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Energy in China: Understanding Past Trends and Future Directions

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Abstract

China's growing influence on world energy and global environmental issues make it an important country for study. The purpose of this paper is to identify and measure the relative importance of factors driving China's past energy trends and to explore the implications of factors that are likely to drive China's energy future. China's rank as the second largest consumer of energy and the largest producer and consumer of coal in the world has been the result of the government's past promotion of heavy industry and the country's abundance of coal resources. China's transition to a market economy — which has spurred large efficiency improvements and a shift away from heavy manufacturing sectors to service-oriented and consumer products sectors — has resulted in a dramatic fall in the country's energy intensity over time; however, rapid economic growth as a result of these reforms has led to higher energy use, swamping these energy efficiency gains. China's energy intensity is likely to continue to fall and a shift from coal to other fuels (e.g., oil) is expected with the continued growth of the consumer products, transportation, and service sectors. However, China will continue to be a dominant energy consumer with coal as its primary source. This has serious implications for a number of

environmental issues, including climate change, which will require China's involvement to address.

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Energy Use in China: Sectoral Trends and Future Outlook. Nan Zhou, Michael A. McNeil, David Fridley, Jiang Lin, Lynn Price, Stephane de la Rue du Can, Jayant Sathaye, and Mark Levine Lawrence Berkeley National Laboratory Environmental Energy Technologies Division. January 2007. The past decade has seen the development of many scenarios describing long-term patterns of future Greenhouse Gas (GHG) emissions. Each new approach adds additional insights to our understanding of overall future energy trends. In most of these models, however, a description of sectoral activity variables is missing. End-use sector-level results for buildings, industry, or transportation or analysis of adoption of particular technologies and policies are not provided in global energy modeling efforts. It thus seems that China and Russia. future implementation and viability. are entering into a new "natural gas cooperation alli However, the decline in global oil prices is not likely to be a long-term trend, and Chinese enterprises should continue to extend overseas business by investing in the upstream industry abroad. In addition, the fall in oil prices will stimulate the depre-ciation of other energy prices, such as iron, ore and coal, which means that the cost of economic operations will also be reduced. Historically, China has lacked a mechanism for anticipating energy price fluctuation, as well as substan-tive oil storage facilities. In July 2008, the international oil price soared to \$140/barrel and China misjudged this pricing trend. Crompton Wu (2005) Energy consumption in China past trends and future directions.pdf - Forthcoming in Energy Economics ENERGY CONSUMPTION IN CHINA PAST. Crompton Wu (2005) Energy consumption in China past trends and future directions.pdf. School Rice University. Course Title SWGS 327. 2 1. Introduction With a population exceeding 1.3 billion and economic growth over the past two decades averaging around 8 per cent (following market reforms commencing in the late 1970s), China's demand for energy has surged to fuel its rapidly expanding industrial and commercial sectors as well as households experiencing rising living standards. China's growing influence on world energy and global environmental issues make it an important country for study. The purpose of this paper is to identify and measure the relative importance of factors driving China's past energy trends and to explore the implications of factors that are likely to drive China's energy future. China's rank as the second largest consumer of energy and the largest producer and consumer of coal in the world has been the result of the government's past promotion of heavy industry and the country's abundance of coal resources. China&apo China's Energy Consumption. Pollution in China. China's River & Water Crisis. China's Green Economy and Future. China's Alternative Energy Solutions. China's Forests and Reforestation. Click on the links above to jump to that particular section, or continue to scroll down to browse these fascinating and alarming China facts and statistics. Facts: China Energy Consumption. It is expected that China's electricity consumption will increase 66% between 2019 and 2023. This is based on trends over the past decade in addition to forecasts. Coal still remains the primary source of this electricity, however, which further solidifies China's reliance on coal as an energy source. Source: ZDnet.