The Place Store

National Planning Framework 4 – Call for Ideas

Geothermal from Mine Water – a National Resource Project

1. What development will we need to address climate change?

One way of perceiving the Covid19 crisis is that after decades of trying to get the global community to recognise the immediacy of the climate emergency, nature took matters into her own hand and gave us a taste of the medicine which we had imposed upon the planet since the on-set of the 1st industrial revolution with our carbon intensive economy.

A natural consequence of our response to the resultant Health Emergency has been a significant reduction in our carbon footprint, and as a result we are at a 'nearer NetZero Carbon' position than we have been in our lifetime. This nearer NetZero position should be guarded with, and indeed for, our lives. Future development propositions of national significance must surely be judged against this critical metric.

It is also clear from our collective response to the COVID19 crisis that improving community resilience must similarly be a key feature of any future development, if we are to better manage the impact - on both the economy and the environment - of any other systemic shocks. Any future development must also therefore be measured against its ability to strengthen community resilience. These are the twin characteristics of inclusive growth.

2. How can planning best support our quality of life, health & wellbeing in the future?

It is becoming common practice to describe the emergence of a 'new normal', one in which our focus is not only on immediate recovery, but also on renewal and resilience. The Scottish Planning System must be agile and flexible enough to create the conditions for that new normal to emerge, both in terms of the types of places which we develop – or indeed re-purpose – and how we best enable people to interact with them.

In this effort, the planning system must surely prioritise developments which help to shape that new normal, from unproductive assets which have either lain dormant, or are becoming redundant as a result of the response to the Covid19 crisis. In so doing, we must

ensure that by working within our current carbon footprint, at this nearer NetZero position, we can improve our quality of life sustainably, and not at the expense of the environment.

This submission offers a dual track approach to planning for inclusive growth – by tackling both food and fuel poverty – through the repurposing of existing energy at the domestic, community and commercial levels. This approach, through the deployment of existing technologies across the former Scottish coal field, targets areas of economic deprivation and resultant social decline, giving them back the fruits of their forefathers labour.

3. **What does planning need to do to enable development and investment in our economy so that it benefits everyone?**

In a plan led system, it is important to intervene where market failure exists. Only by targeting struggling communities, those left behind as social and economic sinks, can we address the inequity which scars too many of our communities. We need to ensure they are well balanced, e.g. with a mix of housing type and tenure, with schools in truly comprehensive catchments and with town centres that serve the whole community.

The planning system has a critical role to play, as the conduit for the delivery of the broad range of social and economic functions which are the statutory responsibility of their host local authorities. Planning is the enabler of inclusive growth, but only where it's regulatory function is aligned with the local authorities' wider aims and aspirations in that regard. Planning is recognised by all other local authority professions as playing this positive role.

In Scotland, we have witnessed a number of nationally led, or at least endorsed, waves of place-making; the depopulation of slum city centres through the development of New Towns, their current private sector led model creating Major Growth Areas and of course the shift from horizontal to vertical density and back again, through the development and then demolition of high rise blocks of flats.

We've also seen, in the likes of West Lothian, planning shaping the redevelopment of its industrial corridor from Broxburn to Armadale, whilst holding back the market demand along its Northern and Southern flanks in Linlithgow and Livingston South. This ability to intervene and shape the market through a mix of an active regulatory regime, fiscal incentives and legislation is where planning is best able to make great, resilient places.

A core lesson from this kind of intervention is recognition of the ability to leverage public assets for the greater good, as is the case with geothermal energy from mine water. In fact, the public ownership of this resource also enables the writing of rich political poetry, as the communities which stand to benefit from an assault on food and fuel poverty are the very ones whose blood, sweat and tears created the resource in the first place.

4. **What policies are needed to improve, protect and strengthen the special character of our places?**

The abundance of geothermal energy has the potential to tackle both fuel and food poverty in these communities, through the installation of District Heating Systems and the localised production of food. Given the proximity of V&DL sites to areas of deprivation, their conversion for energy and food production would be suitable 'permitted developments' in any new focus on community resilience, socio-economic and environmental sustainability.

For communities which have felt as abandoned as the pits they were created to service, geothermal offers an opportunity to tap into the rich resource beneath their feet. These communities deserve a national response which will enable them to unlock their true potential, buried when the pits were shut down. The ability to turn that adversity to their advantage is something which the planning system can grant them.

In so doing, planning could also offer these long forgotten communities the opportunity to re-engineer their local environment, encouraging and nurturing a level of biodiversity long gone from these once thriving places. The ability of geothermal to also act as a heat sink during peak periods of climatic heat would help to make these communities more attractive places in which to live, to work and to play.

5. **What infrastructure do we need to build to realise our long term aspirations?**

One of the many beauties of the geothermal from mine water project is that although a national initiative, benefitting the majority of the Scottish population – cutting a socio-economic seam in towns from Ayrshire through to North East Fife – it can be locally delivered. It is the ultimate disaggregated energy system, with localised distribution not requiring to be connected to a national network of expensive infrastructure.

The ability to literally tap into energy beneath the feet of a community not only makes this source of heat more resilient to external shocks – e.g. non-direct policy, price or regulatory controls – it also offers a fast track opportunity to convert a significant slice of the heat energy production pie to this locally available, renewable source. Given the lack of renewable heat capacity in our current system, this could make a sizeable impact on carbon reduction targets for a sector which accounts for around half of energy usage in Scotland.

In summary, a national effort to enable the production of geothermal heat from mine water will help to tackle the climate challenge, give people and their communities left behind in the post-industrial landscape an opportunity to thrive again, create the conditions for strengthening place-making by tackling inequality, create jobs which offer an honest day's work and thereby help to deliver on Scotland's inclusive growth aspirations.

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