ROAD SAFETY COMMITTEE

Inquiry into vehicle safety

Melbourne — 8 October 2007

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The CHAIR — Welcome to the public hearings for the Road Safety Committee's inquiry into vehicle safety. I really appreciate you making the time to make your submission. All of the evidence taken at this meeting is protected by parliamentary privilege as provided by the Constitution Act 1975 and further subject to the provisions of the Parliamentary Committees Act 2003, the Defamation Act 2005 and, where applicable, the provisions of reciprocal legislation in other Australian states and territories. Any comments you make outside the hearing may not be afforded such privilege. We are recording the evidence and will provide a proof version of the Hansard transcript at the earliest opportunity, so you can correct it as appropriate. If you would like to make your submission, we will ask questions along the way.

Mr BUTLER — I would certainly like to start by thanking you for the opportunity to be here and participate today. I am Ian Butler, I am the director of integration and safety at GM Holden. Integration and safety covers several key areas of performance in the car — areas like fuel economy, ride and handling, noise and vibration, or at least the lack of noise and vibration, and of course it covers safety as well. I am responsible for all those aspects of the cars that Holden designs, so specifically Commodore, Statesman, Ute and all of the current and future export versions that will come off those products fall under my responsibility.

I will start by just touching on what I am going to cover this morning. A few months ago, back in May, we provided a submission to this committee. Today I intend to just expand on a few key points that we made in that submission. Specifically I will touch on four areas. First, I will reflect on the Holden safety history and track record. Second, I will cover the key safety technologies that we consider are critical and use the VE Commodore as an example of what technologies we now have in that car and talk about how those technologies should flow through to other products over time. Then I will touch on the regulatory environment, and finally, just very briefly, touch on the approach that we take to setting specifications in our imported cars. This should leave plenty of time for questions at the end because I think I will only be 10 or 15 minutes going through that.

As I go through it I am hoping that there will be three key messages that will come through. The first is that Holden introduces safety technologies well ahead of regulation. The second key point that I hope will come through is that those safety technologies are complex, introducing them needs a systems approach to the engineering and adequate lead times to do an appropriate amount of development. These integrated systems are not very well suited to cherry picking one technology against another. The third key point that I hope will come through is that the regulatory approach, as you would be well aware, is being harmonised globally, and that is an enabler to us working both as an importer and an exporter. We should not seek to create our own specific local regulation that effectively could be an impediment to import and export of vehicles. They are the three key underlying points.

To get into the detail, starting with our safety history, simplistically I would say that that is a 40-year history of safety leadership ahead of regulation. Holden introduced seatbelts as standard on all of its vehicles back in 1966 — over 40 years ago. This industry first led to a consumer expectation and a competitive response that soon made it unimaginable to launch a vehicle in Australia without seatbelts. A similar pattern followed our subsequent decisions: things like fitting anti-lock brakes back in 1992, driver airbags in 1993, passenger bags in 1995, traction control in 1997 and side impact airbags in 1998. Most recently, in 2006, we made ESP or ESC standard on Commodore, and that has generated a very strong, positive response. In addition to those safety systems, we also commissioned long-term field crash research with Monash University Accident Research Centre, or MUARC. That continues to provide substantial real-world data on crashes in the Australian environment. That information gathered by MUARC has allowed us to identify priorities and develop further strategies around safety and injury reduction. The key point is that none of those initiatives and none of those features were required from a regulatory viewpoint. To me it reinforces our preparedness to introduce that in the absence of regulation and ahead of regulation.

I will now move on to talking about the actual safety technologies that we consider are critical. I will use the VE Commodore as an example, but I will then expand from Commodore across to other products. The development of a new architecture for VE gave us the next opportunity to really make significant advances in safety on our locally produced vehicles. I will take you through three main areas briefly. Collision avoidance is the first element, protection for the occupants during a collision is the second element, and then post-collision support is the third element. This should give you a good feel for what we think are the critical safety systems and how they work.

Starting with collision avoidance, an important part of collision avoidance is minimising driver distraction. There are a lot of sources of distraction driving cars, as we would all be well aware. Even down to minor things like

adjusting sound systems, adjusting climate controls, answering incoming phone calls if you have a hands-free system, to name just a few. With the Holden human machine interface, or HMI, the whole development of that was really focused on making that interaction between the driver and the car the simplest and safest that we possibly could. Just as an example of that, all of our Commodores have steering wheel controls fitted and that allows a lot of the most basic things to be undertaken without even taking your hands off the steering wheel. Just as an example, with the Bluetooth system you can answer an incoming phone call with a single touch of a button, hands on wheel. Another example of keeping things simple and keeping the interface clean is the speedo, where we have consciously positioned the graphics in our speedos to be larger in speeds up to 100 kilometres an hour and then smaller above that speed, so you get a good clear resolution in the lower speed range. This makes it easier to read, particularly for older drivers. When you take your eyes off the road and refocus onto the speedo, that takes time so by making that (the speedo) clear and bold it helps.

ESP is the next key element, but before I talk ESP I will just touch on getting the basics right that underpin ESP. This is about the braking system and the ride and handling system. A lot of effort was put into the VE Commodore to get the basics of ride and handling as good as it could possibly be. The front suspension is all new. The rear suspension is all new, and the brakes are all new. We did things like moving the steering rack forward, which sharpens the steering and gives a crisper response. The new rear suspension is a multilink system which is more complex and expensive than its predecessor, but again it has benefits in terms of enhanced steering feel, making the vehicle more stable and predictable in response to steering inputs and less sensitive to changes in vehicle load. You need to get that foundation right, and having done that you have the foundation then on which you can build ESP. As you all would be aware, ESP, or electronic stability program as we call it, is the next significant evolution from the predecessors of anti-lock brakes and traction control. It helps drivers to avoid crashes when an emergency action has been undertaken by getting in and electronically correcting the vehicle's path by individually applying brakes to various wheels as required and managing engine torque. We worked very closely with our supplier, Bosch, to ensure that the ESP system was tailored to the requirements that we were looking for, rather than taking a one-size-fits-all approach. This is what gives the Commodore ESP system a quite unique feel. Engineers spent a huge amount of time in development vehicles tailoring the calibrations to cope with different road surfaces, different states of suspension tune and different styles of driving. The effort of getting these basics in place in the suspension and the brakes area, getting the necessary control systems in place that control the engine and the brakes, and then developing and refining that through several phases of vehicle hardware, took over three years, done in partnership with our supplier, but the outcome was absolutely worth the effort.

