VERIFIED TRANSCRIPTS

PUBLIC ACCOUNTS AND ESTIMATES COMMITTEE

Inquiry into budget estimates 2007–08

Melbourne — 16 May 2007

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Mr P. Batchelor, Minister for Energy and Resources;

Mr R. Bolt, secretary;

Mr D. Seymour, deputy secretary; and

Mr S. Condron, chief financial officer, Department of Primary Industries.

The CHAIR — I call on the minister to give a presentation of around 5 minutes on the more complex financial performance information that relates to the budget estimates for the energy and resources portfolio.

Overheads shown.

Mr BATCHELOR — I think it is important at the outset just to give a bit of an overview, and that is what this first slide attempts to do. Victoria has had a lot of success with its economy. This has largely been based on the support provided to it by good, cheap, reliable and affordable energy. We are having growth continuing, but the biggest impact, of course, at the moment is drought. That is reflected in the overall growth figures this year — down I think last year at 2.5 per cent, but hopefully going up to 3.25 next year.

In looking ahead, what we are trying to do with our energy policy and the investments is to concentrate on the technical know-how that ensures that we get the benefits from this global economic growth and that we use our resources that we have abundant supplies of in an environmental and sustainable way, particularly our brown coal. We will come to some of the investments we have been making in that area to achieve that objective — you know, the demonstration plant for clean coal technology, the research into carbon capture and storage, and the renewable energy sector, of which the most recent is our exploration announcements in relation to geothermal. But we have set a long-term target to cut emissions in Victoria by 60 per cent on 2000 levels by the year 2050. We will meet our future energy needs by building on the solid competitive market model we have established in Victoria. Whilst notwithstanding the fact that we have a very competitive energy market here, we have one of the strongest consumer protection systems of anywhere in the utility market in Australia. We will go into that in more detail in a minute.

We will talk about an overview of resources. You can see from the slide there is a lot of activity happening around the state. Exploration in Victoria reached $82 million in 2006. This is the highest on record. It is more than a 40 per cent increase on the 2005 figures. It is not just in the traditional areas of mineral sands or gold or petroleum. We also announced exploration into geothermal energy across 12 sites, totalling some 74 000 square kilometres of Victoria. We are also wanting to ensure that new industrial platforms that will be provided to the Latrobe Valley proceed, but we need to do that in the context of a carbon-constrained future.

We have been supportive of the Monash Energy project, which has the potential to deliver some $5 billion worth of industrial expansion in the Latrobe Valley. With respect to gold, where production has risen in Victoria whereas in the rest of Australia it has fallen, we are at the highest volumes since 1917. We have seen gold production increase by some 60 per cent to 200 000 ounces, which has a value of just under $150 million, so it is worth a lot to the Victorian economy.

We can go to the next slide. What we are seeking to do here is to demonstrate our philosophy or our administration of how we deal with these resources here in Victoria and why we do it. Essentially we are trying to attract exploration, firstly. We have done that through Rediscover Victoria — $5 million in this budget — which includes a targeted drilling program and also the development of a 3-D geological map of the state. We are facilitating projects. That is the second way we are trying to keep this growth happening. That is in relation to both the Otway gas and the Monash Energy project that I mentioned; and we are encouraging innovation. We are providing resources to the Latrobe Valley resource futures. We have established the Earth Resources Development Council, and we are participating in the trial of carbon capture and storage in the Otway Basin.

If I could just quickly talk about the new initiatives for this coming year, we want to establish a clean coal authority. That would help us determine in a strategic way how we might provide for clean coal technologies to be used in the Latrobe Valley — clean coal technologies in terms of future industrial uses, including future power generation, but also how we might retrofit technology to assist the cleaner production of existing electricity. In this year's budget we have provided for Rediscover Victoria, which I mentioned. We are also going to introduce the Victorian energy efficiency target scheme. This is a scheme to provide incentives to help individual customers reduce the amount of energy that they are using.

Going on to the next slide, basically we are dealing with current challenges and emerging challenges. Not a day goes by without reading things in the paper, as the community at large increases its understanding of the importance of government action in relation to climate change. We have been doing a lot of things for quite some time in addressing climate change, and it is good to see that the community awareness is finally catching up with that government action, and these are the some of the issues.

Essentially we will be concentrating on renewable solutions, on clean coal production and demand reduction, and there is a suite of individual initiatives that we have undertaken there to make sure that we can meet those emerging challenges. We want to do that at the same time as maintaining affordability and addressing the security of supply. Whilst we are experiencing the most severe drought in Victoria's history it was confirmed yesterday that we have had the driest year in Victoria's history. Whilst that is a water issue in some respects, it also impacts on the security of supply for electricity and other forms of economic endeavour as far as my areas of responsibility are concerned in relation to electricity.

The hydro-electricity capacity is constrained by the lack of water, and whilst to some extent that can be made up by gas-fired power stations, it still is of concern that a source of electricity supply has been affected by the drought.

