

Senate Standing Committee on Economics

ANSWERS TO QUESTIONS ON NOTICE

Treasury Portfolio

Supplementary Budget Estimates

21 – 22 October 2009

Question: sbt 34

Topic: Clean Coal

Hansard Page: E22-23 (22/10/09)

Senator LUDLAM asked:

Senator LUDLAM—.... Can you tell us the name of any consultants or experts in the field that you relied on who have stated or would state publicly that they think clean coal will be invented and affordable by 2033?

Ms Quinn—We received advice going through the process of the review and the analysis from various sources, and the technical assumption made in the modelling report was that from 2020 the technology, the knowledge of how to put the pieces of the puzzle together, would be available. When it was actually adopted within different scenarios was based on its commercial viability. This modelling was carried out by the MMA modelling group which suggested that carbon capture and storage would become viable at the carbon prices of demand profiles and other considerations in the scenarios between 2026 and 2033. This analysis is consistent with that also produced by other modelling organisations in Australia such as the modelling done for the Energy Supply Association and modelling done for other organisations.

Senator LUDLAM—I realise that some of this is actually in that study that you have there, but could you provide for us any more details, perhaps on notice if that is necessary, of who MMA actually used and who the experts were that were consulted? We hear very different things about the availability and the timing of the commercialisation of clean coal, because at the moment, I hope you would agree, things are not going particularly well?

Ms Quinn—I am happy to take that on notice. In broad terms, the sources were organisations such as the International Energy Agency, which does a comprehensive survey of the state of technology, and they provide their technology perspectives report on a regular basis, so there were international analyses. There was also the analysis in the US done by the Environment Protection Agency and domestically it was done by different engineering companies, the Garnaut review, the carbon capture and storage CRC and various engineering components.

Senator LUDLAM—I realise you do not have them right at the moment, but can you provide those for us on notice and a more detailed breakdown of whose advice you relied on?

Answer:

The Treasury-led modelling consulted with external experts to develop a set of assumptions which represent its best assessment of plausible central estimates within the range of possible values, including with respect to assumptions on when Carbon Capture and Storage (CCS) becomes technically feasible. Treasury assumed that CCS technology becomes technically feasible in 2020, and economically viable after that depending on the specific scenario being considered, in particular the implied carbon price. The table below provides estimates on the technical feasibility of CCS in other modelling exercises in Australia, and demonstrates the centrality of Treasuries assumption.

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Modelling exercise	CCS Availability
ABARE research report 06.6. <i>Technology, its role in economic development and climate change.</i>	Available in 2015 in Australia, US, Japan, EU, Russia, CIS and Canada. Later in other countries
MMA modelling for NETS	2021 pre-combustion only
Electricity Supply Association of Australia (ESAA).	From 2020, with Integrated Drying Gasification Combined Cycle (IDGCC), Integrated Gasification Combined Cycle (IGCC), Natural Gas Combined Cycle (NGCC).
Business Roundtable	From 2022 with coal and gas electricity
CRA for National Generators Forum	From 2020 with IGCC, NGCC and IDGCC Explores retrofitting scenarios
ABARE Near Zero Emissions Technology	2015 based on economic viability conditions being met