Commentary on the 2016 World Energy Outlook

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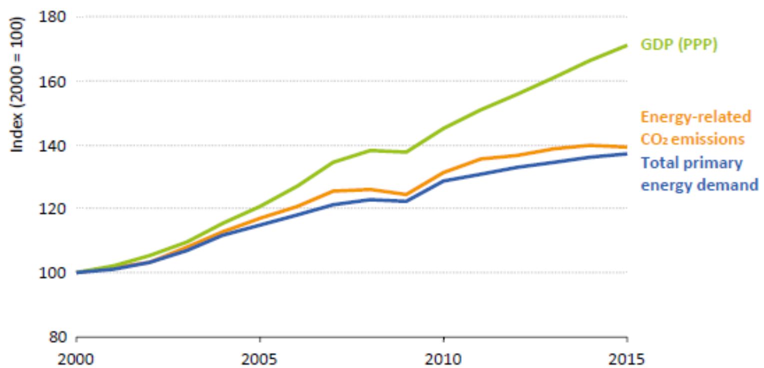
The world is beginning to de-carbonise: is Australia?

Figure 8.1 ▷ **Change in global economic output, energy demand and energy-related CO_2 emissions**

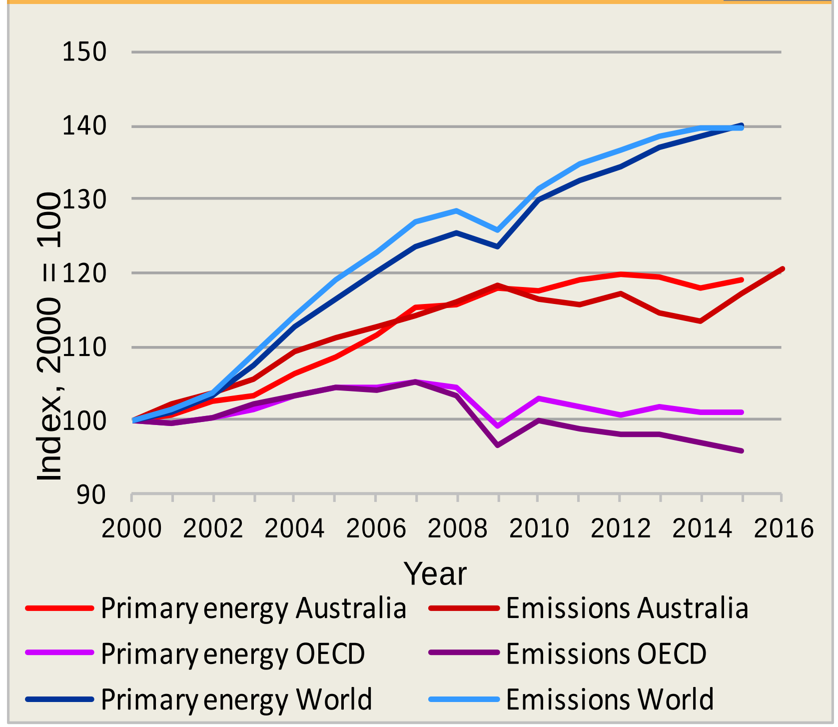


Global economic output, energy demand and energy-related CO_2 emissions are decoupling gradually

Note: GDP (PPP) = gross domestic product on purchasing power parity basis.

Sources: Historical data to 2014 from the IEA Data Centre; data for 2015 are preliminary and based on *World Energy Outlook* analysis.

