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MELBOURNE

SPEDDING, Mr James Maxwell, Secretary, Australian Landfill Owners Association

CHAIR—Good afternoon, Mr Spedding, and welcome to the inquiry. I invite you to make a short opening statement.

Mr Spedding—Our very small association—compared to those whose evidence I heard this morning— thanks you for the opportunity to speak to the committee of inquiry. I will first introduce myself and the Australian Landfill Owners Association. I have been directly involved with the waste service industry since 1988. I was Managing Director of Sita Environmental Solutions, which is Australia's third largest waste provider, from 1995 to 2001 and I am currently the Director of Sustainability of Veolia Environmental Services, which is Australia's second largest waste provider.

I am also secretary and spokesperson for ALOA, the Australian Landfill Owners Association. I am a board member of the Waste Management Association of Australia and I am Chair of the Landfill Division of the Waste Management Association of Australia.

The Australian Landfill Owners Association is the peak representative body for landfill owners across Australia. ALOA members operate over half the capacity of landfills in Australia and last year received 13.6 million tonnes of waste, which equates to 68 per cent of the total waste landfill in Australia. ALOA members also provide services in waste disposal, waste treatment and resource recovery, and employ over 12,000 people in Australia.

Today Australia's larger landfills employ international best practice technologies to minimise their environmental impact. This includes capturing methane generated from landfilled organic waste to produce renewable energy. ALOA's members have been active in reducing greenhouse gas emissions from their operations over the last two decades. In fact, the waste sector is the only sector under the CPRS that has actually recorded reductions in greenhouse gases in this period. Since 1990, the sector has reduced its overall emissions by 12.6 per cent. The result of this effort leaves the waste sector now accounting for less than two per cent—only two per cent—of the national greenhouse gas emissions. ALOA supports the government in its attempt to reduce Australia's greenhouse gas production and supports the introduction of an emissions trading scheme in order to achieve this goal. The introduction of the emissions trading scheme has been described by the minister as the most significant economic and structural reform undertaken in Australia since the trade liberalisation of the eighties. ALOA concurs with this view and wants to work with the government to ensure that we have a workable scheme when the legislation is passed. As such, ALOA believes that the architecture of this reform must be sound and the scheme certainly must not be rushed into implementation with inconsistencies or gaps that will later lead to perverse outcomes.

ALOA has a number of concerns surrounding the inclusion of the waste sector in the CPRS, and these have been articulated in our submission, which I hope you have received. In this regard, ALOA wishes to underline that the core issue of the CPRS legislation for the waste sector is the inclusion of emissions from waste deposited prior to the implementation of the scheme. The industry calls this legacy waste emissions. This is the most vital issue as waste decomposes over decades in a landfill and as such the inclusion of legacy waste emissions in the scheme from 2008 and onwards renders landfill owners liable for emissions which could emanate from waste that was deposited up to 50 years ago. In other words, the legislation in its current draft form would require landfill owners to charge current and future customers for waste deposited by past customers or pick up the cost of acquitting the permits themselves. This will create enormous difficulties within the industry and a period of turmoil as the legacy waste impact is not the same for all landfills. For example, an old landfill may have a cost increase of $30 per tonne while a new landfill has no legacy cost. This difference will create inequity in the marketplace. Further, these retrospective provisions do not in any way align with the vision of the CPRS, which I believe is to introduce behavioural change that will in turn lower Australia's greenhouse gas emissions. Penalising landfill owners with this retrospective burden will not in any way influence future waste generation in volume or composition, and these should be the ultimate goals of the CPRS.

Notwithstanding the legacy waste issue as our most significant concern, ALOA also has a number of other issues with the CPRS architecture and these have been detailed in our submission. These include a delay of the waste sector coverage until 2012 to allow measurement methodologies to be finalised and tested; simplification of the threshold variation provisions in the current legislation that, if it proceeds in its current form, will capture all landfills effectively on the east coast of Australia; and the timing of the release of the regulations, which are essential for us to understand the act.

Finally, I stress that, as the waste sector is not covered in any other country's emissions trading scheme—we are the only one—it really is important we get it right, because it will be used as a model for other countries.

