Escalating gas prices and the impact this is having on energy consumers across the EU has been the subject of significant debate over recent months. Whilst much of this discussion has related to short-term measures to cushion these impacts, this crisis has reinforced the longer-term climate imperative to reduce and ultimately eliminate the EU’s dependence on fossil gas.

The European Commission will shortly propose a new ‘gas package’ of measures. This is the opportunity to ensure gas regulations and markets cater for existing and future consumers as demand for fossil gas reduce. This briefing note considers the issues this package must address as a minimum and suggests potential solutions.

Key conclusions are that the gas package should:

- Provide a framework for energy regulators to take decisions about the allocation of gas network costs as gas usage declines.
- Ensure network regulations do not favour one zero emissions product compared to another.
- Ensure users of the existing gas network are not made to subsidise the development of zero emissions gases by paying for products and services they do not require.
Regulatory solutions to these issues are likely to depend on a robust, independent, science-based forecast of both fossil and zero emissions gas usage.

Context
EU policy has consistently sought to deliver benefits for consumers through improving choice and competition (underpinned by regulatory protections where competition is not effective) in the EU single market for goods and services. The single market for energy has seen various developments in support of this objective. Most recently, a Clean Energy Package was adopted in 2019. These measures focused on electricity and aimed to ensure markets and network tariffs were non-discriminatory and cost effective along the value chain. Many of the changes were devoted to improving opportunities for consumers to engage directly in markets to stimulate innovation and competition in products and services.

The effectiveness of the single market for energy has been brought into sharp focus over recent months due to the impact on consumers of escalating gas prices. Whilst most of the discussion has related to short-term measures designed to cushion impacts on consumers, proposals for longer-term reforms have also emerged. These have involved new approaches to securing EU gas supplies and the interactions between gas and electricity prices. However, the most effective long-term solution is to progressively eliminate the EU’s dependence on fossil gas as required to meet the goals of the European Green Deal and to achieve climate neutrality.

This is not only good for the climate but can be turned into a good deal for European consumers, especially the most vulnerable. The European Commission has been considering how to apply the changes introduced in electricity markets through the Clean Energy Package to gas markets. Proposals will be published shortly in a ‘gas package’ of measures. Managing the decline of fossil gas usage must sit at the heart of this package to ensure they benefit from the transition.

The journey to climate neutrality will involve very different challenges for gas and electricity markets. Whilst electricity consumption is expected to grow significantly as heat, transport and industrial sectors electrify to reduce emissions, gas usage will decline, and fossil gas consumption must be virtually eliminated by the middle of the century. New zero emission gases such as hydrogen, produced using electrolysis powered by renewable electricity, and some biogases will have a role to play in a climate neutral energy system, but the extent of this role in terms of scale and location is uncertain.
Consumer protection provisions established by the Clean Energy Package bring improvements through a clarification of contractual obligations for suppliers and increased billing transparency. However, these provisions do not address the fair distribution of the costs of the clean energy transition. Whilst this relates to tax policy, which is a national competence, much of the costs arise from infrastructure choices which are addressed at EU-level.

The different challenges facing gas and electricity mean that it is not appropriate to simply transpose the mechanisms adopted in the Clean Energy Package into a gas package. The more significant questions for gas involve assessing how consumers will be impacted as fossil gas usage declines and as new markets emerge in zero emission gases. New measures may be required to ensure consumers can access the best products and services and that protections are in place where barriers and obstacles prevent this from happening. This briefing sets out how a gas package could address the interests of current and future gas consumers and energy consumers in general.

**Choice and competition in decarbonised energy markets**

Decarbonisation of the energy system requires that the use of fossil gas must be eliminated, and this involves changing the choices presented to consumers. Clear and transparent labelling of zero emissions products, based on lifecycle analysis, is a necessary first step, but not sufficient.

It can be achieved by making the move to alternatives financially attractive to consumers through fiscal incentives and introducing mandates and standards which ensure reduced use of fossil gas in line with climate targets. In other words, policy measures need to impose an administered discrimination between the use of fossil gas and zero emission alternatives.

These incentive measures need to be augmented by information and processes that will make it easy for consumers to switch to renewables. For example, gas bills and comparison tools are key channels of information and should explain to consumers where they could find reliable independent information (e.g. by providing a link to an official website or contact details of a one stop shop). This information should emphasise the opportunity to switch from gas to zero emissions alternatives and explain how this can be done.

Promoting the interests of consumers in the gas market is, therefore, a twofold challenge:
• How to administer discrimination between the use of fossil gas and zero emission alternatives in a way that reduces fossil gas usage but does not impose excessive penalties on consumers that cannot readily switch to zero emission alternatives

• How to ensure fair, non-discriminatory access to the zero emission alternatives to fossil gas that will become the mainstay of the future energy system, including making it easy for consumers to switch to renewable heating solutions.