The other impact of the drought of course goes to the issue of the use of water by power stations in the Latrobe Valley. We are working with them to find a whole range of solutions that are styled around the re-use of water, reduction in the amount of water they use, and in the long term how we can use air cooling rather than water cooling. We are expecting that these capacity issues will be addressed through the national electricity market and NEMMCO, and that they will be playing a strategic role to ensure that we meet future capacity.

We are also dealing with consumer protection and retail energy prices. We have the best consumer protection in Australia here, and that stems from our hardship policies right through to the responsibilities that retailers have to undertake in looking after disadvantaged members of our community. But notwithstanding that, we have the most competitive electricity market in Australia. Fifty per cent of energy customers have moved from the safety net provision into the competitive market and are reaping the advantages of lower prices than in the safety net area. We will be rolling out smart meters, or interval meters, that will assist in helping consumers manage their own demand within their households, and of course we are putting great emphasis on renewables, particularly in wind and solar. We have committed very substantial resources to it.

In conclusion, we are pursuing clean energy and prosperity at the same time. We want to make both our energy and resources strong sectors that contribute to the economy and whilst we are seeing record levels of mineral exploration, we are hoping to grow that in the future. There is no doubt that the energy area has and will play a major role in addressing climate change and the need to reduce greenhouse gas emissions. But it is not the only area of our economy that will be required to do that. Essentially what the government is trying to do is find that balanced approach, where we can balance the social and economic benefits of our resources and use those to develop the best clean energy technology and grow alternative energy resources.

The CHAIR — Thank you, Minister. Certainly it is very much in the community's consciousness. I have a community forum tonight on climate change, and I am sure there will be strong interest among the community about the sorts of issues that you have mentioned, including the consumption side and the energy efficiency side.

Mr BATCHELOR — I hope the rain does not keep them away.

The CHAIR — I am sure they will come even though it does rain. We would probably hope for both.

Mr WELLS — I would like to ask you about recent electricity price increases. I refer you to the energy policy services output within your portfolio and the media release dated 13 May by the Energy Users Association of Australia raising concerns about the increases in wholesale electricity prices and calling on governments to commission an independent investigation into the high prices and what can be done about them.

To what extent do you consider these price increases are due to, for example, the market anticipating likely price increases under a commonwealth or state emissions trading scheme, the manipulation of the market by the generators, or reduced amounts of water — which you mentioned — available for hydro generation? Or are there any other factors?

In view of the increase in the wholesale prices is the government planning any changes to retail price regulation to prevent retailers in Victoria being driven out of business by a Californian-style squeeze between market-determined wholesale prices and regulated retail prices?

The CHAIR — Minister, your answer should be in terms of the estimates and the budget.

Mr BATCHELOR — You have asked quite a number of questions there. The biggest risk that I think is feeding its way into wholesale prices — and they are the price rises that you are referring to, wholesale prices, not the retail prices — —

Mr WELLS — Yes.

Mr BATCHELOR — The biggest risk there is that the commonwealth government will keep its head still firmly and squarely in the ground and refuse to introduce an emissions trading scheme. Investment decisions are being delayed and withheld within Victoria — in fact, right around the national electricity market — because of the negligence of Prime Minister John Howard. John Howard refuses to open his eyes and see the obvious: that there is a real issue of climate change, that there is a drought, and that both these issues are impacting, and we need to provide investment certainty — particularly in Victoria, where we have got a privatised electricity-generating market, we need investment certainty. In the context of everything that is happening around the world and within Australia, and of course in the context of the worst drought in Australia's — or certainly Victoria's — history, then his failure to act is the biggest risk. I am sure that that is feeding its way into wholesale prices at this very moment.

I think the average wholesale price over six months has moved from something around $30 per megawatt hour to around $50 per megawatt hour. It is clearly at some stage going to feed its way into the retail market. It will not, of course, feed its way in at that level of magnitude, but it is going to have absolute impact.

The retail tariffs of recent times have been covered by a negotiated retail path. That was negotiated in 2003 with the three incumbent energy retailers — AGL, Origin and TRUenergy. The period covered from 2004 to the end of this calendar year. It provided for safety net tariffs to apply to those customers who elected not to enter the competitive market through a contract with one of the energy retailers. Those safety net tariffs for electricity were renegotiated for 2006–07 following the substantial and real reductions in net worth charges as determined by the Essential Services Commission. That retail path extends through until the end of this year.

What has occurred as a result of that is we have seen real price decreases in Victoria on the average retail tariffs for families, on the safety net, and even bigger savings for those who have entered the competitive market. We are currently working on our strategies to define what will happen after 31 December to retail prices, in the background of the setting that you have described and I have described — that background of the drought, that background of climate change and that background of people anticipating what the carbon price might be.

In order to deliver the best outcome for retailers and the best outcome for disadvantaged and hardship cases, we are going to take into account a review that will be undertaken by the Australian Energy Market Commission of retail competition within Victoria. This review will get under way shortly and will examine in detail the market here in Victoria. It will provide a key input as to what sort of retail path we proceed down. The difficulty for us is that the AEMC is just being established as part of the national electricity reforms that COAG has determined and it is unlikely that this AEMC review will be completed in time for the development of tariffs for 2008. So it is likely that for 2008 we will see interim arrangements developed just so the whole of the industry and the government can understand the implications to Victoria of our competitive market and these other matters that you have referred to and we will also have some understanding as to what is going to happen with the national emissions trading scheme.

