



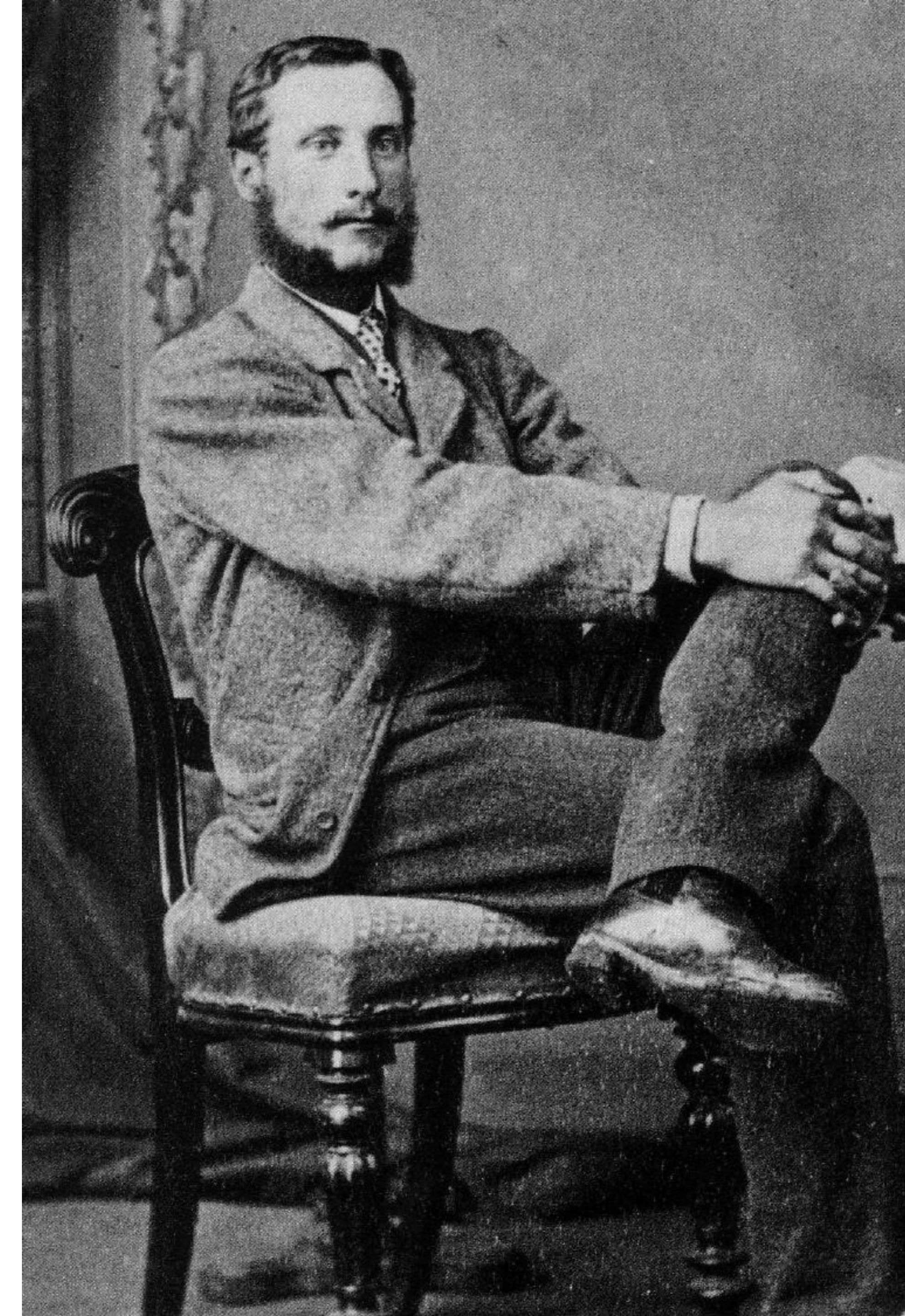
**NEW ZEALAND
OIL & GAS**

New Zealand Industry Leader's Address

New Zealand Petroleum Conference

Andrew Jefferies, Chief Executive, New Zealand Oil and Gas

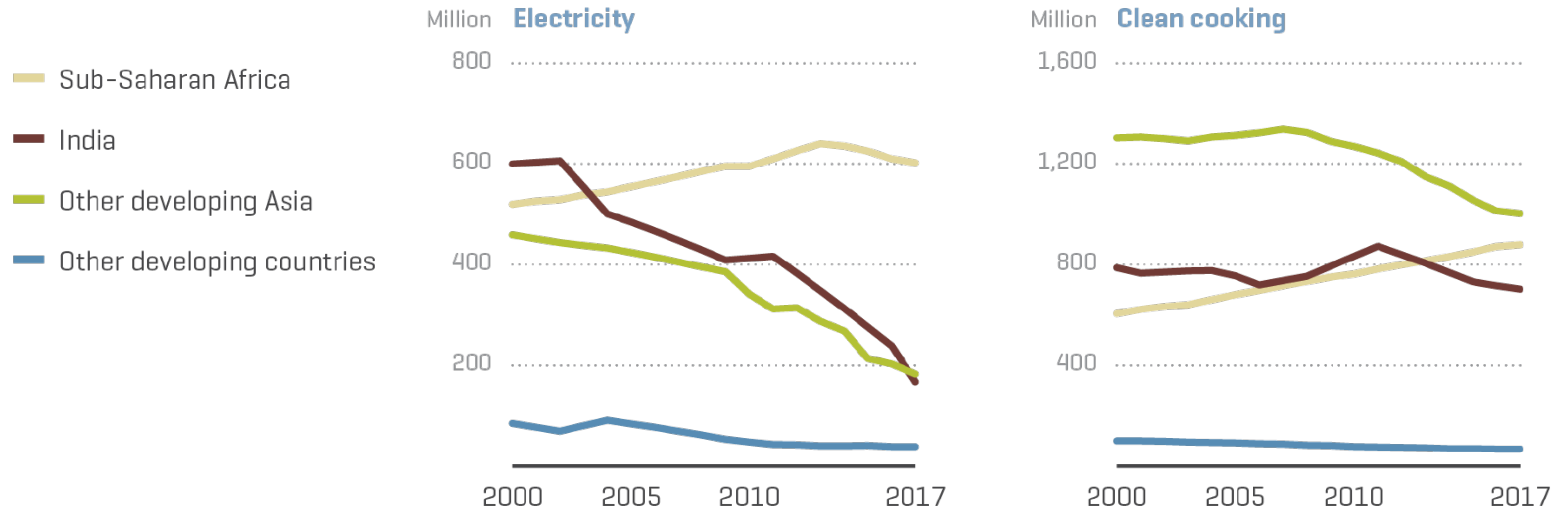
10.30am Monday, 30 September 2019



Pictures: Wikipedia

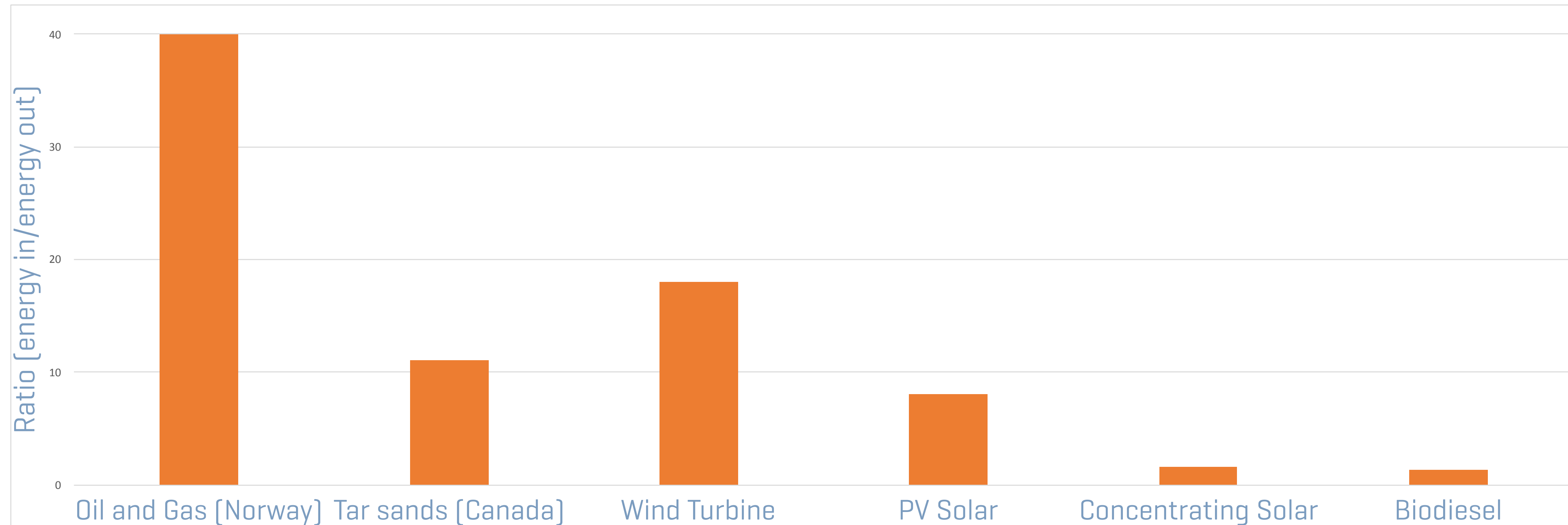