Trends in energy demand and energy emissions

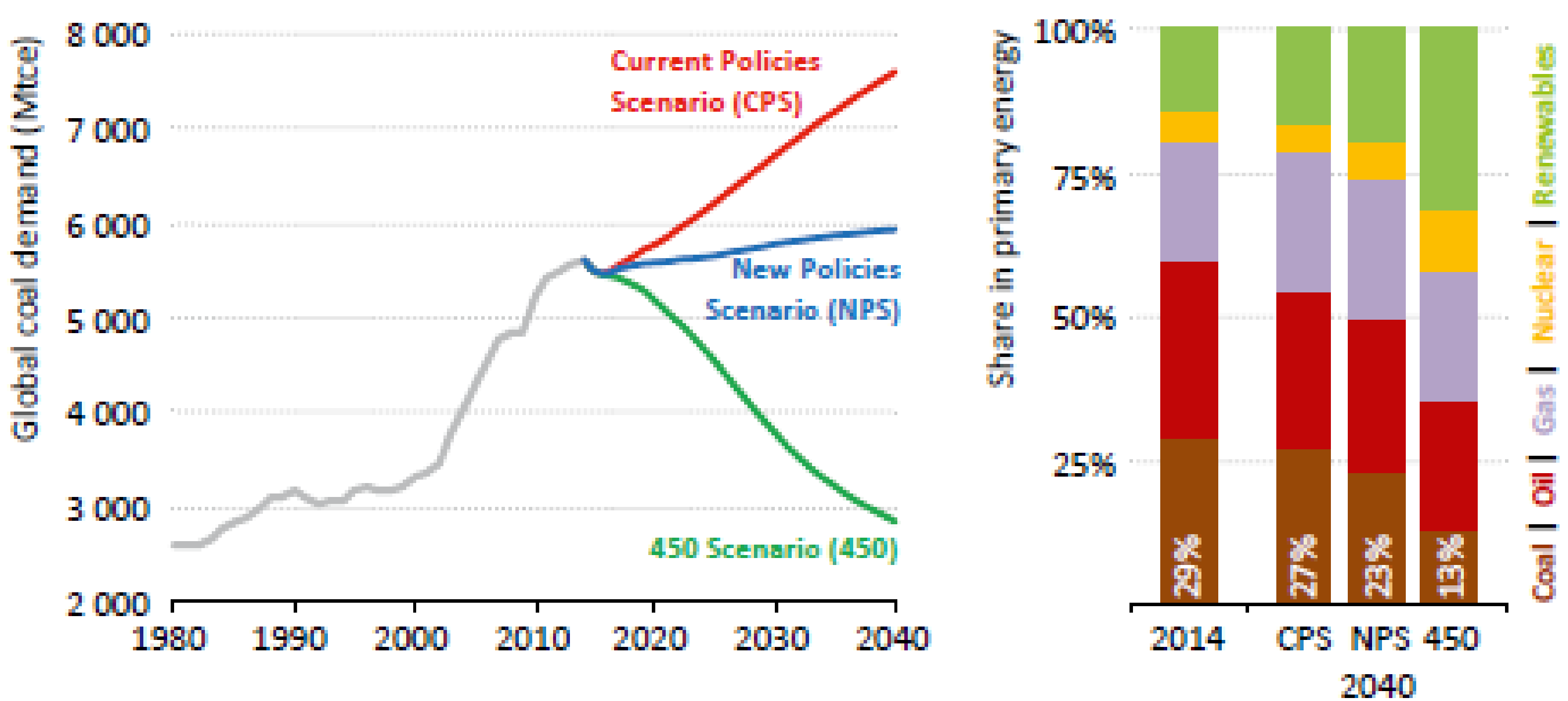


“New policies” is the central scenario

- “New policies” assumes that governments will implement new policies so as t meet the commitments they have made under the Paris Treaty
- Politicians and other commentators in Australia can no longer claim the “the IEA projects continuing growth in coal demand” to rationalise their support for the continuation of current national policies.
- Nor can they put off giving serious attention to the speedy and far-reaching transformation of electricity generation

Consumption of coal is strongly affected by the level of climate action (Figure 5.1, p. 206)

