## DEPARTMENT: DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

**TOPIC:** Economic Modelling for Carmichael Mine Proposal

**REFERENCE:** Written Question – Senator Whish-Wilson

## QUESTION No.: AI-88

In the Queensland Land Court case against the Carmichael Mine Proposal, economic modelling was commissioned by proponents Adani, conducted by ACIL Allen. The modelling exercise assumed that any amount of coal produced by Adani would result in the same amount of coal not being produced by a coal producer elsewhere in the world.

In aggregate, ACIL found that the construction of the Carmichael mine would slightly reduce the supply of coal in the world.

1. Does/would OCE use similar assumptions—that production of one mine is exactly offset by reductions in production elsewhere—in modelling it conducts or commissions?

2. Does any OCE research conclude that building a large coal mine could reduce the world supply of coal? If yes, please provide.

3. Has OCE conducted or commissioned any research on how changes to Australian coal production affect:

a. world coal price

b. World coal consumption

c. Greenhouse gas emissions from global coal fired power

If yes, please provide

4. The Australia Institute and Centre of Policy Studies recently published estimates of economic impacts of a moratorium on new coal mines and major coal expansion in Australia. They estimated impacts of:

a. a difference in GDP in 2040 of 0.6%

b. difference in employment peaks at 0.04% in 2030

Has OCE conducted any similar research on the effects of approving no new coal mines or major expansions? If yes, please provide.

5. In December 2015 the NSW Department of Planning and Environment published Guidelines for Economic Assessment of mining and coal seam gas projects. In a section on Local Effects Analysis, the guidelines state:

A range of techniques are available for estimating second round or flow-on effects. These include CGE (computable general equilibrium)-modelling, Input-Output (I-O) or multiplier analysis.

Does the OCE consider input-output or multiplier analysis suitable for estimating the employment and economic impacts of resource projects at local, state or national levels?

6. Has OCE been contacted by Australia's export credit agency, the Export Finance and Insurance Corporation (EFIC) in regards to the Boikarabelo Coal mine?

a. If so, when did this consultation occur? Please provide what advice was given to EFIC.

b. Has OCE conducted any assessment of how the development of the Waterberg coal basin in South Africa could affect Australian coal exports, particularly to India?

## ANSWER

- 1. The Office of the Chief Economist monitors coal production and consumption in a number of countries, analysing aggregate trends and the implications for Australian producers and export markets. The Office does not model the impact of the operations of any individual mine, but looks more broadly at the underlying determinants of the supply and demand for coal, and energy substitutes.
- 2. The Office of the Chief Economist has not done specific research on this question.
- 3. a) The Office of the Chief Economist has not commissioned research on this, but conducts broad analysis on coal markets, including global prices, analysing trends and forecasting out to a maximum of five years. A five year price projection is published every March quarter of the year, with a two-year outlook published in each subsequent quarter. The most recent *Resources and Energy Quarterly* (December Quarter-2016) is attached.
  b) In preparing the *Resources and Energy Quarterly*, the Office of the Chief Economist, draws on world consumption forecasts from the International Energy Agency.
  c) No
- 4. No
- 5. There are specific circumstances where Input-Output analysis is an appropriate technique. Using Input-Output analysis outside of these circumstances may be erroneous.
- 6. a) No
  - b) No