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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Carbon Pricing in FERC-Jurisdictional	)	
Organized Regional Wholesale Electric	)	Docket No. AD20-14-000
Energy Markets	)	

REPLY COMMENTS OF AMERICA'S POWER REGARDING THE COMMISSION'S PROPOSED POLICY STATEMENT

SUMMARY OF REPLY COMMENTS

America's Power submits these Reply Comments following the Initial Comments that were filed by at least 70 parties, including America's Power, in response to the Commission's Proposed Policy Statement on Carbon Pricing in Organized Wholesale Electricity Markets ("Policy Proposal").[i] Our Initial Comments urged the Commission to withdraw its Policy Proposal and terminate Docket No. AD20-14-000. One of our major concerns is that the Commission's statement of "encouragement" to consider carbon pricing could be misconstrued as a signal that states should adopt carbon prices and enable grid operators to submit new market rules for FERC approval. Such a signal would exceed FERC's authority.

On the other hand, if the Commission finalizes its Policy Statement, our Initial Comments urged the Commission to clarify its intent[ii] and to take into account certain considerations when reviewing carbon pricing proposals from ISOs/RTOs.[iii] After reviewing the Initial Comments of other parties, we continue to urge the Commission to withdraw its Policy Proposal and terminate the docket. However, we have modified our recommendation. Our recommendation now is that the Commission —

- Withdraw the Policy Proposal and terminate the docket, as we urged the Commission to do in our Initial Comments;
- Wait a reasonable period of time to see what steps the Biden Administration undertakes to address carbon emissions, especially steps that it might take to decarbonize the electric sector by 2035;
- Then decide what, if any, FERC actions or policies might be necessary in light of the new Administration's carbon and infrastructure policies; and
- In the meantime, schedule another technical conference or roundtable (a) to provide an opportunity for other parties—especially states, electricity

consumers, and coal interests—to provide adequate input and (b) to address issues that need further discussion in light of Initial Comments and Reply Comments.

INTERESTS OF AMERICA'S POWER

America's Power advocates on behalf of coal-fueled electricity, the nation's coal fleet, and the coal supply chain. Our membership is comprised of electricity generators, coal producers, railroads, barge operators, and equipment manufacturers that are involved in generating electricity from coal. The attributes of the nation's coal fleet make it a critical part of the electricity grid. Despite these attributes, some 173,100 megawatts (MW) of coal-fueled generation have retired or announced plans to retire. Of this nationwide total, more than 110,000 MW will have retired in ISO/RTO regions by the end of 2030. We are deeply worried that carbon pricing would accelerate coal retirements, thereby causing the premature loss of the reliability, resilience, fuel security, and affordability attributes provided by the coal fleet.

As expressed in our Initial Comments, we are concerned that the Commission's Policy Proposal might be misconstrued as an indication that it favors the adoption of carbon pricing by ISOs/RTOs. Initial Comments filed by many parties indicated that carbon pricing was strictly a matter for each state to decide. As the Commission knows, 39 states do not have a carbon price, but a number of them have programs or goals to either explicitly promote clean energy or explicitly reduce carbon emissions.

OPENING PANDORA'S BOX

With a few exceptions, most commenters agreed that FERC has the authority to review proposals from ISOs/RTOs that incorporate carbon pricing. At the same time, commenters indicated that the Commission should not prejudge whether any such proposals fall within the Commission's jurisdiction. After that area of apparent consensus, the comments diverge and are often contradictory. We catalogued a number of concerns that were raised by one or more commenters, which suggest to us that the Commission has acted prematurely to open a Pandora's Box without seemingly considering the possibility, if not likelihood, of new Administration carbon policies that could undermine the basis for the Policy Proposal. These include, but are not limited to, the issues listed below in alphabetical order:

