

CLIMATE CHANGE REPORT FOR PONSANOOTH PARISH NDP

Introduction

1. Climate change represents an existential threat to global and local communities, significantly impacting environmental sustainability, public health, and economic stability. Its consequences, driven primarily by excessive emissions of greenhouse gases, have been widely acknowledged and addressed through international agreements such as the Kyoto Protocol and the Paris Agreement. Recognising the urgency of this crisis, the UK Government declared a climate emergency in May 2019, committing to reduce CO₂ emissions by 78% compared to 1990 levels by 2035 and achieving net-zero emissions by 2050.
2. Cornwall Council also declared a climate emergency in 2019, setting a more ambitious goal of carbon neutrality for Cornwall by 2030. To achieve this, the Cornwall Climate Emergency Development Plan Document (CEDPD) was adopted in February 2023 as an extension to the Local Plan, specifically focusing on stronger and more targeted policies addressing the causes and effects of climate change. These policies are essential for guiding local planning and development activities within communities such as Ponsanooth Parish, ensuring they effectively contribute to climate resilience and sustainability.
3. The Levelling Up and Regeneration Act 2023 requires that Neighbourhood plans must be designed to secure that the development and use of land in the neighbourhood area contributes to the mitigation of, and adaptation to, climate change.
4. This report outlines the specific climate-related risks facing Ponsanooth Parish and presents targeted recommendations aligned with the CEDPD to mitigate and adapt to these impacts, enhancing the resilience of the local environment, economy, and community well-being. Additionally, this report incorporates alignment with Cornwall's Local Area Energy Plan (LAEP), emphasizing the transition to a net-zero energy system by integrating sustainable energy policies and planning for renewable energy development, consistent with Local Plan Policy 28 and Climate Emergency DPD Policies RE1, RE2, and CC1–CC4.

Local Risks and Impacts

5. The primary climate-related risks identified for Ponsanooth Parish include:

Human Health

- Increased heat-related illnesses and deaths during summer months.
- Greater incidence of sunlight-related illnesses, including skin cancer and cataracts.
- Heightened risk of pathogen-related diseases such as Covid-19, legionella, and salmonella.
- Increased health risks from elevated ozone levels during warmer periods.

Extreme Weather and Flooding

- More frequent and severe storms, leading to increased injuries, fatalities, and property damage.
- Increased risk of flooding, including greater vulnerability to 1:100 year floods caused by storm surges, river overflow, and surface water runoff — especially on steep local terrain.
- Soil erosion and land degradation due to flash flooding.
- Obstruction of roads from flooding or fallen trees, disrupting emergency access and key deliveries (e.g. fuel for off-gas homes).

Water Resources and Quality

- Reduced water availability and more frequent summer droughts, particularly challenging in agricultural areas.
- Deterioration in water quality following heavy rainfall events, particularly where combined sewer systems are in use.

- Higher demands for wastewater treatment, sewer upgrades, and flood defences.