We have an opportunity to get it right now. Thank you, Mr Chairman.

CHAIR—Thank you very much, Mr Spedding.

Senator MILNE—That is a very interesting submission. I think the committee is sympathetic to try to find some kind of solution to the legacy issue in particular. I would be interested to know how many existing landfills around Australia are using the opportunity to capture methane and turn it into power. Is size a critical factor? Can you explain how that works so that we can understand how many could cost effectively move to that and actually get a source of income? How many retired landfill sites that are basically under the care and management of local councils could local government suddenly find themselves liable for? Can you give us a sense of those scale issues and opportunity costs and what is going on out there at the moment in that regard?

Mr Spedding—I will take the question on notice and make a submission so I can look through my records. In general numbers, there are about 540 landfills across Australia. The majority of those 540 landfills operate under management of local councils and are in isolated areas and about 80 are large landfills. We have 22 members within ALOA and those 22 members have 52 landfills, which equates to 68 per cent of the total. That gives you a general feel of the 80-20 rule in this particular

area. The landfills that are of this larger size that would normally get captured with the 25,000-tonne threshold are landfills over 100,000 tonnes of capacity. About 80 of these will come into the scheme under normal circumstances. If we take one of these landfills and look at the response to the generation of methane, the first thing that is needed is to capture and burn the gas. There is no need to convert it to electricity, because the combustion of the gas creates carbon dioxide and you have eliminated the multiplier effect of methane. The first objective of any landfill operator who gets caught under the scheme, or who should take the responsible view anyway, should be to collect the gas.
Interestingly, a substantially larger landfill is needed to get to the point where it is economical to produce renewable energy because of the level of the RECs, the renewable energy certificates. In the past we have had the greenhouse friendly NGAC certificates, which gave support to this. These go under the CPRS. What is needed at the moment to have a good return on investment for power generation is three megawatts of capacity—that is, basically three large engines and generators. A landfill of around 200,000 to 300,000 tonnes gives the capacity to run such an installation for 20 or 30 years. In Australia, in round figures only 30 or 40 landfills out of the total are of that size, but I can research that in more detail.

Basically, very large landfills over, say, 200,000 tonnes have the potential for electricity. There is another group of landfills that have sufficient gas to allow the operation of a gas collection system and a flaring system. Under normal circumstances, that would be about 80 out of the 540-odd. Those are the 80 that we would expect would get captured by the 25,000-tonne threshold.

Senator MILNE—Rather than delay the scheme as such, if waste were taken out of the scheme, consistent with other schemes around the world, do you have a proposal about an incentivised scheme, which would be obviously in conjunction with a waste minimisation strategy? I have seen what they do in Belgium, for example, where virtually nothing goes to landfill any more. They have amazing schemes for recycling, reuse and so on. Obviously we want a regulatory framework, but have you thought about any incentives that might address this issue outside the scheme as opposed to inside it? We would like to find some way of moving forward on this.

Mr Spedding—In the early discussions at the time of the green paper, the industry proposed that a system of offsets or credits be created by the actual collection and combustion of gas. This is very similar to the old NGAC system. At that time, we were told that the scheme was only going to be a penalty scheme with no offsets. What has eventuated in the legislation is that in forestry offsets are created; trees are grown and certificates are created. If that was reversed for our particular sector and there was the possibility of generating certificates by the combustion of gas, that would resolve the problem and would significantly increase the amount of gas captured. It must be remembered that all landfills are regulated by state regulations.

Senator MILNE—Some better than others.

Mr Spedding—Certainly some more than others. In the past the regulator was required to regulate something indirect. The Victorian regulations did not require the collection of methane; they required no odour at the boundary. If they had required the collection of methane under 'greenhouse friendly', it was then a regulated activity and access to 'greenhouse friendly' was denied. There is a lag, if you like, with the regulations that will have to change as we move forward into the CPRS. The issue is that a reduction has been possible because of the old incentives; if those incentives could be increased, there will be a further reduction.

Our industry believes without a doubt that by 2020, the amount of gas that we emit can be reduced by 50 per cent. We are well within everyone's best possible imagined target.

Senator MILNE—How will you achieve that?