- Carbon pricing in relation to other state programs that also reduce carbon emissions. *See, e.g., "COMMENTS OF PUBLIC INTEREST ORGANIZATIONS," November 16, 2020.*
- Cost of paying for stranded investments and replacement resources if carbon pricing makes existing resources uneconomic. *See, e.g., "COMMENTS AND MOTION TO INTERVENE OF EAST KENTUCKY POWER COOPERATIVE, INC.," November 16, 2020.*

- "Double payment" caused by adopting carbon pricing in addition to already-existing programs. *See, e.g., "Comments by the American Petroleum Institute," November 16, 2020.*
- Effects of carbon pricing on consumer costs and the affordability of electricity, especially for lower income consumers. *See, e.g., "COMMENTS AND MOTION TO INTERVENE OF EAST KENTUCKY POWER COOPERATIVE, INC.," November 16, 2020.*
- Effects of carbon pricing on the electrification of other sectors of the economy. *See e.g., "COMMENTS OF CALPINE CORPORATION ON PROPOSED POLICY STATEMENT," November 16, 2020.*
- Effects of ISO/RTO carbon pricing on jurisdictions that are not included within RTOs or ISOs. *See, e.g., "COMMENTS OF THE CANADIAN ELECTRICITY ASSOCIATION IN RESPONSE TO NOTICE OF INQUIRY," November 16.*
- Flaws with the social cost of carbon as a metric to price carbon emissions. *See, e.g., "Comments of the Competitive Enterprise Institute," November 11, 2020.*
- Ineffectiveness of carbon pricing in achieving emission reductions. *See, e.g., Comments filed by Americans for Prosperity, et al, November 16, 2020.*
- Insignificance of emission reductions achieved by carbon pricing. *For example, see next section of our comments below titled "Carbon Emissions in Perspective."*
- Lack of input by individual states that do not price carbon. *See, e.g., "COMMENTS OF THE PUBLIC UTILITIES COMMISSION OF OHIO'S OFFICE OF THE FEDERAL ENERGY ADVOCATE," November 16, 2020.*
- Lack of input from major electricity consumers, such as industrial facilities. *See, e.g., "COMMENTS OF THE ELECTRICITY CONSUMERS RESOURCE COUNCIL (ELCON)," November 16, 2020.*
- Leakage of both emissions and cost. *See, e.g., "COMMENTS OF PJM INTERCONNECTION, L.L.C.," November 16, 2020.*
- Loss of fuel-secure resources due to coal retirements. *See, e.g., "INITIAL COMMENTS OF AMERICA'S POWER," November 16, 2020.*
- Misimpression that the Commission has the authority to influence states to adopt carbon pricing. *See, e.g., "Institute for Energy Research, FERC Comment, Docket No. AD20-14-000, Carbon Pricing in Organized Wholesale Electricity Markets."*
- Need for a national carbon-pricing program to avoid a patchwork of state programs. *See, e.g., "COMMENTS OF CRICKET VALLEY ENERGY CENTER, LLC, Re: Notice of Proposed Policy Statement, Carbon Pricing in Wholesale Electricity Markets, dated Oct. 15, 2020," November 16, 2020.*
- Need for transmission investment to accommodate carbon pricing. *See, e.g., "INITIAL COMMENTS OF INTERNATIONAL TRANSMISSION COMPANY d/b/a, ITCTRANSMISSION, MICHIGAN ELECTRIC TRANSMISSION COMPANY, LLC, ITC MIDWEST LLC, AND ITC GREAT PLAINS, LLC," November 16, 2020.*