In terms of the next key element of protection, we move on to the actual collision event and protecting the occupants during the collision. No discussion of collision protection should start anywhere other than the body structure, because that is absolutely fundamental. A robust central safety cell and carefully designed crush zones are fundamental to getting good safety outcomes. When we did the VE Commodore we optimised the body structure for minimum intrusion plus maximum energy absorption. A huge amount of effort was put into tuning the front and rear of the vehicle to absorb crush energy. We have got multiple load paths in the car. We have got a range of different material properties tailored to their applications, and an extensive use of advanced, high-strength steels. Over 80 per cent of the car is now high-strength steel. As an example, the B pillar, which is a critical element of the car for protection in side impact, is manufactured from an ultra high-strength steel which is five times stronger than the traditional low-carbon steels that were in vehicle bodies several years ago.

When you get the structure right, you then move on to the restraint systems. The most critical element of the restraint systems remains the seatbelts, supplemented by airbags when they are needed. We have front seat pyrotechnic seatbelt pretensioners and load limiters to support the basic seatbelt system, and they are standard across the range. Depending on the circumstances of the collision, you would then also trigger driver's airbags and passenger airbags, both of which are dual-stage to give you more flexibility to accommodate a range of different occupants. We also have thorax bags or side impact airbags and curtain airbags for additional protection on some cars in side-impact collisions.

Other injury avoidance measures that we have introduced in the VE include the steering column, which has a sliding collapsible mechanism so that in the case of a severe frontal collision you do not transfer any additional unnecessary load to the driver. In addition the brake pedal has a breakaway feature that helps protect the lower legs in the case of serious frontal collisions. We also have active head restraints on selected models. Although having said that, with the work we have done just the basic geometry of the head restraint is also critical to offering good whiplash protection. The active head restraint is a good feature, but careful and considered design of the head restraint in terms of its position relative to the occupants heads is just as important.

Finally, we have a multipoint sensing system to detect the collisions. We have two front sensors, two side sensors and a three-directional sensor built in the core control module in the centre of the car. This system allows you to determine what airbag systems to deploy, what restraint systems to deploy and from which directions the collisions are coming.

To get all these systems to work in harmony and provide the best overall protection for the occupants was a huge engineering undertaking that spanned several years, probably close to five years. The analysis we did comprehended thousands of factors from locations of spot welds to the individual panels and their material properties, even down to the mixture of gases used in the airbags when they are being deployed. We ran over 5000 full vehicle simulations on computer and backed that up with nearly 80 crash tests to make sure the computer simulations were right. The key message here is that this is well beyond the regulatory environment and it is a big effort to get those systems integrated, so we really offer the best that we can to the occupants.

The last area of safety technology is the post-collision support. The crash sensing system that I just mentioned is integrated into the rest of the vehicle's electrical system and that enables a post-crash shutdown strategy. If a collision has occurred that led to the airbags or pretensioners being deployed, then the safety systems will shut down the engine, turn off the fuel pump, unlock the doors, turn on the interior lighting and turn on the hazard flashers, effectively everything that a customer would do if they were in a state that they could institute those actions for themselves.

In selected models we also have a system called Holden Assist, which is a little bit like the OnStar system that I believe you heard something of in the USA. This service enables the vehicle to send and receive information and to have the position pinpointed at any time via an integrated GSM phone system and GPS. When this feature is present it is connected back to a 24-hour a day, 7-day a week service centre so that in the case of an accident, when the airbags have been deployed, the service centre is immediately notified. The service centre attempts to contact the customer and if they get no response they will notify emergency services.

Even those systems require very careful integration and development to ensure that they are completely robust and will never do anything unexpected. As a minor example, obviously with a system that is capable of turning off the fuel pump and the engine, that is the last thing you want to have happen unless absolutely everything has led to that being the right decision.

I hope from that you have a good feel for the inherent complexity of some of these systems and the lead times that are needed and the effort that is expended to get them to work effectively. If you do that, there are real safety benefits that flow through to our customers.

I will just touch on those technologies in terms of how they then move through from the higher level vehicles to the lower level vehicles. Broadly we see those technologies becoming progressively more widely available as the market acceptance builds and as technology costs reduce. In regard to our current products, the ESC technology is obviously standard on Commodore, it is standard on the entire Captiva range that we have launched recently and it is available on a number of the variants of Astra as a standard fitment. It is also standard on all of the SAAB and Hummer product that we are now bringing into Australia. This ESC technology will definitely continue to be included across more and more of the Holden product range and we would expect that by 2012 it will be absolutely standard fitment on all Holdens marketed in Australia.

I will now just move on to the Australian design rules and the regulatory environment briefly. As you are all aware, the ADR set out a minimum safety and environmental standard for the car, but it is a minimum high standard. In the safety area Holden works well beyond that minimum standard. In fact I would say that around 20 per cent of what we do would be focused on meeting the ADR and the other 80 per cent would be focused on issues above and beyond the ADR. As an example of this, during the development of the VE Commodore we tested for a wide range of different occupants starting from babies through to small children through to small adult females through to the standard mid-size adult or 50th percentile up to large adult males or 95th percentiles. By regulation only that midsize 50th percentile adult needs to be considered. We even developed a test for three 95th percentile large adult males across the back seat of the vehicle in a full frontal collision, which is a very severe test for the restraint system because of the high loads that are imposed. There are a large number of tests like that that comprise 80 per cent of the effort that we put into the car. As I said, it is totally beyond the regulatory requirements.

