chairman. The questions that were asked certainly relate very well to the Ministry of Energy and, of course, to our budget. I think the first question had to do with increased capacity and the ability of Alberta to generate electricity. With the fortification of the transmission system in the province of Alberta, what are we looking forward to with respect to being able to supply more electrical capacity? The question was particularly asking about coal. What I would suggest is that investors certainly have more confidence in the electric industry in Alberta as a result of the competition and our open market approach. Industry has expressed interest in investing in about another 4,800 megawatts of new power development in the coming years, which would ensure that we continue to meet the province's growing demand.

Thermal sources account for the majority of Alberta's installed capacity, and coal-fired plants make up about 50 per cent currently of the province's total capacity. Natural gas accounts for about 40 per cent, and that includes some very efficient cogeneration at industrial sites that produce energy as a by-product of their normal activities. The remainder, Mr. Chairman, is hydro, wind, and biomass. Those sources of energy from organic waste such as wood waste, garbage, or animal matter are, again, an important piece of the business.

Among new projects coming on stream, there's a 450 megawatt coal-fired plant being jointly developed by EPCOR and TransAlta at Keephills. Those companies have a successful track record in developing coal-fired generation, and they're using state-of-the-art technology that reduces air emissions, reduces greenhouse gas emissions and NOx and SOx and particulate matter by significant amounts.

Genesee 3 was completed in March 2005. It's one of Canada's most efficient coal-fired electrical-generating facilities and the most advanced coal combustion technology in Canada.

The efforts to support clean coal technology continue. We have ongoing research involved with the hydrocarbon upgrading task force and most certainly hydrocarbon upgrading demonstration projects. We're working with and very interested in Sherritt's proposal to do coal gassification. We're working with the front-end engineering design – the FEED study – with our energy innovation fund. We've put about \$11 million dollars into it. That study will research the best design for power generation facilities capable of removal of significant percentages of the emissions, including NOx and SOx and particulate matter, mercury and carbon dioxide, all with a base of Alberta coal as feedstock.

Mr. Chairman, a pulverized coal-feed system. Recently, some articles have been coming forward with respect to it. It produces electricity at a very, very favourable rate compared to the standard processes. We see that it uses an air separation system and ultrahigh pressure steam. Of course, we'll be continuing to monitor these pilot projects that people have and continue to be involved with them.

Alberta's coal, of course, is promoted as a commodity outside of the province and around the world and is accepted in many places, particularly with respect to steel manufacturing, as one of the best sources of coal for that industry. We continue to support that, and the department of economic development does a very good job around the world with respect to helping people that have a requirement for coal to understand where we fit in the marketplace.

9:30

Well site cleanups. We're off on a bit of a different situation here and, of course, Environment's upstream oil and gas reclamation remediation program is in place and does ensure that land that's used for oil and gas development is restored to a productive state. We



have an orphan well program, and there were some suggestions that the budget for the orphan well program had been decreased. In fact, that budget is a number that's set at \$13 million, and it's a levy on industry. There wasn't actually a decrease. What happened was: of the \$13 million program there had been an ask in the last year to have some additional money for particular projects with respect to the orphan well program. We added the \$500,000, and in the budget for '06-07 that money doesn't appear because, of course, that ask was a one-time situation. So we're back at \$13 million, where we've been historically.

Another question that was asked: the meter policy. Again, we're working on recommendations now with respect to net metering. The idea that smart meters and net meters and meters that are capable of direct read by remote sources and that sort of thing: we're continuing to do that. Smart metering in the industry is referred to as advanced metering infrastructure, and that generic term is for meters that have advanced technological capabilities. The Department of Energy continues to work with market participants to develop this type of metering.

The biofuel initiatives. Of course, again, it's a topic, Mr. Chairman, that's predominant in the agricultural industry today in Alberta. The forest industry is extremely interested in this program. We've allocated \$41 million in this budget, and what we have in front of us is a program over a number of years that's going to provide \$239 million to biofuel initiatives.

The programs that were announced in October 2006 include two elements. There's \$30 million over three years committed to the commercialization program, that would support technology investment in the province with respect to biofuel. It also supports the establishment of infrastructure that's required to market and distribute bioenergy products. As you know, biodiesel would have to be blended at some point in time in the system, and today rack blending is the method of choice with the industry, so we want to promote the ability of producers to do that in the province.

Two hundred and nine million dollars over a four-year period: that's committed to the renewable energy producer credit program. What that will do is assist when people get up and running and have biofuel production in the province. There will be some assistance there to help them offset the initial costs of organizing and building infrastructure and getting into that business.

I'll leave it there. Thank you very much, Mr. Chairman. There may be some issues around water that my colleague would want to address.