Mr Spedding—We will achieve that purely by the focus on landfill gas collection. The issue has not been heavily enforced and regulated. There was small incident in Cranbourne recently where an unlined landfill had an emission and a number of people were moved from their houses. This has sensitised the EPAs around Australia and sensitised the industry. We as an industry do not condone poor practice and unlined landfills. The industry has significantly improved its standards. What we believe will happen through Minister Garrett's initiative on a national waste plan is there will be a reduction in the number of landfills from 540 down to perhaps 350-odd as we move to more regionalisation of landfills. As soon as regionalisation occurs and, say, three small landfills that are less than 10,000 tonnes are combined you will get the volume for collection and therefore a reduction in emissions. Looking forward to 15 to 20 years time, our industry will have a significant reduction because there will be fewer sites and all of the sites will be at the level of our best sites today, and a lot of those will have power generation.

Senator FIELDING—If we do not change something here, what will be the cost impact on some of the councils that they will need to pass on to some of their residents?

Mr Spedding—If we look at new waste only going forward, the cost impact is probably about 50c a week, around $25 per annum per household on new waste only. If the legacy waste is left in, that amount can double. The bulk of our landfills that are in local government hands are old landfills and have this large legacy waste liability. The only opportunity these councils have—because they have no funds—is to charge future customers for this cost of the past. It is somewhere between $15 and $30 a tonne, but every site is different. I can give you a range but I cannot give a definite prediction. We have got predictions of $4 or so for power and $2 for gas. Generally speaking, rates will go up by about $25 a year to cover the new base cost of CPRS.

Senator IAN MACDONALD—Are you aware of the Mackay City Council, by any chance?

Mr Spedding—No.

Senator IAN MACDONALD—They gave evidence at yet another Senate committee on climate change just recently that they have 33 landfills—it is a council just recently amalgamated—and 17 of them are operational, 16 are non operational. They have done some back-of-the-envelope figures. They have assessed that their rates will have to go up by 10 per cent to cover the cost of these landfilled emissions. I do not have the figures in front of me but they are available in the Senate *Hansard* record of the other select committee. Of that 10 per cent, a couple of per cent might have been for the additional costs of fuel and electricity because of the CPRS. They are petrified by this because of their old landfill. They do not even know where some of them are. They might just lose any records that might find them. Does that sound right?

Mr Spedding—That sounds too high. The issue is that most of us generate about half a tonne of waste that goes to landfill per household around Australia. If they are talking about a 10 per cent increase in rates, perhaps a $100 increase, they are talking about a $200 increase per tonne. Landfills market about $50 per tonne across Australia plus levies, so they are over $100 in New South Wales and about $65 here. The cost of the CPRS for new waste goes up about $15 to $20 and, if legacy waste is left in, it could be anything. A new landfill will have no liability but an old landfill may have up to $30.

Senator IAN MACDONALD—These are existing landfills. I have read your submission and it is not in your submission, so could you explain to me what a typical landfill will cost and in what way. I am not sure what typical is.

Mr Spedding—Basically there are three classes of landfill, but let us focus on the landfill that takes your domestic waste and takes general industrial waste. This is what we would generally call a putrescible licensed landfill—in other words, it can take food waste. The typical price without levies of such a facility for a large landfill is in the order of $50 per tonne.

Senator IAN MACDONALD—Methane excluded?

Mr Spedding—That is including methane capture and all of those things but excluding CPRS. Moving down to perhaps 25,000 tonnes or smaller to a regional landfill in the country, the sort that you would have in a town of say 20,000 people, the cost will go up to $100 or $125 simply because you do not have the economy of scale. This is the benefit of regionalisation in landfills. Put them together; there is a cost benefit.

Senator IAN MACDONALD—You say a normal landfill would emit so much per tonne. How many tonne would—

Mr Spedding—A normal landfill take?

Senator IAN MACDONALD—Yes. Is this tonne of waste, not tonne of emissions?

Mr Spedding—NGERS, the National Greenhouse and Energy Reporting System, has a series of defaults that now allow us to identify a conversion from tonnes of waste of a particular class into tonnes of C02 equivalent. Under the NGERS arrangement, one tonne of municipal solid waste—what is in your garbage bin not including recyclables and green waste—is roughly one tonne of C02 equivalent. Commercial waste is about 1.13 and construction and demolition waste is only 0.2.

