

Under New Management: Energy Resource Allocation in Great War Britain

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Introduction

The First World War, (Great War), was a battle of endurance that caused an energy crisis. Unlike today's European energy crisis, which centres on overreliance on a hostile power's energy production, labour and demand issues triggered a crisis in coal production in Britain during the Great War. As coal supplied ~95% of Britain's energy at that time, distribution of those resources became crucial. In an unprecedented change, the British government chose to ration coal. The coal ration received substantial newspaper attention (see examples on this poster). Responding to improved living standards and changing politics, the British government chose to prioritise working-class energy needs and create a rationing system which broadened working class access to coal despite the war.

Acknowledgements

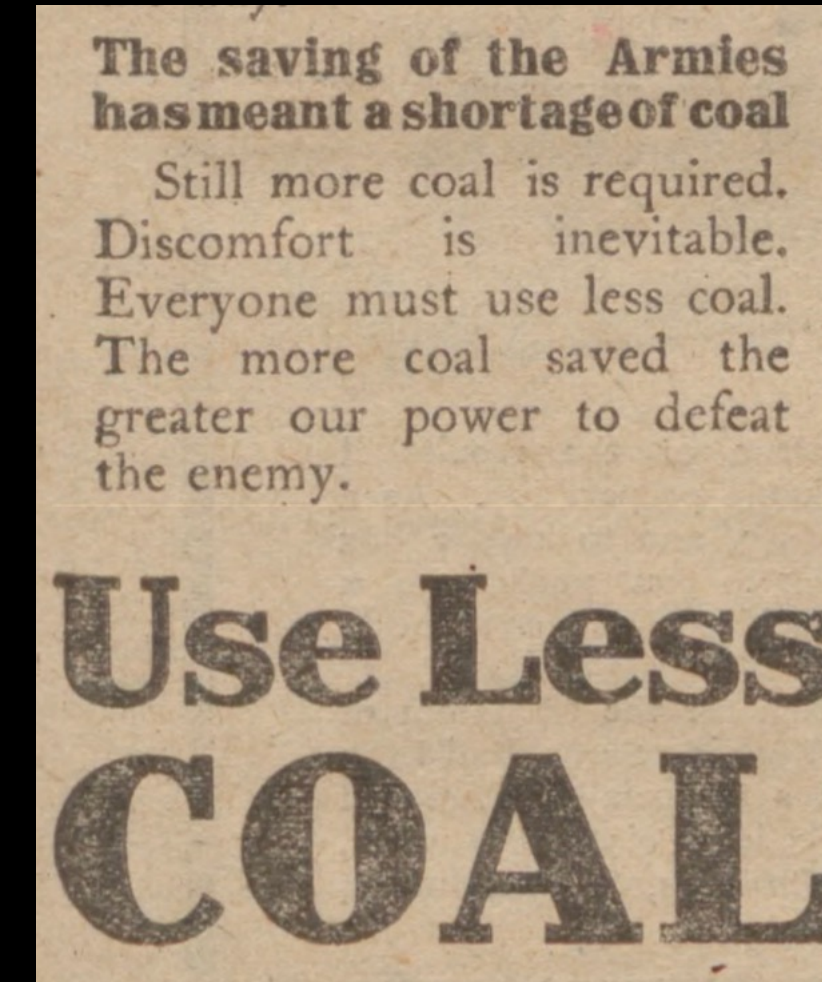
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Supervised by Dr. M. Grant.