- Need to expand carbon pricing to non-ISO/RTO regions to avoid leakage. *See, e.g., "Utah Department of Commerce and Utah Division of Public Utilities, Comments Regarding Carbon Pricing in Wholesale Electricity Markets, Docket No. AD20-14-000, November 16, 2020."*
- Non-discriminatory treatment of both ISO/RTO and non-ISO/RTO regions to ensure a level playing field. *See, e.g., "COMMENTS OF MIDCONTINENT INDEPENDENT SYSTEM OPERATOR INC.," November 16, 2020.*
- Possible adverse impacts on grid reliability caused by coal retirements. *See, e.g., "INITIAL COMMENTS OF AMERICA'S POWER," November 16, 2020.*
- Possible adverse impacts on grid resilience. *See, e.g., "COMMENTS OF CALPINE CORPORATION ON PROPOSED POLICY STATEMENT," November 16, 2020. (Note that America's Power and Members of Congress have urged the Commission on multiple occasions to act on its almost three-year-old resilience docket. By comparison, the Commission issued its Proposed Policy Statement within six weeks after convening its Technical Conference on Carbon Pricing in Organized Wholesale Markets.)*
- Possible withdrawal of states and/or electricity generators from ISOs/RTOs that decide to price carbon. *See, e.g., "COMMENTS OF MIDCONTINENT INDEPENDENT SYSTEM OPERATOR INC.," November 16, 2020.*
- Premature retirement of coal-fired generation. *See, e.g., "INITIAL COMMENTS OF AMERICA'S POWER," November 16, 2020.*
- Usurping of state authority by the Commission and lack of cooperative federalism. See, e.g., "Utah Department of Commerce and Utah Division of Public Utilities, Comments Regarding Carbon Pricing in Wholesale Electricity Markets, Docket No. AD20-14-000, November 16, 2020."

The Commission has talented staff to evaluate these and other issues. However, any Commission actions taken prematurely may be incompatible with new Administration policies.

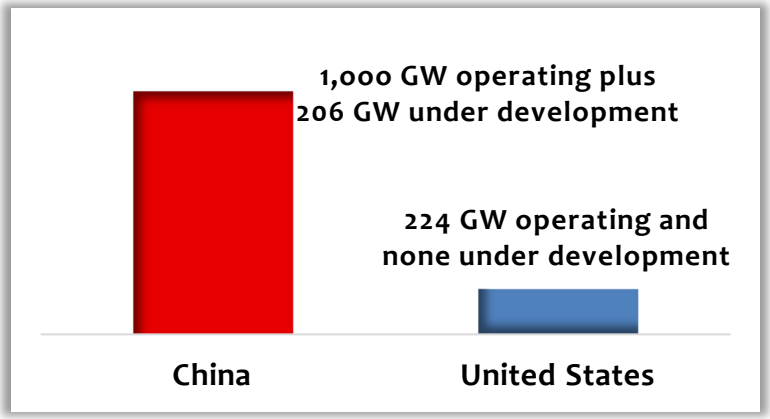
CARBON EMISSIONS IN PERSPECTIVE

FERC properly acknowledged that it is not an environmental regulator. However, the purpose of setting a carbon price is to reduce carbon emissions for environmental reasons. Therefore, it follows that encouraging consideration of carbon pricing means encouraging the pursuit of climate change goals. This is not an appropriate role for the Commission.

Also, a carbon price has other consequences, such as favoring certain energy resources (natural gas, renewables and nuclear) over other resources (coal). One commenter pointed to the desirability of accelerating the retirement of U.S. coal plants to reduce carbon emissions.[iv] The commenter's analysis projected that the elimination of PJM's 51,300-MW coal fleet if PJM adopted a modest region-wide carbon price would reduce CO2 emissions by 107 million metric tons (tonnes) in 2030.[v] However, this level of emissions reduction would be trivial from a climate change perspective.

Global anthropogenic greenhouse gas (GHG) emissions are estimated to have been almost 52 billion tonnes in 2018.[vi] The U.S. represented about 13 percent (6.7 billion tonnes) of the global total.[vii] The U.S. coal fleet emitted slightly more than 970 million tonnes of CO2 in 2019, or slightly less than 2 percent of global GHG emissions.[viii] Therefore, even eliminating the entire U.S. coal fleet would have a minimal effect, at best, on climate change, especially if other countries continue to increase their emissions.

