From: Simon Jones, Corporate Director for Growth, Environment and Transport

To: David Wimble, Cabinet Member for Economic Development and Special Projects

Subject: KCC Energy Strategy

Decision no: 26/00052

Key Decision:
- It affects more than 2 Electoral Divisions

Classification: Unrestricted

Past Pathway of report: Growth, Environment and Transport Cabinet Committee - 10 November 2026

Future Pathway of report: Cabinet Member Decision

Electoral Division: All

Is the decision eligible for call-in? Yes

Summary: KCC's Energy Strategy assesses Kent's current, and future strategic energy needs and how KCC will work to ensure that these are met in the context of volatile energy prices, growing demands on the electricity network, and high energy bills for Kent's residents and businesses.

Recommendation(s):
The Cabinet Member for Economic Development and Special Projects is asked to agree the proposed decision to approve and adopt the KCC Energy Strategy, as set out in sections 1 – 6 and the Proposed Record of Decision at Appendix A.

---

1. Introduction

1.1 The transition to low carbon energy systems is accelerating globally and is transforming the ways in which energy is generated, stored and used across the UK and in Kent. It involves moving energy production away from sources that release certain greenhouse gases – such as fossil fuels – to clean energy sources like wind, solar, nuclear and hydropower that release little to no greenhouse gases[1].

1.2 The energy transition is essential for strengthening national energy security from volatile fossil fuel markets and driving economic growth as the cost of

[1] What is the clean energy transition? | National Grid Group

renewables increasingly undercuts those of fossil fuels[2]. Research by The Office for Budget Responsibility (2023)[3] and the Department for Energy Security and Net Zero (DESNZ) (2026)[4] have shown that the levelised cost of electricity (LCOE)[5] generated from renewables (including the additional costs of integrating renewables onto the UK grid), are now below that of fossil fuels and continue to decrease. This is part of a wider trend in which renewables have become the most cost competitive source of new generation globally, irrespective of national subsidy regimes and government interventions[6].

1.3 This energy strategy sets out the key energy challenges facing Kent and the ways in which Kent County Council will work to support the county's residents and businesses to help ensure that they benefit from the energy transition through access to reliable, affordable and clean energy now and in the future.

1.4 KCC's work will focus on the following priorities:

- Solar generation
- Nuclear generation
- Hydrogen production
- Dungeness Decommissioning Academy and Nuclear Skills Campus
- Port of Dover
- Data centres
- Community Energy
- Heat networks
- Grid constraints

2. The urgency for action

2.1 The energy transition is not a straightforward substitution of one energy source for another. Instead, it signifies comprehensive and profound transformations of how we generate and use energy[7]. The post-Covid pandemic surge in demand for oil and gas, followed by Russia's 2022 invasion of Ukraine and restriction of Russian gas to the European market triggered European gas prices to soar by more than 200% in 2021. The war sent shockwaves through the global economy and disrupted energy markets on an unprecedented scale. Energy prices are still far above pre-pandemic levels, driving painful increases in the cost of living in the UK but the Europe wide energy-system transformation that it triggered has led to accelerating diversification and renewable deployment[8].

2.2 Coinciding with the post-covid energy shock, the cost of renewables like wind and solar is falling significantly, irrespective of subsidies, fuelling their rise as the world's cheapest source of energy. Between 2011 and 2021, the cost of

---

[2] Record Growth Drives Cost Advantage of Renewable Power
[3] A more comprehensive measure of the costs of energy - Office for Budget Responsibility
[4] Electricity Generation Costs 2025
[5] LCOE – the average total cost of building and operating an energy generating asset per unit of electricity over its lifetime. Subsidies are not included in LCOE calculations.
[6] International Renewable Energy Agency, 2026. Renewable power generation costs in 2025.
[7] Energy transition: Connotations, mechanisms and effects - ScienceDirect
[8] The economic and energy security implications of the Russian energy weapon - ScienceDirect

large solar projects dropped by 85% and renewables are now significantly undercutting fossil fuels as the world's cheapest source of energy[9]. Despite renewable generation being inherently weather-dependent, intermittency challenges are increasingly mitigated through advances in energy storage, system flexibility, interconnection and dispatchable sources of generation, including nuclear power.

2.3 In light of the above, electricity demand is projected to grow significantly in Kent over the coming years, particularly as electricity replaces fossil fuels to heat homes and businesses and electric vehicles increasingly take the place of petrol and diesel vehicles. Table 1 shows the number of battery electric vehicles (BEV) registered in the UK for the first time for selected years between 2010 and 2025[10]; while there were only 242 new BEV registrations across the UK in 2010, this had risen to 430,442 new registrations by 2025.

