

China's Transition from Coal-Fired Boilers to Heat Pumps Boosts Copper Demand

According to a study commissioned by the International Copper Association (ICA), the use of air source heat pumps (ASHP) rather than coal-fired boilers is not only significantly reducing smog in Chinese cities, it is also creating an increase in copper demand.

The new research—conducted by Brilliance Consulting of China—shows the adoption of ASHPs serves as an example of how copper-intensive technologies benefit the environment. More than 150,000 households were installed with ASHPs in 2016, accounting for 76% of a broader coal-to-electricity initiative, which is supported by the Chinese government. A typical ASHP has approximately 20 kilograms of copper in its heat exchangers, fan motors, compressors, valves and piping. Outdoor evaporators use about six kilograms, and indoor condensers use about five kilograms of copper.

The reduction of coal burning reduces the amount of particulate matter—carbon monoxide, nitrogen oxides, sulfur dioxide and VOCs (volatile organic compounds)—released into the atmosphere. The latter is particularly important in cities such as Beijing, where smog has been a persistent problem.

According to the research, each household heat pump installation mitigates coal burning by an average 3.3 tonnes.

12 key cities in Northern China will invest 20 billion renminbi (RMB) in clean heating in the next three years. In the case of Beijing, government subsidies are currently 24,000 RMB per ASHP unit, with the remaining 2,000 RMB paid by homeowners.

'For copper, the installation of air source heat pumps is one of the most important directions of the broader coal-to-electricity initiative,' says Colin Bennett, Market Analysis and Outreach, ICA. 'Not only is it reducing air pollution, but the switch to a cleaner form of energy also presents a strong opportunity for copper demand.'

Additional findings on the Coal to Electricity program and its impact on copper demand will be presented during an ICA workshop at the 13th Asia Copper Conference on Thursday, 30 November 2017. Visit www.copperalliance.org/events to learn more, or email kkuhnel@kellencompany.com to RSVP for the event.

For more information, visit the Trends and Innovations section of copperalliance.org, or contact ICA.



About the International Copper Association (ICA)

ICA brings together the global copper industry to develop and defend markets for copper and to make a positive contribution to society's sustainable development goals. Headquartered in New York, ICA has offices in four primary regions: Asia, Europe and Africa, Latin America and North America. Copper Alliance® programs and initiatives are executed in nearly 60 countries through its regional offices. For additional information please visit copperalliance.org.

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