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CRACKS IN THE ICE FOR SOUTH KOREAN COAL?

THE NEED FOR INTERNATIONAL ENGAGEMENT TO SUPPORT SOUTH KOREA'S TRANSITION FROM COAL

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Summary

South Korea is trying to move away from its dependence on coal fired power generation with commitments from President Moon and Provincial Governor Ahn. Internationally, progressive countries are showing greater leadership in moving away from coal, notably through the Powering Past Coal Alliance, but need to engage and provide more support for countries like South Korea in their transition from coal to clean. There are opportunities for South Korea and the Alliance to work together, to develop greater momentum on the phase out of coal through 2018, and to influence other key countries, including South Korea's Asian neighbor Japan.

Context

This week sees the culmination of the 2018 Winter Olympics in PyeongChang, South Korea. Over 2.3 million¹ visitors are expected to have passed through Seoul as the eyes of the world have turned to dare devil displays of slipping and sliding under the 15 sports that make up the Winter games.

According to a recent study² looking at climate change impacts on traditional Olympic Ski venues, the South Korean hosts can be somewhat relieved that their venue may fare better in the future than many others in our warming world. For South Korea, which has already experienced 1.7C of warming³ over the Peninsula in the last century (1912-2008) as well as an 18% increase in precipitation intensity, there are more pressing

¹ <http://www.koreaherald.com/view.php?ud=20180201000857>

² <https://www.nytimes.com/interactive/2018/01/11/climate/winter-olympics-global-warming.html>

³ Korea Adaptation Center for Climate Change (http://ccas.kei.re.kr/english/menu_1_1.do)



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climate and wider environmental impacts, including rising levels of air pollution from the region's cars, factories and coal fired power stations.

Domestic Energy Concerns

Environmental concerns over energy have played a strong role in South Korean politics over the last 12 months. Since the Fukushima disaster in 2011, public opinion has turned against nuclear power with growing concerns over the safety of South Korea's 22.5GWe⁴ nuclear fleet. The unexpected 5.8 magnitude earthquake in Gyeongju in September 2016, one of the strongest earthquakes in Korean history, and a subsequent earthquake in Pohang in November 2017 have contributed to such concerns.

Public air quality concerns had been increasing, but by fate, the impeachment of President Park Geun-Hye triggered elections in May 2017 that coincided with a peak in poor air quality, as pollution from South Korea and China's heavy industry aggregated over the Yellow Sea and the Korean Peninsula. As a result, President Moon Jae-In entered office with a raft of environmental pledges relating to the energy sector. This included a pledge to reconsider the nine coal fired power stations which were seeking permits or under construction as of the election date and to shut down the most polluting and oldest plants.

But as the administration is now finding, making election pledges is one thing, implementing them is another matter. The Moon administration has only been able to secure agreement for two of the nine plants to be converted to gas, and there is a high risk that a further seven plants will be built over the period to 2023⁵. But the President's intentions are correct, as demonstrated by recent international experience in China⁶ and the Netherlands⁷ who have all decided that it is cheaper to stop new coal plants before they are built or to phase out newly built plants.

Regions are showing leadership too. South Chungcheong is currently host to more than half (18 GW out of a national total of 35 GW) of Korea's coal power capacity and is actively resisting further coal expansion. Whilst energy decisions remain in the hands of the national Government, the region's Governor Ahn Hee-Jung recently declared his province to be 'post-coal' and is spearheading efforts to develop a 'East Asia Coal Phase Out Alliance'⁸.

Korea's affinity to coal fired power generation spreads far beyond its domestic energy mix. As a consequence, Korea is the third largest international financier of coal fired power plants after China and Japan. It has recently been estimated that Korean financial

⁴ South Korea's 8th Electric Power Supply and Demand Framework Plan (http://www.motie.go.kr/motie/ne/presse/press2/bbs/bbsView.do?bbs_cd_n=81&cate_n=1&bbs_seq_n=160040)

⁵ Korean Government projections suggest that its coal fired power capacity will be higher than now in 2030.

⁶ <https://cleantechnica.com/2017/08/16/china-halts-construction-150-gw-new-coal-power-plants/>

⁷ <http://www.climatechangenews.com/2017/10/11/netherlands-agrees-coal-phase-calls-stronger-2030-eu-emissions-target/>

⁸ <https://www.theguardian.com/environment/2018/feb/16/south-koreas-ahn-hee-jung-on-coal-trade-after-paris-everything-should-change>



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institutions supported coal fired investments, mainly in South East Asia, to the tune of \$8bn over the last 10 years⁹. And this support continues. Korean institutions are currently active in power plant development in Vietnam and Indonesia. This has led to criticism from Korean legislators at National Assembly hearings and to legislative bills seeking to restrict key Korean financial institutions (including Korea Export Import Bank) from financing coal projects also being proposed to the National Assembly.