China is the world's largest emitter of GHGs at almost 14 billion tonnes last year, which represents 27 percent of global GHG emissions, or twice the level of U.S. emissions.[ix] China's coal fleet (totaling about 1,000 gigawatts (GW)) is roughly equal to the entire electric generating capacity of the U.S. (about 1,100 GW), and the Chinese fleet continues to grow.[x] (See chart below.) In fact, the U.S. coal fleet is only slightly larger than the amount of coal-fired generating capacity China has *under construction and in development*. Moreover, China is providing financial support to coal projects in other countries.[xi]



Almost 500 GW of new coal-fueled generating capacity in 53 countries are either under construction or in pre-construction planning. This amount of generating capacity would equate to roughly 1,000 new coal-fueled generating units. (See attached blog titled "China and Its Coal Fleet.")

In 2018, energy-related CO2 emissions increased worldwide by 560 million tonnes.[xii] China was responsible for exactly half (280 million tonnes) of the increase. To illustrate our point, eliminating the PJM coal fleet by pricing carbon would offset less than 20 percent of the worldwide emissions *increase*.

The electricity grid is undergoing profound changes and becoming cleaner, even though most states do not price carbon. Our point about China is that states and ISOs/RTOs should not feel pressed to embrace carbon pricing because carbon emissions are already declining and the emission reductions from carbon pricing are unlikely to be significant in a global context. We think that a technology-based strategy—one that allows time for even cleaner and

more affordable technologies to evolve—is a better way to address climate change.

CONCLUSION

America's Power appreciates the opportunity to submit these Reply Comments. The Initial Comments submitted by other parties reinforce our concerns with the Policy Proposal. Therefore, we urge the Commission to consider our recommendation: (1) withdraw the Policy Proposal and terminate the underlying docket, (2) wait to see what policies the Biden Administration adopts, (3) then make any necessary policy changes, and (4) schedule another Technical Conference or roundtable.

Respectfully submitted,

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December 1, 2020

[i] *Carbon Pricing in Organized Wholesale Electricity Markets*, 173 FERC ¶ 61,062 (2020)("Policy Proposal").

[ii] For example, we recommended that FERC make clear that (1) any "encouragement" by the Commission is limited to encouraging RTOs/ISOs to incorporate state-determined carbon prices into wholesale markets *only if states choose to adopt explicit carbon prices* and (2) the Commission is not mandating, directing, or encouraging any policies that would require or even encourage states to adopt carbon pricing.

[iii] These additional considerations were the impact of carbon-pricing rules on power prices and the affordability of electricity; the impact of carbon-pricing rules on electricity prices in ISO/RTO states that choose not to adopt a carbon price; the effects of carbon pricing rules on resource mix, reliability, resilience, resource retirements, and fuel security; stranded investments; accelerated retirements; the potential for participants to withdraw from an RTO/ISO; and the impacts on non-RTO/ISO regions or states.

[iv] "LEAST COST CARBON REDUCTION POLICIES IN PJM, By: Energy and Environmental Economics ("E3") (October 28, 2020)" attached to "COMMENTS OF THE ELECTRIC POWER SUPPLY ASSOCIATION," November 16, 2020: "For example, the PJM system can reduce emissions by 50%, or 200 MMT, from 2005 levels by 2030 at a minimal cost by increasing generation from the lowest-cost renewables and gas resources *while retiring expensive, aging coal plants*. This would require a carbon price as low as $10/ton." (Emphasis added.) E3 projected emission reductions for 19 scenarios, including a "system carbon price" scenario, which resulted in a CO2 reduction of 107 million tonnes in 2030.

[v] Ibid, Table 7.7, page 97.

[vi] "Trends in Global CO_2 and Total Greenhouse Gas Emissions: 2019 Report," PBL Netherlands Environmental Assessment Agency, The Hague, 2019; EIA, Short Term Energy Outlook, June 2020.