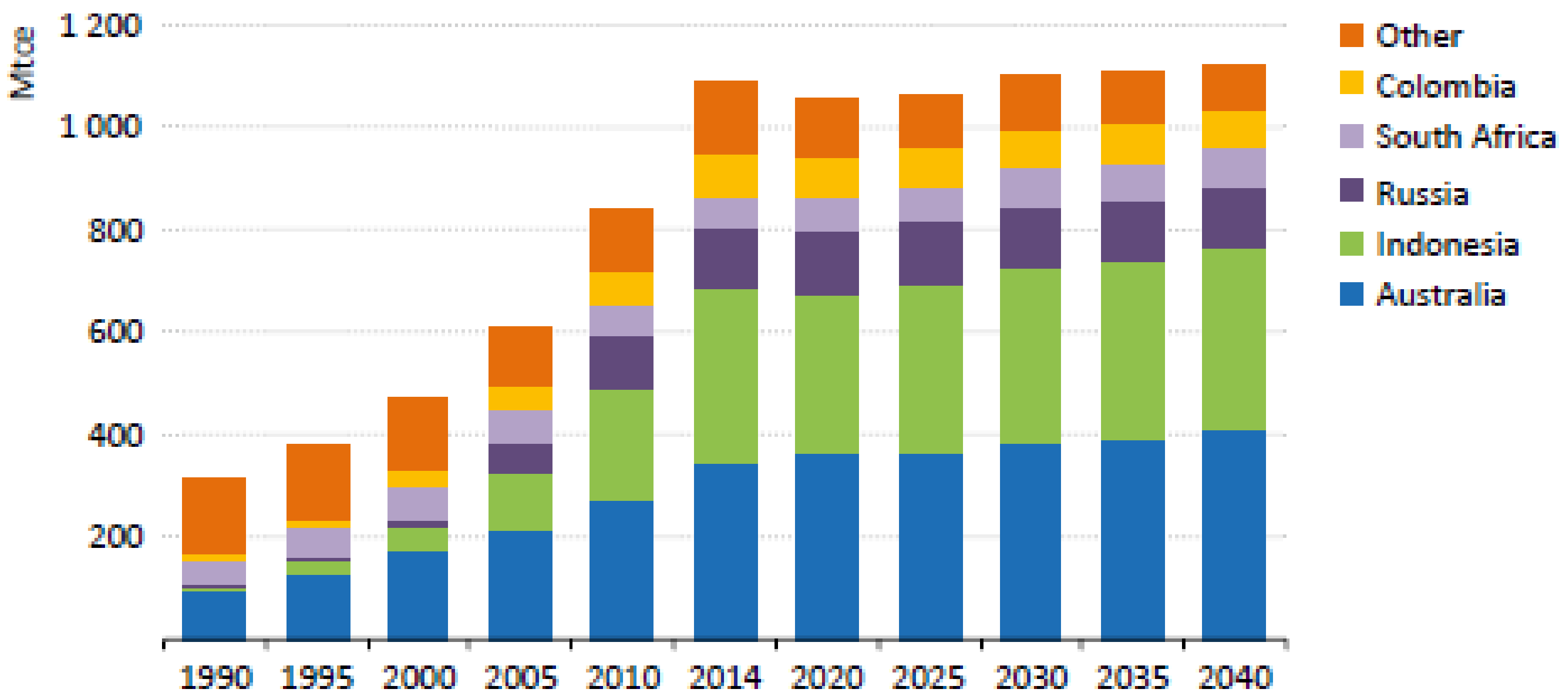
Figure 5.1 ▷ Global coal demand and share of coal in world primary energy demand by scenario



Coal use and coal's share in primary energy is sensitive to the level of climate action