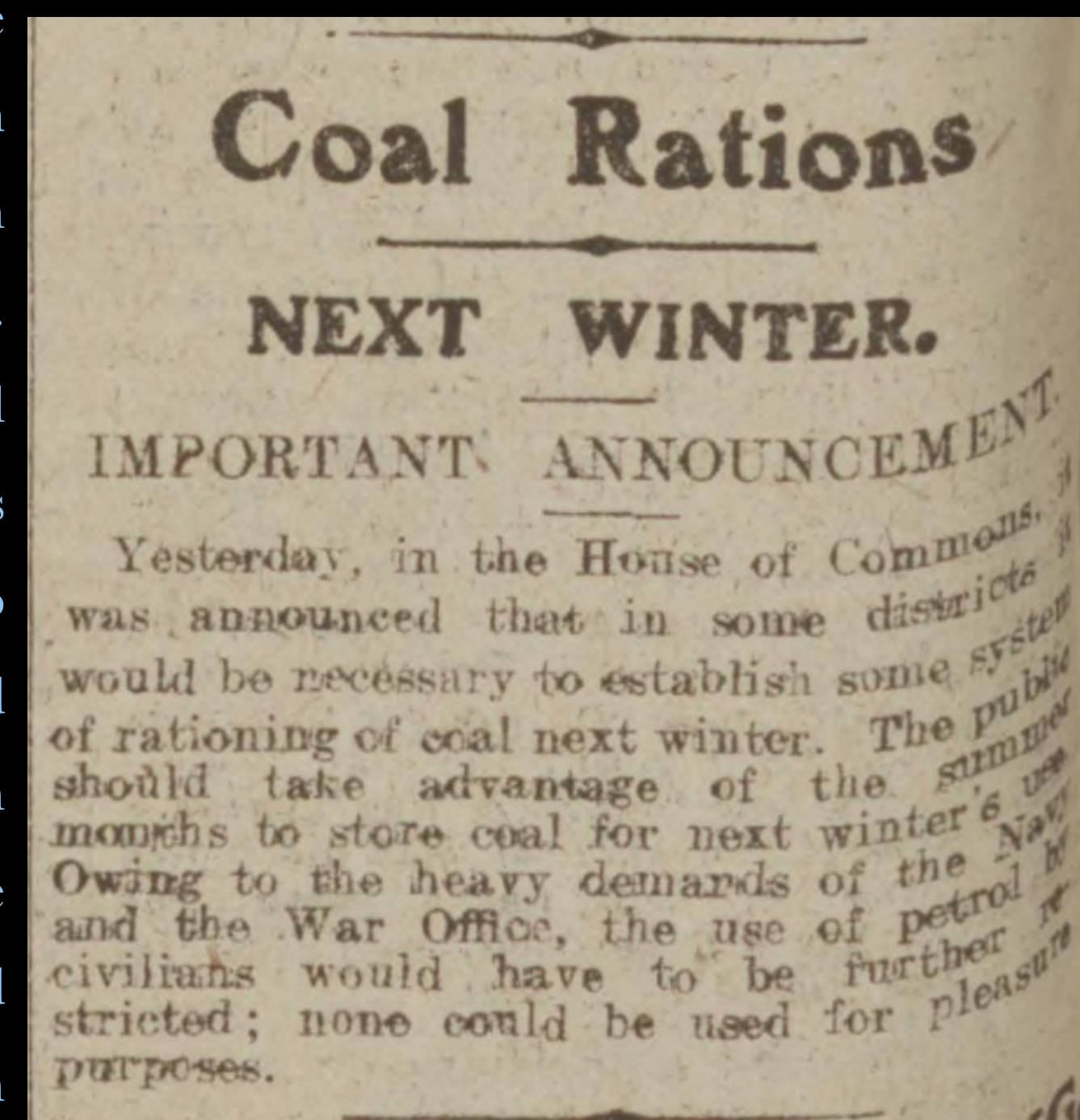
I would like to thank all those who have contributed to this research. All errors remain my own.



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Bath Chronicle and Weekly Gazette, 'Helping to Win the War', 7 September 1918.



Exeter and Plymouth Gazette, 'Coal Rations', 18 May 1917.

Coal and the Great War

The historical literature on coal in Britain is vast. *The History of the British Coal Industry* (Oxford University Press) is the seminal history of the industry. Scholars include Barbara Freese, Ben Fine, and Michael Flinn (many more cited on the right), who have all written on coal specifically. For the most part, they focus on coal miners and coal production, not consumption. This research attempts to speak to that void by focusing on consumption.

When war in Europe broke out in the summer of 1914, enough coal miners enlisted that there was a labour shortage in the mines. Energy demands from Britain's allies, especially France and Italy combined with demand from wartime industry and household consumption to put pressure on British mines at the same time as the transportation system was under strain. As the war of attrition dragged on, all sectors of the economy came under pressure.