**The Deputy Chair:** The hon. Member for Whitecourt-Ste. Anne.

**Mr. VanderBurg:** Well, thank you, Mr. Chairman. Maybe I'll focus my questions to Environment since my colleague from West Yellowhead didn't have an opportunity to get some responses, and we'll give the Minister of Energy a chance to catch his breath.

First of all, Minister, I want to thank you and your department folks here for always providing a quick response when my office, either in the constituency or here, call, and especially a thank you through you to Rick Ostertag, that does the work out in Whitecourt-Ste. Anne. When I have a problem, he's there, and he's there quickly, and he responds quickly.

You have a \$164 million expense in your budget. Friends and constituents that call me often talk about the Department of Environment and what money is allocated to their concerns and what you're planning to do to improve on the concerns raised.

I want to talk a little bit about train derailments, cleanup, your emergency response team. In the last six months or so I've had two train derailments, and the last one I was able to monitor with your

team. It was just outside of Onoway. I have to tell you that they're very professional; these folks are ready and take charge on-site. I want to know, you know, if this team was ready for me at Onoway, what happens at the same time down in Lethbridge when there's a problem there. Is there a unit in the south? Is there a unit in the north? How has this response team worked with my 28 municipalities, getting the mayors and the reeves and their people in tune with what you're doing?

The second issue that I hear many times – I just got a report from the milk container recycling program, and, you know, they claim that great things have happened. I don't think that just over a 50 per cent recovery rate is great. I think we can do a lot better. We've proved that with our containers that we have a deposit on. It's pretty amazing when you hear the stats of, after a product is purchased and a deposit is paid and it's consumed, how fast it gets back to the bottle depot and gets back into that circle that we need it to. I'd like to know: in your budget is there opportunity to move the milk container program into the same type of a program, and when are you going to do that?

The other issue I get is from regional landfills and transfer stations. It's getting harder and harder to site these facilities. The municipalities are doing the best they can to make sure that these landfills stay as long as they can, but they all know that when it comes time to locate a new landfill, they're in trouble. You know, I've had the opportunity with your deputy to go and visit areas that no longer allow landfills. The technology is there. We don't have to study it through huge grants. Other municipalities are taking a zero landfill policy, turning that garbage or waste into energy, into heat. Just wondering when you're going to take some of this \$164 million and turn those funds into a program to shut down our landfills and turn them into fuel.

The other issue is the municipal water monitoring program, and I know that with many of my communities your staff has done some good work. I understand that there's a major effort coming about in the municipal water monitoring program. I want to know: in your \$164 million, when you identify problems in a community, is there enough money allocated into your budget for help to our communities when they run into a problem?

I'll sit down, and this will give you an opportunity to answer my questions and the questions from my colleague from West Yellowhead.

**The Deputy Chair:** The hon. Minister of Environment.

**Mr. Renner:** Well, thank you, Mr. Chairman. First off, let me thank the hon. Member for Whitecourt-Ste. Anne for his comments about our staff, particularly those that are in the Whitecourt area. I certainly share his admiration for some wonderful people that we have not only out in the field but here in our headquarters in Edmonton.

I'm going to take a little bit of time to go through each of the issues that he dealt with, but if I can be very, very brief, I want to try and address the issues that West Yellowhead brought forward as well and see if I can't get everything done all at once.

First of all, the issue with respect to climate change and logging and the fact that logging as a result of mountain pine beetle may have an effect on CO<sub>2</sub> emissions. I need to point out that the CO<sub>2</sub> emissions that would result from logging are not a direct result of logging but would result from the elimination of the carbon sink that a healthy forest is. While there may be some effect on CO<sub>2</sub>, it's hard to calculate. It could be marginal. The pine beetle logging will also be accompanied by reforestation, so while you lose mature forests, those are replaced with forests that are aggressively growing. It's

really hard to calculate what the net effect would be, but I would say that overall it would be marginal. The one side benefit that we may have is that the available fibre that would result could be used in some form for conversion to ethanol. There may be some opportunities to have some advantages there.

9:40

The member also asked about whether or not the government has any plans to bring incentives for environmentally friendly vehicles. The answer to that is that at this point we do not, but we've just completed our community consultation on climate change. One of the issues that we discussed at those community meetings was whether or not there is a warmth on the part of Albertans for us to do so. That would be very much part of the discussion as we bring forward our new policy under climate change and climate change policy.

The next question dealt with water wells and coal-bed methane. There are a number of monitoring wells that we have in place. We have testing that's done on our own wells. We also are available to do testing on individually owned wells. The question is: is testing ongoing or one time? It's both. The ongoing testing in our own monitoring wells will be there for a length of time because we want to establish whether or not there are any trends that need to be noted, and we're also available to do testing on individual wells should individuals suspect that they have some problems that they would like investigated.