We also consider a range of out-of-position situations, none of which are covered by regulation. An example of a position would be an occupant potentially leaning against the door trim, a common thing if you are on a long trip and you are feeling a little slack. You just rest yourself up against the door trim. The consequence of that is that you have positioned yourself directly above the side-impact airbag, so we have design the car to make sure that the side-impact airbag does not add any complicating factors to the injuries that the occupant may incur during a collision if that airbag is deployed. Again, none of that is required by regulation but is absolutely key from a due care viewpoint.

I will move on to a second aspect of regulation which is the harmonisation of regulations. I suspect you would all be aware that there is an effort going on to harmonise regulations globally and we consider that that is absolutely critical to being an effective importer and exporter in this market. The regulation effort is led by the UN and there is a dedicated working party focused on that that includes Australian participation. We see any moves to add specific additional local regulations as working against that desire for a harmonised set of global regulations. As an example of why that can be a problem, I will talk briefly about the US market and what we are currently doing in that market.

You would probably be aware that we are currently redesigning the VE Commodore to go to the US as a Pontiac G8, and a large part of the work involved in doing that is driven by the need to meet specific US regulations which, in my view, in some cases do not offer much benefit to the customer, and I will touch on a couple of examples of that. If you take the unbelted occupant requirements of FMVSS (federal motor vehicle safety standard) 208, that drives a significant redevelopment of the restraint systems and the instrument panel in order to meet those requirements. The changes that flow from that contribute very little to occupant safety except in the circumstances when the occupant has not put on their seat belt. FMVSS 201U is similar. It requires a number of the interior surfaces of the car to be completely redeveloped and padded in order to protect against head injury in the case where an unbelted occupant is moving around inside the vehicle interior during a collision. But in the case where the occupant has a seatbelt, those changes add little or nothing and in fact they have a downside effect of reducing the spaciousness of the car.

One last area that I will touch on is the approach that GMH takes to setting specifications on imported cars because there has been some suggestion that the approach is despec-ing, which is not really the case as we see it. Holden works through global vehicle teams and there are now global vehicle teams set up for nearly every major architecture around the world, whether it be small cars, medium-small, midsize or large. We work with those teams right from the outset defining a car from the ground up based on the specifications and features that we need in the various markets. Often this work is under way years before the car is launched. Major factors in assessing the features that go into a car are their affordability and their importance to the customer. We have to balance the features that the customer demands without pricing the car out of reach so despec-ing really is not the mindset. The mindset is basically the opposite. It is about maximising the features and the content, consistent with what the customer is prepared to pay in a particular market segment.

I will just wrap up by restating those three key messages that I wanted to share with you this morning. The first is that Holden introduces safety technologies ahead of regulation. I think the runs are on the board with the VE Commodore, and now with the Captiva and the other products that we are continuing to launch. It is our strong view that competition and market demand is the most efficient for driving vehicle safety and technology improvements in the Australian community.

The second is that safety technologies are complex. To introduce them you really need to take a systems approach to deliver the best outcome that you can, and you need to have an adequate lead time to be to develop them thoroughly. Typically those systems are not well suited to cherry picking of one technology versus another.

Finally, the regulatory environment, as you are well aware, is being harmonised and that is an excellent enabler to import and export. We should continue down that path and not seek to create new specific local legislation that can become an impediment to import and export. I would love nothing more than to be able to sell a car into the US with a harmonised set of global regulations rather than dealing with some of the issues that we are facing now around FMVSS 208 and 201U. That was the only formal part that I wanted to cover. I will attempt to answer any questions you may have. I am not sure how successful I will be.

The CHAIR — Just in relation to the ESC, you gave it a 2012 date. Obviously, you would be aware that there is certain a mandatory requirement in America by 2011.

Mr BUTLER — Yes, that is correct.

The CHAIR — I would assume that that would obviously make it much easier to adopt that, rather than leaving it a year later to 2012. Why are you leaving that gap?

Mr BUTLER — We do not necessarily source any products specifically from North America. We draw our products from around the globe. For example, the Captiva is a product that was engineered with our input but engineered in Korea, and initially it was engineered partially for the US market, partially for the European market, partially for the Australian market. The fact that the US is legislating that and it will be in place by 2011, that will clearly help us; there is no question. Any product that has been designed around the world for application in the US market in that time frame must have capability to deliver the ESP system, but not all products that we are getting will necessarily come from that portfolio. So there may be some legacy products, for example, that would persist through that time. Because of the lead times involved in doing new product, it will not necessarily mean that everything that Holden will want to do would be refreshed at exactly the same time as everything they want to do in the US — the markets are different. It is definitely a big help; there is no question. But I do not see that, because the US is done by 2011, that automatically means that we will be done at exactly the same date as what they were obviously planning to be done pretty close to that date.

The CHAIR — So there will be no despecification of a vehicle? Because it is mandatory there and if it is in the car in the US — in any of those cars that come to our shores — there will be no despecification?

Mr BUTLER — I would not expect there would be. The key thing from my point of view would be going back to that discussion around how we specify the car. If you took a Holden Astra as an example, in Europe small cars are an absolutely premium product so you can command very high prices, and the expectation of a customer in Europe is for a higher level of standard feature. When you bring the Astra to Australia and you are fighting in that $18 000 to $22 000 or $23 000 segment, the expectation is different. Effectively, with the Australian Astra you are attempting to create quite a different car to the European Astra. If you brought in the European Astra at $35 000-plus, the acceptance of it in the market would be limited. We struggled in some ways with the Vectra in terms of a very highly specified but midsize European car. That did not get good market acceptance, so the model is now gone.