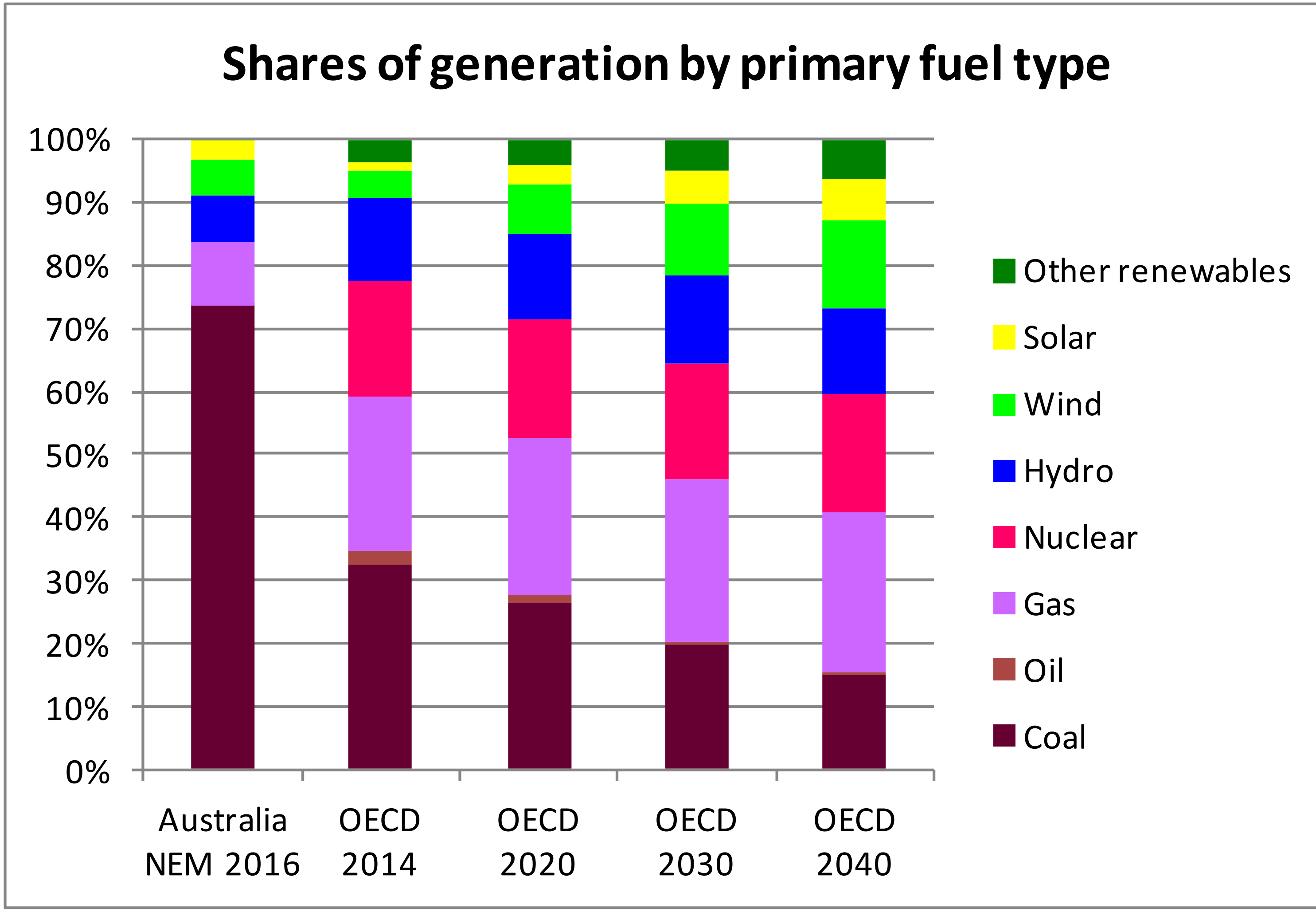
Australia is projected to remain the largest exporter, but most of the very limited growth is expected to come from coking coal

Figure 5.6 ▷ Global coal trade by exporter in the New Policies Scenario



Global coal trade rebounds to 2014 levels only in the late 2020s, after a long slump

Electricity generation will be transformed



Data sources:	OECD:	WEO 2016, Annex A
	Australia NEM:	NEM-Review, extracted by author

Australia’s transformation task

- Australia will have a higher proportion of variable/intermittent wind and solar in the new supply mix than the OECD average.
- This will present different and possibly more challenging system integration issues.
- But, given the high quality of Australia’s wind and solar resources, this could also provide the opportunity for Australia to lead innovation in technologies and approaches which all countries will eventually need.