Finally, a member asked about Bill 205 and what the status of this bill is. He's quite correct. There was a hoist motion that was approved by this Legislature on this bill. I'm pleased to report to the member that as of this date a reclamation criteria advisory group has completed an update for forestry reclamation criteria. The update was agreed upon by a multiparty group, including the Alberta Forest Products Association and Canadian Association of Petroleum Producers. We will be proposing an amendment to the conservation and reclamation regulation, and that amendment should ensure that reclamations are reviewed every six years as a minimum requirement. The criteria will also be updated as new science and knowledge become available.

Now, if I could deal with the questions from Whitecourt-St. Anne on the train derailment. As a result of lessons learned at Wabamun, I think we have a much improved position at this point in time. ASERT, which is a new organization that we've put in place, Alberta support and emergency response team, has a network throughout the entire province. So to answer the question, if we have two events at the same time, we have primary responders located throughout the province. Then they draw upon the support from the main operation here in Edmonton as is necessary.

Co-ordination with municipalities is actually one of the things that we're very proud of, and I'll give you an example. When I was in Fort McMurray earlier this year to talk with them about climate change and then we also spent the day working with the municipality and working with the local media to discuss the possible risk from ice jams, that very day our representatives from ASERT were in an exercise with the first responders in Fort McMurray, going through a tabletop exercise so that everybody fully understood what everyone should be doing should the issue of an ice jam cause some flooding. We're very proud of the work that they're doing.

The milk container issue. Frankly, hon. member, I'm not in disagreement with your views on this. I think, intuitively, container recycling is something that we need to have some consistency in. On the other hand, there are strong arguments made by the dairy industry that their containers should continue to be exempt from our recycling. I've indicated in this House before that I think this is an

excellent opportunity for us to review our regulations with respect to beverage container recycling, and it's one of the things that I intend to refer to a standing field committee as soon as they get up and running and established. I want them to have a look at this whole issue of beverage container recycling and provide me with some recommendations before we renew the regulations.

Finally, on the issue of landfill locations I don't disagree that it is increasingly difficult to deal with replacing landfills. I think that there are two issues that we need to have a look at here. We need to have a recycling program that is sufficiently supported, that we are minimizing the amount of material that goes into any landfill so that we have a policy in place that landfills are used a very minimal amount. I'm not so sure that gasification is the answer to replace landfills. I'm told that there are economies of scale associated with gasification and that in order to have the volumes that would be required to successfully operate a gasification disposal site, you would have to have a major population centre. I don't know that remote municipalities want to get into a situation of having to truck all of their refuse into either a Calgary or Edmonton facility for gasification.

I wouldn't write it off. Technology has a way of changing. But in the meantime I think that we're better off to concentrate on having landfills that serve regional needs at a reasonable distance so that we're not hauling huge distances, but that those landfills are designed so they pose no significant risk to the environment, so that they contain a minimum amount of waste material, and in the long term they serve the needs of Albertans in the most cost-effective and environmentally friendly way.

Thank you very much, Mr. Chairman.

**The Deputy Chair:** Hon. Member for Calgary-Fort, you have the full 10 minutes, but if you want a response, you may want to leave a few minutes for the minister to respond to you verbally. The hon. Member for Calgary-Fort.

**Mr. Cao:** Thank you, Mr. Chairman. First, I would like to talk about the energy side. I know that energy is very important to our province and is in the good hands of our minister and the department people.

I would like to just give an idea. I see that energy has two parts. One is our own consumption in Alberta for our industry and for our household consumers. So in this aspect I want to just pose a question about the ministry programs regarding efficiency and conservation of energy in our own home, our own province here. We need to meet the growth of economic development and also meet the needs of population growth. So that's talking about our internal usage.

Also, energy earners add revenues to fund health care and social programs and education, the people programs of Alberta. We should not forget that energy export is the source of our wealth, Albertan wealth. In that context, I want to address or ask the minister: what is the measure or the program in which the government helps industry to develop our industry sector in terms of making it attractive for investment and also removing uncertainty so that the energy industry keeps growing well in Alberta? That's for the Minister of Energy.

I want to focus on the Ministry of Environment. As far as I know, Minister of Environment, we are facing what I call the threat, a threat for our environment. But in any threat there is opportunity for Alberta. So I want the minister to tell me about how you deal with the threats. Then what are the opportunities for us to grow in our technology or economy in terms of dealing with the threat of environment?

9:50

Also, there are some other issues such as recycling of electronic waste, recycling of waste disposal in general. But there's one thing that I learned from other jurisdictions that I searched around the world. I learned about what they do for water recycling, preservation of water, conservation of water. Basically, I learned from some jurisdictions that they classify water into a kind of colour: the dark, the brown, and the clear. Each one has its own stream. The dark one is like sewers. It goes to different pipes and is going into different treatment. The brown water is like the domestic water that we use for washing dishes and in our sink at home and all that. That's the brown kind, and it goes through a different pipe and then goes into different treatment. Then the clear water, which is the surface water that either we water our lawn with or the rain, and disposal of that. I've seen that addressed in some other jurisdictions, so I wanted you to comment on that.