The pressure grew until Parliament passed the Household Lighting and Fuel Order 1918 which took the distribution of coal, and therefore energy under government control (gas and electricity were coal-derived). In addition to limiting residential users' access to coal, the government took control of the production and managed distribution of coal between war industry, commercial industry, transportation (shipping and railways), electricity generation, gas production, military use (e.g. navy), export, and household use.

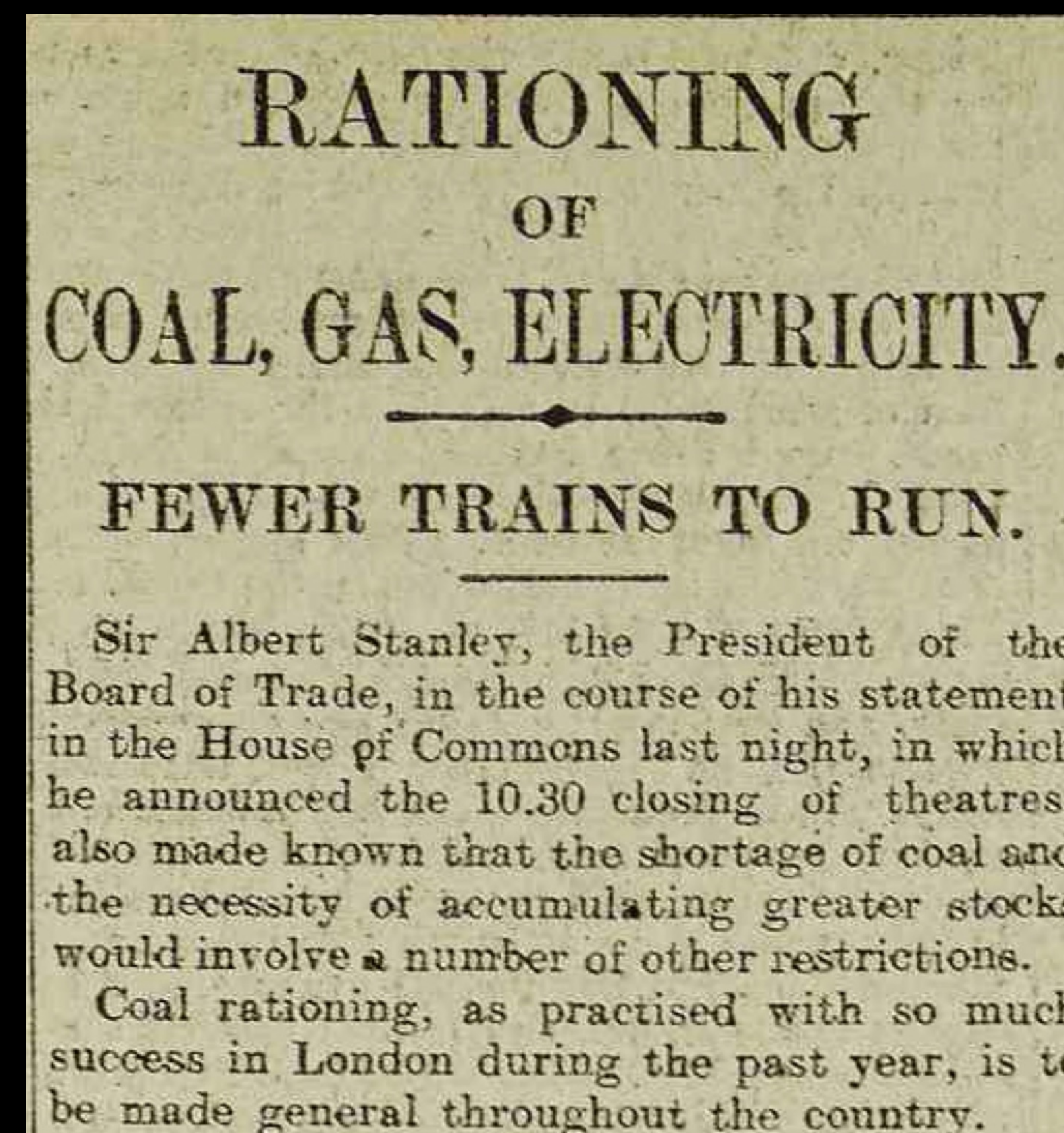
The rationing system worked by allocating a limited right to purchase coal for household use from local coal merchants (regulated by local fuel controllers) based on consumption restrictions. These rights were based on the number of rooms in a home.

