Changes in the Regions Legislation and Policy

Ireland – Cork County Council			
Relevant National Legislation - The Climate Action and Low Carbon Development (Amendment) Act 2021			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The Climate Action and Low Carbon Development (Amendment) Act 2021 is a critical piece of legislation which will support Ireland's transition to Net Zero and achieve a climate neutral economy by no later than 2050. It establishes a legally binding framework with clear targets and commitments set in law and ensures that the necessary structures and processes are embedded on a statutory basis to ensure Ireland will achieve national, EU and international climate goals and obligations in the near and long term. Some of the key elements of the Act include: • A commitment to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally sustainable, and climate-neutral economy. • The requirement for national Government to adopt a series of economy-wide five-year carbon budgets, including sectoral targets for each relevant sector, on a rolling 15-year basis, starting in 2021. • The preparation of a National Long Term Climate Action Strategy every five years. • A total reduction of 51% emissions over the period to 2030. • The requirements for each local authority to prepare a Climate Action Plan, which will include both mitigation and adaptation measures and be updated every five years.	No update.	There has been no recent update to the legislation. This will be monitored closely.	Implications: None. Potential: To be monitored.

Relevant National Policy - Climate Action Plan 2025 (CAP25): Changing Ireland for the Better			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The Climate Action Plan 2023 is a critical national government policy underpinning climate action in Ireland and is the second annual update to Ireland's Climate Action Plan 2019. This plan is the first to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and it is also the first plan prepared following the introduction of economy-wide carbon budgets and sectoral emissions ceilings in 2022. CAP23 implements the carbon budgets and sectoral emissions ceilings and sets a roadmap for taking decisive action to halve emissions in Ireland by 2030 and reach net zero no later than 2050. CAP23 crosscuts across all sectors of society and economic activity in Ireland and makes specific reference to objectives and actions required in meeting national goals and priorities in areas such as Transport, Agriculture, Industry and the Public Sector. Decarbonisation is evidently a key factor underpinning the plan, with a strong focus on the opportunities that a climate neutral Ireland can facilitate, particularly in green employment. CAP23 recognises that climate action presents opportunities for existing supply chains and new business formation, as well as the creation of new jobs with new skills requirements	Climate Action Plan 2025 (CAP25). The Climate Action Plan 2025 is a critical national government policy underpinning climate action in Ireland and is the fourth annual update to Ireland's Climate Action Plan 2019. This plan is the third to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and it is also the third plan prepared following the introduction of economy-wide carbon budgets and sectoral emissions ceilings in 2022. CAP25 implements the carbon budgets and sectoral emissions ceilings and sets a roadmap for taking decisive action to halve emissions in Ireland by 2030 and reach net zero no later than 2050. CAP25 crosscuts across all sectors of society and economic activity in Ireland and makes specific reference to objectives and actions required in meeting national goals and priorities in areas such as Transport, Agriculture, Industry and the Public Sector.	It is likely that the Irish Government will publish a Climate Action Plan 2026. This will be monitored closely.	Implications: To be reviewed. Potential: To be monitored.

in a few sectors, such as building retrofits, renewable energy generation, the move to sustainable mobility, and new farming practices. Citizen engagement in decarbonisation and climate action is central to achieving the goals of CAP23, with the plan affirming that *"delivering on our climate ambition requires that the Government and the people of Ireland come together in a strengthened social contract for climate action and the cocreation of real solutions to these challenges".* To support citizen engagement and the cocreation of climate action solutions, four Government-funded Local Authority Climate Action Regional Offices (CAROs) have been established, and these will have an enhanced role in supporting and facilitating citizen engagement across the State.	Decarbonisation is evidently a key factor underpinning the plan, with a strong focus on the opportunities that a climate neutral Ireland can facilitate, particularly in green employment. CAP25 recognises that climate action presents opportunities for existing supply chains and new business formation, as well as the creation of new jobs with new skills requirements in a number of sectors, such as building retrofits, renewable energy generation, the move to sustainable mobility, and new farming practices. Citizen engagement in decarbonisation and climate action is central to achieving the goals of CAP25. To support citizen engagement and the cocreation of climate action solutions, four Government-funded Local Authority Climate Action Regional Offices (CAROs) have been established, and these will have an enhanced role in supporting and facilitating citizen engagement across the State.		
Relevant National Policy - Project Ireland 2040: National Planning Framework First Revision April 2025			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES

