

Senate Standing Committee on Economics

ANSWERS TO QUESTIONS ON NOTICE

Treasury Portfolio

Supplementary Estimates 22-23 October 2008

Question: sbt 67

Topic: Emissions Trading Scheme – Technical Constraints

Hansard Page: E91

Senator MILNE asked:

Senator MILNE —As to the Treasury modelling on the ETS that we were discussing previously, I note that Treasury says that limits are placed on the rate of take-up and total take-up of renewable energy capacity, reflecting resource availability and engineering and technical constraints. Those assumptions are represented in chart 7 and they are central to this whole modelling exercise. I would like to know the assumptions on which those constraints were based, the consistency or otherwise of those constraints with the increase in the MRET to 45,000 gigawatt hours and whether or not similar engineering and technical constraints to do with the installation of carbon capture were used, particularly given that carbon capture is going to require very high-grade steel. What are your assumptions in relation to these constraints? Was there consistency with the MRET? Were the same constraints applied to CCS?

Ms Quinn —I can answer some of those; others I will have to take on notice in terms of the technical detail. As you have correctly pointed out, in chart 7 of the Treasury assumptions book, we have provided some information about cumulative renewal capacity constraints. This information was provided to us by the electricity sector bottom-up modellers MMA, and they have based that analysis on a region-by-region examination of what is feasible both technically and practically in terms of the timing. You can see, for instance, that some of the constraints ease over time as infrastructure and other developments occur. We have also examined capacity constraints around carbon capture and storage in terms of when it might be possible for the technology to be deployed, around the cost structure of carbon capture and storage and around the implications for building infrastructure around carbon capture and storage. We have attempted as far as it has been possible within the constraints and time available for our project to treat all technologies equally. In terms of the precise details about the constraints, I would have to take that on notice. I do not have the details before me at the moment. I think there was third leg of that question, which I—

Answer:

Please refer to Section B.9 of the Government's report *Australia's Low Pollution Future* for technical assumptions on renewable energy and carbon capture and storage technologies. More extensive technical detail on the assumptions used for electricity sector modelling may be found in the McLennan Magasanik Associates (MMA) report *Impacts of the Carbon Pollution Reduction Scheme on Australia's Electricity Markets*, which may be downloaded from the Treasury website.

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The renewable constraints used in the economic modelling are consistent with the requirements of the expanded renewable energy target. And, constraints for carbon capture and storage technologies were examined in a consistent manner to those for other technologies.