Population without modern energy access



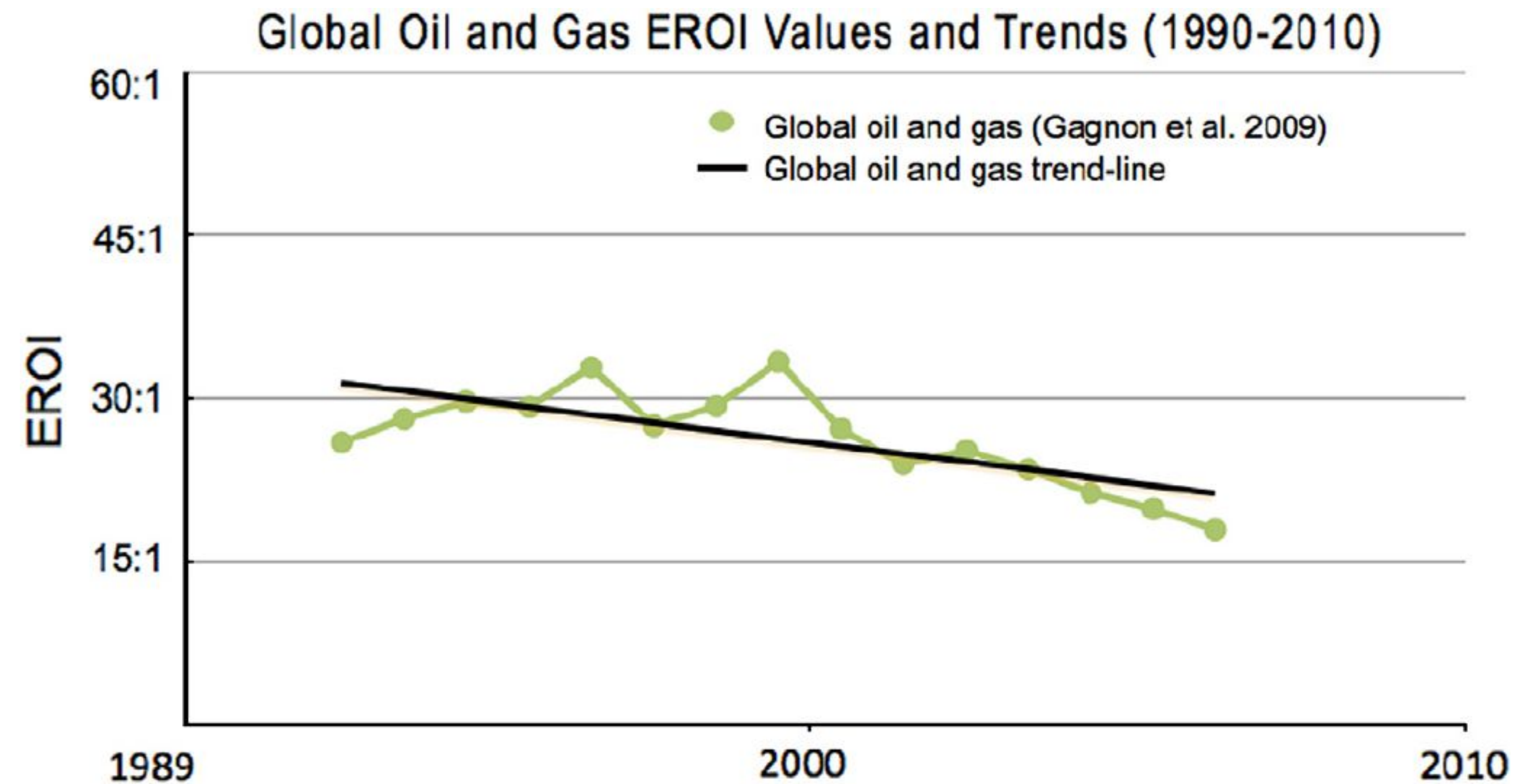
Fewer than a billion without electricity for the first time

Energy return on investment of various fuels



[Charles A.S. Hall, Jessica G. Lambert, Stephen B. Balogh, Energy Policy, 2013, available here: www.sciencedirect.com/science/article/pii/S0301421513003856]