It is a reality that in other states consumers are facing hefty electricity price increases. In New South Wales it is about 8 per cent a year for the next three years and I think in Queensland it will be about 10 per cent in the next year. Each state has a different set of circumstances and backgrounds. Why I mentioned the competitive nature of the Victorian market is that we have the advantage here in Victoria that some other jurisdictions do not have and that is the competitive nature of our energy market to try and keep the pressure on price increases. So I would be surprised — I would be disappointed — if price increases in Victoria got into double-digit figures like they have in other states. But with the competitive market and the very strong consumer protection regime and the hardship policies that are already in place, plus a number of other initiatives that I will talk about later, in particular the Victorian energy efficiency target, there is a whole suite of arrangements being put in place. We hope, firstly, to keep retail prices as low as possible, and secondly, that we will have put in place protection mechanisms for the most disadvantaged members of our community.

Mr WELLS — It is good to see you are such a strong supporter of the privatised industry, but I need to clarify the point that you made earlier, that the federal government not introducing an emissions trading scheme is one of the reasons why there has been an increase in the wholesale price of power.

Mr BATCHELOR — I think the wholesale price of power at the moment is largely being driven by the drought. The uncertainty as to what the future holds has to have some impact, but the biggest impact at the moment is the drought. It impacts in two ways. Firstly, in Victoria, as part of the national electricity market. It is a bit of a disconnect to talk about it in provincial terms, Victorian terms, when COAG has determined and we are supporting, and we are already part of, a national market, not just in terms of the supply and price impacts but also because there are large interconnects.

Power comes into and out of Victoria from New South Wales, South Australia and Tasmania. It is truly the very early stages. It is a national market. We have to make sure that the competitive elements that exist here in Victoria extend to other jurisdictions. As part of that we get hydro-electricity from New South Wales Snowy Hydro schemes, and the drought there and at other hydro locations has forced a higher reliance on other forms of electricity generation.

It is typically at the moment made up by gas-fired electricity, and that is more expensive than hydro-electricity, particularly if you are swapping from a contracted source of electricity to the spot market, because the lack of availability because of the drought means if you have to get your electricity from a higher-priced source on the spot market, it is going to be more expensive, and that is going to have an impact on the market.

We cannot control where or when it rains or the volume that rains, and neither can the electricity companies. It has been the driest year in Victoria's history, and those drought conditions are elsewhere. The other impact of the drought on wholesale prices at the moment is that — —

I am sorry to go on, Chair, but this is a fundamental issue in energy activity at the moment. The other area is in relation to the use of water by electricity companies in Victoria as a cooling agent through the electricity process. In fact large volumes of water are required, and the drought in the Latrobe Valley has not been as severe until recent times; there has been a drought in the Latrobe Valley, but it has not been as severe as in the rest of the state. This last 12 months it has, and some of the water that electricity companies use comes from a number of different sources.

Those that draw their electricity from the Blue Rock Dam have an annual cap, and they also draw water from the rivers. With the rivers being down, they have had to rely more on the water they are getting from the dams, and they have been approaching their annual cap. The cap period is the financial year, and we have had to supply additional water to these electricity companies so they did not run out of water from that source, because the alternative was not environmentally available — that is, drawing the water out of the rivers.

To not impact on the rivers and the other consequential impacts, we have made water available to those companies in the Latrobe Valley that have been approaching their annual cap to ensure that they get through to 1 July when a new round will apply — —

The CHAIR — A new cap starts.

Mr BATCHELOR — Yes, when a new cap starts. Of course, that water has been at a higher price, and that will feed its way back into the retail prices in the years ahead.

The CHAIR — Thank you, Minister, we should try to be economical in our questions and answers, please.

Ms MUNT — Thank you, Chair. Minister, I was interested this morning to hear the CSIRO said that climate change is no longer a theory but a fact, so CSIRO has also come on board with climate change. I would like to refer you to page 22 of budget paper 3, under 'Tackling Climate Change'. I will just quote from there:

> Victoria is the only state to introduce a scheme that requires electricity retailers to purchase 10 per cent of its energy needs from renewable energy by 2016. The Victorian renewable energy target will facilitate the installation of more than 1000 megawatts of renewable energy, worth up to $2 billion in new investment.

That is a fairly ambitious target — $2 billion in new investments. I would just like to ask: how much investment has the Victorian renewable energy target attracted to Victoria since it was announced? Has it come close to that target?