Year	UK annual new BEV registrations
2010	242
2013	2,411
2016	9,352
2019	34,224
2022	242,746
2025	430,422

Table 1. UK-wide new registrations of BEV vehicles (annual totals) for selected years between 2010 and 2025 (DfT and DVLA)

2.4 Table 2, taken from UK Power Network's (UKPN) most cautious projections regarding electrification and renewables penetration in Kent[11], shows how domestic heat pumps are projected to potentially increase slowly between 2025 and 2035 across the county. However, over the same period, the number of BEVs (cars) is projected to increase significantly even in UKPN's lowest growth projections. These represent the lower limit of domestic heating and BEV growth in the county but, in the case of BEVs, significant increases are expected across all credible scenarios.

Technology	2025	2030	2035
Domestic heat pumps	**3,644**	**3,925**	**3,976**
BEVs (cars)	**35,725**	**209,724**	**471,930**
BEVs (vans)	**989**	**11,178**	**36,059**

Table 2. Projected increase in the number of domestic heat pumps, electric cars, and electric vans between 2025 and 2035 under UKPN's most conservative demand projections[12].

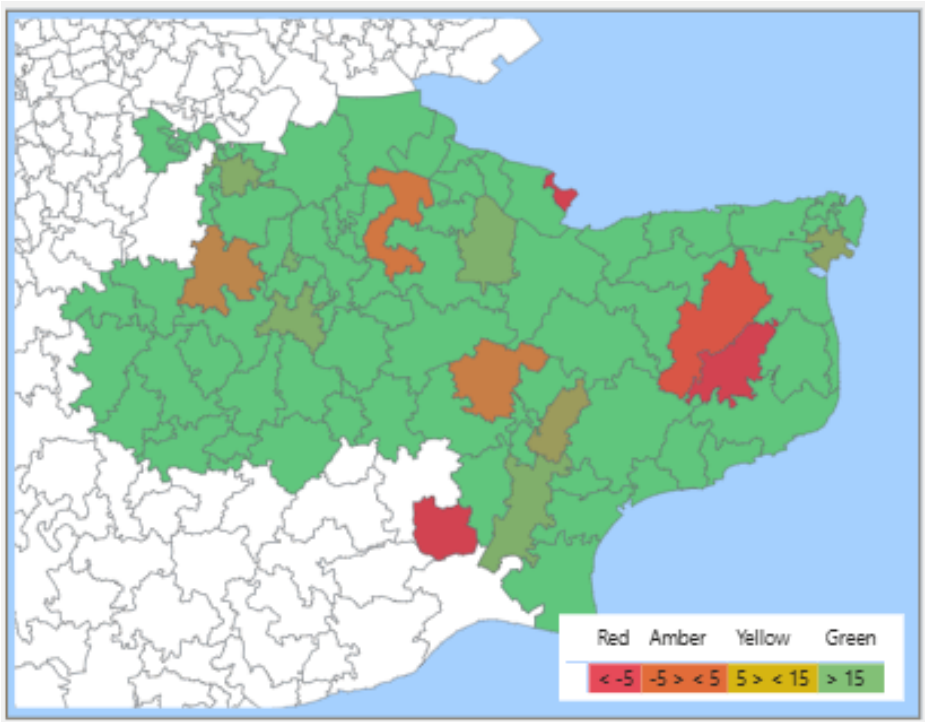
[9] Renewables Were The World's Cheapest Energy Source in 2020 | World Economic Forum

[10] Department for Transport and Driver and Vehicle Licensing Agency 2026: Vehicle licensing statistics data tables - GOV.UK

[11] Projections based on UKPN's UKPN consumer transformation scenario, which assumes that the UK will reach national 2050 net-zero target with high degree of societal change and deep electrification of transport and heat.

[12] UK Power Networks DFES 2024 based on its "Counterfactual Scenario" in which slow progress is made on decarbonisation. Natural gas remains the primary heating fuel but BEVs are still projected to become the most

2.5 Ensuring energy supply matches demand as electrification and decarbonisation progress is vital to the development and growth of Kent in the coming years. However, much of the county is subject to electricity grid network constraints, which can inhibit new generation from connecting and demand growth being met. The push to decarbonise energy over the next decade, with ambitious government targets to electrify domestic heating and increasing numbers of electric cars, will place growing demands on our electricity grid. Kent's electricity grid will have to manage rapidly growing electricity demand in the coming years. However, there are already areas of the county where the local grid is operating at or above capacity. Map 1 shows all of Kent's primary substation feeding areas and their current headroom status. The dark red areas show regions where the primary substation is currently over 5% overloaded, amber regions are between 5% headroom and 5% overloaded, yellow between 5% and 15% headroom and green over 15% headroom.