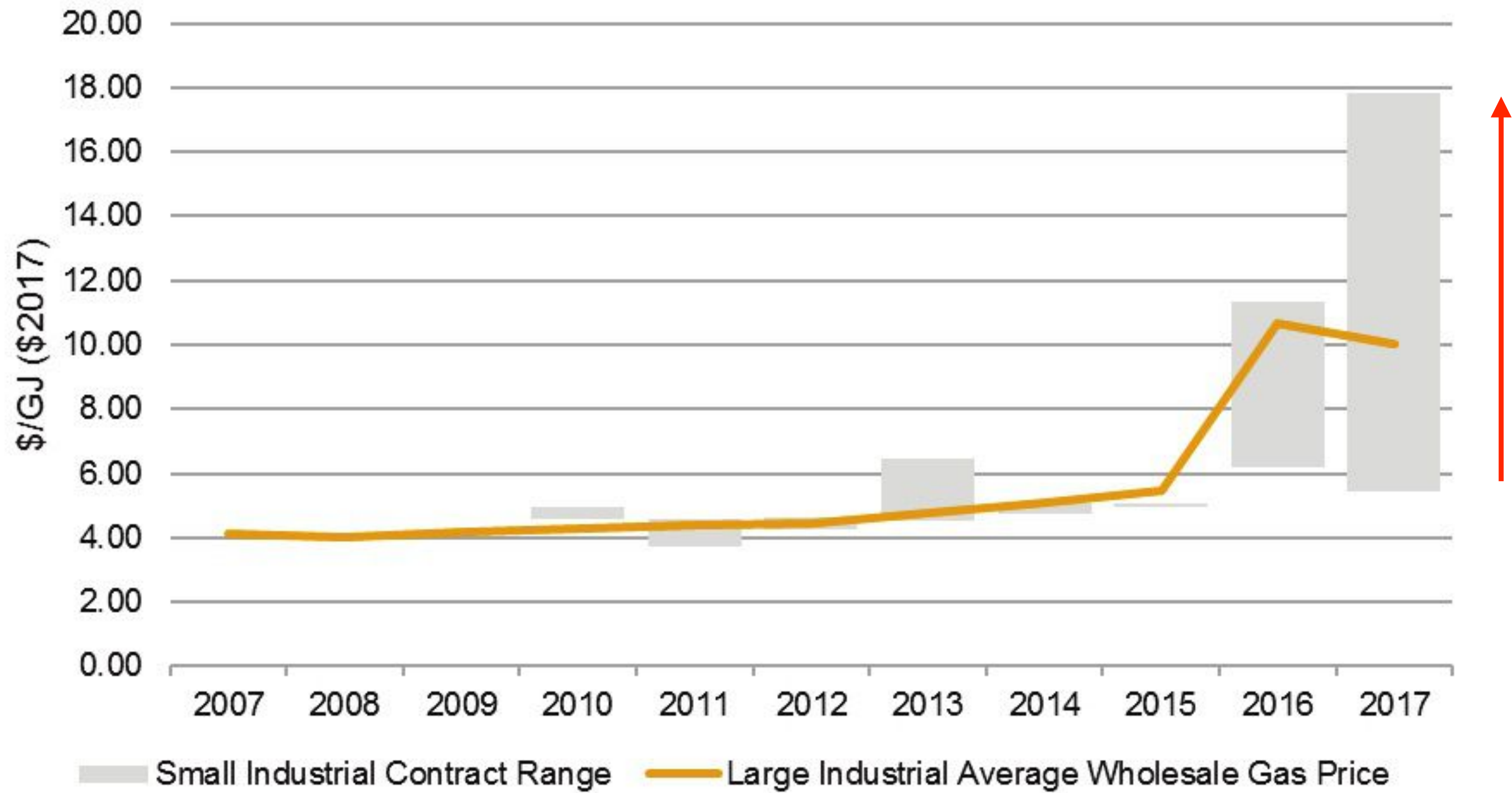
“Declining EROI means that an increasing proportion of energy output and economic activity must be diverted to attaining the energy needed to run an economy.”



“The declining EROI of traditional fossil fuel energy sources and the effect of that on the world economy are likely to result in a myriad of consequences, **most of which will not be perceived as good.**”