This might seem to favour wealthier individuals, but the system had a large minimum allowable purchasing amount and working-class consumers, who bought coal in small quantities, would buy less. The other main restriction was the coal that a household had on hand. As working-class families did not generally have money or space for larger stocks, they were unaffected.

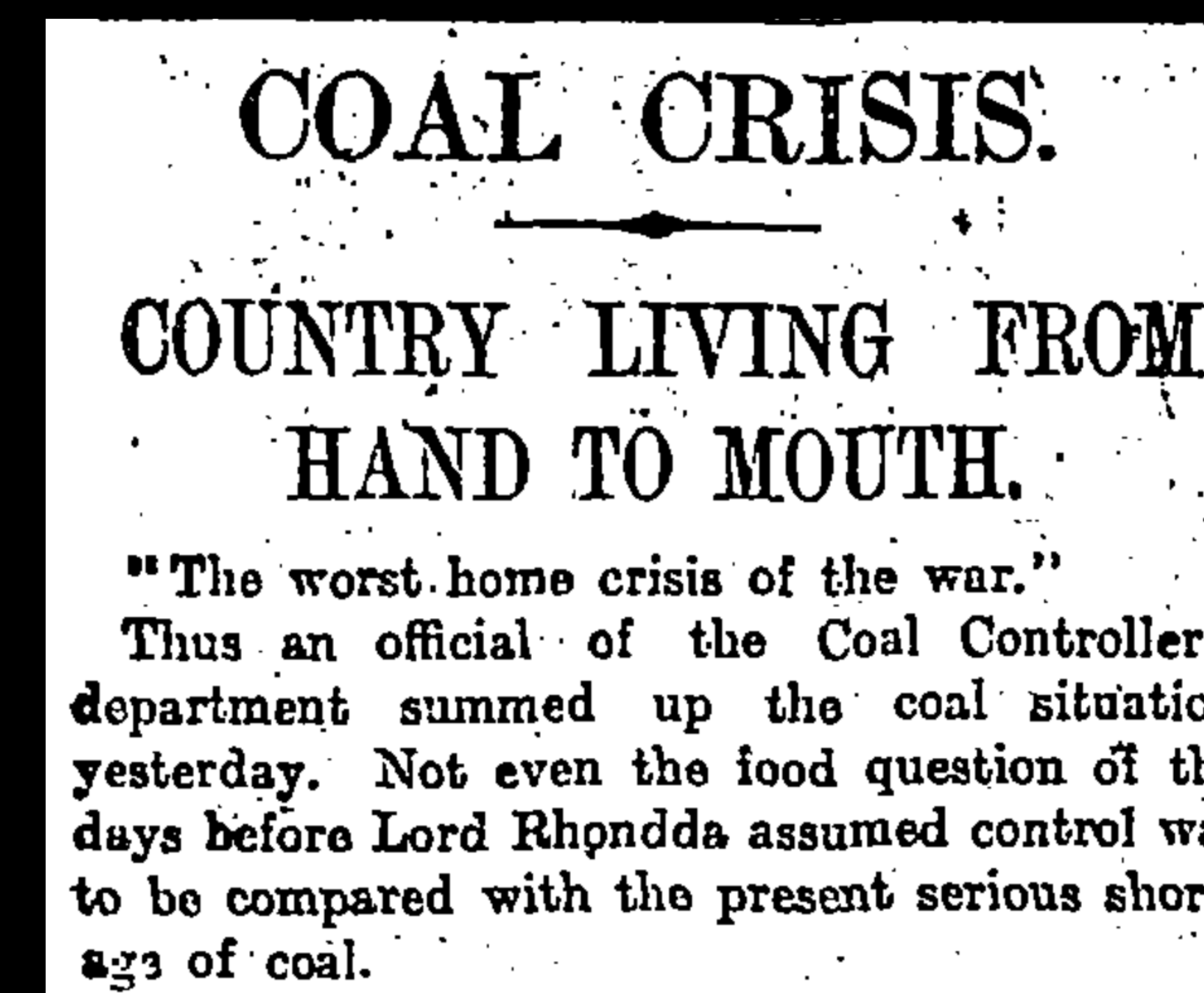
Newspaper and government messaging encouraged energy saving as a patriotic act which would help win the war (see the newspaper clippings around this poster). The government and the press often used appeals to help allies to justify restrictions and motivate savings.