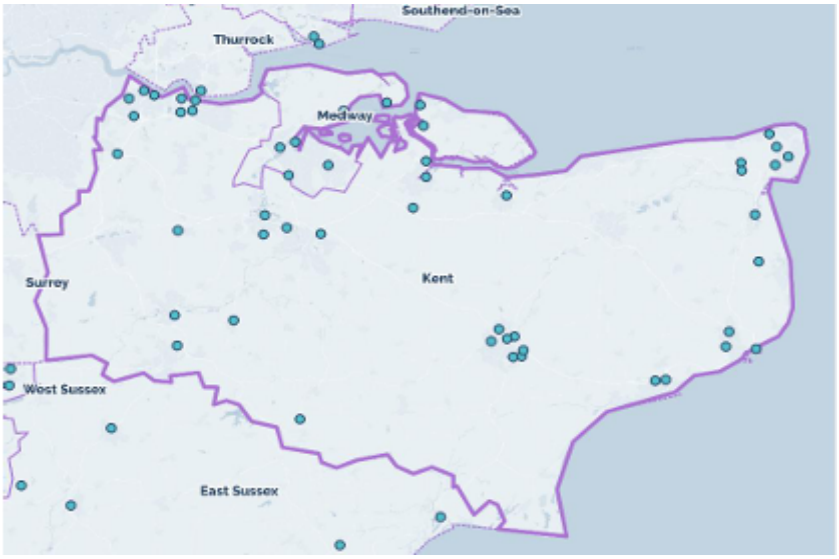


Map 1. Demand headroom (%) at primary substation feeding areas in Kent (KCC Infrastructure Mapping Platform: Primary Data UKPN 2026[13]

2.6 Business and industrial electricity demand in Kent is also set to increase considerably over the coming years, especially for the county's industrial clusters and ports (Dover in particular), with significant likely impacts on the local grid capacity. Kent's main industrial clusters are shown in map 2 below.

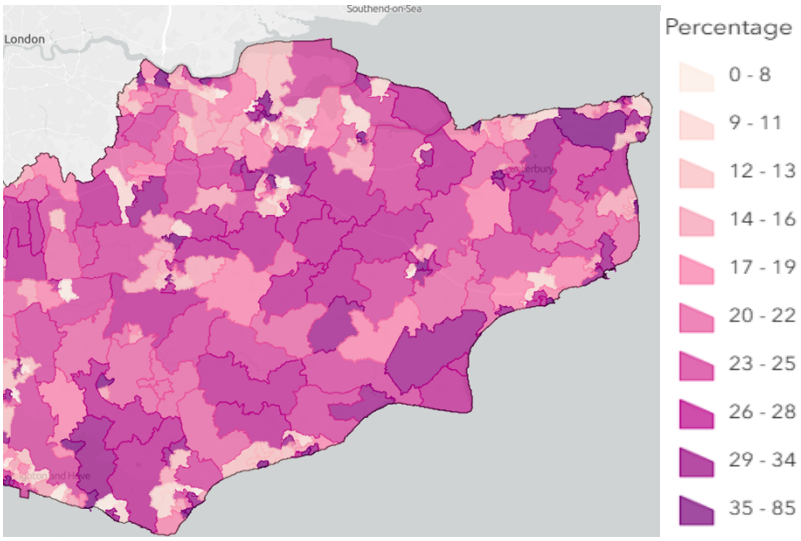
popular passenger vehicle by the mid-2030s. This scenario is the most restrictive in terms of electrification and renewables deployment (see **2025-DFES-Report.pdf**, p.15).

[13] Network Infrastructure and Usage Map (NIUM) — UK Power Networks



Map 2. Kent's local industrial clusters (Opergy Net Zero, 2024[14])

2.7 The non-domestic share of electricity demand shows significant spatial variation across Kent. The lighter shaded areas of map 3 represent the areas with the lowest share of non-domestic electricity demand while the darker areas represent the highest shares. As industrial processes and commercial sectors continue to electrify as a means of increasing energy efficiency and reducing operational costs, non-domestic electricity demand is expected to rise rapidly and areas with already high shares of non-domestic demand (the darkest areas of map 3 and closely correlated with the location of industrial clusters in map 2) are likely to see overall electricity demand increase faster than areas with relatively smaller shares of non-domestic demand. This has important implications for spatial planning of the energy system in Kent to ensure that supply and network capacity keep pace with local business demand growth.



Map 3. Non-Domestic Share of Electricity Demand (NESO 2025[15])

[14] Developing a Framework for Decarbonisation of Local Industrial Clusters report.

