Our Geothermal Nation

Recommendations and actions for policymakers to accelerate the deployment of geothermal energy

National Geothermal Centre

	Recommendation		Actions	Expected Outcomes	Short -Term 2026-2030	Medium to Long Term 2031-2050	Responsibility
1*	**Recognise and resource the NGC as national delivery body**	Challenge 1 Policy and regulation	Form a working group to agree scope, nature and responsibilites of the national delivery body	Agreed delivery vehicle for the strategy and a "go to" for the industry			DESNZ, NGC, GBE, BGS, REA wider sector
2*	**Adopt targets and strategy set by the NGC**		Consult more widely on this strategy to refine and share with government to adopt. Adopt proposed targets for heat, power generation, plus job creation and avoided CO_2 for 2030 and 2050	Commitment from geothermal to secure market and investor confidence. Clarifies the opportunity and helps establish UK as clean energy superpower			DESNZ, NGC, BGS, REA, wider sector
3*	**Develop dedicated licensing and permitting routes**		Develop and coordinate geothermal specific licensing framework including standardised permitting pathways "one stop shop" including geothermal specific safety standards	Accelerated geothermal developments and clearer routes to market. Geothermal becomes the default choice for heating new developments			NGC, DEFRA, Regulatory Agencies (EA, NRW, SEPA), HSE, MRA, NSTA, Combined Authorities, Net Zero Hubs
4*	**Create risk-sharing and development financing frameworks**	Challenge 2 Market and finance	For heat/ cooling and heat and power schemes - blended finance, heat CfD, tax breaks, upfront risk insurance stimulate market funding from private investment	Gaps and risk aspects not covered under existing support schemes are resloved. Additional private investment, unlocked blended finance to spread risks, improved market confidence and growth			DESNZ, NGC, NWF, GBE, Treasury, Private investors
5	Assess the national economic opportunity		Supply chain and skills transfer e.g. from oil and gas sector. UK supply chains strengths e.g. in propsecting, drilling and characterisation and wider opportunities for economic growth	Supported local economies in regions with high resource potential but low economic resilience			DBIST, NGC, DESNZ, OEUK
6	Develop and export strategy		Develop export strategy for services, tech, knowledge and digital data based on project success	New export opportunities identified. UK becomes a clean energy super			DBIST, NGC, DESNZ, NWF, GBE, Scottish Enterprise
7*	**Develop skills and transition programmes**	Challenge 3 Knowledge, education and skills	Complete an ssessment of skills and training needs. Training and reskilling programmes launched. Accelerated workforce retraining for oil, gas, and mining specialists moving into geothermal roles	An upskilled workforce, skills and expertise from UK oil and gas sector retained, geoenergy is a real and long term career opportunity			Trade associations, DESNZ, Scottish Enterprise, NGC, schools, FE colleges, universities, training providers
8	Establish regional centres of excellence		Regional sector hubs for skills, training, and knowledge transfer in high-potential regions. R&D calls focused on innovation and technology optimisation	Established centres of excellence where people can train and build capacity. A successful sector supporting up to 50,000 direct jobs by 2050			NGC, UKRI, Net Zero Hubs, combined authorities, industry
9	National awareness and engagement programme		Co-create projects with communities and authorities and undertake communication & education campaigns. High degree of community ownership and benefit-sharing	People know what geothermal is and ask for it thereby driving demand			NGC, BGS, DESNZ, Local Authorities
10	Create open access resource mapping	Challenge 4 Technology development, research and innovation	Map geothermal resource with heat demand, fill gaps in data using AI or additional data acquisition. Include greater open access to data	Improved resource estimates and reduced initial project risk			NGC, BGS, UKOGL, HNDU, Catapults
11	Establish a technology development fund		Geothermal delivery body will through fund technology development e.g. improvements in prospecting, drilling and energy recovery technologies	Reduced drilling times, reduced cost and more efficient topside energy recovery prodcuing more heat and electricity			DESNZ, GBE, NGC, BGS, NWF
12*	**Create a national project pipeline**		Incorporate projects within NSTA project pathfinder tracks planned/ developing and commissioned projects	A transparent and investable geothermal market capable of attracting private capital. Project development and opportunities are tracked and highlighted			NGC, DESNZ, NSTA, BGS, Industry, Local Authorities
13	Integrate geothermal with heat networks	Challenge 5 Infrastructure integration	Integrate geothermal into heat networks, complete feasibility mapping in zones. Connect new builds, retrofit exisitng, geothermal review for new and upgraded heat networks	Lower carbon and more efficient heat provision, large heat loads removed from gas and power grids, warmer safer decarbonised homes, reduced fuel costs and improved public health			Local authorities, network operators, untility companies, OFGEM
14	Electricity system integration		Connection and capacity studies, private wire connections, mapping demand with opportunity, quantification of geothermal potential to reduce grid demands	Public buildings and estates have adopted geothermal. Geothermal becomes a cors part of UK energy, industrial and digital infrastructure			NESO, OFGEM, GBE
15	Sustainable industry and food production		Couple geothermal with industrial processes, identify appropriate industries	Reduced costs retain businesses, food and energy security is improved			National government, Local authorities, network operators, trade associations
16	Data centre and AI growth		Align geothermal opportunities with AI zones	Heat supply, storage, electricity production and potential for geothermal fluids to meet AI cooling demands			Local authorities, utility companies, data centre providers, network operators

2026 2027 2028 2029 2030 2032 2034 2036 2038 2040 2042 2044 2046 2048 2050

*** Key recommendation**

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