Scarcity leads to price rises

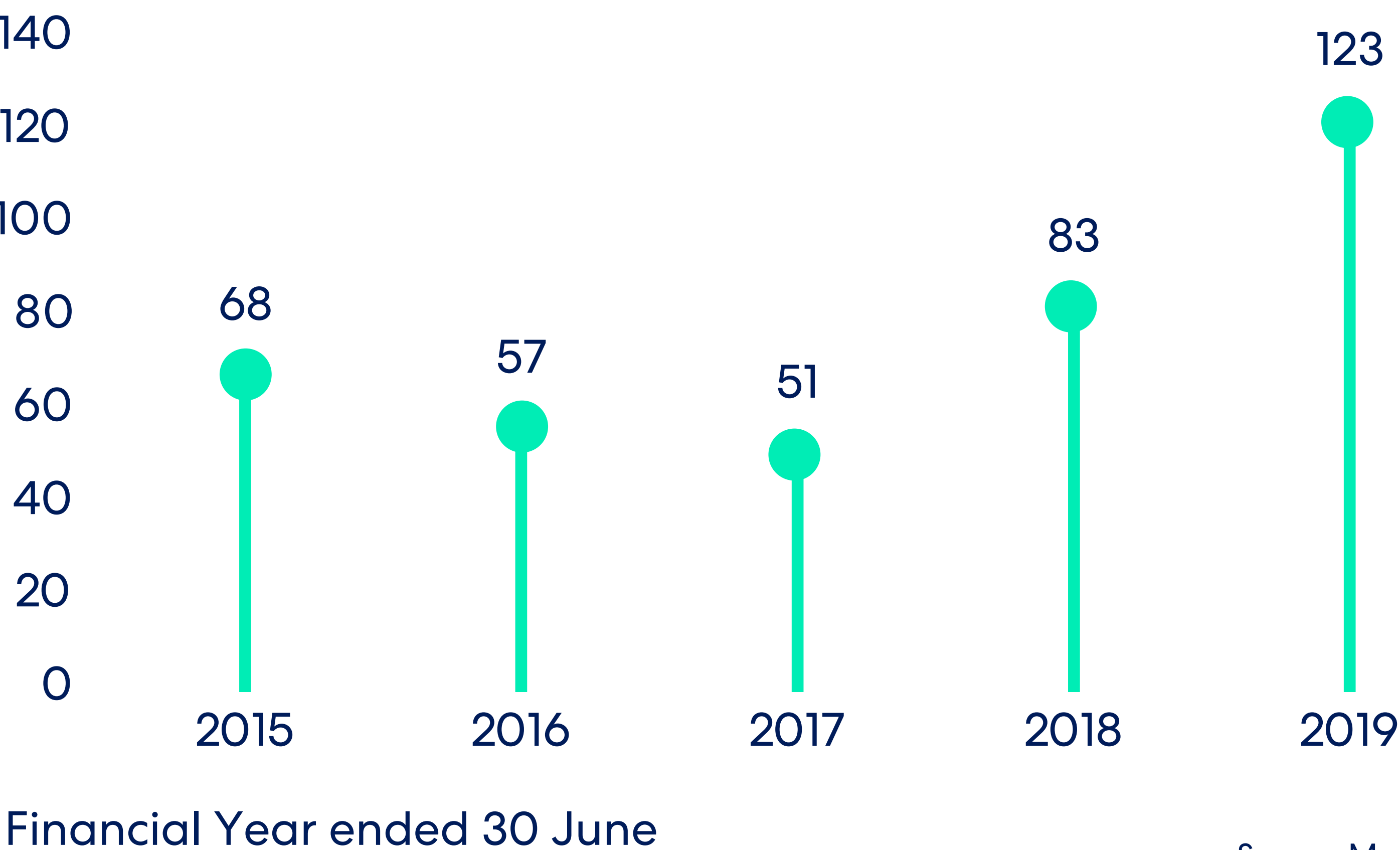
Industrial price scatter, Victoria



Oakley Greenwood, Gas Price Trends Review 2017 for the Council of Australian Governments [COAG] Energy Council available at https://www.energy.gov.au/sites/default/files/gas_price_trends_review_2017.pdf.