2.8 Despite the significant projected demand growth for electricity in Kent over the coming years, the ability for new generation projects to connect to the network in the county is currently being held up at the level of the distribution network, where UK Power Networks (UKPN) needs to upgrade and reinforce infrastructure to allow new sources of generation to be incorporated. Table 3 shows this transmission backlog, with five of the county's six grid supply points currently indicating maximum lead times for connection up to 2036/37 for already approved projects.

Site	Transmission backlog	Max lead time	Number of solar and/or battery projects accepted but not connected
Kemsley	**363.6 MW**	**2036**	**8**
Northfleet East	**1072 MW**	**2037**	**29**
Kingsnorth	**0 MW**	**2026**	**8**
Canterbury North	**543.8 MW**	**2036**	**12**
Sellindge	**418 MW**	**2037**	**10**
Richborough	**489.9 MW**	**2037**	**14**

Table 3. Connection backlogs at Kent's grid supply points (UKPN 2026[16])

2.9 Government's connection reform process should soon start to take effect, reducing the grid queue in Kent. However, as things stand, existing backlogs hinder the energy transition and disincentivise clean energy projects from being developed where connection dates are years into the future. KCC will work with Kent businesses to secure the grid connections they need through the emerging Regional Energy Strategic Plans (RESP) (see section 3 below) and through lobbying central government to accelerate the connections reform process at Kent's capacity-constrained substations.

3. Vision for KCC Energy Strategy

3.1 Kent County Council's vision is to secure a resilient energy system that meets Kent's current and future economic and housing growth needs and reduces reliance on volatile international energy markets. In response to rapidly increasing demand arising from the electrification of heat, transport and

[15] tRESP - Nations and Regions Context
[16] Network Operational Data Dashboard — UK Power Networks

industry, and existing grid constraints across the county, the Council will take a proactive leadership role in shaping Kent's future energy system.

3.2 KCC will work with Government, industry and partners to unlock investment, address infrastructure constraints and ensure Kent is fully prepared to shape and benefit from Regional Energy Strategic Plans, securing a sustainable and competitive energy future for the county.

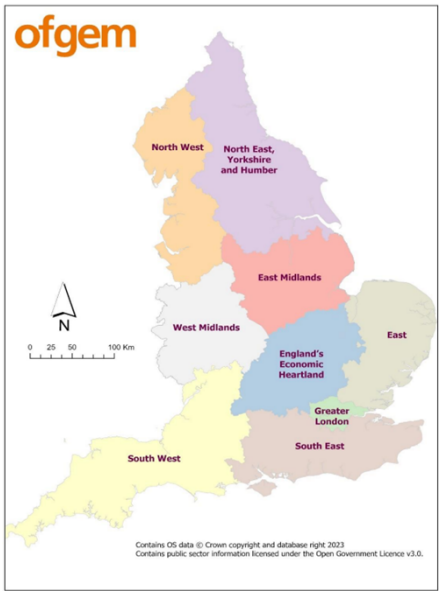
4. Regional Energy Strategic Plans (RESPs)

4.1 Clean Power 2030 (CP2030), published in December 2024, is the UK's strategy to deliver a predominantly clean electricity system by 2030[17]. Led by the Department for Energy Security and Net Zero (DESNZ), it aims to ensure that:

- Clean sources produce at least as much power as Great Britain consumes annually; and
- At least 95% of electricity generation comes from clean sources such as nuclear, hydrogen, renewables, and carbon capture-enabled plants

4.2 Regional Energy Strategic Plans (RESPs) were announced by Ofgem in November 2023 and are key to achieving CP2030. They will be produced across 11 regions of Great Britain (map 4) with the aim of ensuring regional priorities and spatial plans integrate into national energy system planning and support the Government's CP2030 target.

"The purpose of the RESPs will be to support coordinated development of the energy distribution system and enable long-term investment to be made with confidence and ahead of need"[18].



Map 4. England's RESP regions[19]

[17] CP 2030

[18] Regional Energy Strategic Plan policy framework consultation

4.3 The RESPs are expected to come into force in January 2028 and are intended to address the challenges set out in section one of this report through the introduction of regional energy system planning. Upper tier/strategic/foundation and/or unitary authorities are set to play a key role in the RESPs as members of regional strategic boards that will collaboratively design, implement and ultimately sign off the regional plans every five years. This energy strategy sets out KCC's strategic energy generation priorities in preparation for participation in the RESPs to ensure that the challenges set out in section 1 are fully addressed through regional energy system planning. Additionally, in partnership with Medway Council and Kent district and borough authorities, KCC are developing a Local Area Energy Plan (LAEP) to explore renewable technology deployment at a local level. The LAEP will identify opportunity areas, partnerships and cost-effective, feasible energy solutions for heat and transport. The LAEP is being developed as part of the Kent and Medway Energy and Low Emissions Strategy (ELES).