You need to be careful in terms of committing absolutely that, if a feature is done in one market, it will absolutely inevitably follow into another market. Clearly we are on a path here to making sure that that ESP system is widely available as quickly as the market will accept it here. Having global products that we can draw on, where the feature is designed in, will accelerate the process. I could not absolutely guarantee this morning that there would not be a car for which ESP existed that would then come to Australia and not have ESP. I would suspect that we would be taking a position of getting it in as widely as we possibly could.

Mr KOCH — Ian, you suggest you are well beyond the regulatory environment, but I have to say that it is selective — that is, you choose to be selective about that. I am a great believer in market forces versus regulation — I do not stand back — but it intrigues me with your Astra CD, which has the brake components, that we do not have ESC, ESP as a standard provision. We have a Commodore utility with it but not a Crewman. Can you please explain why you would be selective in relation to that product range where you will offer it in the utility, for instance, but not the Crewman, which I think is now making up a far larger market segment, obviously from the point of view that you blokes are marketing it? If you could just explain that to us. I would suggest that you will declassify or despecify the Crewman and the Astra CD when the model range includes that anyway. We know that the cost of ESC, once the other componentry is there, is not a lot. We believe from a safety point of view that it is remiss of GM to go down this track. You might explain why you have elected to do so.

Mr BUTLER — I can certainly talk to the one that I am more familiar with, which is the Crewman and the new utility. The Crewman is effectively a model developed off the previous version of Commodore that dates back to the VT back in 1997. The systems that you need in place to do an effective execution of electronic stability control — things like the right level of ABS, the right level of engine control with electronic throttle and things of that nature — all of that was not in place in the previous architecture.

I believe we have ESC in the sedan versions of the VZ towards the end, but to redevelop that then for the Crewman ,which is an old legacy architecture that goes back to 1997 effectively as its foundation, that was a big additional job for what is a relatively small volume, local vehicle. What we are now doing is each of the derivatives that are

coming off the new generation of Commodore, the VE, where that feature has been built into the basic engine system, built into the basic brakes and ABS system, we are introducing the feature — that is why it is now standard on the new ute. There is an anomaly because the Crewman is coming off the previous generation of vehicle and the new ute is coming off the latest generation of vehicle.

Ms READ — We no longer manufacture the Crewman. That model has ceased production.

Mr KOCH — So the Crewman is no longer available as a new product?

Ms READ — That is correct.

Mr KOCH — And in relation to the Astra?

Mr BUTLER — The Astra I am not so close to. I would really just have to go back to my earlier comments around Astra where we are offering the feature selectively on some models. I think it is optional on some, it is standard on some, and it really just comes down to how the product planning and marketing people choose to try and position the car in order to deliver what the customer is looking for at a price the customer is prepared to pay. We could go back and really just step out more clearly where that feature is available and where it is not. I believe that would show our position.

We may have something with us that can give us a bit more on that, if you just bear with us. With regard to the ESC on the Astra — —

Mr KOCH — On the Astra CD? It has brake assist?

Mr BUTLER — Yes.

Mr KOCH — But it is not even available with ESP?

Ms READ — It is available on five of the Astra models currently. It is available on the five-door hatch, the CDTi and the SRi; it is available on the Astra three-door coupe, the SRiand the SRiTurbo; and on the Astra Twin Top.

Mr KOCH — They are the more expensive models.

Ms READ — That is correct.

Mr LANGDON — One of the other things we picked up overseas as well is that, yes, you can get these things in more expensive models, but we are looking for, perhaps, the inexpensive model. All cars are expensive, but getting down to the base level, when is that likely to happen and why is it not happening now?

Mr BUTLER — Our contention is that that is happening, but it needs to happen consistent with what the customer is prepared to pay and how long it takes to develop the features and systems. I admit openly, I am speculating, but I do not actually know whether for the lower-level specification for the Australian Astra there is in fact an ESP calibration available. When you change tyres, when you change suspension tune, when you change body styles, anything like that, you have to go back and redo the ESP systems. It may be that in Europe, where the specifications are higher when the car was initially developed, the higher spec cars do have the feature on the shelf that we can utilise. But here we come to the right-hand drive and some of the lower spec models with perhaps different wheels and tyres — maybe steel wheels, maybe smaller wheels — you have to go back and redo the calibration. Depending on the penetration for those models, there may not be a good economic justification for doing it. Again, I would have to check to know for sure why that did not happen.

Mr KOCH — Ian, from an engineering point of view and a product cost point of view, is there a yardstick figure of the cost of ESP when the other facilities are available to make it part of a standard product range? Alex and Paul went to France earlier in the year, and it was indicated to them at that stage that ESP in its own right added a cost of something in the order of $200 if it was right across the product range. Are you in a position to indicate to us what General Motors sees as the cost of that as a one-off item if other things are in place for the adaptation of ESC?

Mr BUTLER — No, I am not. That is probably a question that we can take on notice to look into. From my point of view, I understand coming up with a cost estimate for the feature. It would obviously vary from product to product based on whose ABS system was being used, whose engine control system was being used, whose brake calipers were being used. I can understand total piece cost as a generic guideline. The $200 I am assuming is the total incremental piece cost that would have to go into the car, and that sounds like a good ballpark number.

The key thing from my point of view in the cost associated with these systems is not just the incremental cost of the parts you have to put into the car but the cost of developing the car properly to deliver the outcome. That is where the whole cost picture can get more difficult to get through. We clearly want to do ESP execution in a very seamless way. The last thing you want is to do it in an average way so that the customer chooses to turn it off because it irritates them. We work very hard to make sure that all the different states of suspension tuning, all the different wheel and tyre combinations, all the different engines, all the different body styles have been refined through a process that often spans two or three years, involves going to Sweden and doing development work on a frozen lake. It is complex stuff, and the costs associated with that clearly do not come into the $200 equation. That is where sometimes you can end up with these situations where people say, 'That particular model does not have it; why didn't you do it?'. It may simply have been the cost of trying to ship 15 or 20 of those particular models around the world over two or three years to develop a new cal., so when you are doing the cost you need to have that in the back of your mind.