Cost of producing energy rises across all energy sources

NZ average generation price
\$/MWh

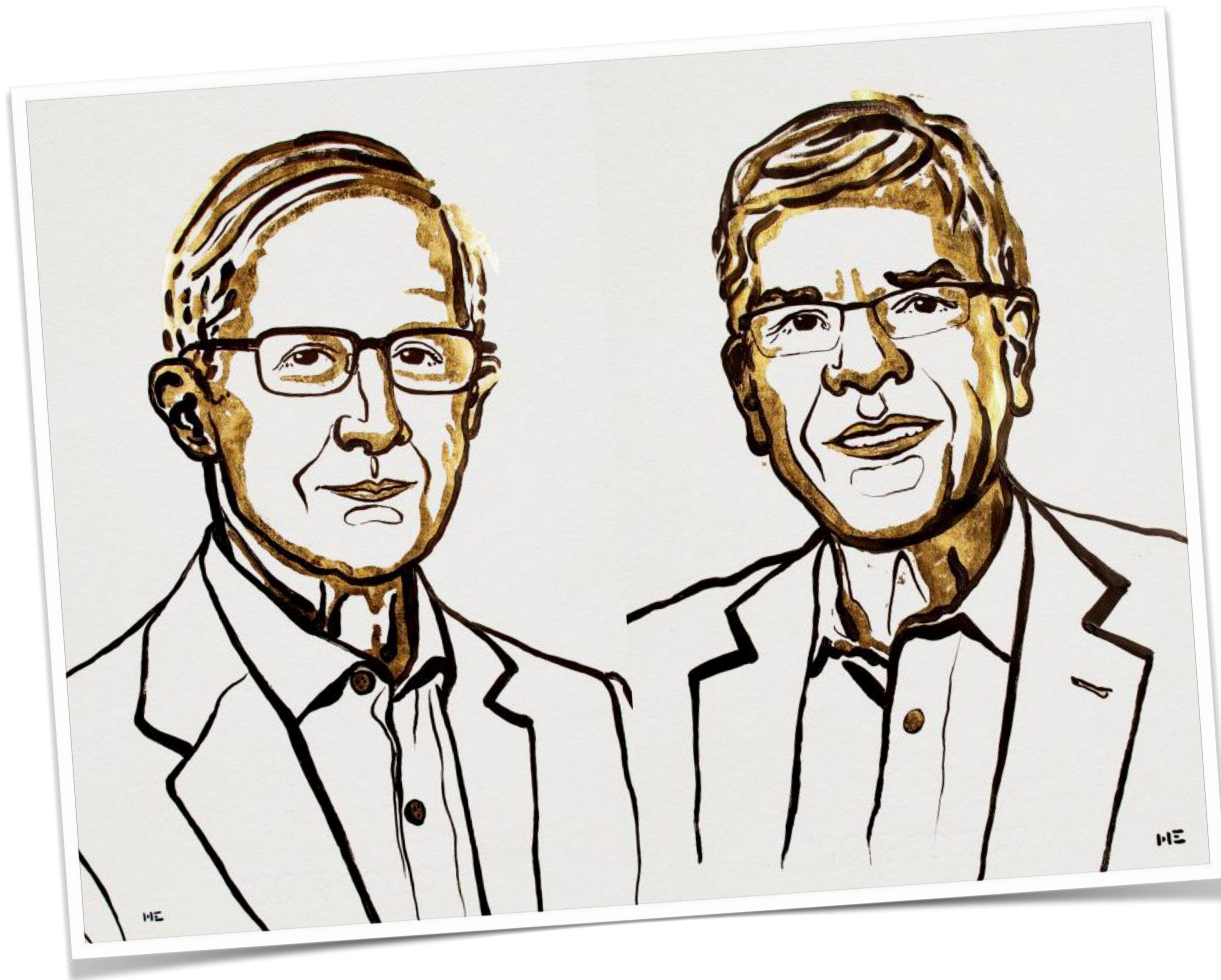