Biodiversity and Ecosystems

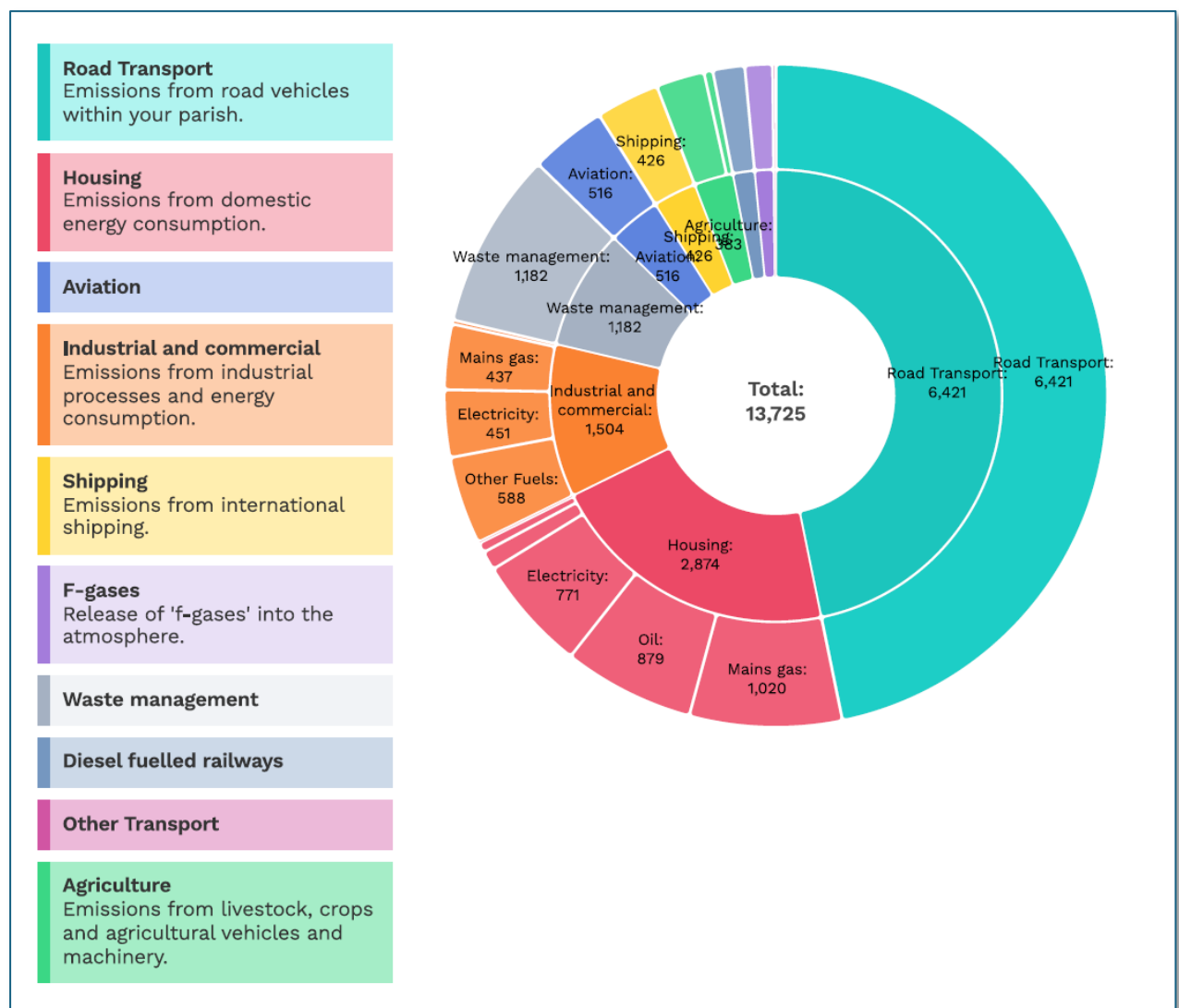
- Loss of species at the southern edge of their natural distribution.
- Spread of species from northern areas, potentially altering local ecosystems.

Wider Economic and Social Impacts

- Secondary effects on local infrastructure and services, including:
 - Disruption to supply chains
 - Increased insurance premiums
 - Higher road maintenance costs

6. Further details can be found in the [Cornwall Climate Risk Assessment](#).

7. According to the IMPACT Community Carbon Calculator, Ponsanooth Parish contributes about 13,725 tonnes of carbon dioxide and equivalent gasses that contribute to climate change emitted as a result of activities taking place within its boundary [See below].



8. Actions through the Ponsanooth Parish NDP and changes in people's habits and business management can help reduce this figure.

Renewable Energy Strategy for Ponsanooth Parish

9. Ponsanooth Parish Council has established a vision focused on advancing renewable energy to address critical local and global issues such as climate change, air pollution, energy insecurity, and particularly the affordability of electricity for vulnerable groups. To support this

vision, detailed assessments have been conducted to identify the level of renewable energy infrastructure required to fully meet the current domestic energy demands of the Parish and the wider Falmouth and Penryn Network area.

10. Current Energy Landscape Current assessments estimate the total domestic energy consumption for the Falmouth and Penryn Network area at approximately 53.3 MWh, with renewable sources presently supplying about 19.9 MWh, leaving a significant portion (33.3 MWh) reliant on non-renewable energy sources.

11. Potential for Renewable Energy Development Comprehensive studies indicate that Ponsanooth Parish possesses substantial opportunities to achieve a fully renewable energy supply. Proposed renewable energy initiatives include:

- Hydro power generation in the Ponsanooth Valley.
- Development of an additional solar farm at Roskrow.
- Repowering of two existing wind turbines to 2 MW each.
- Installation of three additional wind turbines, each rated at 2 MW.
- Installation of solar photovoltaic (PV) panels on 5% of domestic rooftops across the Parish.