Senator IAN MACDONALD—Sorry, we are constrained for time and I am trying to understand this; perhaps I should have done this elsewhere. If you have a landfill with 10 tonne in it that has been there for 10 years, do you pay $100 a tonne for that 10 tonne every year or once off?

Mr Spedding—Under CPRS you only pay when you have an emission. If waste is put in the landfill today, only two per cent of the emissions that come from that will occur in the first year. In the second year it is 10 and in the third year it might be 15.

Senator IAN MACDONALD—These have been going for 20 years, though.

Mr Spedding—These have been going for 20 years. By the time they have got to 20 years they may be halfway through their decomposition, so there is yet another half to come out. The issue for us as an industry is that we do not have any measurement; there is no direct measurement system. It is not like there is a chimney and the flow through the chimney is so much CO2. We have to do everything by modelling. A typical model of a landfill gives a projection on a curve, and that curve shows what happens to the waste as it decomposes over 30 to 50 years. Veolia has a landfill in Adelaide that is currently operating, and our best estimation is that it will still be in the scheme in 2114. It will still be over the threshold.

Senator IAN MACDONALD—You will still be paying per year, per tonne?

Mr Spedding—You will be paying per tonne of emissions.

Senator IAN MACDONALD—You are saying a tonne of emission equates to a tonne of waste?

Mr Spedding—Over the full life that it is in the landfill. That is the issue. The industry can live with this scheme but the problem is living with the legacy waste. The industry will assess what liability we are taking on as you come over the weighbridge at the landfill we will charge you for the liability, buy the permits and put the permits in the bank. Then, as the emission occurs in the future over the next 50 years, we will take some out of the bank every year and acquit it to the government. We have to manage the program for 50 years.

Senator IAN MACDONALD—What are you doing for the ones that you have inherited?

Mr Spedding—If the legacy waste stays in as it is in the current legislation, you will have to increase the rate that you are currently charging to build up a fund to be able to pay for that when it occurs.

Senator IAN MACDONALD—Pay it out of general revenue.

Mr Spedding—I gave an example of one in the submission: the Corio city council landfill in Geelong has, at best estimate, a $30 million liability ahead of it from 2018 to 2030. The liability actually does not stop at that particular point; it continues.

Senator CASH—Is this what you mean in your press release on 12 March when you say: The inclusion of legacy waste emissions in the CPRS is akin to charging households today for the electricity generated for use by our parents.

Mr Spedding—Yes, exactly. Because that hamburger that you threw out at the cricket or football or whatever sporting event you went to in 1985 is still emitting gas, and under this system it will get caught and we will have to pay. The landfill industry does not have the ability to pay the $200 million of annual permits out of its own funds, so it will charge the customer. The difficulty we have is how to go to the customer and say, 'We want you to pay $15 or more per tonne because we were operating 20 years ago.' That is the difficulty. In the case of a council, they say: 'We can't go back to our ratepayers, because they have moved. The people who lived at 10 George Street aren't there anymore. They won't pay.' This is the issue of the legacy waste; it creates inequity but at the same time it puts our industry in a very awkward position of how to manage this issue. It is millions of dollars; it is not small.

Senator CASH—The point you also then make is that some operators that cannot afford to pay will just be forced out of the industry—that is it?

Mr Spedding—The only thing that you could do at the moment would be to close as soon as you could, cap your landfill and put in a gas collection system—because that is cheaper than acquitting permits by far. The sooner you close, the sooner you reduce your liability.

Senator CAMERON—Have you modelled what the industry's share of Australia's total emissions are?

Mr Spedding—To do that, you look at the 20 million tonnes of waste that is landfilled, you put that through the same model that we use on an individual site basis and you come up with about 16 million tonnes.
That 16 million is compared to the 580 million, which gives us a certain percentage. You model how much is generated, and then you deduct how much we collect. As an industry, we collect about 4.8 million tonnes of C02 equivalent out of the 16 million, so that gives us our reduced figure.