Source: Meridian



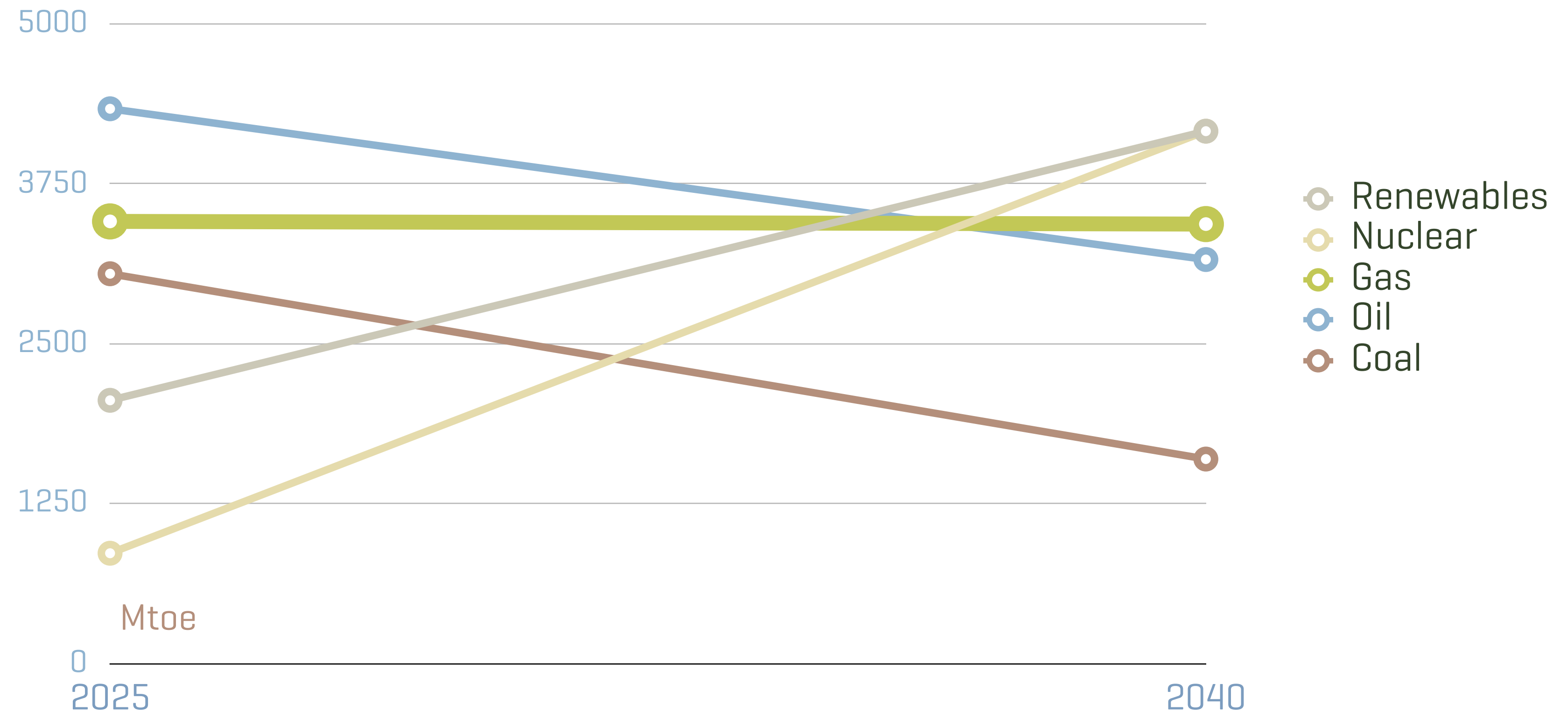
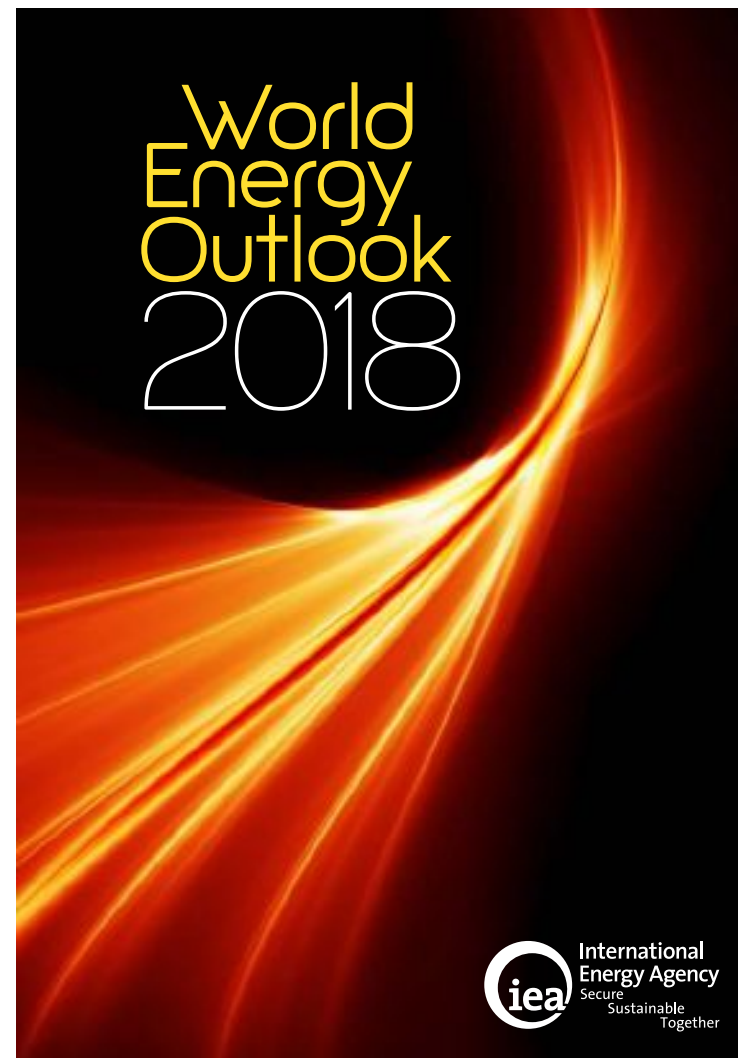