12. Collectively, these initiatives have the capacity not only to fulfill the current local energy demand entirely but also to provide additional surplus capacity, contributing significantly to energy resilience and sustainability of the CAP area.

13. Strategic Importance. The Parish's strategic proximity to the 33kV and 132kV electricity distribution grids significantly enhances the viability of proposed renewable projects, ensuring efficient energy distribution and reducing overall project costs. This strategic positioning, combined with the inherent natural advantages of wind resources in the region, makes renewable energy a highly feasible and essential component of Ponsanooth's sustainable development plans.

14. Conclusion. Implementing these renewable energy strategies and recommendations positions Ponsanooth Parish as a local leader in sustainable energy transition, directly contributing to Cornwall's ambitious goal of achieving carbon neutrality by 2030. These measures promise significant environmental, economic, and social benefits, ensuring a sustainable, resilient, and prosperous future for the local community.

Recommendations for Renewable Energy Development

Wind Energy

15. To further the Parish Council's objective of achieving 100% renewable energy supply and aligning with Cornwall Council's Climate Emergency Development Plan Document (CEDPD) and Ponsanooth Landscape character assessment, the following recommendations are proposed:

- Support the repowering and expansion of wind energy capacity at Roskrow Barton, strictly observing the guidelines set by Cornwall's Renewable Energy Landscape Sensitivity Assessment (RELS).
- Encourage development within specific landscape sensitivity limits, with turbines restricted to a maximum tip height of 75 meters.
- Promote small-scale wind turbine installations (sub Band A turbines) for individual farms and local businesses to enhance economic viability and independence from the grid while minimizing visual and environmental impacts.

Solar Energy

- Expand existing solar installations at Roskrow Barton up to a maximum of 30ha, ensuring alignment with landscape guidelines.
- Encourage Band 'A' and Band 'B' scale solar PV developments in designated areas, and smaller installations throughout the parish.

Local Energy Storage

- Promote energy storage solutions supporting renewable energy projects, prioritizing minimal visual and ecological impacts, and reusing existing structures wherever possible.

Community-Led Renewable Energy

- Encourage community-owned renewable energy schemes, ensuring energy benefits local homes, businesses, and community facilities.

Recommendations for Climate Change Adaptation and Mitigation

Sustainable Design and Low Carbon Heat

16. Development proposals should:

- Adhere to high standards of sustainable design, prioritizing energy efficiency, resource reuse, and renewable energy integration.
- Incorporate water-saving technologies aiming for consumption rates of no more than 110 litres/person/day in residential developments, and similar standards for non-residential buildings.
- Minimize waste and optimize resource management through, for example, built-in recycling, composting, rainwater harvesting, and energy-efficient appliances.
- Employ design strategies such as natural ventilation and green infrastructure to reduce overheating and improve building comfort.
- Retrofit heritage buildings sensitively to improve energy efficiency without compromising historical value.

Transition from Oil and Gas Heating

- Support initiatives to replace oil and gas heating systems with low-carbon alternatives such as heat pumps, biomass boilers, and advanced insulation techniques.

Window Replacement

- Endorse window repair and replacements that respect the historical and architectural integrity of buildings, using energy-efficient solutions such as double or secondary glazing.

Natural Flood Management

- Implement natural flood management strategies, including tree planting, wetland creation, and woody dams, offering added biodiversity and recreational advantages.

Enhanced Public Transport and Connectivity

- Ensure that major new developments, such as the proposed housing allocation adjacent to the Old School and near the Truro-Falmouth railway branch line, include robust public transport provisions. This could include facilities such as a new rail halt and bus interchange, leveraging the forthcoming Mid Cornwall Metro to improve local connectivity and significantly reduce dependency on private vehicle usage, thereby supporting sustainable growth and mitigating traffic constraints.
- Elsewhere encourage opportunities for pedestrian and cycling connectivity in new developments.

Conclusion

17. Implementing these recommendations will significantly advance Ponsanooth Parish's contributions toward Cornwall's ambitious target of carbon neutrality by 2030, ensuring a resilient and sustainable future for the local community.