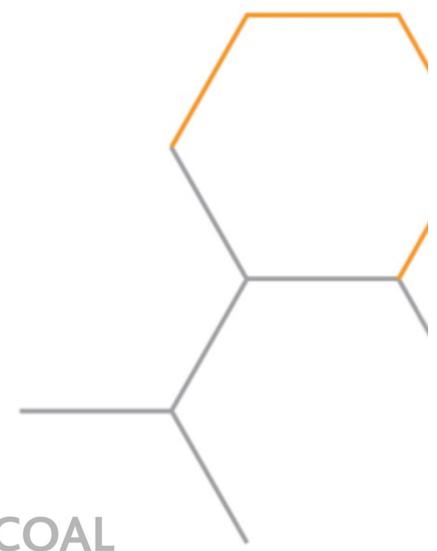
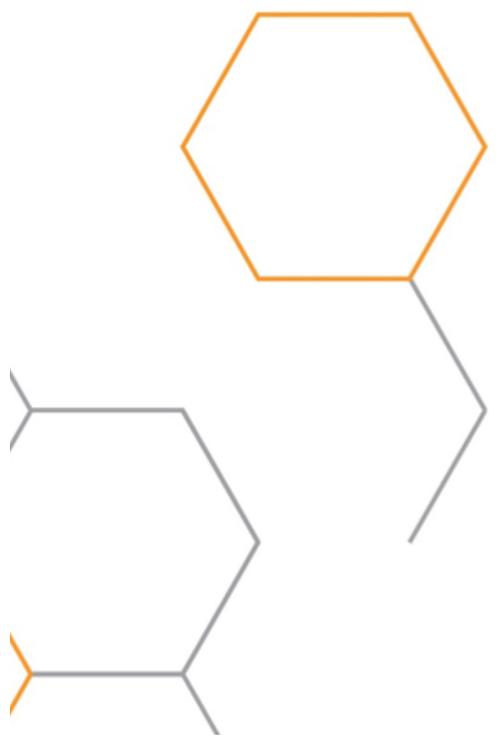




WORLD COAL ASSOCIATION

Paris Agreement NDC pledges

December 2017





	Country/ region	Cleaner coal NDC pledge	Notes
1	Afghanistan	<ul style="list-style-type: none"> Human and institutional capacity for adoption of cleaner technology 	Climate Mitigation Gaps and Barriers and Support Needs USD 662 million/year from 2020
2	Bangladesh	<ul style="list-style-type: none"> Maximising coal output and managing coal-fired power stations in a carbon-neutral way Ensure all new coal generation uses supercritical technology 100% of new coal based power plants use supercritical technology by 2030 	Switching to 100% supercritical coal power generation – \$16.5 billion
3	Bosnia and Herzegovina	<ul style="list-style-type: none"> To replace the existing thermal power plants with 30% average efficiency, with new plants with approximately 40% average efficiency 	
4	China	<ul style="list-style-type: none"> To control total coal consumption To enhance the clean use of coal To increase the share of concentrated and highly-efficient electricity generation from coal To lower coal consumption of electricity generation of newly built coal-fired power plants to around 300 grams coal equivalent per kilowatt-hour 	



		<ul style="list-style-type: none"> To strengthen research and development (R&D) and commercialisation demonstration for low-carbon technologies, such as energy conservation, renewable energy, advanced nuclear power technologies and carbon capture, utilisation and storage and to promote the technologies of utilising carbon dioxide to enhance oil recovery and coal-bed methane recovery 	
5	Egypt	<ul style="list-style-type: none"> Efforts in Egypt should focus on replacing or upgrading obsolete infrastructure e.g. upgrading old fossil fuel power plants with locally appropriate technologies to increase its capacity. This needs increased financial support from Annex I parties in addition to technology transfer and local capacity building. There are four key technology-related requirements essential for transformation: (i) continued support of energy conversion efficiencies (ii) carbon capture and storage “CCS” as a technology alternative that can be used in the future if proven economically feasible (iii) co-utilisation of fossil fuel and biomass in the same plants (iv) utilisation of co-generation plants 	
6	Georgia	<ul style="list-style-type: none"> Government of Georgia is in process of drafting its first National Energy Efficiency Action Plan (NEEAP) that will be 	