Other suggestions to save energy ranged from heating meals in recently used ovens to chopping down garden trees for fuel.

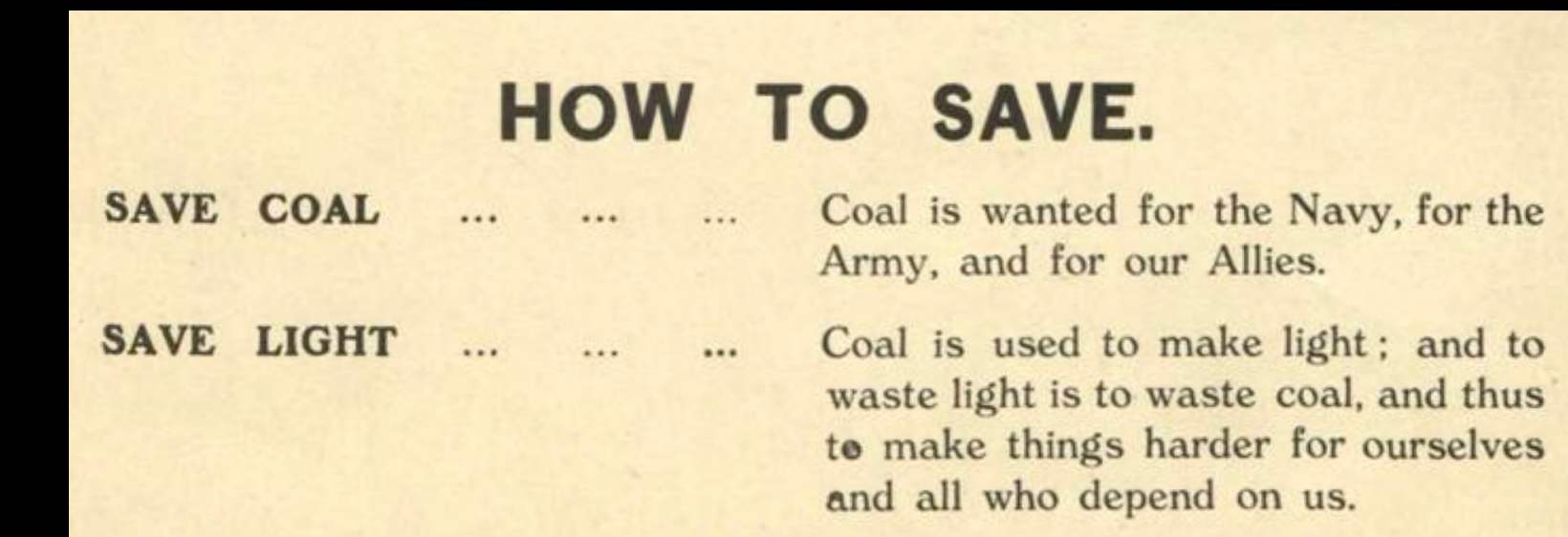
More practically, real wages were going up during later years of the war, allowing working-class families to buy more.