Senator CAMERON—It is almost the equivalent of, say, a 2,000-megawatt power station not far away.

Mr Spedding—I would have to take that on notice.

Senator CAMERON—You do not have to take that question on.

Mr Spedding—I could. I will hold up this model, and I do have a copy of this for everyone if they want it.

Senator BOSWELL—I find that interesting.

Mr Spedding—You actually get a shape and a model giving you the emissions from your waste every year. The system takes a modelled amount—so many tonnes—and deducts from that what is collected. The difference, whether it is right or wrong, is what you pay on. That is what we will charge the customer for.

Senator CAMERON—What role should the industry play in abatement? What role do you see you should play?

Mr Spedding—The waste sector overall should be doing two things. Firstly, we should be encouraging the reduction of organic material from landfill as an abatement program, because if you do not put it into the landfill and put it into anaerobic conditions you will not create the methane and therefore the problem. So that encourages composting of green wasting and things of that nature. That is No. 1. Second, from an abatement point of view, we need to collect the gas. Looking at the best international practice, we can now collect 75 per cent of the gas when the site is open and 95 per cent when it is closed. We need to move the industry to achieve those levels at all of the sites that continue to operate in Australia.
Senator CAMERON—If you do not include legacy emissions in the CPRS how would you then encourage abatement?

Mr Spedding—You cannot not collect the gas in there. If you have new waste and old waste together—in the model I am holding up, over in this area where the yellow

is—when you collect one, you collect the lot. The simple inclusion of landfills in the scheme will in fact encourage the collection of the legacy waste as well.

Senator CAMERON—What technology is developing to efficiently collect the C02 emissions?

Mr Spedding—In the past, the general thing was that you did nothing; you capped the site at the end of the life of the landfill, you then retrofitted a gas system and then, if you had enough gas, you produced power. What we are now doing is actually building the gas system in the operating cell. We build small cells we cap every year. We have, therefore, a progressive campaign to increase the rate of collection. Five years ago we were collecting at 25 per cent. The future is that we will collect at 75 per cent plus at these larger sites. The third part of my answer about abatement is that we need to move to regionalisation. The senator's example of 33 landfills around Mackay, quite frankly, shows very poor planning. As a government and as a community we need to be more responsible to clean that up.

Senator IAN MACDONALD—Could I just clarify, there were four councils brought together, each had three or four landfills they had shut down over a period of 30 or 40 years.

Mr Spedding—It sounds like a good business opportunity for one of the companies to build a regional site.

Senator IAN MACDONALD—I will give you my card at a cost!

CHAIR—Senator Xenophon, do you have anything?

Senator XENOPHON—Yes, I do, thank you, Chair. Mr Spedding, a landfill operator who contacted me recently says that currently he sells the offsets under the NGAC scheme, the Kyoto compliant scheme—is that correct at the moment?

Mr Spedding—I think I understand who you are talking about, Senator. Yes, he collects those at the moment and that will continue through until the introduction of the scheme.

Senator XENOPHON—When the scheme is introduced, there will not be any offsets?

Mr Spedding—The only offset he will get will be the enhanced renewable energy certificate. Those companies such as LMS and EDL who are subcontractors to the landfill industry who have built their businesses just on the generation of power will be significantly impacted by the change of legislation because of loss of the NGAC.

Senator XENOPHON—Do you see that as a perverse outcomes?

Mr Spedding—Very much so, and this is the reason why we have maintained on all submissions that there should be a complementary measure to go with this so that certainly sites that are uncovered should have the ability to create credits.
Senator XENOPHON—You said in your submission to the economics committee inquiry that the modelling is not due to be finalised until May 2009. How confident are you that the modelling is on track to have a satisfactory outcome from your sector's point of view?

Mr Spedding—This is the modelling for NGERS, and we are in NGERS and have been since 1 July 2008. We have been very closely working with the reporting branch of DCC and I am confident that we will, through this round, end up with method 1 and 2 that the industry will be able to live with. The unfortunate thing is that no-one has tested it yet, and method 2 modelling takes one year to do the test, so we will not get any results of the test for this round of NGERS until some time in late 2010.