Measures to reduce fossil gas usage

The introduction of measures to reduce fossil gas usage risks creating a shift in benefit between consumers. For example, increasing prices of fossil fuels (e.g. through carbon prices) could benefit those who are engaged and empowered to reduce fossil gas usage at the expense of those who may not have the same level of information or the means to do so. Also, all citizens will benefit from a reduction in fossil gas consumption whilst the cost is borne by energy consumers. Reducing the costs of zero emissions products through subsidy could have a similar effect. A different distribution of benefits would arise where the costs of the subsidy are not paid by energy consumers but through general taxation. Whether the introduction of standards and mandates shifts benefits between consumers depends on the costs and benefits of making the change. However, not all consumers can change at the same time and there could be a shift in benefit between those who change first and those who change last.

The extent to which the potential effects described above act in the overall interests of consumers will depend on how fiscal measures, standards, and mandates are applied. This is a matter of political judgement, and it is likely that most politicians want to avoid a public debate framed in terms of winners and losers. For example, prohibitions on the use of fossil gas in California have been interpreted as a form of regressive tax on low- and middle-income citizens. This suggests politicians will generally opt for a mix of measures which aim to retain incentives to move away from using fossil fuels without creating undue costs for those who are still fossil fuel dependent. It is, therefore, likely that the pace of change should be largely driven by standards and mandates with fiscal measures and protections for vulnerable consumers providing supporting incentives. Such a package would ensure small shifts in energy costs amongst consumers and avoid political problems.

The core policy framework is established at EU-level with adjustments imposed by politicians working at national and local levels. However, in the gas market, many of the costs are associated with networks and the allocation
of these costs is governed by regulators. Energy regulators are required by EU law to be independent of national government direction and their decisions could have a big impact on the delicate political decision to balance the trade-offs between consumers described above.

The gas package should set a framework to help guide key regulatory decisions. Challenges will vary depending on the extent of the gas network and associated usage. Where gas infrastructure is less developed the focus should be to stop any expansion through, for example, removing obligations to connect consumers where this would involve an extension of the gas grid.

Perhaps the most significant issue to address, especially where there is an extensive gas network and high usage such as Germany, is the need to avoid escalating network costs for residual fossil gas consumers as overall consumption declines. This issue was explored recently in a paper by the Australian Energy Regulator. It may be possible to address this by applying accelerated depreciation of network assets in the price control agreements. A more rigorous approach would be to recover network costs on a fixed rate per unit of gas consumed.

Under both approaches, tariffs would need to be based on the forecast rate at which gas consumption is expected to decline. This would require an internally consistent forecast of the broader infrastructure landscape and consumer behaviour along with a reconciliation mechanism to allocate the costs of forecasting errors and maintain incentives for accurate forecasts. These approaches would effectively introduce a cross-subsidy between current and future users of the gas network to prevent gas consumers bearing excessive costs as gas demand reduces to zero.

**Fair competition between zero emission alternatives**

The measures described in the previous section will establish the conditions whereby current consumers of fossil gas are incentivised to switch to zero emission alternatives. The gas package should also seek to ensure that fiscal measures and regulations do not favour one zero emissions product over another. Whilst targeted subsidies may be justified to develop promising new technologies and create new zero emission options, especially for hydrogen, this should not be part of the enduring regulatory system. The key challenge is to ensure fair competition between users of electrical products and services and those using zero emission gases.

Dedicated networks for the use of zero emission gases should be regulated on a standalone basis, ensuring non-discriminatory access for any consumer and an
allocation of costs based on the services used. However, producers and consumers of zero emission gases may wish to use the existing gas network. To avoid introducing a cross-subsidy it is necessary to prevent users of the existing gas network paying for services they do not require, including the infrastructure upgrades needed. The gas package should introduce regulatory guidance to ensure these cross-subsidies do not arise.

Consumers (including industrial end-users) who do wish to use zero emission gases should pay the full costs of connection and usage including the costs of upgrading the network in the same way that users of the power network pay for power grid upgrades. Network costs are traditionally shared across consumers and a different approach is required to ensure fair competition is maintained. One potential solution would be to elevate costs for all gas system users to cover the costs of upgrading grids to carry zero emission gases, but a full rebate of the uplift is provided to consumers who disconnect from the system before the change to 100% zero emission gases occurs. This would help consumers compare the true costs of using zero emissions gases with electrical alternatives. It would require the cost to be based on a forecast of the numbers of customers remaining on the system once full conversion has happened and a reconciliation process to ensure costs of forecast errors are recovered and incentives for accurate forecasting maintained.

Conclusion

The gas package must focus on protecting the interests of consumers whilst supporting a decline in fossil gas usage. It can play an important role in two regards:

- Providing a framework for energy regulators to take decisions about the allocation of gas network costs as gas usage declines. This is necessary to maintain the balance of costs and benefits across consumers and citizens.
- Ensuring network regulations do not favour one zero emissions product compared to another. Users of the existing gas network should not subsidise the development of zero emission gases by paying for products and services they do not require.

Regulatory solutions to these issues are likely to depend on a robust, independent, science-based forecast of both fossil and zero emission gas usage. Mechanisms will be required to allocate the costs of forecast errors and maintain incentives for accurate forecasting.