# Senate Select Committee on Fuel and Energy

# ANSWER TO QUESTION ON NOTICE Fuel and Energy – 26 June 2009

**Question:** (Senator Cormann)

**CHAIR**—Yes. Interesting. Have you got a handle on how the level of employment has developed from 2001 to 2007 in the renewable energy sector for those organisations?

Mr Livingston—We have not done that analysis.

**CHAIR**—Is that something that would take a lot of resources to get a handle on, or do you—

**Mr Singh**—What I can say is that our primary responsibility does not allow us to do it.

CHAIR—I understand that.

**Mr Singh**—I am aware that other Commonwealth departments have done some studies, and I think some data will be available from those.

**CHAIR**—That is okay. We will pursue that with other departments. If it were something that you could ease easily provide to us, I would ask you to assist the committee. I do not want to impose on your resources. We have the opportunity to ask others.

### Answer:

ORER cannot provide further response to this question.

# **Question:** (Senator McEwen)

**Senator McEWEN**—It might be in your report, but I have not been able to find it so far—I presume most the \$5.5 billion investment in renewables that you mentioned is from hydroelectric power stations.

Mr Livingston—No.

**Senator McEWEN**—Can you give us a breakdown of what that is made of? **Mr Livingston**—I do not have it with me but we can.

**Mr Singh**—We can provide that to the committee. We do not have those figures split at that level.

**Mr Livingston**—Wind and solar are big but we have a breakdown, so it is best that we provide that separately.

#### Answer:

Eligible Renewable Energy Sources - aggregated where a combination of fuel sources is used	Estimated Capital Investment in \$Millions 2001 to July 2009
Wind	\$2,665
Solar Water Heater (deemed)	\$1,183
Bagasse	\$598
Hydro	\$392
Small Generation Units (SGUs) - Solar (deemed) and other Solar	\$291
Bio Waste and misc other fuels	\$224
Land Fill Gas	\$194
Black liquor	\$117
Sewage	\$32
Grand Total	\$5,696

### Question: (Senator McEwen)

**Senator McEWEN**— Similarly the \$6.2 million RECs. Can you distribute them according to what kind of renewable energy they are generated by? That would be useful.

**Mr Livingston**— These are publicly available on the website. People can log on to the website and get this stuff off. We have a better summary perhaps. It is in the report I think.

**Mr Singh**—I have the cumulative numbers of RECs that have been created at the end of December 2008. Those figures have been published in our annual report which was tabled in the parliament very recently. I can read those numbers out. In the order of highest to lowest they are wind which produced just over 9.7 million RECs, that is a cumulative number from 2001 until December 2008. That was followed closely by two other sources, hydropower stations produced just over 8.6 million RECs and solar hot water deemed systems produced just over 8.4 million RECs, so these are the top three. The next one is landfill gas at just over 2.9 million RECs followed closely by biogas at just over 2.9 million RECs again. Then there are other sources. I will not go into those numbers. I am happy to give the report to you. There is wood waste and other small systems which produce RECs.

#### Answer:

In elaboration to Mr Singh's answer, updated figures to July 2009 are set out below:-

Fuel Source	Total as at 1 July 2009
Bagasse Co-generation	3,231,399
Black Liquor	835,509
Crop Waste	2,282
Food And Agricultural Wet Waste, Agricultural Waste,	129,328
Food Waste, Food Processing Waste	
Hydro	8,787,450
Landfill Gas	3,332,895
Municipal Solid Waste Combustion	4,401
Photovoltaic	11,458
S.G.U Hydro (Deemed)	255
S.G.U Solar (Deemed)	941,496
S.G.U Wind (Deemed)	1,384
Sewage Gas	395,692
Solar Water Heater (Deemed)	11,738,342
Wind	11,335,059
Wood Waste	990,680
Biomass-Based Components of Municipal Solid Waste	170,928
Energy Crops	5,751
Grand Total	41,914,309