The National Planning Framework (NPF) is Ireland's overarching policy and planning framework for the social, economic, and cultural development of the State over the next 20+ years. The NPF draws upon lessons learned from the National Spatial Strategy 2002-2022 and sets out a new vision based on a set of values that will ensure Ireland's long-term economic, environmental, and social progress for all parts of the country. The NPF also sets the context for Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies. The NPF aims to create a single vision, a shared set of goals for every community across the country. The NPF stipulates that Ireland's planning system provides an established means through which to implement and integrate climate change objectives, including adaptation, at regional and local level and the transition to a low carbon and climate resilient society. One of the key National Strategic Outcomes for the NPF is to promote and facilitate the transition to a low carbon and climate resilient society (NSO 8) and this is in direct compliance with the CAP23. The NPF recognises that new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand. In addition to NSO 8 (and climate action and decarbonisation) underpinning the entire NPF, the framework specifically references several key National Policy Objectives (NPOs) in relation to climate action:	The National Planning Framework (NPF) Revision is Ireland's overarching policy and planning framework for the social, economic, and cultural development of the State over the next 15+ years. The NPF draws upon lessons learned from the National Spatial Strategy 2002-2022 and sets out a new vision based on a set of values that will ensure Ireland's long-term economic, environmental, and social progress for all parts of the country. The NPF also sets the context for Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies. The NPF aims to create a single vision, a shared set of goals for every community across the country. The NPF stipulates that Ireland's planning system provides an established means through which to implement and integrate climate change objectives, including adaptation, at regional and local level and the transition to a low carbon and climate resilient society. One of the key National Strategic Outcomes for the NPF is to promote and facilitate the transition to a low carbon and climate resilient society (NSO 8) and this is in direct compliance with the CAP25. The NPF recognises that new energy systems and	Part 20C(5) of the Planning and Development Act 2024 (as amended) states: *"Every 6 years after the date of publication of the National Planning Framework, the Government shall either—* *(a) revise the Framework or replace it with a new one, or* *(b) publish a statement explaining why the Government has decided not*	Implications: None. Potential: To be determined.

• NPO53 – Support the circular and bioeconomy including through greater efficiency in land management, greater use of renewable resources and by reducing the rate of land use change from urban sprawl and new development. • NPO54 – Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for GHG emissions reductions. • NPO55 – Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050. • NPO56 – Sustainably manage waste generation, investing in different types of waste treatment and support circular economy principles, prioritising prevention, reuse, recycling and recovery, to support a healthy environment, economy and society. The goals and objectives of the NPF are supported by the National Development Plan 2021 - 2030 (NDP), which sets out the investment priorities that will underpin the implementation of the NPF through a total investment of approximately €165 billion. The NDP has been designed to ensure that it supports the Irish Government's climate ambitions.	transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand. In addition to NSO 8 (and climate action and decarbonisation) underpinning the entire NPF, the framework specifically references several key National Policy Objectives (NPOs) in relation to climate action: • NPO67 – Support the circular and bio economy including through greater efficiency in land and materials management, promoting the sustainable re-use and refurbishment of existing buildings and structures while conserving cultural and natural heritage, the greater use of renewable resources and by reducing the rate of land use change from urban sprawl and new development. • NPO69 – Reduce our carbon footprint by integrating climate action into the planning	*to revise the Framework and include in the statement an indication of a date by which it will be revised or a new National Planning Framework will be published."* The revised NPF has been published since 8th April 2025, therefore the next revision and public consultation will not take place until April 2031, the latest.	

