

Japan embraces coal power for backing global trends

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Dennis Normile criticizes Japan embracing coal power (1). Japan has the best coal power technology. The IEA data shows that average co2-intensity coal-fired power (g/kWh) of Japan is 807 as shown in Table-A (2). The Japanese goal of co2-intensity coal-fired power (g/kWh) is 650 with IGCC (Integrated coal Gasification Combined Cycle) around 2020 (3) and 590 with IGFC (Integrated Coal Gasification Fuel Cell Combined Cycle) around 2025 which is better than that of the world co2-intensity oil-fired power as shown in Table-B (2). World energy is still largely relied on oil and coal (4). Not by the renewable energy, but by the Japanese coal-fired power technology, the world can significantly reduce co2 emission. Japan intends to back global trends by the coal-fired power technology. Dennis Normile's criticism misleads the wrong conclusion.

Table-A CO2-intensity coal-fired power (g/kWh): IEA data (2)

	2013	2014	2015	Average
Australia	1,007	998	994	1,000
China	896	890	882	890
France	845	878	847	857
Germany	909	907	895	904
India	1,003	1,002	987	998
Japan	800	813	809	807
South Korea	933	907	906	915
Nordic countries	841	857	875	858
United Kingdom + Ireland	869	865	875	869
United States	923	921	923	922

Table-B CO2-intensity oil-fired power (g/kWh): IEA data (2)

	2013	2014	2015	Average
Australia	681	652	625	653
China	762	762	762	762
France	883	820	777	826
Germany	708	739	704	717
India	1,092	981	1,008	1,027
Japan	603	636	629	623
South Korea	695	635	716	682
Nordic countries	817	781	782	793
United Kingdom + Ireland	880	888	834	867
United States	621	669	656	649

References:

1. Dennis Normile, Bucking global trends, Japan again embraces coal power, Science 04 May 2018: Vol. 360, Issue 6388, pp. 476-477
2. IEA data: Tables on page76  
<https://www.ecofys.com/files/files/ecofys-2017-intl-comparison-of-fossil-power-efficiency-co2-intensity.pdf>
3. Japan coal-fired technology map on page 3,  
[https://www.icef-forum.org/platform/speakers/2017/topic4/ICEF2017\\_CS2-3\\_Nobuyuki\\_Zaima\\_fin.pdf](https://www.icef-forum.org/platform/speakers/2017/topic4/ICEF2017_CS2-3_Nobuyuki_Zaima_fin.pdf)
4. <http://peakoilbarrel.com/world-energy-2017-2050-annual-report/>