Growing international momentum away from coal

This matters for all us. All credible analysis points to the fact that to meet the Paris Agreement, all OECD countries (including South Korea) need to phase out coal fired power generation entirely by 2030, followed by China in 2040 and the rest of the world by 2050¹⁰. There are signs of a growing wave of progressive support toward the phase out of coal.

In November 2017, the UK and Canada launched the **Powering Past Coal Alliance**, bringing together over 50 Countries, States, regions and business, united in support of the phase out of coal¹¹. Alliance partners have pledged to offer mutual support, share best practice on aspects of the transition, and restrict public and private finance for coal projects.

There is now a great opportunity for the Powering Past Coal Alliance to encourage and support countries and regions who are in the foothills of their transition away from coal, like South Korea and South ChungCheong province. The Alliance can provide a fresh international space for dialogue, political partnership and tangible technical support to help countries and regions to accelerate their transition from coal. At the same time, those countries that continue to support coal fired generation overseas will increasingly find themselves on the rough end of bad investments as well as suffering from reputational damage.

Clean Development Opportunity

This is a great moment of opportunity for South Korea as it has almost no fossil fuel resources and is heavily import dependent. Yet, since 2014, South Korea has brought on line over 11GW of large new coal fired power plants with a resulting increase in emissions. South Korea now has a significant energy capacity surplus¹², which provides headroom for a rapid build out of renewable energy generation (target of 20% of power generation by 2030 from its current low base of 2%), alongside the phase out of coal plants, with demand curtailed by energy efficiency deployment.

⁹Financing Dirty Energy – How Korean Public Finance Institutions Support Coal Power

<https://docs.google.com/viewer?a=v&pid=sites&srcid=Zm9yb3VyY2xpbWF0ZS5vcmd8c2ZvYzJ8Z3g6NzMyYzAzNjdlYzc0YWY2Yw>

¹⁰ <http://climateanalytics.org/publications/2016/implications-of-the-paris-agreement-for-coal-use-in-the-power-sector.html>

¹¹ <https://www.gov.uk/government/publications/powering-past-coal-alliance-declaration>

¹² According to the 8th Power Plan, in 2017, South Korea's power reserve ratio was around 26% (85.2 GW over a 107.8 GW capacity) and will be at 22% by 2030



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At the same time as reducing air quality emissions and showing regional leadership South Korea can harness and fully exploit the technological potential of its industrial sector, including the strengths of the *chaebol* companies such as LG Group, Samsung, Hyundai and Hanwha, to lead domestically and internationally on solar, batteries and electric vehicle deployment. A shift in emphasis on export finance to support these clean technologies is urgently required rather than continued backing for coal fired power.

Increasing renewable energy deployment would provide a stable base for growth for its companies to expand into the global renewables market estimated by Bloomberg New Energy Finance to make up three quarters of the expected \$10.2tn investment in energy technology from 2017 to 2040¹³. Greater commitment to the low carbon transition would enable South Korea to develop a stronger and more credible climate narrative, restore its green credentials and allow it to upgrade its currently weak Paris Agreement target¹⁴.

As the Winter games close and the Olympic flag begins its journey to its next summer host city of Tokyo, Japan (another Asian economy dominated by coal and a center of coal finance), what steps can the global community and South Korea make to accelerate the transition from coal before the games resume in 2020?

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E3G is an independent climate change think tank operating to accelerate the global transition to a low carbon economy. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere. In 2016, E3G was ranked the number one environmental think tank in the UK. More information is available at www.e3g.org

Solutions for Our Climate (SFOC) is an environmental group based in the Republic of Korea, advocating stronger climate and air policies. SFOC is led by climate change related legal, economic and financial experts, with deep expertise in the power sector, decarbonization and in environmental policy. SFOC is also part of the Carbon Pricing Leadership Coalition (CPLC) led by the World Bank Group, and is often quoted in media on Korean climate policy. More information is available at www.forourclimate.org

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¹³ <https://about.bnef.com/new-energy-outlook>

¹⁴South Korea's current commitment to reduce emissions to 536 MtCO₂e by 2030 is considered weaker than its previous Copenhagen commitment of a reduction of 543 MtCO₂e by 2020