Mr BATCHELOR — The VRET scheme commenced on 1 January this year. It set a target of over 3000 gigawatt hours of electricity to come from renewable sources by 2016. That will be the equivalent of about 10 per cent of Victoria's predicted consumption at that time. We undertook this course of action because the federal government refused to expand or extend its mandatory renewable energy target scheme in 2004. At that point the scheme was working so as not to encourage any further renewable energy. In fact a lot of the criticisms of the scheme at that stage was that it just allowed the existing hydro schemes that were already in place to soak up certificates rather than encouraging new forms of renewable energy. Understanding that in meeting climate change and how we might reduce greenhouse gas emissions now and into the future in a systematic and deliberate way, we undertook a number of policy actions of which the Victorian renewable energy target was one.

Since it was announced it has had a terrific impact here in Victoria. It has generated a huge amount of investment. Since it was announced we have seen investment in 1000 megawatts of new renewable energy projects. Investment is happening at the moment. More than 800 megawatts of wind energy projects have been confirmed. There is also a $230 million hydro peaking plant that is under construction now, and they would love some water to go in it when it is built. We have also seen commitments given to a $420 million large-scale solar power station to be built in the north-west of Victoria.

When you add together these projects that people have already committed to, there is about $1.5 billion worth of investment commitment that has already been established. We believe that during the balance of the program we will be able to meet and quite possibly exceed that $2 billion target.

We have seen tens of millions of dollars already invested in western Victoria. There are wind farms operating very successfully down at Codrington and Portland. We have seen the blade factory at Vestas in Portland working around the clock, even exporting blades for wind turbines. Of course you have seen Keppel Prince, the wind tower manufacturing company, also established in Portland. They are at full scale. Some of these companies are working on three shifts and cannot produce anymore because of the constraints of the factory they have got available such is the demand for this type of energy.

So we have no fears that we will not meet that investment target. But renewable energies in whatever form are only one element of a suite of initiatives that we plan to have in place to tackle the climate change issue and to make sure we have a secure energy supply.

Ms MUNT — Perhaps the federal government should put in a phone call to the CSIRO today to check on climate change.

The CHAIR — Are you expecting the reinstitution of the full subsidy on solar panels by the federal budget to have an impact on the uptake of solar power as part of this?

Mr BATCHELOR — Yes.

The CHAIR — Minor?

Mr BATCHELOR — No.

The CHAIR — Or major?

Mr BATCHELOR — The biggest impediment to the more widespread choice to install solar panels comes from the capital cost, the initial capital cost. This reintroduction of the subsidy, whilst not fully subsidising it, will make a contribution. Price is a very effective signal in helping people make their initial decisions.

The CHAIR — It will contribute between 35 and 40 per cent possibly to the cost.

Mr BATCHELOR — Yes. But the federal opposition has also got a

scheme that will encourage, so whatever the result of the election, renewable energy will be a key part of the future.

The CHAIR — It will continue to be a focus, yes..

Dr SYKES — Minister, I am pleased with your recognition of the severe economic impact of the drought. I trust that you are aware that there is a massive social impact as well. I would like to record my amazement about the prediction of full economic recovery from the drought within the 07-08 financial year. But my particular concern is the protection of vulnerable consumers battling to meet their energy costs. These issues are repeatedly raised with the government and with me by a lady called Cheryl Sanderson, who is a very strong community advocate in the Ovens Valley. I note your comments on the electricity pricing and what you have done there, but there are also issues in relation to bottled gas prices in much of country Victoria and also wood prices — both bottled gas and wood being essential for providing warmth in the oncoming winter. In the absence of the connection of the area to natural gas we have got an ongoing problem. Can you expand on the government initiatives to protect vulnerable consumers — for example, do they include expansion to the program involving the Good Shepherd?

Mr BATCHELOR — We have got an excellent best practice consumer protection tradition here in Victoria — the first state to do it. It provides protections for domestic and small business energy consumers.

The best protection, of course, is we have got a really competitive market, and that provides people with choice to move from one retailer to another if they are not satisfied with the price or they are not satisfied with the product or the service that they get, and people are doing that. Recently the 1 millionth person changed from their original gas company to a new gas company. So even in the gas area, the reticulated gas market, there are very strong competitive forces at work. But we are not relying on those. We have introduced these laws to require best practice, so, for example, retailers are now obliged to pay consumers $250 if they wrongfully disconnect. Disconnections, as a result, are now at their lowest for 20 years.

Dr SYKES — This is, what, electricity retailers or natural gas retailers?

Mr BATCHELOR — Electricity.

Mr BOLT — It is both from memory. Yes, it is both.

Mr BATCHELOR — Both gas and electricity.

Dr SYKES — Natural gas is not an issue in our area, we do not have it, so keep going.

Mr BATCHELOR — Electricity certainly is. But LPG suppliers, if they choose, can be engaged in the code of conduct for the supply, which has consumer protections — whether they are exactly the same as with the other reticulated gas and electricity I would have to check for you. But the biggest problem that community organisations reported was that electricity companies cut off people's supply as the first port of call, and we are now trying to discourage that activity by having this imposition of penalties if they do it wrongly.

But the more strategic, important part of the hardship policy is to have utility companies work with hardship customers to try, on an individual basis, to work through how they might meet their obligations. The large three retailers in electricity have agreed to do this, and all retailers now have to submit plans to the Essential Services Commission on their company's hardship policy to demonstrate how they deal with these at their corporate level. The ESC is examining all of them at the moment.

