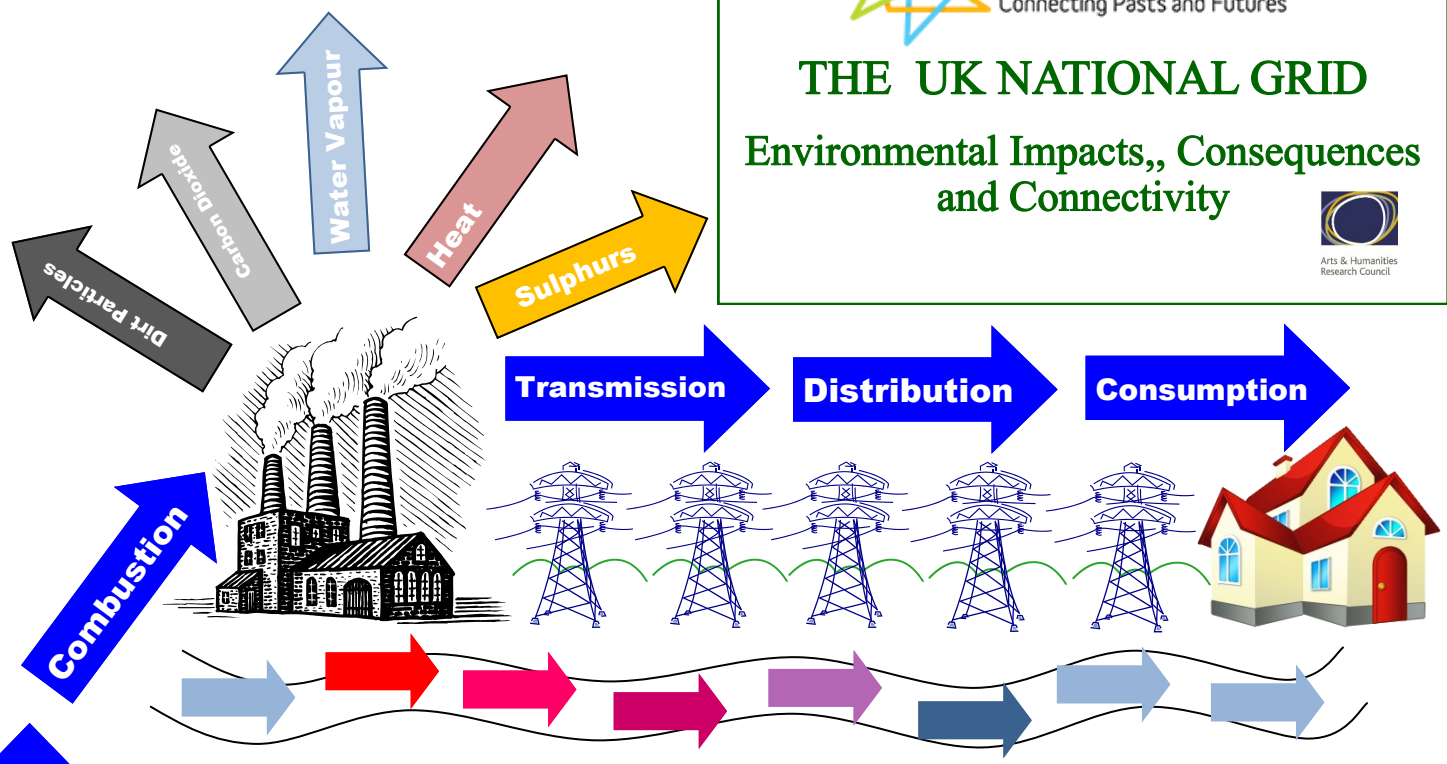




The Power and the Water  
Connecting Pasts and Futures

# THE UK NATIONAL GRID

## Environmental Impacts,, Consequences and Connectivity



The National Grid for electricity supply begins with fuel extraction and ends with consumption of power. The natural resources needed for this process are varied including coal, nuclear fuels, water, metals and impacts on every aspect of the environment from under the ground to the ozone layer.

Understanding the real impact of our increasing demand for electrical power on our environment means investigating the resources expended to extract, transport and use fuels, the aesthetics of the landscape, the infrastructure to transmit and distribute electricity and the growing societal dependence on a growing number of electrical devices.

Transport

Extraction



### Important dates in design, creation and continued development of the UK National Grid

|   |  |   |  |  |  |
|---|--|---|--|--|--|
| <p>1915-1925</p> <p>Electric Power supply Committee established</p> <p>Williamson Report 1919</p> <p>Electricity Commissioners established</p> <p>Electricity Supply Corporation established</p> <p>The Electricity Supply Act 1922</p> | <p>1926-1935</p> <p>Weir Report 1926</p> <p>The Electricity Supply act 1926</p> <p>Central Electricity Board Created</p> <p>Work begins on the National Grid</p> <p>Government Scientist Committee established</p> <p>Practical way to remove sulphur dioxide is discovered</p> <p>The 132kV grid begins operation in 1933</p> | <p>1936-1945</p> <p>The Grid is integrated 1938</p> <p>Ministry of Fuel and Power is formed</p> | <p>1946-1955</p> <p>The Electricity Act 1947 enables nationalisation, merges 625 electricity companies and vests supply in 12 area electricity boards</p> <p>generation and the 132kV National grid vested in the British Electricity Authority</p> <p>Electricity supply in nationalised 1948</p> | <p>1956-1965</p> <p>The Clean Air Act 1956</p> <p>The electricity Act 1957</p> <p>The Central Electricity authority is dissolved and replaced by the Central Electricity Generating Board (CEGB) and the Electricity council 1957</p> <p>The Electricity and Gas Act 1963</p> <p>Fist 400 kV transmission line commissioned 1965</p> | <p>1966-1970</p> <p>The Gas and Electricity Act 1968</p> |
|---|--|---|--|--|--|

“...these days of grave responsibility are also days of great privilege and opportunity. Never again shall we find the same mental and moral attitude which is necessary to bring such a scheme as outlined here to fruition. Let it not be said of us we failed.. “

Ernest T Williams 1916, addressing the Institution of Electrical Engineers on his vision of a national electricity supply system

Has connectivity of the grid disconnected people from energy generation and its effects?

Just 100 years ago heating, hot water and domestic chores were physically demanding tasks undertaken by the household itself. Today this is done through flicking switches and a proliferation of electrical devices.

Has the disconnect between fuel extraction and energy generation from the end consumer affected how we interact with the energy source itself, and its associated impacts? Can this connectivity be re-established and how should it be manifested in image, lifestyle and language?