SUBMISSION FROM COALPRO

## Key recommendations to Scottish Parliament to improve Scotland's Security of Energy supply

The integrity, diversity and affordability of Scotland's electricity supply is increasingly at risk due to a high unilateral GB wide Carbon Price Floor (also known as Carbon Price Support), which was introduced by the Westminster Government in 2013.[1] Taxation policy, which covers Carbon Price Floor and energy policy remain reserved matters.

## Carbon Price Floor (CPF) has encouraged the early closure of Longannet

Whilst CoalPro acknowledge that the freeze of the Carbon Price Floor tax at £18.08 in the 2014 HM Treasury Budget was a step in the right direction, that level is simply too high to be economically sustainable. It has already played its part, alongside high transmission charges, in forcing the early and premature proposed closure of Longannet Power Station, well before economic and comparative low carbon equivalent replacement capacity is available, including any new gas (CCGT) or cleaner coal power plants. This issue is faced by all GB coal plant, amounting to over 19000MW of baseload capacity. Given that Scotland'security and affordability of supply is also tied into that of the wider GB system, this wider risk to GB coal plant also has direct implications for Scotland, especially in the context of no further nuclear build here and the lack of firm development plans for new build CCGT.

CoalPro maintains that phasing out the Carbon Price Floor and harmonising UK carbon pricing policy with the EU Emissions Trading Scheme would help prevent the premature closure of Scotland's biggest power station at Longannet and ensure a lower cost and more secure transition to the future low carbon portfolio. It would strengthen Scottish energy security and resilience of electricity supply and infrastructure, maintain diversity, boost affordability, enhance energy intensive industry competitiveness and provide a bridge to future Carbon Capture and Storage (CCS).

## Abolishing the CPF can deliver the bridge from existing coal plant to future 'clean coal' plant

CoalPro does not argue for indefinite unabated coal plant running, but it does promote a pragmatic and managed winding down for existing coal plants through the next decade as CCS and other low carbon options for firm and flexible power generation are deployed. This will thereby maintain the economic and portfolio benefits of coal in the generation mix long term whilst maintaining Scotland's options for securing the lowest cost route to decarbonisation in line with the Scottish Government's ambitions.

*CoalPro's recommendations are as follows:*

[1]Northern Ireland power plants are not subject to Carbon Price Support rules as they operate inside an All-Ireland electricity market. In this context 'Great Britain' or 'GB' will be used and not UK

## 1) Abandon Carbon Price Floor (Carbon Price Support)

Urgent and serious consideration should be given to phasing out the Carbon Price Floor (CPF) from 2016. The original purpose (as promoted by HM Treasury) of the CPF was to help stimulate investment in low carbon technologies such as Carbon Capture and Storage (CCS); however the capped CPF and resultant wide divergence from EU carbon prices will drive premature closure of existing coal plant as is being witnessed at Longannet, risking Scottish energy security and electricity infrastructure resilience, cause carbon leakage and drive up power prices without encouraging investment in low carbon technology or impacting European or global emission levels.

The CPF is merely an income stream for HM Treasury with significant detrimental side effects to the Scottish electricity sector and wider economy***. In the Autumn of 2014 COALPRO commissioned the independent economic consultants NERA to analyse the implications of a gradual abandoning of the Carbon Price Floor. This analysis is footnoted (with hyperlink) and provides independent analysis and modelling of CoalPro's case. NERA's[2] key conclusions can be summed up as follows:***

- "**Improved affordability** - lower wholesale electricity prices translate into reduced end user prices and savings for households and businesses."
- "**Boosts Scottish and GB energy supply security** - the amount of coal capacity that chooses to invest in life extension more than doubles . . . enhancing UK energy security in the period before CCS is deployed at scale."
- "**More economic growth** - driven by greater household consumption and industrial output the UK economy grows more quickly."
- "**More jobs** - higher economic activity prompts creation of additional jobs in the UK."
- "**Government revenues** - lost revenues from phasing out CPS are partially offset by higher tax revenues from increased economic activity . . . narrow based taxes such as CPS are more distortionary (have a greater deadweight loss) than broad based taxes."
- "**Emissions** - direct emissions rise, but impact is limited and converge to the same long term level . . . from an EU perspective the CPF is an inefficient and ineffective method of reducing greenhouse gases."