	system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions as expressed in the most recently adopted carbon budgets. • NPO70 – Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a climate neutral economy by 2050 • NPO76 – Sustainably manage waste generation including construction and demolition waste, invest in different types of waste treatment and support circular economy principles, prioritising prevention, reuse, recycling and recovery, to support a healthy environment, economy and society. The goals and objectives of the NPF are supported by the National Development Plan 2025 (NDP), which sets out the investment priorities that will underpin the implementation of the NPF through a total investment of approximately €275.4 billion to 2035. The NDP has been designed to ensure		

	that it supports the Irish Government's climate ambitions.		
Relevant Regional Policy - Regional Spatial & Economic Strategy: for the Southern Region (RSES)			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The Regional Spatial & Economic Strategy for the Southern Region (RSES) sets out the strategic regional development framework for the Southern Region, with a primary aim to implement Project Ireland 2040 - the National Planning Framework, at a regional level and to support a balanced and equitable regional growth plan. As such, the RSES is required to be directly in line and in compliance with the goals and objectives of the NPF, including the actions related to climate action and the transition to a low carbon and climate resilient society. The RSES identifies Cork County amongst the fastest-growing locations in the State over the next 20 years, and has an overall vision for the Southern Region to: • Achieve economic prosperity and improved quality of life for all our citizens • Accommodate expanded growth and development in suitable locations; and	No update.	In accordance with part 26(1) of the Planning and Development Act 2024 (as amended), the regional assembly shall not review the regional spatial and economic strategy (RSES) until 6 years after it came into effect.	Implications: To be reviewed. Potential: To be monitored.

• Make the Southern Region one of Europe's most creative, innovative, greenest and liveable regions The RSES identifies the need to transition to a Low Carbon, Climate Resilient and Sustainable Society as key strategic priority of the regional plan (RP 8), and the Regional Assembly will work in partnership with the Climate Action Regional Offices (CARO) to support the development of long-term solutions and extensive adaptation measures in three key areas: decarbonisation, climate resilience and resource efficiency. Several specific Regional Policy Objectives (RPOs) with accompanying actions are identified in the plan in relation to climate action and decarbonisation, including: • RPO87 - Low Carbon Energy Future • RPO88 - National Mitigation Plan and National Adaptation Framework • RPO89 - Building Resilience to Climate Change • RPO90 - Regional Decarbonisation • RPO91 - Decarbonisation in the Transport Sector • RPO92 - Electric Vehicle Infrastructure • RPO93 - CNG & EV Infrastructure • RPO94 - Decarbonisation in the Agricultural Sector		The RSES for the Southern Region came into effect on 31st January 2020 and therefore will not be reviewed until 31st January 2026 (the latest). This will be closely monitored.	

• RPO95 - Sustainable Renewable Energy Generation • RPO96 - Integrating Renewable Energy Sources • RPO106 - Future Proofing and Retrofitting			
Relevant Local Policy - Cork County Development Plan 2022-2028			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The County Development Plan guides the future growth and sustainable development of Cork County over the plan period from 2022 to 2028. The plan sets out an approach centred on the core principle of sustainability with a focus on creating vibrant, liveable, climate-resilient communities. The Cork County Development Plan is a document which details the overall strategy of the planning authority for the proper planning and sustainable development of Cork County considering national and regional planning guidelines, strategies and policy documents. As such, it is consistent with both the National Planning Framework and the Regional Spatial and Economic Strategy and is therefore in compliance with national climate action policies and legislation. At a high level, the Cork County Development Plan 2022-2028 aims to "provide for the development of County Cork as an attractive, competitive and sustainable place to live, visit and do business, where the quality of its	No update.	In accordance with part 11(1(ab) of the Planning and Development Act 2024 (as amended), the Cork County Council shall review its county development plan 4/5 years after it came into effect. The Cork County	Implications: To be reviewed. Potential: To be monitored.

economy, natural and built environment, culture and the strength and viability of its rural and urban communities are to the highest standards. In terms of alignment with national climate action policy and legislation, the Cork County Development Plan 2022-2028 focuses on delivering proper and sustainable planning policy for Cork County by placing three critical principles at the forefront of all decision-making and strategic planning: Reducing Energy Demand, Reducing Anthropogenic Greenhouse Gas Emissions and Addressing Adaptation Measures. This is realised in several objectives specifically related to climate action, including: • CA 17-1: Support national and local climate change objectives. • CA 17-2: In order to achieve a reduction in greenhouse gas emissions, an increase in renewable energy production, an increase in energy efficiency and enhanced biodiversity, support the transition to a low carbon, competitive, climate resilient and environmentally sustainable economy by 2050 through implementation of the polices of this plan that seek to deliver the following: (i) compact growth, (ii) integrated land use and transport, (iii) sustainable transport choices, (iv) liveable settlements, (v) renewable energy production and reduced energy consumption, (vi) enhanced ecological biodiversity and (vii) climate adaptation measures such as through flood risk management, sustainable urban drainage systems and high quality placemaking and design.		Development Plan 2022-2028 came into effect on 6th June 2022. It will therefore not be reviewed until 6th June 2026 / 2027 (the latest). This will be monitored closely.	