[vii] U.S. EPA, "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018," April 13, 2020 https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2018

[viii] EIA, "How much of U.S. carbon dioxide emissions are associated with electricity generation?" May 26, 2020.

[ix] The Rhodium Group, "Taking Stock 2018," https://rhg.com/research/taking-stock-2018/

[x] Global Energy Monitor, Sierra Club, Greenpeace and CREA, "Boom and Bust 2020: Tracking the Global Coal Plant Pipeline," March 2020, Christine Shearer et al. https://energyandcleanair.org/publications/boom-and-bust-2020-tracking-the-global-coal-plant-pipeline/

[xi] *Climate Action Tracker*, accessed July 25, 2020 https://climateactiontracker.org/countries/china/

[xii] International Energy Agency, "Global Energy & CO_2 Status Report – The latest trends in energy and emissions in 2018," March 2019.

China And Its Coal Fleet

July 27, 2020

A friend asked recently how many coal-fired power plants China is building. We weren't sure, so we decided to do a little research. There are multiple sources for some of the information that follows, but one is a particularly good source of data on coal-fired generation around the world.

By way of background, China signed onto the Paris Agreement which calls for each country to make a commitment ("Nationally Determined Contribution," or NDC) of some sort to address greenhouse gas (GHG) emissions. China's NDC includes a pledge to stop increasing CO2 emissions (reach its peak in emissions) by 2030, or earlier if possible, as well to take other steps such as increasing reliance on renewables.[i] By comparison, the Obama administration committed the U.S. to reduce GHG emissions by 26-28% below 2005 levels by 2025.

Global anthropogenic GHG emissions are estimated to be 51.8 billion metric tons (tonnes) in 2018.[ii] The U.S. was responsible for about 6.7 billion tonnes of GHGs in 2018 and, therefore, represents about 13% of global emissions.[iii] The U.S. coal fleet emitted 973 million tonnes of CO2 in 2019, or 1.9% of global emissions.[iv] The coal fleet is the number three source (21%) of energy-related CO_2 emissions in the U.S. economy. Petroleum (mostly transportation) is first (46%) and natural gas is second (33%).[v]

China is the largest consumer of primary energy in the world, and it relies on coal for about 58% of its primary energy needs. This helps make it the world's largest emitter of GHGs at almost 14 billion tonnes last year, which represents about 27% of global GHG emissions.[vi] The U.S. is the number two emitter, followed by India, Russia and Japan.

To meet its Paris commitment, China will have to reduce its reliance on coal. (Climate Action Tracker rated China's NDC as "highly insufficient" to meet its responsibilities under the Paris Agreement.[vii]) However, headlines and the numbers behind the headlines indicate that China's coal fleet is growing, and China is providing financial support to coal projects in other countries.

A Few Headlines

- *"Surging coal use in China threatens global CO2 goals," E&E News*, June 9, 2020.[viii]