## 2) Ensure existing coal plants are able to compete effectively in the Capacity Market

[2] http://www.coalpro.co.uk/documents/NERA%20-%20UK%20CO2%20Price%20review%20phase%202%20-%20Summary%20of%20Key%20Messages%20-%20FINAL%20-%20V2.pdf

CoalPro argues that the existing Scottish and GB coal plant can and should play a fundamental role in providing lowest cost solutions to ensuring security of supply over the next 10 to 15 years through the critical transition period. The Capacity Market is a key mechanism to ensure future security and it is acknowledged that the design of the market has allowed coal plant to partake.

However, the CPF rate implies an all-in carbon tax at 4 times or more prevailing in the EU over the coming years and a wholly uncertain position post 2020. This creates a market distortion which penalises coal and increases the cost and risk of ensuring security of supply to Scottish and British consumers and business.

The outcome of the initial "t-4"capacity market auction for 2018/19 implies that only 3.5GW of existing coal plant will invest to comply with the looming EU Industrial Emissions Directive (IED) (in addition to 2GW already committed) – that is equivalent to less than one third of existing capacity. Initially Longannet was a plant which had ambitions to become IED compliant and operate beyond 2020/21.

7GW of coal capacity was not awarded contracts at all, including Longannet, and there are serious concerns within the industry that short to medium term commercial pressures, exacerbated by the effective doubling of carbon taxes as from April '15 will force significant closures of plant, in some cases prior to 2020. Scottish Power warned in 2013 that rising carbon taxes would force it to close coal power plants early.[3] The company has followed through on this with its Longannet proposal.

CoalPro's view is that this level of plant closure could have serious economic and security implications for Scotland and GB, as described above, and that the resulting capacity of coal plant surviving into the 2020s will be insufficient to sustain the coal industry through to the CCS era.

CoalPro also notes that the perceived risk of further tightening of emissions limits under the Industrial Emissions Directive (IED) or through the application of tighter GB CO2 emission performance standards is impacting investment costs and risks in relation to coal plant life extension. CoalPro argues that these political risks need to be mitigated to encourage coal generators to invest in life extension and that any further tightening of standards should be limited to the post 2025 period or at least until a significant capacity (eg 5GW) of new coal-fired plant with Carbon Capture and Storage is commissioned.

A CCS Commercialisation Programme should be established, that sets out a clear ambition to deploy a minimum critical mass of 10 GW of CCS by 2030. A minimum CCS volume goal would allow the technology to be commercialised, whilst permitting coal with CCS to secure a larger proportion of the electricity market, if it proves cost-competitive with other low-carbon generation sources.

[3] http://www.telegraph.co.uk/finance/newsbysector/energy/10504524/Axe-carbon-tax-to-keep-lights-on-and-cut-energy-bills-says-ScottishPower-chief.html

***What will CoalPro's proposals deliver?***

- Effective transition and bridge from unabated coal to coal with CCS
- Strong economic case for Longannet Power Station to remain operational into 2020s
- Retention of circa 10,000 direct jobs and the creation of highly skilled roles at new CCS plant, in coal mining and throughout the supply chain
- Maintenance of access to the Scottish and GB vast recoverable coal resource
- Security and greater affordability of electricity supply for Scotland and GB
- A hedge against increasing gas prices, and therefore reduced risk of higher consumer bills and overdependence on imported gas
- CCS transport and storage networks as the basis for power and industry CCS networks
- Potential for the UK to become a world leader in the development and deployment of CCS; if CCS for coal is not available then there is no hope of global emissions being reduced soon
- A mixed energy portfolio with Scotland and GB not over-dependent on any one fuel for the generation of electricity
- Reduction in pressures which lead to carbon leakage where Scottish and GB industry relocates to neighbouring states with lower carbon prices, particularly the EU
- Prevents a high carbon lock-in for the medium to long term with GB over-dependent on unabated CCGT gas plant for the generation of electricity

ENDS