

Julian McIntyre – Presentation to House Committee on Natural Resources, Subcommittee on Energy and Mineral Resources – Tuesday 24th July 10:00AM

Good morning, Chairman Gosar, Ranking Member Lowenthal, members of the committee.

My name is Julian McIntyre, I am the CEO of Arq.

We are a technology company that intends to produce the lowest cost hydrocarbons on the planet by transforming coal waste into pure energy. This is a radical approach.

We will do that by solving two problems.

Firstly, the coal mining process is wasteful. A billion tons of fine particle coal is thrown away every year because it can't be stored or transported. This is discarded energy and an environmental liability.

Secondly, coal by nature is an impure source of energy. While oil and gas are over 99% hydrocarbon; coal is typically only between 60 and 80%. The rest is minerals and water. That means that the industry is extracting, transporting and burning vast quantities of material that creates no electricity and increases costs and pollution.

At Arq, we take nothing new out of the earth. We think it makes more sense to clean up existing coal waste and completely remove the impurities before combustion.

We do that by reducing coal into micro-fine particles to separate just the hydrocarbons. These particles are so small that they can be blended with crude oil or turned into a solid hydrocarbon pellet.

We believe that we can produce a barrel of oil equivalent for less than \$10, the same as Saudi Arabia, or a ton pellets for around \$20, below the lowest cost mining companies, but with 30-50% more energy.

This is not a distant dream. We are building our first plant right now in Kentucky. We have partnered with Peabody Energy to deploy our technology on their mine sites, and the oil trader, Vitol, to deliver our products to refiners, utilities and industry.

We plan to build over 50 plants in the next 7 years, equivalent to producing a million barrels of oil a day.

Our technology can have an immense impact on the economy, energy security and the environment. We can transform America's coal reserves into valuable oil reserves. We can clean-up America's coal waste whilst creating a new source of cleaner energy.

Thank you for taking the time to consider the future of coal, I'd like to play a short video about our company.