Mr KOCH — But your marketing does not reflect that in your sales to your customer base, whereas in most cases the latest product is the marketing tool for the sale. In many cases your buying public is not alerted to the opportunity that may be affordable in another, slightly higher value product. The other concern we have, and we do see that in here, is optional curtain airbags. For instance, you can only have it if you are prepared to bundle it with a leather trim. That is one of the things that this committee is very concerned about. We think the leather trim would be very nice, but it is not necessarily affordable. We are about road safety and saving lives, and leather trim is not part of that deal. This is the only way that airbags are made available, but your customer base is not necessarily alerted to that.

Mr BUTLER — Okay. Again, that is one that I would have to check. Commodore is still at the lower price point. There is still an expectation that people can get a large rear-drive passenger car for a little over $30 000, but that content does not fit with that. We definitely wanted to still offer Commodore without the additional side-impact protection, and the basic side-impact protection for the vehicle is very good, with the safety structure that I alluded to earlier.

Having said that, at the moment I do not understand why specifically the leather element is added in there because we were very keen to make sure that we gave customers a choice, so that if base Commodore is not what you want then by ticking a box you can effectively get the semi-active head restraints, you can get the curtain airbag and the seat or thorax bag. The only thing that occurs to me is that perhaps, again, around managing all of the different versions that have to be developed, we have always considered the curtain bag and the thorax bag as a combination to offer side-impact protection, and that has to be developed in terms of the deployment of that airbag in the seat to suit the different seat combinations and the different seat fabric configurations. It may have been that the only combination that gave us the seat system and the curtain bag together was coming off a higher level vehicle that had leather trim. As I said, I am speculating, and we can readily go and check that if it is important to understand.

Mr KOCH — That would be important.

Mr BUTLER — The philosophy, as best I understood it, was that we wanted to make sure people could tick a box and have a cost-effective safety package on their base Commodore if they wanted it. We will check it.

Mr MULDER — I apologise for being late. When we were overseas and we had a discussion in relation to airbags and additional airbags we were led to believe that once the actual component was in place the fitting of an additional airbag was very inexpensive. Once you had the component in place that dispatched the front passenger and the driver airbags, to continue that on in terms of components was really inexpensive. Is that the case?

Mr BUTLER — I guess I touched on that before you joined the discussion from the point of view that the actual cost of the individual component can be relatively low — there is no question about that — but it is the

associated cost of developing it and having it available which can in some cases be prohibitive for certain small segments of the product range. As I said before, maybe this thing with leather is because of the fact that in doing all of the development work you have to look at it as a total system, not just as a matter of, 'I want to pick that curtain airbag'.

That curtain airbag has to work with the thorax airbag that is in the seat, with the construction of the vehicle and with the sensing system, so you need to make sure that is all proven out for a particular model. There may be some models on which specific things have to be done. It may be putting that curtain airbag onto the base model, the way the trim is executed and the roof is different, so that needs to be rechecked. Maybe it is the fact that it is a leather trim versus a cloth trim. They do not necessarily lend themselves to dragging out one bit and saying, 'The curtain airbag cost $42.50, so why can't I give it to all customers for $42.50?'. It is unfortunately not that straightforward in a lot of cases.

Mr KOCH — I think we have got quite a few things that we can raise, and there is one thing I would like to raise. You did say that in relation to producing a world car you have got to fit products within the car that will meet the specifications of countries you may export to without regulation — for example, seatbelts. Does the customer base in somewhere where seatbelts are regulated have to afford the cost of meeting those specifications in countries where that regulation does not exist; and if they do, why?

Mr BUTLER — I am struggling to understand the question, David, sorry.

Mr KOCH — You suggested earlier that to meet your world car specification, in America for instance, you have to put extra body fittings inside and further padding.

Mr BUTLER — Yes.

Mr KOCH — Is that a cost that is being borne by consumers in countries where seatbelts are regulated, and if so do they have to bear the cost of it? My reason for asking that question is: wouldn't our consumers be far better having more safety built into the motor car where they are in a regulated environment with seatbelts, which the American base is not, obviously, and we could therefore benefit from standard across-the-line curtain airbags, rollover protection, ESP and what have you?

Mr BUTLER — Sam will pull me back if I go too far here, but simplistically — —

Mr KOCH — Go right out. We will hang onto Sam.

Mr BUTLER — Simplistically, the way that the engineering effort is funded, it is funded by General Motors as a global entity. The engineering is funded on a global basis. Effectively there is an allowance that is applied to each car that is sold anywhere around the world. There is a flat allowance, and that goes into a pool. From that pool the engineering is funded up to the maximum available engineering budget in any given year. There is not anything that ultimately means that an Australian customer is paying directly a penalty on their Commodore because I now have to go and re-engineer the Commodore to add protective padding to meet a US requirement. Basically as an engineer I go and argue for the engineering budget I need to execute that. That comes from a global budgetary pool that is funding all of the product development all around the world and does not translate back in any direct way to a penalty for an Australian customer. The only way I suppose you could argue that it does work is that ultimately every customer is paying a small amount to cover the total engineering development effort that General Motors needs to undertake all around the world, and it is basically an amalgamated total.

Mr KOCH — Therefore, in a regulated customer base our safety to a degree can be compromised to meet that international standard?

Mr BUTLER — No, I do not see that linkage. We obviously have to meet the regulatory requirements in any given market, but beyond that we are simply trying to position the car as best we can to what we think the individual markets will want. I am not aware of any situation where I would say I have compromised, say, an Australian Commodore in order to meet the US requirement. I have got a job to do to be able to — —

Mr KOCH — I am not suggesting you are compromising, but I am suggesting that to make that available to meet a market — that extra padding and what have you with internal componentry — your customer base right

across picks up the tab for that, whereas we may deploy some of those dollars further on safety issues in Australia where we do not require that componentry.