Dr SYKES — With electricity it is working quite well. We have a good relationship, and if there are problems that come to my attention, the electricity companies are very good in responding. It is the other issues of natural gas and even something simple like wood. We actually have a fair bit of wood in our area.

Mr BATCHELOR — I do not cover the forestry area, thankfully, so you will have to ask Joe that question when he arrives. On the natural gas rollout, we are trying to extend the reach of natural gas. There are some 34 towns that have been supplied or will be very shortly. It cannot go to every sector of the state. But if there are some towns that are not part of the natural gas extension program, we are encouraging them to have discussions with their council, because if they can demonstrate that there is a demand for natural gas reticulation, I am sure it can be taken up commercially.

The supply of LPG to those areas that cannot, or even in other areas the LPG companies claim that people prefer to see the provision of LPG rather than linking up to natural gas because of the connection costs. The other side of that of course is that the operating costs are considerably higher for bottled gas than they are for reticulated gas.

The CHAIR — Minister we hope to get through another six questions before we finish.

Mr PAKULA — I will endeavour to be brief. Minister, on page 323 of budget paper 3, under 'Clean coal authority and carbon storage' there is a paragraph that reads:

> Funding is provided to begin implementing the government's commitment to clean coal development, including formulating a detailed strategy for a clean coal authority in the Latrobe Valley and to support other clean coal initiatives including further clean coal research and the Otway Basin carbon capture and storage pilot project.

In light of that, what I am interested in is what is the government doing to support the use of coal for things other than electricity generation?

Mr BATCHELOR — We have got a vast resource in the Latrobe Valley — brown coal — and we cannot turn away from that. The government has a policy of working with industry to find more environmentally cleaner ways of using that coal. A good example of that is the Monash project, which is all designed around having eventually near zero emissions of carbon dioxide through the use of carbon capture and storage or geosequestration. It is a proposal to turn brown coal into diesel that is low in sulphur. It is a high-grade product that would help make Victoria, if not Australia, less dependent on imported diesel. This is possible because of the vast resources of brown coal in the Latrobe Valley. Our brown coal will need to be kept for future electricity generation using clean coal technology, but the development of clean coal technology for electricity generation also opens up the use of brown coal for other uses such as diesel.

Using the same sort of approach you can produce urea for fertiliser, and you can even produce methanol, and people are talking about its role in hydrogen in the future. But of course, all of that is dependent upon being able to capture the greenhouse gas emissions and store them through geosequestration. So the real advantage that Victoria has is the juxtaposition of the brown coal resource and the oil and gas fields relatively nearby. So we are very keen to establish how geosequestration might work, and we are involved with CRC on carbon dioxide to try and put in place a scientifically controlled trial in the Otways to work out and address a lot of issues with carbon capture and storage.

We are also interested in how the brown coal, which is very wet — it is some 60 per cent water — might be dried in advance of its use, either in these coal-to-diesel processes or in energy generation. The use of drier coal in these processes can bring about quite substantial reductions in carbon dioxide emissions from electricity generation in advance of carbon capture and storage being commercially developed.

The other new development is in relation to the Monash Energy project. It is a project that was developed here in Australia and sold to Anglo American, a large international mining company. It has now gone into partnership with Shell to further develop this proposal, and Shell has had the expertise of undertaking this sort of industrial work in other jurisdictions. But the real breakthrough will come once all the issues around carbon capture and storage are resolved.

It has the potential to provide a new industrial platform for the Latrobe Valley where at the moment it is dependent upon electricity generation. We believe there is a whole series of different industrial applications that brown coal could be put to in the Latrobe Valley on the assumption that more environmental use is made of the resource.

Mr DALLA-RIVA — What about the trial in the Otway Basin, because you are on that particular issue? I notice it is on the same page. How is that going?

Mr BATCHELOR — In the Otway Basin, with industry, the federal government, us and academic institutions we are putting in place what we believe is the first academically sponsored trial of carbon dioxide. In the Otway Basin some number of years ago they were exploring for oil and for gas, and they had the excited pleasure of ringing up the production manager and saying, 'No, we haven't found oil or gas; we have found carbon dioxide'. There are big reservoirs of carbon dioxide in the Otways, and nearby to them there are some depleted oil or gas reservoirs.

The proposal is to take this naturally occurring carbon dioxide and to transport it through a pipe, pressurise it and inject it underground into this depleted reservoir, and then study in a scientific way any movements of the carbon dioxide that occur both beneath the surface and above the surface over a period of time so we can demonstrate to the community that geosequestration works. It is a technique that is currently being used in other locations around the world, but it is used as part of the production process. Typically, when an oil well gets close to depletion, the last bit of oil is hard to get out.