One thing that's pretty close to my constituency is the remediation approval process. It's a good process. It's a solid process, but some of the people in my area say it's too long. So I wanted you to take note of that.

My third area is on the health side, the Minister of Health now. I know that health is very important. It's a big expenditure in our budget. It's also the top concern for Albertans. But I see a lot of things that we can do. For example, I want the minister to comment on prevention investment – that is, the first part, the prevention side – so that we don't need to spend on curing.

Because the health care system has a lot of investment, big dollars, \$13 billion in there, there are a lot of operational efficiencies that I would think about. So my question is on re-engineering of health care operational processes. For example, just trace all the steps from the time a patient first starts and until the time that he's discharged. How many people touch that patient in terms of treatment and bill the government for all of those steps and the complexity of that? The more we look at that, we can streamline, and we can, I should say, allay the cost of health care to other areas of health care which are more efficient.

One other area I want to address, which comes from my constituency, is the community health centre kind of idea: one-stop shopping for a person to come in. Regarding that, there's a question about compensation to doctors, alternate compensation.

So I just want to leave with that and hope that the minister has some ideas. If not, then it can be answered in other forms. Thank you.

**The Deputy Chair:** The hon. Minister of Energy.

**Mr. Knight:** Well, thank you very much. I'll be very brief. The initial questions, I believe, that the member had with respect to the Department of Energy had to do with the consumption of resources internally in Alberta and the export capabilities. Most certainly, Mr. Chairman, I'll start, first of all, with the disposition of crude oil. These are 2005 numbers, the most comprehensive thing that I can give the member at this point in time. In thousands of barrels a day the province of Alberta consumed approximately 422,000 barrels. The rest was shipped to the rest of Canada in exports and some offshore exports, actually. Total disposition: about 1,928 thousand a day.

With respect to natural gas disposition in bcf per year, consumption in Alberta nearly 1,400 bcf. We shipped internally in Canada about 1,200, 1,300 bcf and exports of around 2,500. Total disposition in bcf – well, this would actually turn into tcf – about 5.2 tcf a year.

The question I think related to: how much are we using, and what can we do about conserving some of it? Most certainly, in my

mandate, Mr. Chairman, conservation becomes part and parcel of our integrated energy strategy. We will be moving ahead. The Department of Environment continued to work with Climate Change Central with respect to looking at programs that assist people to be more fuel efficient and more conscious of their consumption.

With the consumption, of course, that we have and the exports that we have, the member alluded to: how do we continue to maintain a balance? Most certainly, we are working very diligently with respect to this issue. Part of our integrated energy strategy would be to provide for our customers internally in Alberta, Canada, and North America and globally a basket of products, Mr. Chairman, that we can go out and market that continues to provide Albertans with the maximum value for these resources.

With that, I'll leave it with the Minister of Environment to close his remarks.

**The Deputy Chair:** The hon. Minister of Environment.

**Mr. Renner:** Thanks, Mr. Chairman. I'll be brief as well and try and get time for the minister of health to get involved as well.

The member referred to threats versus opportunities in Environment. I think it's very true that there are some opportunities that we can deal with. It comes down to this whole issue of climate change, and do we see this as a threat or do we see it as an opportunity? There are very real issues related to climate change, but there also are opportunities. One is that if we can spend significant time and effort on the carbon management science and technology, there may be opportunities for us not only to control our own CO<sub>2</sub> but to export that technology and assist other countries and regions throughout the world in doing the same. So I think there's a good example.

He also talked about recycling, particularly with water. There are sort of two ways that we can recycle. One is at the home base, where you can have within an individual home two sets of pipes so that you have a double-flush toilet . . .

10:00

**The Deputy Chair:** I hesitate to interrupt the hon. Minister of Environment, but I'll now invite officials to leave the Assembly so that the committee may rise and report progress. I'd also like to thank them for their participation today.

Hon. members, pursuant to Standing Order 59.02(9)(b) the Committee of Supply shall now rise and report progress.

[Mr. Shariff in the chair]

**Mr. Prins:** Mr. Speaker, the Committee of Supply has had under consideration certain resolutions for the departments of Energy, Environment, and Health and Wellness relating to the 2007-2008 government estimates for the general revenue fund and lottery fund for the fiscal year ending March 31, 2008. The committee reports progress and requests leave to sit again.

**The Acting Speaker:** Does the Assembly concur in the report?

**Hon. Members:** Concur.

**The Acting Speaker:** Opposed? So ordered.

The hon. Government House Leader.

**Mr. Hancock:** Thank you, Mr. Speaker. I would move that the House adjourn until 1 p.m. tomorrow.

[Motion carried; at 10:02 p.m. the Assembly adjourned to Thursday at 1 p.m.]