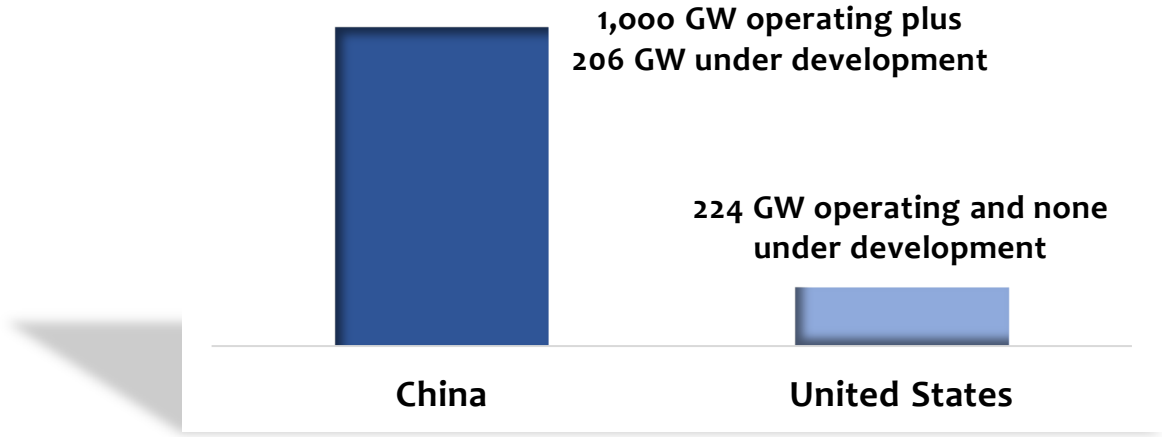
- *"China Is Still Building an Insane Number of New Coal Plants — While the rest of the world turns away from the fossil fuel, China is investing big in coal-powered electricity,"* *Wired*, November 27, 2019.[ix]
- *"China must cancel new coal plants to achieve climate goals: study,"* *Reuters*, January 6, 2020.[x]
- *"China's appetite for coal power returns despite climate pledge — Capacity rose by 42.9 GW in 18 months, far outpacing global efforts to cut use of fossil fuel,"* *The Guardian*, November 20, 2019.[xi]
- *"Years after freezing new projects, China is back to building coal power plants,"* *Washington Post*, November 20, 2019.[xii]

Some Numbers

The best source we found about China's coal fleet is a report titled "*Boom and Bust 2020 — Tracking the Global Coal Plant Pipeline*" published by Global Energy Monitor and others.[xiii] The report provides data on coal-fired generating capacity in China and 107 other countries.

Below are some excerpts from the report. To put some of the numbers in perspective, total U.S. electric generating capacity (gas, coal, oil, nukes and renewables) is 1,100 GW (or 1.1 million megawatts).[xiv] The U.S. coal fleet makes up about 224 GW of the total.[xv]

- *"At over 1,000 GW, China is home to about half of all global coal power capacity, and 41% of global capacity under construction and in pre-construction development (205.9 GW)."* [Therefore, China's coal fleet is about equal to the entire electric generating capacity of the U.S., and it's still growing. The U.S. coal fleet is only slightly larger than the amount of coal-fired capacity China has under construction and in development.]



- *"The [global] coal fleet grew in 2019 by a greater amount than in 2018. The uptick was primarily due to an increase in plants going into operation in China … China's continued pursuit of new coal power is effectively driving the ongoing expansion of the global coal fleet."*
- *"Although coal's share of primary energy in China fell by 1.5 percentage points to 57.7% in 2019 from a year earlier, the amount of coal used still rose 1% …"* [xvi]
- *"In China, the amount of [coal-fired] capacity in pre-construction development increased [in 2019] … The increase comes as the power industry in China continues to advocate for a capacity target in the upcoming five-year plan that would make room for up to 200 new coal-fired generating units by 2025."* [This means that China would be building, on average, more than three new coal units per month.]
- *"Nearly two-thirds [43.8 GW] of the 68.3 GW of newly commissioned [global coal] capacity was in China."* [China's new coal-fired generating capacity last year is roughly equivalent to the entire electric generating capacity of Illinois.[xvii]]
- *"Over a third of the [global coal] capacity in pre-construction development is in China (106.2 GW), a 46% increase from 2018 when capacity in pre-construction development in China was 72.7 GW—and a potential sign the country plans to add new coal power into its 14th Five Year Plan (2021-2025) and perhaps beyond."*
- The report *"… estimates China's coal fleet saw a net increase of 36.8 GW in 2019, significantly higher that the official government estimate … of 28.9 GW."* [The larger number is equivalent to the electric generating capacity of Georgia.]
- The next largest additions of coal-fired capacity after China are India (66 GW), Turkey (33 GW), Indonesia (31 GW) and Vietnam (31 GW). Those five countries plan to add almost 370 GW of new coal-fired generating capacity. [This amount of generating capacity would equate to roughly 780 new coal-fired generating units.[xviii]]
- Worldwide, almost 500 GW of new coal-fired capacity (more than twice the size of the U.S. coal fleet) in 53 countries are either under construction or in pre-construction planning. [This amount of generating capacity would equate to roughly 1,000 new coal-fired generating units.]