In some instances where carbon dioxide is a by-product of extracting the oil, they pump it back in to force the last bit of oil closer and make it more accessible for extraction. In some commercial applications geosequestration is working, but it has not been the subject of a scientific trial. We have put some extra money in this year's budget into the Otway trial to support the second phase or the second stage of that project, but most of the money that is going into it, interestingly, comes from industry. The project is about a $30 or $40 million project at this stage, and we have put another $2 million in, taking our contribution to $6 million, but it is being auspiced via CO2CRC.

Mr BARBER — Obviously the regulatory issues with that are kind of new in terms of sticking something 2.5 kilometres underground and making somebody responsible for it staying there. With all this activity that you have described, is some of that to do with creating a regulatory regime that we can expect to see in the next year?

Mr BATCHELOR — We do recognise that we have to produce new regulatory regimes for this here in Victoria and in the offshore water areas controlled by the commonwealth. It is one of the key tasks that have been undertaken in parallel. It is quite an astute question, because most people do not understand or have not grasped the idea of what are the property rights, what are the property obligations, who bears those and over what period of time, and we are working with industry now to define how we might have the appropriate regulations for Victorian land and water. But the big areas for geosequestration — the big potentials, in my view — are in commonwealth waters off Victoria, and we are also working with the commonwealth to try to establish the regulatory regime. The Ministerial Council on Minerals and Petroleum Resources has addressed this matter in the past. The commonwealth is developing some proposals, and we would be keen to see them.

The big concern, I suppose, is the issues between current operators who have got rights to produce oil and gas and whether those property rights automatically give them entitlement to control geosequestration. We think that people who have got property rights for oil and gas have got them for that and that the rights associated with using areas for geosequestration ought to be a separate issue.

It is quite a complex area, because much of this goes to what happens in commonwealth waters over which we — the Victorian government — have no control, and we do not know what its attitude is going to be. As I said before, we are very fortunate in Victoria, having the juxtaposition of these two resources. We just hope that it does not get tangled up and delayed by the wrong regulatory regime being put in place that will inhibit the use of these resources — the geosequestration — and allow them to be captured by commercial negotiations or bargaining by incumbents who are primarily there for gas and oil production.

The CHAIR — We will try to get two more questions in, Minister.

Mr SCOTT — I will be quick, Chair. My question relates to the Victorian energy efficiency target. In budget paper 3 on page 325 there is a reference to the establishment of a Victorian energy efficiency target scheme. Can you tell us more about this scheme, what it will do into the future budget period and how it will encourage energy efficiency?

Mr BATCHELOR — We have given a commitment to establish the Victorian energy efficiency target scheme that, along with other initiatives, will help households reduce by up to 10 per cent their energy use. We are doing that because it is part of this suite of initiatives that we want to undertake to help reduce greenhouse gas emissions. There is no single silver bullet that will achieve this objective, and it is going to require a multifaceted approach from governments and a multifaceted approach from industry and from individuals. So VEET, the energy efficiency target, will be one part of a suite of initiatives that will be directed towards reducing household energy use. It is going to be a market-driven program that will essentially set targets for Victorian households. It will help identify what actions individuals and a whole range of companies can take to contribute towards the target, and it will require retailers to meet the cost of these contributions. It will be based on the issuing of certificates. So if you are a retailer and you undertake assistance to help households reduce their budgets, you will accrue the certificates, or if you are an individual or a company, likewise, and you can sell those to retailers who have not met their target.

In developing and designing this program we have released an issues paper. Submissions from the public and industry are being sought. In fact, they close this Friday, so there is still time for people to make a contribution. We want to learn what has happened in other jurisdictions overseas and we are particularly keen for community groups to make a submission to this sort of program.

Typically what would happen is you would set up a process whereby an energy audit might be undertaken of a household, which would identify activities or changes that should or could be undertaken by the householder to reduce, and we might subsidise the cost of those energy audits. The design has not been determined, so I am sort of speculating on how it might be applied. You might also encourage people to change from one form of inefficient appliance to a more efficient form, and that could generate certificates that would effectively reduce the cost of doing that. They might make changes to the shell of a building by putting in insulation. So through a whole host of actions that individuals will be able to take, we will be able to help them reduce their energy use.

Why are we doing that? We are doing it because this is one way — and it is a significant way — we will meet our greenhouse gas emission reduction targets. Householders constitute about 30 per cent of greenhouse gas emissions, so if we can get them to reduce their energy use, then we can make a significant contribution to reducing greenhouse gas emissions. Many of the other proposals that are going to be put forward in dealing with greenhouse gas reductions by their nature are highly capital intensive, are long term, they may not even be the results of technologies that are yet fully commercially developed, but we believe this is an early starter on a long program to reduce those emissions overall. It is my view that the Victorian community, as shown by their preparedness to assist with water savings, will respond if you go about a program in the right sort of way and educate people and ask them to assist.

In addition to achieving that objective, of course, they will be using less energy and there will be less cost. Their bills will be lower than they might otherwise be in the circumstances if they had not introduced these changes. Of course, that helps us put off the need to build new and expensive electricity generators. It helps us and gives us time to establish the new technologies for producing electricity in a cleaner way, or gives us time to retrofit existing electricity sources and have them reduce their greenhouse gas emissions.

