Senate Standing Committee on Economics

ANSWERS TO QUESTIONS ON NOTICE

Resources, Energy and Tourism Portfolio
Additional Estimates
14 February 2013

Question: **AR4**

Topic: **Renewable Energy Target**

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Senator Bushby asked:

Senator BUSHBY: I would not mind going deeper, but I do not have time. You mentioned the renewable energy target. There has been concern put to me from some informed circles that 20 per cent renewable target for 2020 will be difficult if not impossible to achieve given the amount of new energy capacity construction that will be required to achieve that target. Is the department aware of any analysis of that, and is that concern that has been raised with a me a valid concern?

Mr Clarke: It has a couple of dimensions. The issue is very much alive and is debated in the industry and monitored by policy advisers and the market operator. Whether or not the obligation is fulfilled physically by building and despatching energy and through those certificates or it is fulfilled financially, the obligation will still be satisfied. How exactly it works through in the market, the market will determine. One of the particular policy questions is: what does this mean for security; what does this mean for continuity of supply. We do not have a concern on that. Whether or not the market meets the RET physically or financially we do not foresee an energy security risk in that regard.

Senator BUSHBY: If you could take on notice what new capacity is under construction and looks likely to be constructed, I would appreciate it.

Mr Clarke: Yes, that is on the record. I am happy to provide to you.

Answer:

The Bureau of Resources and Energy Economics (BREE) released a report on *Major Electricity Generation Projects 2012* in November 2012.

The report provides nameplate capacity of publicly announced electricity generation projects.

The BREE list provides details of each announced project where the expected capacity is more than 30 megawatts. By setting a threshold of 30 megawatts, a number of electricity generation projects are not represented on the list, including small scale solar and biomass facilities.

It can be expected that a number of the generation projects included in the list will be delayed (or may not proceed) owing to several factors

A summary of the report findings in relation to new generation capacity by fuel type is provided in Table 1.

Table 1: Generation capacity by technology, for grid-connected projects > 30 MW that are under construction or publicly announced but not under construction.

Fuel type	Existing capacity	Under construction	Not under construction	**Additional new capacity**
Renewable				
Wind	2,127	974	16,877	17,851
Hydro	7,295	40	37	77
Solar (1)	11	44	1,035	1,079
Biomass	44	-	83	83
Geothermal	0.1	-	220	220
Ocean	1	-	786	786
Subtotal	*9,478*	*1,058*	*19,038*	*20,096*
% existing capacity (2)	*17%*	*2%*	*35%*	*37%*
Non-renewable				
Oil	733.0	-	150	150
Gas	13,588	475	16,468	16,943
Brown coal	7,410	-	N/A (3)	-
Brown coal gasification	N/A(4)	-	600	600
Black coal	22,487	220	2,726	2,946
To be determined (5)	-	-	4,000	4,000
Other	628	-	-	-
Subtotal	*44,846*	*695*	*23,944*	*24,639*
% existing capacity (2)	*83%*	*1%*	*44%*	*45%*
Total	***54,324***	***1,753***	***42,982***	***44,735***
% existing capacity (2)	*100%*	*3%*	*79%*	*82%*

Notes

1. Solar capacity does not include solar hot water installations.
2. As at 30 June 2012, the installed capacity of Australia's electricity generators comprised 54 324 MW in grid connected capacity.
3. Capacity of generation projects has not been disclosed.
4. Existing capacity of brown coal gasification plants is not available.
5. Non-renewable fuel type not specified.

Sources: BREE calculations based on *Major Electricity Generation Projects 2012; Electricity Gas Australia, esaa.*