From: Bernadette McCabe

Sent: Friday, 1 September 2017 3:17 PM

To: Portfolio Committee 6

Subject: FW: 'Energy from waste' technology - Transcript and questions on notice - 7 August

2017

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Hi again Kate,

After doing a bit more searching I've come up with some more data – could you amend point 3 to include the current price range is 12-15 Euro cents/kWh for biogas.

Thanks, Bernadette

From: Bernadette McCabe

Sent: Friday, 1 September 2017 2:20 PM

To: 'Portfolio Committee 6' <PortfolioCommittee6@parliament.nsw.gov.au>

Subject: RE: 'Energy from waste' technology - Transcript and questions on notice - 7 August 2017

Hi Kate,

Please find attached my transcript edits (attachment 1).

Below are some points to the question taken on notice:

1. Average size in terms of tonnes/year:

For a country like Germany I have used the reference obtained from https://www.umweltbundesamt.de/en/topics/waste-resources/waste-disposal/thermal-treatment#textpart-1 (attachment 2).

From 68 MSW incineration plants with 19.6 mio ton/y. So, on average they are taking 288,235 tons each. The larger ones up to 700.000 tons per year.

2. IEA Bioenergy Task 37 brochure: "Source separation of MSW"

link: http://task37.ieabioenergy.com/files/daten-

<u>redaktion/download/Technical%20Brochures/source_separation_web.pdf</u> This publication includes information on:

- a. systems for the source separation of organic waste
- b. setting up food waste source separation systems
- c. key drivers for separation of digestible waste from municipalities (incl. both EU countries and those outside EU)
- d. economics of source separation
- 3. Production costs for anaerobic digestion varies on capacity. The current price range is 15-20 Euro cents/kWh. I don' have any data for Australian facilities.

I've also attached a document which I'd like you to provide to the committee as additional reference material (attachment 3).