The CHAIR — Who owns these certificates, Minister? I notice, for example, that Origin Energy is making available a pack worth up to $80. It includes a shower head and some new light bulbs to replace the incandescent ones, and then in fine print it says that you will hand over to it any sort of energy efficiency gains when you do the changeover — and you really need a magnifying glass to read the fine print. Has this already started, in fact, that these companies are already anticipating these types of certificates?

Mr BATCHELOR — I am not familiar with that particular commercial product that Origin is offering. Our scheme has not started yet. We are still in the early design stages. There are a lot of commercial operators who are looking ahead and know which way the wind's blowing and are getting ready. Of course, it may be that these are packages that come from New South Wales where I think this sort of scheme may already be in application.

The CHAIR — I went to a school where a firm from New South Wales is offering these packages. For people that take them up, they give them six globes, and they obviously get the credits, presumably under some New South Wales system.

Mr BATCHELOR — Yes, we are looking at how that might work. The big issue with those schemes is that you have to make sure that the globe or shower head gets installed for the benefit to be truly accurate.

The CHAIR — I think with the shower heads you can only get a 0.3 benefit if you just give them the shower head, and you get a 0.8, though, if you actually have the shower head swapped.

Mr BATCHELOR — So, did you take it up?

The CHAIR — I did not take it up, no. I am always a bit wary of fine print. I like to know what is involved.

Dr SYKES — But now you are reassured, having got it from the minister's mouth!

Mr RICH-PHILLIPS — I would like to ask you about the Ross Garnaut climate change review which was announced in April. A report in *Australian* newspaper said that Garnaut's inquiry will have a secretary

provided by the Bracks government in Victoria. Given DPI's role in providing policy advice on energy on policy, what role does the energy and resources section of DPI have in the Garnaut review, if any; and if so, what resources have been allocated to that review.

Mr BATCHELOR — This is being led by the newly created Office of Climate Change and that is where the lead responsibility for this will be undertaken. However, you would be aware that the states collectively, and particularly on the leadership of Victoria, have been working on emissions trading since 2003 or 4 — this is not a new issue to us — and it culminated in a decision taken at a CAF meeting, where the states and territories committed themselves to an emissions trading scheme by 2010 if the commonwealth did not intercede. Our preference has always been for a nationally organised scheme, led by the commonwealth, and we will know probably on 1 June what their proposals are going to be when they get the report from their task group.

But the states have been doing a lot of detailed work; they have had a national emissions trading task force set up and are doing a lot of development and design work. I suspect that through that process also they will feed into the Garnaut report, because of the expertise, knowledge and work that have been undertaken thus far. But it is being led out of the Office of Climate Change.

Mr RICH-PHILLIPS — So there are no direct discrete resources from your department going into Garnaut?

Mr BOLT — We will certainly take a great interest in it. People's time will be spent on it. It is just that we do not lead it, as the minister is indicating.

Mr RICH-PHILLIPS — Maybe that is DPC.

Mr BOLT — We are heavily engaged in all state and territory work on climate change that affects the energy sector, including that.

Mr BATCHELOR — But you are right; it is in DPC.

Ms GRALEY — I want to talk about the Rediscover Victoria program. This was in budget paper 3 on pages 322 and 324. What will Rediscover Victoria do to encourage exploration?

Mr BATCHELOR — As I indicated in my overview at the beginning, mineral resource exploration is very important to the Victorian economy. I guess it can be summarised: if you do not look for it, you will not find it.

Ms GRALEY — Gold is like that.

Mr BATCHELOR — We are trying to encourage mineral exploration to continue here in Victoria at the elevated level. We have been successful. It is fair to say that high commodity prices are also encouraging investment, but it is also encouraging competition from other jurisdictions and other areas where that sort of resource might be undertaken. So we want to continue the exploration activity for a variety of reasons. One, it can hopefully lead to production activity. But of itself it is a significant amount of money. In the December quarter of 2006 alone it was some $26.4 million spent on exploration. A lot of that exploration takes place in country Victoria. It is a pity Dr Sykes is not here to hear this.

The CHAIR — He can read the record.

Mr BATCHELOR — What it does for some communities is it helps to provide alternative economic activity and employment in our worst drought ever. We have had a long-running drought, and we believe it is a bit of drought-proofing that will go on or be a help in the recovery process, if you like, if we are providing this minerals exploration.

What are we doing? We are going to spend money doing two things. We have $5 million, and there are two elements to this program. We are going to do some strategic drilling. There are large areas of the state that have not been explored. People are a little uncertain as to the prospectivity of the resources underneath the surface. Notwithstanding the fact that we have a lot of geological data available — all geological data that has been collected since the time of the gold rush is compiled, and I will talk about that in a minute— there are still gaps in the information base. So we are going to undertake some strategic drilling that we hope, through the use of other

information, will help signal to exploration companies that this particular location has certain prospectivity qualities, which might encourage them to undertake more detailed prospecting in those areas.