Senator BOSWELL—Senator Macdonald and I represent rural Queensland. Every little town that I am aware of, and it might be a town of 50 to 60 people or of 200 people, has its own dump and, as in the case of Muttaburra, the town might be 200 miles from any other town. How do these people get on? They have a small dump that may have been there for 30 or 40 years and they are going to increase their emissions by more than people in, say, Longreach or Brisbane. How are you going to actually monitor those? Can you give us a picture of how these dumps or landfills will work?

Mr Spedding—As it stands at the moment, only landfills that are over 25,000 tonnes—these are big landfills that take in 300 tonnes per day—will come into the scheme. Every landfill below that falls out; they are uncovered and not affected by the scheme. This creates yet another difficulty for the scheme in that there are so many uncovered sites and there is this big cost difference.

Senator BOSWELL—Who pays for those?

Mr Spedding—There is no CPRS charge, but from an environmental point of view one would hope that there are programs to get these closed and to transfer the material into fully engineered sites where the gas is collected. The emission occurs but it is in such a small quantity that it does not come into the scheme.

Senator BOSWELL—You propose certain measures but it is beyond me how they would be measured. How do you actually measure what emissions rise up from the ground?

Mr Spedding—We do not measure it at this stage. There is a provision called method 4 under NGERS which some time in the future, perhaps in the next five 5 to 10 years, will be available for very large sites. It costs $1 million a test, but it will be available. Everything we do is modelling; everything is going to come out on a sheet like this where we have projected the emissions based on the mass of waste and the composition of the waste, and that gives us the generation figure. From that, we then do the best we can to collect it, and we have to acquit permits for the difference. They are acquitted in the year that the emission occurs.

Senator BOSWELL—What about all these landfills that have been converted into sporting grounds; there are hundreds of them around Brisbane. They started off as municipal dumps into which people put their rubbish, they were filled, covered and grassed and then the local football team or cricket team was put there. What happens to those?

Mr Spedding—All landfills that were closed on 30 June 2008 are outside the scheme, so all of those that you are speaking of would have closed before that date in 2008. They are still going to emit gas unless they are

captured under a state licence or regulation. One would hope that would be the case on a uniform basis, that they would be required to collect the gas. CPRS does not do anything for those sites.

Senator BOSWELL—Those sites that Senator Macdonald mentioned would not be covered?

Mr Spedding—No.

Senator FEENEY—Is that right? Wouldn't they would be covered because they are all owned by a single entity and collectively that entity is over the threshold?

Mr Spedding—CPRS is facility by facility but NGERS is—

Senator FEENEY—Is one entity.

Mr Spedding—Yes, it is all facilities. The issue is if you can build a lot of small landfills you stay under the act, but this is a perverse outcome that we really do not want. There is a provision within the legislation at the moment and in the commentary—which we debate, because we have difficulty with the operation of it—that says that when an uncovered landfill is competing with a covered landfill the threshold should be pushed down from 25,000 tonnes to 10,000 tonnes. This causes a situation where, by the department's estimation, there are 300 landfills on the east coast of Australia that will get captured in the scheme. Remember, this scheme was going to be 700 facilities. It is now going to be 1,000 facilities because 300 of them are landfills— 300 of them for two per cent of the emissions. What financial and administration burden does it put onto us as an industry to have all of these captured? There is not much solution to it, Senator, but it is certainly an inequity. I believe that for a landfill that gets captured in the scheme it will cost at least $50,000 a year in administration to manage the scheme. So those little local councils that do not have staff running their landfill are going to have to find a consultant to do the work for them. They are going to have to get the modelling done, collect the data, buy and manage the permits. This is an impost on many councils that they do not believe they will be able to manage and it is certainly something they do not want. If the scheme stays as it is, that is what will happen.

Senator IAN MACDONALD—They need to join your association obviously.

Mr Spedding—We have a limit that we only take landfills over 50,000 tonnes to try and keep our numbers in reasonable order.

Senator IAN MACDONALD—You are in the big end of town.

Senator FEENEY—You are a bit of an exclusive operation!

CHAIR—Thanks very much, Senators. Thank you, Mr Spedding, for your evidence; it has been quite enlightening and very interesting. We will adjourn for lunch until 2pm.