Mr BUTLER — I know the argument you are making, but, as I say — —

Mr KOCH — But you will not buy it?

Mr BUTLER — I am not buying it. It is relatively simple as an equation. There is a global pool. Obviously you have got to engineer a car before you can sell it. There is a global pool that funds the engineering. That is funded on a reasonable basis in terms that each car carries a small percentage contribution, and then there is a global process where we as engineers go in and get the budget we need to engineer the cars that General Motors wants to put in all the regions around the world. That budget funds the half a billion dollars we spent on the VE Commodore, so I would say we are getting good value for money.

Mr KOCH — I rest my case then.

Mr LEANE — You were speaking a bit about the local market and how you have looked for a vehicle that would suit. When you talk about the low $30 000 range — what the local market wants — how do you obtain the information about who is prepared to pay for what sorts of details in their car for that price range, and taking into account that it took Bosch three years to get up the technology for their ESC, do you think the market is educated enough to make that decision? If it is a survey decision, or if it is a market-based decision, do you think the market is educated enough for that equipment?

Mr BUTLER — You have got me in an area that is not my core area of expertise. I will probably have to defer to Samantha in terms of getting a little bit more background on how the vehicle planning team and the marketing guys really work out what they want to do and what they want to go for. I take your point that with ESP, or ESC, for example, I think there is a building awareness of the value of that feature right now. Part of any decision as to what you put into a car is about making some judgements about where you think you can take the market. I think the fact that we put ESP into the car ahead of some of the other products was just about saying, 'We think this is a good feature for Commodore. It fits with our brand character around offering a good level of performance. It is an enhancement to the basic ride and handling attributes of the car that we consider to be really important'. There was a choice there or a decision to try and lead the market a bit at the entry level with that feature. But exactly how that works and how the program teams work with marketing to figure out which ones are just a straight market acceptance, where yes, clearly the customers are familiar with it, clearly they are going to be prepared to pay another $200 for a curtain air bag versus they do not really understand ESP yet. 'Maybe they have not read the US research, maybe it has not been talked about enough in the media, so maybe they are not going to be interested. We better not do it', versus, 'Let's go and try and make this into a leadership position'. It is approached in different ways depending on what we really think is going to work for our brand and what we have enabled within our technology portfolio. I do not know whether there is anything more you want to add at the moment

Ms READ — I think I have got as much background in the marketing aspect as you, so we would need to go back to our product planning and marketing people if you required further information on that.

Mr LEANE — That would be good.

Mr MULDER — With this issue of ESP or ESC, I know that overseas different manufacturers — —

Mr BUTLER — DSP; it has any number of acronyms.

Mr MULDER — There are many different acronyms to describe exactly what this function is.

Mr BUTLER — Yes.

Mr MULDER — I understand that in terms of marketability each wants to be able to sell it in their own terms, but in terms of educating the public does the industry broadly get together and work out on a broad-based marketing theme as to how you actually educate the public to what this function actually does, because there is a great deal of confusion out there?

Mr BUTLER — At the moment I am not aware that there is any cohesive industry-based approach for educating the customers on ESP, ESC, VDC — whatever acronyms may be out there. Clearly there is this push in the US to regulate and have that feature come in as standard, but in terms of the Australian market I am not aware of there being any discussion or collaboration on education around it.

Ms READ — Not broadly. At Holden — I was not involved so I am not sure, Ian, if you were involved — Earlier this year, and some of you may have attended, we held a road safety half-day clinic. We invited a number of stakeholders to the event to share information and to educate and demonstrate the ESP technology. But I am not sure broadly in terms of advertising or that sort of activity — that certainly does not go on, but we do try with our own forums to try and educate some of our stakeholders about the technology.

Mr BUTLER — I know Australian NCAP is obviously looking at the moment at working at how to fold in the presence of that sort of feature into their assessment of new car safety. I am not a huge fan of ANCAP in general because I think it is too simplistic, so there will be a challenge here to figure out how a feature like that can find its way into the NCAP environment and still offer some value, but certainly they are very good at raising the awareness of vehicle safety amongst the Australian community. In some senses if they are going to try and figure out a way that the vehicle dynamic control system could end up being folded into the NCAP assessment, if that could be done in a way that was appropriate, it could be valuable. It will certainly stimulate more media focus, more discussion, which is probably not a bad thing. Ultimately I think we would always argue from a Holden viewpoint that that whole safety technology picture is so complicated that to reduce it to a few stars on a car is not a good thing to do. Nevertheless having that in as part of the NCAP discussion is probably good for stimulating more public awareness and more discussion, therefore allowing people to get better informed.

But also I think it is naturally a confusing thing because there are many different ways you can approach it and there are many different ways that you can calibrate cars. I have been close to the calibration effort that we put in on the Commodore, for example, and I have assessed some of the other products that we bring in, but there are some calibrations out there that are quite different in the way they behave, and in my view they could lead to a customer choosing to turn a system off because it is so intrusive. It is a confusing picture. It is not like anti-lock brakes where you put the brake on and the wheel will not lock. There is a lot more in it in terms of how you choose to calibrate the car so that it really does work when you need it; it encourages the customer to not turn it off because it has a nice seamless operation, so it is a complex technology.

The CHAIR — Obviously from the committee's questions you understand that we believe the ESC is a very important piece of technology that will save many lives, not only in Victoria, but Australia-wide. In terms of the market forces — and before you have outlined that you relay some of the information to other stakeholders — the people at the forefront of introducing this piece of technology are obviously the sales people, and when you have Ford having a different name for it, Holden having a different name for it, Toyota is now advertising that the Camry range will have it — and it is a fairly good ad that they have — obviously that will go a long way to advertising out there to the people how important this piece of technology is. Do you think there should be a standardisation of the name so that this very important piece of technology can be better sold?