The second element of this program, Rediscover Victoria, is to complete a three-dimensional model of Victoria. There are locations where we have already undertaken some of this work, and there are gaps. We want to be able to understand the geology of Victoria right across the state. Again, this can be a tool that exploration companies can use to help them more successfully target their exploration activity. The more strategic you are targeting it, rather than just a thin swipe across the whole of the state, the more certain your outcomes are likely to be.

You might have a part of the state where there is very detailed geological information already converted into a 3D model. What does that mean? It means that it does not just tell you what is at the surface level, but also the layers and types of rock formations that exist below the surface, the directions in which they continue and the depth that they are likely to be at. If you do that across the state, you can overlay that with existing tenements, and you might find that if you have an ore body in this location that underground is travelling in a particular direction, it might take you into a new area where they have not explored because the depth might have been uncertain. So together with the strategic drilling and the three-dimensional map of Victoria we are hoping to provide very specialist information that will reduce the risk and therefore make us more attractive. There is a lot of exploration money around at the moment and it is going to a lot of different locations. We are small state. We have had a long history of mineral development, largely gold, but we want to branch out and find new gold deposits but also new mineral deposits.

The CHAIR — One final quick question, please, Mr Dalla-Riva.

Mr DALLA-RIVA — Minister, I refer you to BP 3, page 191, under 'Strategic and applied scientific research' performance measures and outputs. I note in respect of the total output costs for this current financial year it is 204 million and the expected outcome is down to 191.8 million. We are trying to work out in terms of the anticipated ETIS money that will be allocated over the next five-year period and to determine if some of that money will not be transferred to some other project, as I understand happened with the transfer to DIIRD in one of the programs — the energy technology innovation strategy, I think, after being transferred from DIIRD. We are just trying to work out if there is some guarantee of those moneys that will be allocated will not be transferred to some other project especially with the change in machinery of government. Can the minister outline where the ETIS money will be spent and over what period it will be spent?

Mr BATCHELOR — The ETIS money has come from DIIRD, it is not going to DIIRD.

Mr DALLA-RIVA — Yes. Sorry, that is — —

Mr BATCHELOR — The machinery of government changes have seen ETIS, as we call it, come over to the Department of Primary Industries. There was a quantum of money made available. That money is being transferred across, and much of it has already been allocated to specific projects, but the program will come across and it will be made available to a range of different projects. The sort of thing that it has been made available for is large-scale demonstration projects and smaller research. What we are trying to do with ETIS is drive pre-commercial development. There have been a lot of technologies and initiatives undertaken where the research and development stage has been completed, and what we are trying to do is to then get those ideas to a pre-commercial stage.

The nature of some of these projects, even that part of their commercial evolution, is that very, very substantial amounts of money are required, but the returns to the government are very substantial. For example, what we are trying to do with the existing power generators is work out how you can reduce the carbon dioxide that comes pre-combustion and post-combustion. If you can do that, you can make substantial reductions in greenhouse gas emissions.

We are also wanting to work out how you can use new and different technologies that will dry brown coal and allow it to be used, or allow brown coal to be dried and then gasified. That opens up a whole range of different opportunities, particularly through the use of syngas and the ability then to much more easily capture the carbon dioxide that eventually will come from it.

The sorts of large-scale grants that we have made are $50 million to a 400-megawatt power station in the Latrobe Valley. This demonstration project — it is not the commercial product, it is just a pre-commercial demonstration —

is going to cost $750 million. We have put money into this to make sure that it happens because the benefits that will come will be enormous. This project will demonstrate what is called integrated drying and gasification combined cycle technology. The commonwealth has put $100 million into this particular demonstration project. That is where $50 million of our ETIS money has been earmarked. It has not gone there yet, but it has been earmarked for that project.

We are putting $30 million into another brown coal drying and carbon capture project at the Hazelwood power station. The commonwealth has also put in some $50 million. Whilst the earlier one I mentioned is seeing how you can use new technologies for new power stations, this one is addressing the issue of how you reduce carbon emissions from the existing equipment. We have got to do both here in Victoria.

Another interesting allocation of ETIS money is that $50 million is available for a $420-million solar electricity power plant that will be built in the north-west of Victoria. Again the commonwealth government, in partnership with us, has put in some $79 million. This is a project that will use photovoltaic cells that have been developed for space travel, and will use those in the context of trying to concentrate the solar energy that comes from placing a very large number of these parabolic mirrors in a field, and concentrating all the energy back to a single point. This project has got substantial commitments because we believe, or the proponents believe, it will produce 154 megawatts of power. I have just been reminded it will be the largest solar demonstration project in the world once it is up and running.

The CHAIR — Thank you for that, Minister. I put on notice a couple of questions regarding productivity and the support the department provides to this committee. That concludes the consideration of the budget estimates for the portfolios of Victorian communities and energy resources. I thank the minister, witnesses and departmental officers for their attendance today. We have learned a lot. Where questions have been taken on notice, the committee will follow up with you in writing at a later date. The committee requests that written responses to those matters be provided within 30 days. They will form the basis of the consideration of the future report of this committee to Parliament. Thank you very much.

Committee adjourned.