4.4 Central government, network operators and the private sector are the main actors responsible for the deployment of energy generation infrastructure nationally, in line with CP 2030 targets. **Participation in the Southeast RESP is the key mechanism by which KCC can work with central government, network companies and private developers to influence decisions around the generation mix in Kent and the siting of new energy infrastructure to ensure that these meet the needs of Kent's residents and businesses**. KCC's Strategic Planning and Infrastructure Team will work across the Growth Environment and Transport directorate to identify Kent's current and future energy priorities in preparation for the 2028 RESP. This work will continue beyond 2028 to feed into subsequent iterations of the RESP.

5. Priorities

Solar Generation

5.1 KCC's 2026 Position Statement on Solar Generation sets out the organisation's approach to ground-mounted photovoltaic development and its support for solar generation that is:

- Well designed and appropriately located, which is consistent with its commitment to protecting valued landscapes, habitats, heritage, and agricultural land.
- Not located on Best and Most Versatile (BMV) agricultural land (grades 1 to 3a).
- Community-led integrating local ownership (in part or in full) and benefit, where evidence is provided that demonstrates roof or wall-mounted provision has been considered and why this is not feasible.

[19] Regional Energy Strategic Plan policy framework consultation

5.2 As set out in section 3 of KCC's 2026 Position Statement on Solar Generation, domestic and commercial rooftops, car parks and brownfield sites are all recognised as opportune sites for solar PV installations.

5.3 KCC, in collaboration with Medway Council and participating Kent Districts and Boroughs, will continue to promote collective purchasing schemes for low-carbon technology such as solar PV and storage batteries for households and SMEs. Since 2020, the iChoosr Solar Together project (now 'Switch Together Solar') has facilitated over 4,025 solar PV system, 289 battery systems[20], and 325 EV charging point installations in Kent and Medway. (This relates to household schemes in section 5.3 only).

Nuclear

5.4 Nuclear power generation began at Dungeness in 1965. The county has a long and proud nuclear heritage with potential for renewed nuclear generation in the future. KCC's Energy Strategy aims to look at ways to promote Kent as a site for new nuclear generation, putting it back on the national nuclear map.

5.5 Dungeness' two reactors, Dungeness A and B, are currently being decommissioned and defueled. Its environmental and size constraints previously excluded it as a new nuclear site but the Government's new national nuclear ambitions and the advent of advanced nuclear technologies - especially Small Modular Reactors (SMRs) - now offer the opportunity for Dungeness to be reconsidered. For these new smaller reactors in particular, Dungeness C provides the site, the existing grid connections, specialist skills and an increasing local and county-wide demand for energy. It also has a highly supportive local community.

5.6 Internationally important habitats surround and overlay the existing Dungeness powers station site, including a Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar site, all designated post-construction. These designations are subject to the highest levels of environmental protection under UK and international legislation and present significant environmental and consenting constraints to the development of an SMR on the existing site. The projected construction envelopes and associated activities of conventional, commercially advanced SMRs (such as those being developed by Rolls Royce, Holtec, EDF/NUWARD) would encroach on designated sites, complicating potential deployment.

5.7 A sub-category of SMRs, microreactors, may offer a more feasible possibility at Dungeness compared to conventional SMRs. These produce around 20 times less energy than conventional SMRs but occupy a significantly smaller area and may therefore not face the same environmental and consenting challenges as a traditional SMR. KCC is currently working with a microreactor

[20] Lithium-ion battery storage systems present a low-probability but potentially high-consequence fire risk. Recent UK standards, including PAS 63100:2024 and updated IET wiring regulations, have significantly strengthened requirements relating to the siting, installation and fire protection of domestic battery systems, helping to ensure that risks remain low when systems are correctly specified and installed.

developer to explore the possibilities for developing the technology on the existing power station site.

Hydrogen production

5.8 The British Energy Security Strategy emphasises the importance of hydrogen in the UK's future energy mix.

"*Our drive on renewables makes green hydrogen especially valuable for flexibility and as a storage solution. Excess renewable electricity used to produce hydrogen can be stored over time and used to power the grid when needed. We will double our UK ambition for hydrogen production to up to 10GW by 2030, with at least half of this from electrolytic hydrogen*[21]".

5.9 The UK Hydrogen Strategy[22] envisages that hydrogen will be used in a number of sectors where electrification is not feasible or is too costly, and other decarbonisation options are limited. This may include generation of high temperature heat, as in industrial furnaces, and long-distance and heavy-duty transport. Similarly, it is useful in areas where the flexibility and stability of a gas is valued, for example large scale or long duration energy storage and flexible power generation.

5.10 Although there are currently no operational hydrogen plants in Kent, one is currently in the early stages of construction, another proposal in is the pipeline, and other developers have shown interest in the county as a potential site for production.