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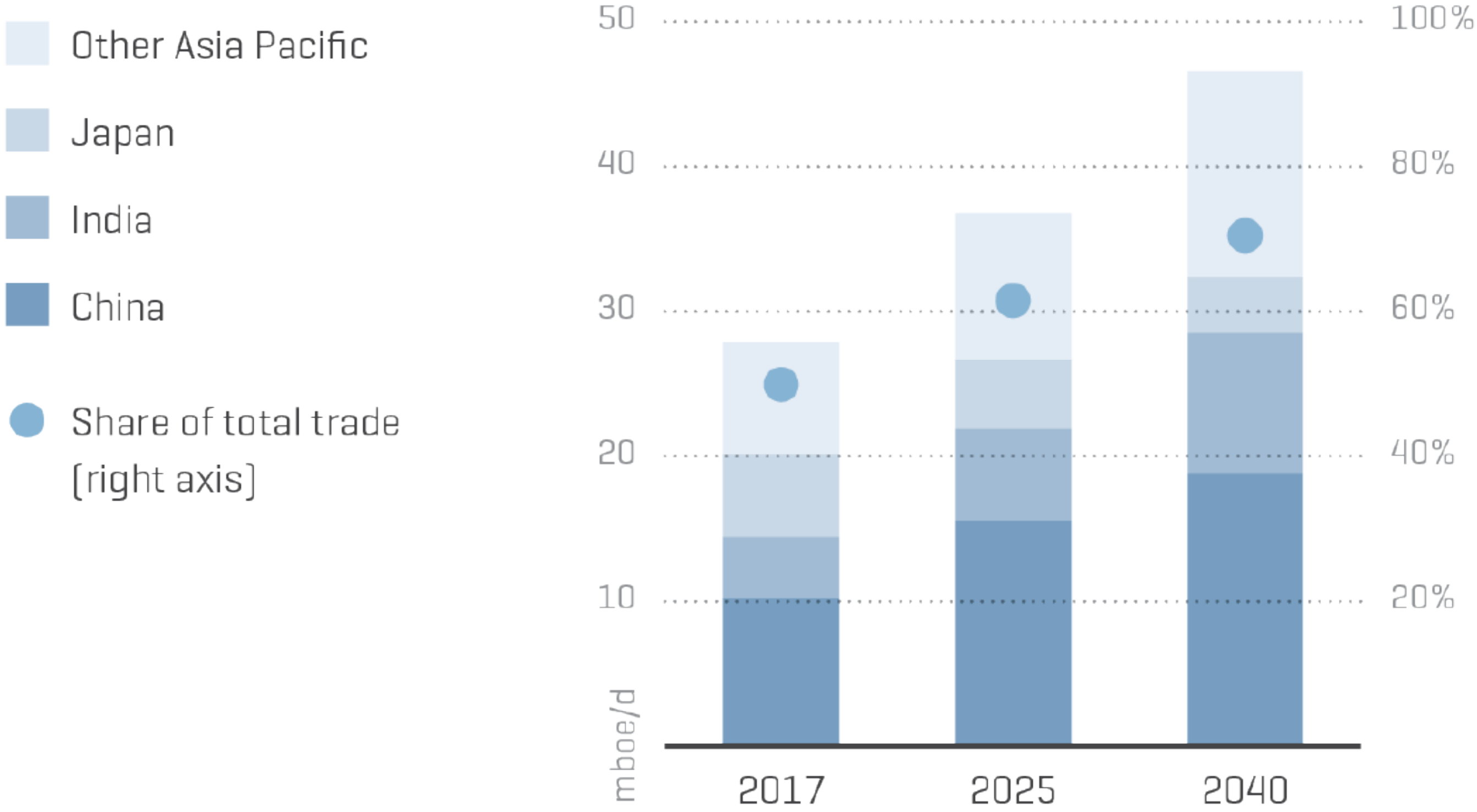
Royal Swedish Academy of Sciences