Mr BUTLER — It is an interesting question. I had never actually thought about it, to be honest. Maybe it is a little naive on my part because I am closeted in my engineering domain most of the time. I was aware that there is a proliferation of names out there, but I am not that close to that causing confusion in the eyes of the buying public — whether it does or it does not. If it is generally causing confusion, and if there are not trademark barriers to having a standardised naming, it sounds to me like a laudable idea. That is just my personal reaction, but again I am not sure that it is giving rise to confusion.

Ms READ — That is not something that I have heard mentioned, but that is certainly — —

Mr BUTLER — There certainly are a range of acronyms out there for what is underneath it all a system that is designed to offer brake intervention to attempt to recover the car when it is losing control.

The CHAIR — So in terms of passing that information onto the people that sell the vehicles, is there a communication to the people that actually sell the vehicles — the sales people that promote this feature?

Mr BUTLER — There certainly was back when we launched VE, where we had chosen to take a fairly aggressive position in making that feature standard on all VE and then obviously following on now with the Captiva range where it is standard on the Captiva range. Clearly there is a process where technically the right level

of information is given to the vehicle sales force because that is considered to be a key feature in terms of selling our car versus a competitor who may not have the feature, so there is good communication of the leading edge features to the sales staff so that they can talk to it with reasonable conviction.

The CHAIR — We have highlighted before our concerns about bundling this piece of technology in with a 10-stacker CD, the leather seats and the sun roof, and obviously then possibly a $300 piece of equipment that will save lives is now unaffordable to many people out in the public, so that is a major concern as well.

Mr BUTLER — Yes, I understand that, and we have got that question just in terms of trying to get to the bottom of why, for example — I am sure we did not bundle the 10-stacker CD — —

The CHAIR — I am just — —

Mr KOCH — GM might not, but others might be inclined to. Following John's question, I think there is no doubt that the committee does recognise ESC as a major safety component that should be incorporated in all vehicles. In your submission you have said that designing an ESC test would be difficult. Alex and I had the opportunity at the testing track in America to be part of a test there that certainly demonstrated how ESC works. It was in rollover. It was very apparent when the speed was increased and that vehicle was in actual fact put in a position where it may have rolled over — it could not because it had outriggers on it — but it certainly tested its capacity. You could quite easily feel the ESC working on individual wheels. I would not have thought that it was hard to actually get a test up to demonstrate to your buying public if they so desired, to see the benefits of it. Could you illustrate why you see it as so difficult?

Mr BUTLER — I am not sure that it is difficult to do a specific test that would allow you to show that the ESC or ESP system is working and obviously there has been a test defined, for the US market, which has now been agreed as the basic test that will be done to achieve the tick in the box that says, 'This car has a compliant ESC system'.

We have not tested many cars yet to that test, obviously, so we need to gather some data in terms of what that test really translates to in terms of the products that we have developed. The US market is obviously a market where there is a much higher penetration of large SUVs and it has obviously had some history around SUVs and rollover that has really focused public attention on that, and the test that they have defined may be a test that is looking for a more aggressive intervention on a stability system because it has got to be able to cope with a very high percentage of SUVs in that market.

I know that in some of the derivatives of the VE we have attempted to make the system very seamless so its intervention is not as early as in some other systems. Would that result in our car passing the test or not passing the test? I do know: we have not done the test yet: we do not currently have the capability to do that test in Australia.

I agree with you that to define a test is not that difficult. The test is defined and we are now starting a process of testing all General Motors cars in the US to that test, which will give us a much better understanding as to whether the test, given what we already understand is a good and well integrated ESP system, gets the tick or will our test in fact not achieve the tick in that test. We just do not know yet. Ultimately, it is really just one hurdle which we would expect most well-developed systems would be able to jump over, but there is a whole lot of other stuff around getting the system to be seamless in the way that it behaves which would go beyond what you would measure in a sinusoidal tip-over test: different road surfaces, different suspension tunes, different other distractions, different other road surface variations that get covered in a more complete program.

Yes, there is a test; I absolutely agree that it is a relatively straightforward test. I just do not know yet whether that test would be an appropriate foundation for the Australian market in terms of ESP pass or fail criteria. We just need a bit more data before we can comment on that more insightfully.

The CHAIR — We have spoken a lot about ESC. Obviously Saab is very well known for its investment in safety features in its vehicles and Holden then own part of Saab, which is the passenger vehicles. I would estimate that Holden would have been discussing possible safety features that it has developed for Saab, to be transferred into other vehicles within the Holden range. Can you outline what sort of other major safety features, over the course of the next 10 years, would possibly be included in the GM range?

Mr BUTLER — No.

The CHAIR — I tried anyway!

Mr BUTLER — What I can say though, John, is that there is more and more robust sharing of technologies, of ideas, within GM. Saab still exists as an entity, but there is effectively now, with this global engineering approach, a global engineering safety community who are in collaboration, in discussion, every single week, working on what the new features are, where we need to develop, what are the opportunities, what is happening in Europe, what is happening in the US. With the global architectures that we are attempting to develop from the smallest microcar up to the largest SUV, where they are going into global markets, what we need to put into them with what technologies, and that is hooked back to what is called 'decoupled development' in GM which is around developing systems that can then be sitting on the shelf and able to be applied to a range of different cars.

There is more focus on that than I think I have ever seen in my quarter of a century of history, working at Holden. I cannot tell you what wonderful things are coming, but I can certainly assure you that there is very close focus on that. It is all about sharing the global knowledge and trying to leverage the best that is happening in the corporation globally. We are certainly not working in a cocoon down here, coming up with our own ideas and not being well connected back to what GM is doing all around the world.

Just as one very minor thing that is out in the public domain: GM at the moment in North America, again because of the rollover issues, is looking very closely at curtain airbags that offer rollover protection; so that is something that is starting to be focused on more and more. GM has just commissioned a big rollover test facility at its Milford Proving Grounds — I am not sure if you saw it when you were there — that is going to allow some of that research to be taken further. That is in the public domain so I can share that one.