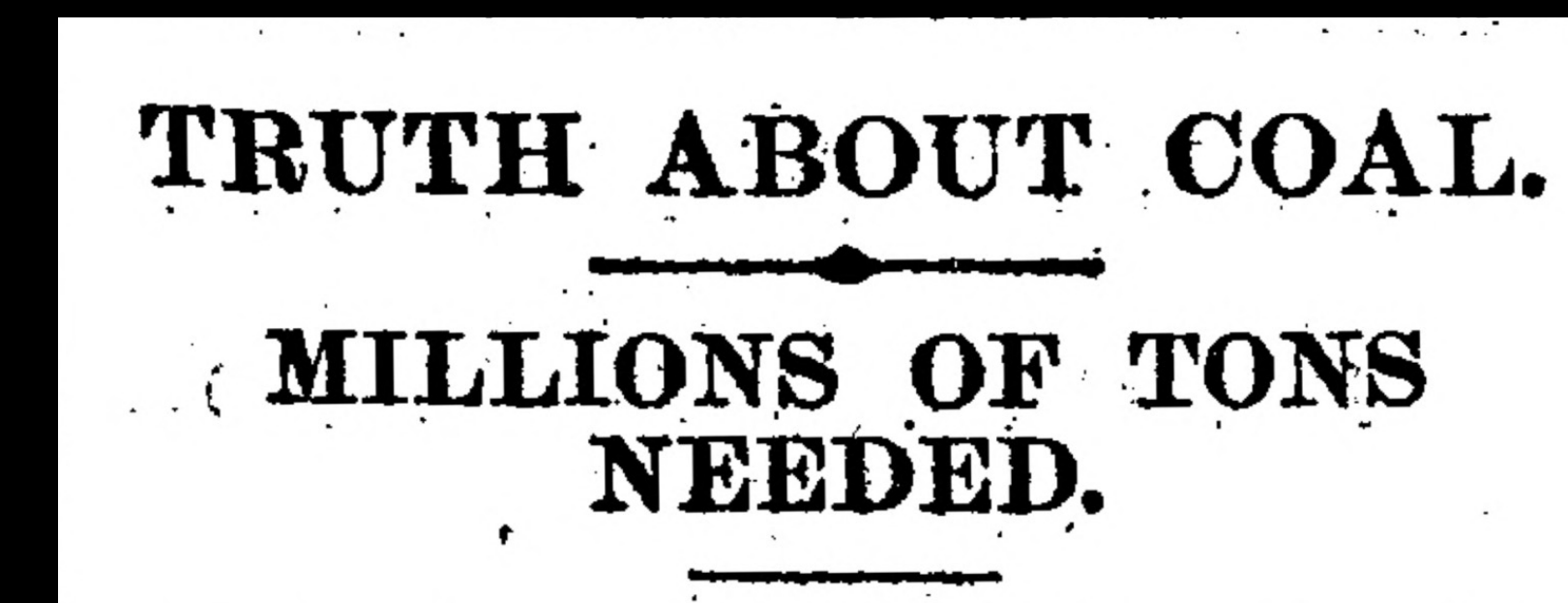
Daily Telegraph, 'Rationing of Coal, Gas, Electricity', 21 March 1918.



The Sunday Times, 'Coal Crisis', 8 September 1918.



National War Savings Committee, 'Every Household Must Help to Win the War', October 1916.



The Times, 'Truth About Coal', 21 August 1918.

The Working Class and Energy

The British working class broadly remained in poverty by the time of the outbreak of war in 1914. The Boer War in South Africa demonstrated a high proportion (~40%) of the population was unfit to serve in the military due to poor health and nutrition. Unhappy visits to pawn shops were regular and insufficient funds for food were common. Urban slum had appeared in cities like Manchester and London.

The rationing system reflected the improving place of the working class at the time. The real-world effects of rationing was to increase access to energy by focusing reductions on larger homes and wealthier consumers.

Energy History

This research project has looked at an intersection of society, economy, policy, and energy.

From early agriculture and fire to present-day renewables and frontier technologies, history has much to teach us about how our energy systems have evolved. Coal remains a prominent fuel source around the world to-day. It produces 10,000 terawatt hours of electricity annually, it is growing, and it remains the largest electricity source.