5.11 KCC supports the siting of hydrogen production facilities in the county as an integral element of the clean energy transition, especially for hard to electrify sectors. However, Kent is already seriously water stressed (household demand for water is already a high proportion of current effective rainfall available to meet that demand) and all hydrogen production technologies require water in production and cooling. As such, all proposals must be carefully considered with respect to the local and potentially county-wide impacts on water resources.

Dungeness Decommissioning Academy and Nuclear Skills Campus

5.12 Recognising the unique situation of Dungeness, having two reactors located side by side, both undergoing decommissioning, initial discussions have raised the opportunity for developing a decommissioning skills centre of excellence, or similar, working with the Nuclear Decommissioning Authority/Nuclear Restoration Services, local colleges and universities, and local authorities via the Nuclear Legacy Advisory Forum (NuLeAF).

5.13 Decommissioning at Dungeness will be continuing for a number of years, with apprentices and other staff still being recruited and with a continuing level of employment of around 600 people. At the same time, as stated in the

[21] British Energy Security Strategy
[22] UK Hydrogen Strategy

Advanced Nuclear Framework[23], the Government is committed to "supporting the nuclear industry, both civil and defence, to develop the next generation of nuclear skills to support current and future nuclear projects alongside an expanding decommissioning programme".

5.14 Through the national Nuclear Skills Plan[24] nearly 3,500 early-career starters entered the sector in 2024/25, with new opportunities promoted through the national nuclear recruitment plan. Regional Skills Hubs have also been established to align workforce planning with regional skills needs. However, while there is a National Decommissioning Centre at Aberdeen University, which includes nuclear (as part of the Aberdeen City Region Deal) as well as the Centre for Innovative Nuclear Decommissioning led by the National Nuclear Laboratory, and the HADES facility in Sheffield, amongst others, none of these appear to address the practical skills that are required. Equally, not all the Regional Hubs established under the Nuclear Skills Plan include decommissioning, and there is no regional hub in the South East, yet considerable interest in new nuclear.

5.15 The Kent and Medway Employment Task Force will be asked to inform the ambition to develop a Decommissioning Academy (or similar) as a physical and reputational anchor, providing training, apprenticeships, remote handling, waste characterisation and robotics - exportable skills in a world where decommissioning is a multi-decade global market.

Port of Dover

5.16 As battery power and storage capacity increase through technological advances, the prices of batteries continue to drop rapidly on the world market, and shipping is looking to take advantage of electrification. However, in the short term (between now and 2030), the Port of Dover faces significant technical barriers and uncertainty around electrification that are holding up investment decisions.

5.17 The Port of Dover currently has a 4.5MW connection to the grid but are working with National Grid to secure a 15 MW supply by 2028 for the cruise terminal. However, it is the ferry terminal that is most difficult to electrify. Since January 2023, 10 consortium partners integral to the advancement of decarbonisation of ferries that operate between the Port of Dover and its sister ports, Calais and Dunkirk have collaborated to determine the feasibility of electrification and how this could be phased. The study concluded that electrification of current ferry operations would require a mean power demand of 60MW for 13 fully electric ferries and a peak demand of 162MW[25]

5.18 Huge investment is required to increase the Port's electricity supply, and while there are a range of options to meet demand (from power purchase agreements, on-site renewables, connections to local generation such as solar farms or a small nuclear reactor), a firm connection to the grid is

[23] https://assets.publishing.service.gov.uk/media/698483397da3dc19896c7ddc/advanced-nuclear-framework.pdf
[24] https://nuclearskillsplan.com/
[25] Newest Phase Of Port Of Dover's Green Ferries Project

paramount, regardless of whether this connection will supply the majority or only part of the Port's energy needs. Supply resilience is critical to the Port of Dover, hence the need for a firm grid connection. However, this would require a direct line from Sellindge or Richborough substations and Port leaders have been told that the earliest connection to these sites is currently 2031 for those already in the connection queue. Such an investment would also come with significant risks if ferry companies reneged on electrification plans or, given different electricity prices on either side of the channel, decide to double charge in France and not charge in Dover.

5.19 Working with port authorities and through the RESP, KCC will push central government to prioritise the electrification of the Port of Dover, ensuring that one of the UK's most important trade gateways has the energy infrastructure required to support economic growth, freight connectivity and the transition to low-carbon maritime transport.

Data Centres

5.20 Data centres process, store, and communicate the data behind most of the information services we rely upon every day, such as streaming video, email, social media, online collaboration, or scientific computing. They have the potential to create jobs, boost the economy, enhance connectivity and foster innovation. However, concern over the energy use of data centres and their demands on infrastructure has increased in recent years. In the Republic of Ireland, which is home to the European headquarters of several big tech firms such as Google and Facebook-parent Meta, data centres accounted for nearly a fifth of all electricity used in 2022. The amount of electricity being used by data centres in the country has risen by 400% since 2015 and ignited debate about capacity[26].