Mr KOCH — Just one last question to you, Samantha. In your role of managing government relations and public policy, I assume that you have a direct connection with your marketing people — you may not be able to even respond — but I query: is safety marketable, or is it very difficult to market and it actually is a cost to the item to be purchased, having priority?

Ms READ — I would say — it is probably difficult for me at the moment, because I have been back in my role for three months so I have not been involved in the development of this submission — but yes, safety is certainly marketable, and yes, it does provide features in the car which we can then use to market the vehicle. I think the electronic stability control that has been a feature of the Commodore has been a part of the way we have advertised our vehicles and their level of safety. Yes, I would say that it can provide the ability to market the car.

Mr KOCH — I raise that from the point of view purely that the sooner we can get some of these safety products right across the range, I think the better for the buying public, and if safety is marketable, we would certainly look forward to you going down that track.

Mr MULDER — In relation to the marketability of it, what is the process within GM from head office, regionally, down to the shop floor in terms of distributors and the product knowledge of those people on the floor? From a personal point of view, over many years, it seems to have declined in terms of what people actually know about a product when you turn up to purchase. From head office, how does that actually work in terms of relaying the information and the requirements on the shop floor?

Mr BUTLER — Again, I can touch on what I mentioned earlier and my involvement in that. When we launch a new product, a lot of time and effort is put in from a engineering viewpoint to prepare the technical background that goes into why we did what we did, what features are in the car, how they work, and what benefits they offer. That forms the basis of a package that is then shared consistently across the media at the time of launch.

That same package of information is then taken by the marketing service and sales organisation and used to run, effectively, a series of parallel briefings for the dealer principals and the sales community; and then that is available, as best I understand it, in terms of standard documentation on line that they can go and look at to refresh themselves on what the features are, what they offer and how they work.

If that has led to a decline in the level of information that the sale folk can offer then that is clearly disappointing, but I am not close to ultimately what that translates to at the shop floor in terms of how well informed those people are. There are good communication mechanisms around the technical detail and getting that positioned at the right level so that it is understandable to be shared with the selling community and the service community, because it is

important, with a feature like that, that you present a clear and compelling case to your customers, because we think that is a potential advantage to us.

Mr KOCH — Customer surveys should reflect that, though, Ian, and I assume that General Motors Holden have customer surveys that indicate what has been presented to them at the point of sale. Quite obviously sales are about commission and volume and it may be one of the last things — well, not one of the last — one of the other things that actually does not get into the front line, but your surveys should be telling you that, and I think that is the bit we want to hear.

Mr BUTLER — Again, we do survey the buying experience.

Ms READ — We do.

Mr BUTLER — I am not sure if that gets down to questions like 'How well informed were you of the technical features of the car?', but that would be an easy one to check.

Ms READ — We can discuss that with our colleagues in marketing.

Mr BUTLER — We could see what that is showing. I am sure it is showing a steady improvement. But, again, I do not know. My hope may be ill-founded, Terry.

Mr LANGDON — The difficulty I have with marketing and what have you is that all companies seem to be the same. You see an ad on the TV that talks about power and speed. They are the two things that either marketing people portray that the Australians public likes most, or where the Australian public is lagging behind. I personally think that safety would have a greater call if people decided to market it, but they are not marketing it. They are marketing power and speed. For some of them it is colour, but power and speed are up there more than anything else. That is why people do not ask the questions when they are going in. I am sure that people who see the ads would be able to answer any questions that are on those ads. But anything else they probably cannot.

Mr BUTLER — I do not think I am going to touch that one, Sam. I certainly do not think there is a flagrant desire to put power and speed in front of people any more. I know there is a code of practice that all of the local guys are trying to adhere to in terms of not showing that. I remember years ago the stuff that would be shown on rally cars and things like that, all associated with current production cars and that real edginess around speed. To me that is gone from what I am seeing in ads these days, but there may still be some that are out there pushing the boundaries a bit.

Mr KOCH — I think Ford will be promoting the Falcon after Mount Panorama yesterday, which is probably a flaw in your argument.

Mr BUTLER — When we saw our colleagues we said we were not going to talk about it.

Mr LANGDON — Very wise of you.

Mr LEANE — I just wanted to comment about the ESP or ESC test replicating Australian conditions. I suppose my concern is that with the UNECE regulations I cannot see them ever being standardised for Australian conditions, seeing that we are something like 0.05 of the market. What would your comments be as far as a test here not replicating Australian conditions?

Mr BUTLER — I know that there is work proposed or even commencing on that within the UNECE. What is happening is that there is a new workgroup formed, as best I understand it, which is coming up with global technical requirements, or GTRs. That has now brought America into the fold, and I know that the vehicle dynamic control, ESP, ESC, is one of the tests that is going to be discussed in terms of can we come up with a test that is appropriate for the global market. My main reasons for reservations about what has happened in the US is, first, that we have not done enough testing yet to really know what it translates to. Second, the US is very specific in having a large penetration of big, high-ride height SUVs, which are more prone to rolling over then a passenger car. I do not think Australia is so unique that we could not come up with a good test that maybe has a passenger car focus and an SUV focus, but that is pre-empting the outcome of the work. The work is planned, or at the very least there has been discussion that says this would be a really important one to try and get harmonised globally. I do not think it is insurmountable, and I do not think the fact that Australia is a little player on the global stage is an impediment. It is more just about let us make sure that what we come up with is appropriate for the full spectrum of

products that are out there. I am just not sure at the moment where that the US test will be that, and we will have much better information within the next 12 months as all of the GM vehicles get tested to be able to comment on that more sensibly. It may be that it is okay. I do not know.

The CHAIR — Thank you very much for your contribution today. We appreciate it.

Mr BUTLER — It was a pleasure.

Witnesses withdrew.