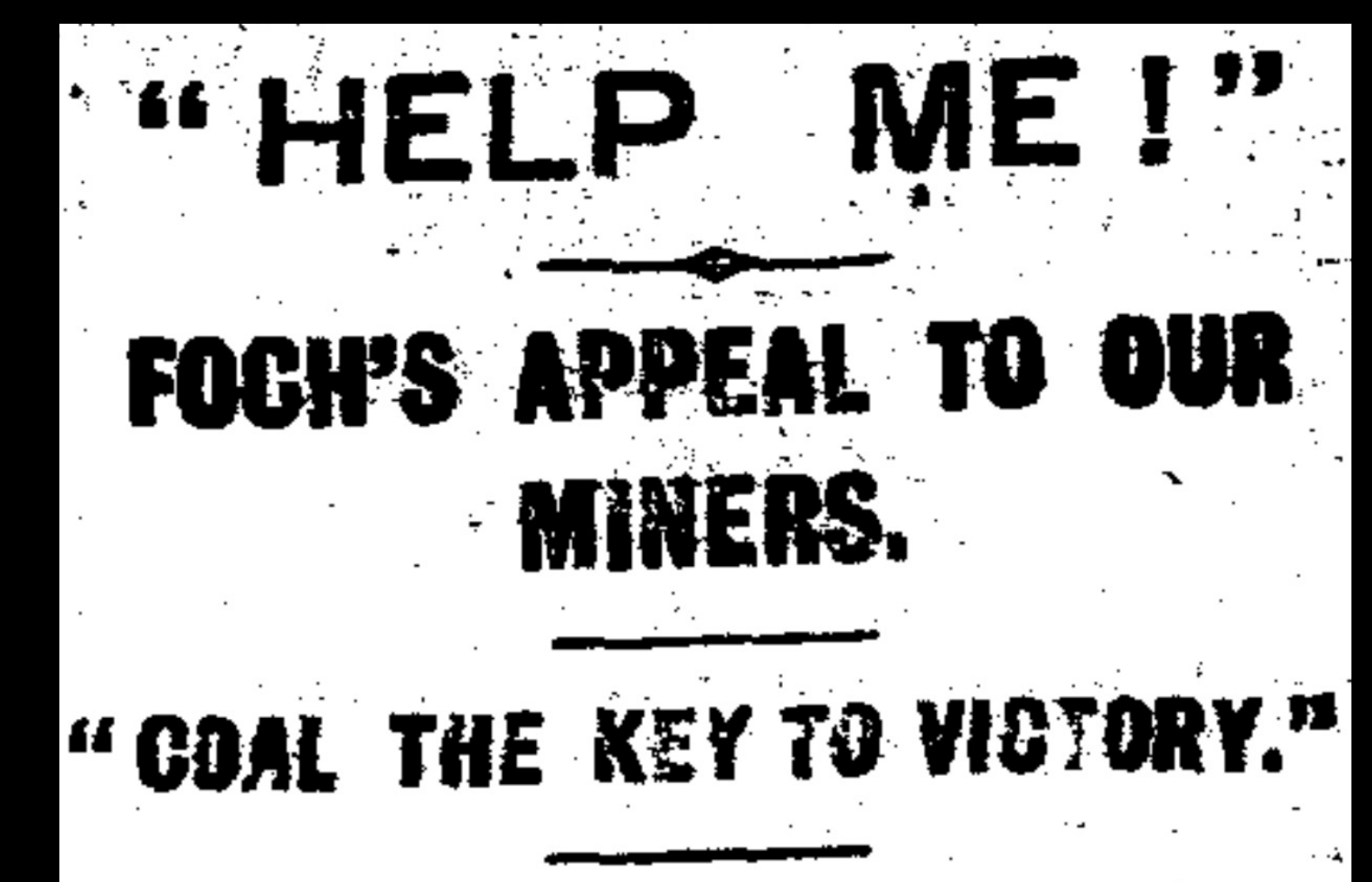
I hope this history of coal can help show why coal is so persistent and demonstrates that to decarbonise we must combine clean energy sources with increases to quality of life. As Britain's Great War experience demonstrates: crises and disruption can help improve improve access to energy. But they do not have to.

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