5.21 In addition to their high energy requirements, data centres also require significant quantities of water for cooling. A medium-sized data centre (15 MW) uses as much water as three average-sized hospitals, or more than two 18-hole golf courses. Some progress has been made with using recycled and non-potable water, but from the limited figures available some data centre operators in the U.S. are drawing more than half of their water from potable sources (in the UK, water use data for the sector is scarce). This has been the source of considerable controversy in areas of water stress and highlights the importance of understanding how data centres use water[27].

5.22 It is critical that any economic benefits of data centres are considered alongside environmental sustainability when planning for the potential growth of data centres in Kent where the grid is already constrained in some regions, and the whole county is designated by the Environment Agency as seriously water stressed. Data centres and AI infrastructure should not be planned in isolation from wider digital connectivity, energy, water, land use and climate systems[28].

---

[26] Data centre power use 'to surge six-fold in 10 years' - BBC News
[27] Data centre water consumption | npj Clean Water (nature.com)
[28] Local government response to the sustainability of data centres in the UK | Local Government Association

5.23 KCC will work with central and local government partners to ensure that proposals for new data centres in Kent are subject to early and transparent public engagement, assessed for their cumulative impacts and incorporated into wider processes of strategic spatial planning.

Community energy

5.24 Community energy refers to communities 'understanding, generating, owning, using, or saving energy', providing 'clear accountability and participatory governance within the energy system'[29]. This can look like community ownership of generation assets such as solar panels or wind turbines, or energy advice or retrofit projects that help reduce local demand.

5.25 KCC has a convening and enabling role to play, supported by the national government's Local Power Plan, which highlights the Government's vision that "*by 2030, every community in the UK will have the opportunity to own a local energy project*". The Plan empowers Councils to become involved; for example, with partnership grants for local government and community energy groups which will be delivered by Great British Energy.

5.26 KCC wants to facilitate community energy, recognising the benefits it brings to residents, business and local communities. In addition to creating renewable, clean energy, community energy projects can support local energy resilience, help reduce fuel poverty and ensure the economic benefits of energy generation are retained within Kent's communities. KCC can support the development of community energy groups, identify investment opportunities, and share knowledge and other resources with communities.

5.27 There are significant opportunities to ensure that Kent's communities benefit from a changing energy system, including:

- Significant solar potential, with Kent benefitting from some of the highest levels of solar irradiance in the UK.
- Rural communities who could benefit from energy security and resilience, relying upon more localised generation rather than being subject to fluctuating gas and heating oil prices
- Large numbers of schools, village halls and community buildings suitable for siting rooftop solar and thereby benefitting from lower energy bills.
- Coastal areas with renewable energy opportunities

5.28 KCC will continue to support and grow our Sustainable Communities Network and work alongside local groups to develop interest and opportunities around community energy. We will work with local authorities, community energy organisations, Great British Energy, network operators and private sector partners to increase opportunities for community ownership, shared ownership and local participation in clean energy infrastructure.

[29] https://communityenergyengland.org/wp-content/uploads/2025/11/1591956106_CommunityEnergy2030Vision.pdf

Heat Networks

5.29 Heat networks (sometimes known as district or communal heating) provide heat, cooling or hot water from a central source to multiple properties or dwellings through a network of insulated pipes. Heat Networks are 'fuel agnostic' meaning they can use a variety of energy sources (include waste heat) to provide security from fluctuations in volatile energy markets.

5.30 Heat networks are expected to play an important role in the UK's transition, particularly in locations with high heat demand such as town centres, hospitals, universities, public sector estates and large housing developments. Currently heat networks supply 3% of the UK's heat, with a goal for this to increase to 18% by 2050 [30].

5.31 Kent has several characteristics that make heat network deployment particularly attractive:

- Growing urban centres with concentrated heat demand
- Large public sector estates, including hospitals, universities and local authority buildings
- Major regeneration and housing growth areas
- Opportunities to utilise renewable and cleaner-energy heat sources
- Industrial and commercial areas with significant waste heat and heat demand

5.32 KCC will play a strategic and facilitative role in the development of heat networks across Kent. This will include supporting local authorities and delivery partners with data, planning, coordination and the identification of potential sites, particularly in areas of high heat demand and planned growth.

5.33 KCC will work with local authorities, developers, heat network operators, energy companies and other partners to identify opportunities for heat network development and support the integration of low-carbon heat sources into new and existing networks.

5.34 Heat networks can contribute to Kent's wider decarbonisation, energy security, and sustainable growth ambitions, alongside delivering affordable, reliable low-carbon heat.

