Accelerating coal phase out: UK context and international perspective

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About E3G

• E3G is an independent not for profit think-tank with offices in London, Brussels, Berlin and Washington DC, working to accelerate the low carbon transition

• Close engagement with the UK policy transition from the risk of new coal plant (~15GW+ including Kingsnorth c.2008) to coal phase out policy (2018)

• E3G focuses on fostering and supporting leadership by progressive Governments to accelerate the global transition from coal
Why coal matters – climate risk and economic risk

Existing coal plant capacity far exceeds Paris Agreement goals
Source: Climate Analytics

EU could avoid €22bn in losses by asset stranding by phasing out coal in line with the Paris Agreement
Source: Carbon Tracker Initiative
# G7 Coal Analysis

## G7 Share of electricity generation from coal-fired power plants

<table>
<thead>
<tr>
<th>Year</th>
<th>USA</th>
<th>Germany</th>
<th>UK</th>
<th>Japan</th>
<th>Italy</th>
<th>Canada</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td>20%</td>
<td>25%</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td>25%</td>
<td>20%</td>
<td>35%</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td>20%</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td>15%</td>
<td>35%</td>
<td>45%</td>
<td>55%</td>
<td>65%</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td>10%</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td>5%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td>0%</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td>70%</td>
<td>80%</td>
<td>90%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Sources: World Bank, ICS, E3G calculations. Data unavailable for Japan and Canada.

## G7 Coal dynamics 2010 – 2017 and beyond

**74 GW cancelled**

- USA
- Germany
- Japan

**-1916W retirements**

### France
- Newly Operational: 30W
- Planned: 30W
- Retired: 0.7W
- Cancellation: 50W
- Retirements: 70W

### UK
- Newly Operational: 16W
- Planned: 16W
- Retired: 0.8W
- Cancellation: 50W
- Retirements: 60W

### Canada
- Newly Operational: 10W
- Planned: 10W
- Retired: 276W
- Cancellation: 490W
- Retirements: 276W

### Italy
- Newly Operational: 10W
- Planned: 10W
- Retired: 144W
- Cancellation: 444W
- Retirements: 144W

### Japan
- Newly Operational: 10W
- Planned: 10W
- Retired: 444W
- Cancellation: 490W
- Retirements: 490W

Sources: CoalSwarm Global Coal Plant Tracker, Mike Network Japan Coal Map, Sierra Club. E3G analysis. Canada profile includes closure of one plant in 2005 as part of Ontario coal phase-out plan. Includes coal plants with closure dates already announced plus closures due to result from government policy commitments.

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**E3G analysis of G7 coal dynamics**

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## E3G G7 Coal Scorecard 2017

### G7 Coal scorecard

<table>
<thead>
<tr>
<th>RANKING</th>
<th>CHANGE*</th>
<th>Risk of new coal power plants</th>
<th>Coal power plant retirements</th>
<th>International impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Market Drivers</td>
<td>Government Policy</td>
<td>Market Drivers</td>
</tr>
<tr>
<td>1. France</td>
<td>▲</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>2. Canada</td>
<td>▲</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>3. UK</td>
<td>▼</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>4. USA</td>
<td>▼</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>5. Italy</td>
<td>▲</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>6. Germany</td>
<td>▲</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>7. Japan</td>
<td>▼</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

*Change compared to May 2016. Source: E3G assessment.
UK growth decoupled from emissions

UK and G7 economic growth and emissions reductions
Source: BEIS

UK carbon budgets and 2050 targets
Source: BEIS
UK’s historic relationship with coal

UK was the first country to use coal to generate electricity - Number 57, Holborn Viaduct, January 1892

Reduction in electricity generation from coal in the UK to 9% in 2016
Source: BEIS
Rapid evolution of UK energy and climate policy

UK Government policy support for new coal - 2006

UK Climate Change Act - 2008

UK Government policy to implement coal phase out - 2018
Coal’s decline accelerates

New UK record for coal free generation – 76hrs

Demolition of stack at Kingsnorth coal plant
'Political watershed' as 19 countries pledge to phase out coal

New alliance launched at Bonn climate talks hopes to signal the end of the dirtiest fossil fuel that kills 800,000 people a year with air pollution.

UK and Canada lead alliance against coal

A significant group of nations take a stand against using coal for electricity generation at UN climate talks.

BBC.com
Global coal pledge puts Merkel on the spot – again

A new alliance to phase out coal power by 2030 leaves the host country on the sidelines, as Germany wrestles with its own emissions dilemma.

Southeast Asian CSOs and Movements on the UK-Canada Powering Past Coal Alliance

We reiterate the Southeast Asian peoples demand for the UK, Canada and other developed countries, including the US, EU, Japan, to raise their ambition further. We call for an immediate end to the financing of new coal power plants and coal mining projects in the region. At present, there are around more than 120GW of proposed coal plants in the region, and 90% of the global coal plant expansion in the Asian region. We urge governments of the Powering Past Coal Alliance to immediately stop and curb funding from both public and private finance from their countries to corporations, banks that are behind this massive coal build-up in Southeast Asia and in Asia in general. In addition, we call for the delivery of climate finance to developing countries for the swift and just transition to 100% renewable energy for people and communities.
Powering Past Coal Alliance - added value

• Progressive leadership by Governments in the Alliance has critical value: coal is explicitly recognised as the top target
• Close connectivity between international climate diplomacy and domestic policy making on energy transition is essential
• Momentum created at an international level can help policy makers to accelerate structural change in national economies
• At the same time, progress in the transition to low-carbon energy can help drive greater ambition in climate diplomacy
• Critical international moments include the Californian GCAS, Canadian G7, and the Japanese G20 Summit in 2019
Powering Past Coal Alliance - implementation

- Emphasis on making substantial progress towards encouraging OECD countries to commit to 2030 coal phase, through:
  - Support for countries in running national processes to plot a rapid transition from coal, based on their specific national conditions
  - Sharing of best practice on policy making to drive a secure transition from coal
  - Sharing of best practice between sub-national actors on regional and social aspects of the transition
  - Convening to accelerate the shift of investment from coal to clean renewable generation
**E3G approach to country mapping**

- **Active Phase Out**
  - No direct involvement
  - Markets / Regulators
  - Government Policy
  - International Influence

- **Retirements happening**
  - Progressive Leaders: PPCA members
  - Countries considering how to transition from dirty coal to clean energy

- **Inertia**
  - Difficult National Politics
  - Negative International Influence

- **Coal Promotion**

**Level of Government Engagement**
- Passive
- Active