Last, it's worth noting that China is financing and building both fossil-fuel and renewables infrastructure in other countries. Of the coal plants under development outside of China, some 102 GW have received funding commitments or proposed funding from Chinese financial institutions and companies.[xix]

Postscript

Our friend's question seemed to imply that China might be building a lot of new coal-fired generation. She was right.

[i] China's NDC pledges (1) "peaking of carbon dioxide emissions around 2030 and making best efforts to peak early;" (2) "lowering carbon dioxide intensity (carbon dioxide emissions per unit of GDP) by 60 to 65 percent from the 2005 level;" (3) "increasing the share of non-fossil fuels in primary energy consumption to around 20 percent;" and (4) "increasing the forest stock volume by around 4.5 billion cubic meters from the 2005 level."

[ii] "Trends in Global CO_2 and Total Greenhouse Gas Emissions: 2019 Report," PBL Netherlands Environmental Assessment Agency, The Hague, 2019; EIA, Short Term Energy Outlook, June 2020.

[iii] U.S. EPA, "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018," April 13, 2020 https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2018

[iv] EIA, "How much of U.S. carbon dioxide emissions are associated with electricity generation?" May 26, 2020.

[v] EIA, "*Monthly Energy Review*," May 26, 2020. These percentages are for 2019. Total energy-related CO2 emissions were 5.131 billion tonnes. Petroleum was responsible for 2.354 billion tonnes, natural gas 1.689 billion tonnes and coal 1.076 billion tonnes.

[vi] The Rhodium Group, "Taking Stock 2018," https://rhg.com/research/taking-stock-2018/

[vii] *Climate Action Tracker*, accessed July 25, 2020 https://climateactiontracker.org/countries/china/

[viii] https://www.eenews.net/stories/1063354565

[ix] https://www.wired.com/story/china-is-still-building-an-insane-number-of-new-coal-plants/

[x] https://www.reuters.com/article/us-climate-change-china-coal/china-must-cancel-new-coal-plants-to-achieve-climate-goals-study-idUSKBN1Z603Z

[xi] https://www.theguardian.com/world/2019/nov/20/china-appetite-for-coal-power-stations-returns-despite-climate-pledge-capacity

[xii] https://www.washingtonpost.com/world/asia-pacific/years-after-freezing-new-projects-china-is-back-to-building-coal-power-plants/2019/11/20/b9075baa-0b38-11ea-8054-289aef6e38a3_story.html

[xiii] Global Energy Monitor, Sierra Club, Greenpeace and CREA, "Boom and Bust 2020: Tracking the Global Coal Plant Pipeline," March 2020, Christine Shearer et al. https://energyandcleanair.org/publications/boom-and-bust-2020-tracking-the-global-coal-plant-pipeline/

[xiv] *See* EIA AEO 2020 reference case for electric generating capacity.

[xv] EIA AEO 2020 projects the coal fleet will be 224 GW this year.

[xvi] The Rhodium Group "Taking Stock 2019," July 8, 2019 https://rhg.com/research/taking-stock-2019/

[xvii] Energy Information Administration, "State Electricity Profiles, Data for 2018," December 31, 2019 https://www.eia.gov/electricity/state/

[xviii] According to "Boom and Bust 2020" Appendix B, there are 700 coal-fired generating units in various stages of development totaling 332 GW. Therefore, the average size of a to-be-built unit is 474 MW.

[xix] *Climate Action Tracker*, accessed July 25, 2020 https://climateactiontracker.org/countries/china/