6. Conclusion

6.1 Electricity demand is projected to grow significantly in Kent over the coming years and ensuring that energy supply matches demand as electrification and decarbonisation accelerate will be vital to the health and wellbeing of residents and to the future of the county's businesses. However, the push to decarbonise the energy system, with ambitious government targets for

[30] https://www.gov.uk/government/publications/heat-network-zoning-promotional-resources/heat-networks-and-zoning-flyer-accessible-webpage

electrified heating and transport, will place growing demands on Kent's already stretched electricity grid.

6.2 The introduction of Regional Energy Strategic Plans (RESPs) from 2028 onwards is the formal mechanism through which local government will be able to contribute to the strategic planning of the energy system. It is an important opportunity for KCC (and our successor authorities as well as any future foundation strategic authority) to address the supply and demand issues elaborated in section one of this document and ensure that Kent's energy system is designed to meet the needs of its residents and businesses into the future, in particular the Port of Dover. The energy priorities set out in this strategy will be developed between now and 2028, ready for incorporation into the Southeast RESP.

6.3 KCC can play a central role in facilitating community energy projects and ensuring the economic benefits of energy generation are retained within Kent's communities. Working with partner organisations to develop a Local Area Energy Plan (LAEP), exploring the potential for heat networks, and continuing to lead on and facilitate collective purchasing schemes for household level renewables projects will help ensure that Kent's residents and businesses benefit directly from the energy transition.

6.4 KCC aims to put Kent back on the nuclear map, with Dungeness as the centre of gravity—whether through SMRs, and/or a world-leading decommissioning academy. Power generation at Dungeness has been a huge asset for the county and the country over many years and our aim is secure its nuclear future, provide power to local businesses and support the local economy, securing new jobs and opportunities for local people.

6.5 Solar generation – on rooftops, brownfield land, and community-led schemes – should play a key role in Kent. However, ground-mounted solar on BMV agricultural land will not be supported or encouraged, as per the recently updated and established Solar Position Statement.

6.6 The importance of hydrogen in the UK's future energy mix remains uncertain, and recent trends suggest a smaller role than previously anticipated. However, there will be a place for hydrogen in hard to electrify sectors and KCC will work with developers to encourage hydrogen generation in the county provided that it does not have a net negative impact on Kent's already stressed water resource zones.

6.7 New data centres in Kent represent significant economic opportunities but also major challenges in terms of their intensive localised energy and water demands. It is critical that KCC works with local and national partner organisations to ensure that any data centre proposals are comprehensively assessed for their cumulative impacts within wider spatial planning processes.

7. Options considered and dismissed, and associated risk

7.1 To continue without an Energy Strategy. This was dismissed as it is felt helpful for all stakeholders to understand the hierarchy of KCC's ambitions around energy for the 2026 – 2028 period.

8. Financial Implications

8.1 The adoption of the Strategy does not create any immediate additional financial commitment. Implementation will be undertaken within existing resources and budgets. Any future proposals requiring additional expenditure or external funding will be subject to separate approval.

9. Legal implications

9.1 The adoption of the Strategy does not create any immediate legal commitments. Any future projects or agreements arising from its implementation will be subject to the relevant legal, regulatory and governance requirements.

10. Equalities implications

Equalities implications - An EqIA has been undertaken, and no key issues were identified

11. Data Protection Implications

None

12. Other corporate implications

12.1 The proposed KCC Energy Strategy will benefit all Kent residents and businesses by building the right foundations for what we hope the Kent and Medway successor authorities (should LGR review determine LGR continues) will then take forward. In this way- from individual household energy schemes through to shaping a robust Regional Energy Strategic Plan - all outcomes that KCC pursues will benefit from this Strategy. Ther are no immediate Corporate Implications that stretch outside of the Growth, Environment and Transport directorate.

13. Governance

13.1 The Corporate Director of Growth, Environment and Transport will inherit the main delegations via the Officer Scheme of Delegation.

Recommendation(s):

The Cabinet Member for Economic Development and Special Projects is asked to agree the proposed decision to approve and adopt the KCC Energy Strategy, as set out in sections 1 – 6 and the Proposed Record of Decision at Appendix A.

---

14. Appendices

- Appendix A – Proposed Record of Decision
- *Equality Impact Assessment*

15. Contact details

Report Author: *Tom Henderson* Job title: Principal Strategic Energy and Infrastructure Officer Telephone number: 03000 041 5248 Email address: tom.henderson@kent.gov.uk	Director: *Stephanie Holt-Castle* Job title: Director of Growth and Communities Telephone number: 03000 412 064 Email address: stephanie.holt-castle@kent.gov.uk