		finalised by the end of spring 2016. The NEEAP will document the plans for implementation of energy efficiency measures which have significant mitigation potential for the period before 2020 and beyond	
7	Ghana	<ul style="list-style-type: none"> The baseline scenario includes Ghana's intentions to explore opportunities using clean coal technology in public electricity generation mix to meet its energy security objectives. Double energy efficiency improvement to 20% in power plants 	
8	India	<ul style="list-style-type: none"> Transition to the use of supercritical technologies for coal based power plants Renovation, modernisation and life extension of existing power stations Mandatory coal beneficiation Introduction of ultra-supercritical technology, as and when commercially available Potential introduction of more stringent emission standards for thermal plants Efforts to support collaborative research in cleaner coal technologies, including: Pulverised Combustion Ultra-Super Critical; Pressurised Circulating Fluidised Bed Combustion, Supercritical, Combined Cycle; Integrated Gasifier Combined 	



		Cycle; Solid Oxide Fuel Cell Integrated Gasifier Fuel Cell; and Underground Coal Gasification	
9	Indonesia	<ul style="list-style-type: none"> Coal should be minimum 30% in 2025 and minimum 25% in 2050 Implementation of clean coal technology in power plant 	
10	Japan	<ul style="list-style-type: none"> Energy efficiency measures 50 M kl Coal approximately 26% of power generation Pursuit of high efficiency in thermal power generation (USC, A-USC, IGCC, etc.) 	
11	Kazakhstan	<ul style="list-style-type: none"> The implementation of the Green Economy Concept and adoption of related legislative acts, should lead to modernisation of key infrastructure and production technologies based on energy-efficient technologies, and will make a significant contribution to reducing the emissions of greenhouse gases 	WCA held a coal efficiency workshop in Astana, Kazakhstan in mid-2017
12	Kenya	<ul style="list-style-type: none"> Enhancement of energy and resource efficiency across the different sectors 	
13	Montenegro	<ul style="list-style-type: none"> The reduction is to be achieved by general increase of energy efficiency 	



14	Mongolia	<ul style="list-style-type: none"> • Implement advanced technology in energy production such as supercritical pressure coal combustion technology by 2030 • Improved efficiency of coal-fired heating plants and thermal power plants 	Improved efficiency of coal fired plants – 900 million US\$
15	Myanmar	<ul style="list-style-type: none"> • The National Energy Efficiency and Conservation Policy, Strategy and Roadmap for Myanmar draft is finalised and is expected to be approved in 2015 	
16	North Korea	<ul style="list-style-type: none"> • Increase electric power generating efficiency in the existing coal-fired power plants • To replace the old subcritical coal power stations with ultra-supercritical coal power stations 	
17	Nigeria	<ul style="list-style-type: none"> • Innovation in “clean” technologies brings resource efficiency and produces more knowledge and jobs than those in “dirty” technologies. In many cases, energy efficiency measures are cost-effective. Yet, the upfront costs of these measures can be an important challenge. In the short-term, it is usually more expensive to purchase efficient equipment than to keep older equipment operating. Nigeria’s National Renewable Energy and Energy Efficiency Action Plan looked at a 40% energy efficiency target for the country, equivalent to around 	



		2.5% improvement per year	
18	Pakistan	<ul style="list-style-type: none"> Improving the efficiency of planned coal-based power generation could lead to GHG mitigation. This measure is particularly important in view of plans for developing Pakistan's coal resources and significantly increasing the fuel's importance in domestic electricity generation 	
19	Philippines	<ul style="list-style-type: none"> ...high-efficiency technology for conventional power generation 	
20	FYR of Macedonia	<ul style="list-style-type: none"> The thermal power plant Oslomej, after its revitalisation will use high quality coal from import 	
21	South Africa	<ul style="list-style-type: none"> CCS: 23 Mt CO₂ from the coal-to-liquid plant – US\$0.45 billion. 	
22	United Arab Emirates	<ul style="list-style-type: none"> Comprehensive policies to reduce energy and water demand and promote the prudent use of resources 	Hassyan Clean Coal Project, Dubai – first coal-based power plant in the region – makes use of USC technology
23	Turkey	<ul style="list-style-type: none"> Rehabilitation of public electricity generation power plants Strategy on Energy Efficiency 	
24	Vietnam	<ul style="list-style-type: none"> Improve effectiveness and efficiency of energy use; reducing 	



		<p>energy consumption</p> <ul style="list-style-type: none"> Innovate technologies and apply advanced management and operational procedures for efficient and effective use of energy in production, transmission and consumption, especially in large production facilities where energy consumption is high 	
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