In the Sustainable Development Scenario, natural gas is stable over the next 25 years



World primary energy demand in the IEA Sustainable Development Scenario

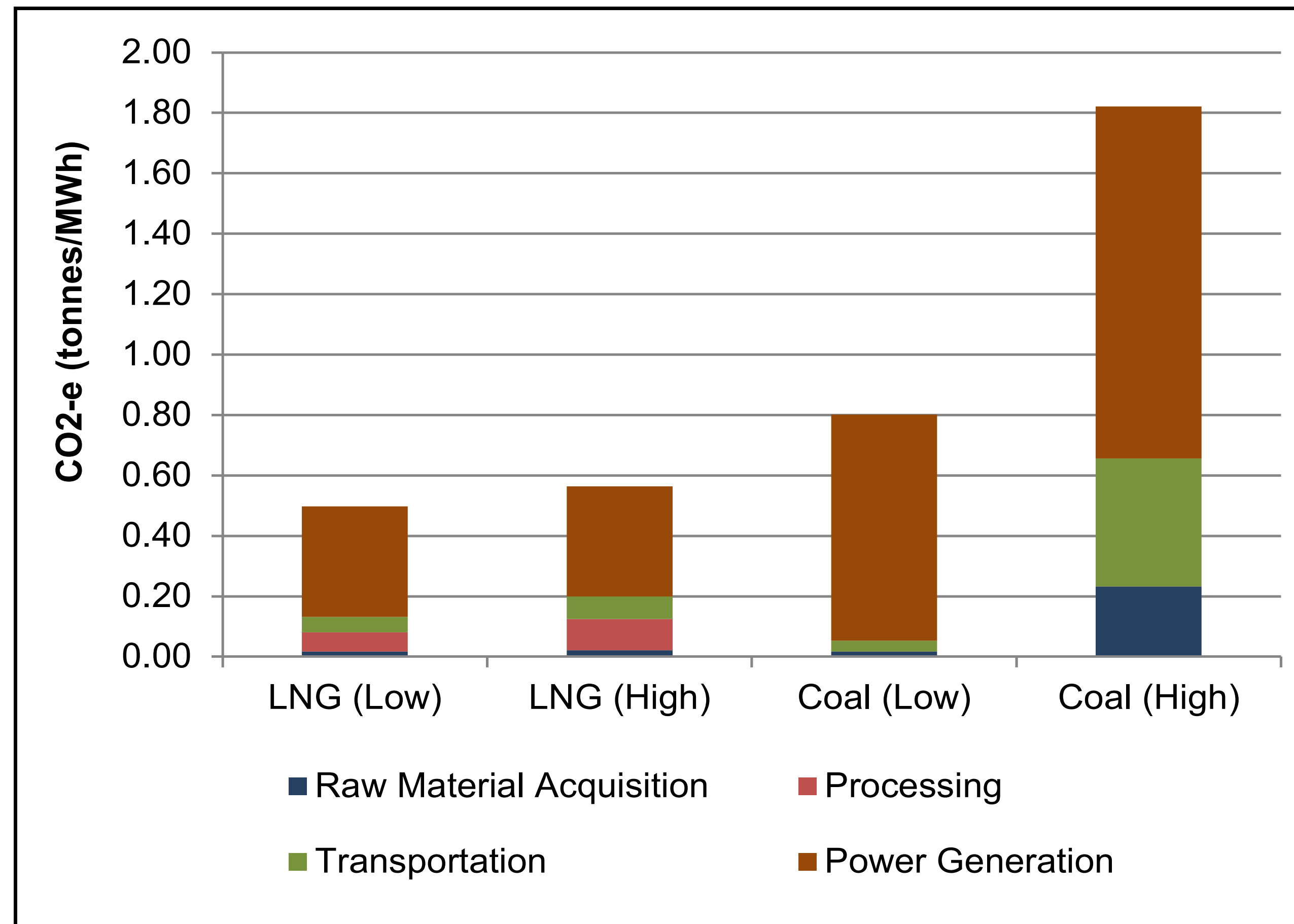
Next 20 years of oil and gas imports by Asian destination



Two thirds of global oil and gas imports flow to Asia by 2040

IEA New Policies Scenario

Power generation from LNG emits less carbon than power generation from coal





**Open cast tar sands mine in the Boreal forest
North of Fort McMurray, northern Alberta, Canada.**



**Oil and light oil production
offshore and onshore New Zealand**



New Zealand's enormous continental shelf