• CA 17-3: Enhance awareness of climate action issues by promoting and facilitating behavioural change at an individual level. • CA 17-4: Cooperate with the Climate Action Regional Office (CARO) to develop monitoring of climate action achievement and to inform future policy direction. • CA 17-5: Support the Council's identification and development of decarbonising zones in line with the national Climate Action Plan. • CA 17-6: The Council will undertake the preparation of a Climate Action Plan as required by the Climate Action and Low Carbon Development (Amendment) Act 2021.			
Relevant Local Policy - Cork County Council Climate Adaptation Strategy, 2019-2024			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
This Cork County Adaptation Strategy (2019- 2024) is Cork County Council's first step in the climate adaptation process. This strategy sets out the Local Authority's strategic priorities, measures and responses for climate adaptation in the county over the next 5 years. Cork County Council provides a wide range of services, many of which are already and will increasingly be affected by climate change. The Local Authority will continue to play a critical role in responding locally to the impacts of extreme weather events and other impacts that are likely to emerge over	No update.	No review date has been announced by the Cork County Council for the climate adaptation strategy.	Implications: To be reviewed.

the coming decades. This Cork County Council Adaptation Strategy is set against the background of increasing risks associated with climate change and seeks to reduce and manage these risks at local levels in all Local Authority activities. The strategy is aligned with all national and regional climate action policies and legislation and provides a local response to the high-level actions and objectives related to climate adaptation in the national policies. The strategy supports the definition of climate mitigation as *"human intervention to reduce the sources or enhance the sinks of greenhouse gases"*, while climate adaptation is defined as *"the process of adjustment to actual or expected climate and its effects"*. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects. The Cork County Council Climate Adaptation Strategy is the primary instrument at local level to: • Ensure a proper understanding of the key risks and vulnerabilities of climate change. • Advance the implementation of climate resilient actions in a planned and proactive manner. • Ensure that climate adaptation considerations are mainstreamed into all plans and policies and integrated into all operations and functions of the Local Authority.		This will be monitored closely.	Potential: To be monitored.

Based on the risk register and the priority risks categorised by Cork County Council, the Strategy identifies seven high level goals: • Goal 1, Local Adaptation Governance and Business Operations: To support implementations of adaptation planning in all Council activities and operations. To build resilience within Cork Co Co to support service delivery. • Goal 2, Infrastructure and Built Environment: To increase resilience of roads and transport infrastructure and of Council owed assets housing stock. • Goal 3, Landuse and Development: To integrate climate action considerations into landuse planning. • Goal 4, Drainage and Flood Management: To adapt to the increased risk and impact of flooding. To liaise and work with other bodies responsible for management of water resources. • Goal 5, Natural Environment, Built & Cultural Heritage: To develop approaches to protect the natural and key cultural assets in Cork County Council. • Goal 6, Community, Health & Wellbeing: To build capacity & resilience within communities regarding climate adaptation.			

• Goal 7, Other Sectors & Agencies: To collaborate with other Sectors and Agencies in programs relating to climate action and adaptation planning. These high-level goals are supported by 58 actions which aim to address the risks identified in the Strategy and support Cork County Council in achieving its objectives and targets in relation to Climate Adaptation.			
Relevant Local Policy - Cork County Council Climate Action Plan, 2024-2029			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Cork County Council is currently in the process of preparing a Climate Action Plan for the local authority, as is legislated for under The Climate Action and Low Carbon Development (Amendment) Act 2021. Guidelines to support the preparation of each local authorities' Climate Action Plan have recently been published by The Minister for the Environment, Climate and Communications (March 2023). Cork County Council will work directly with the Atlantic Seaboard South Climate Action Regional Office (CARO) to develop the Climate Action Plan for the local authority, support the delivery of the national objectives and goals of climate action and decarbonisation, and aid the transition to a climate resilient, biodiversity-rich, environmentally sustainable, and climate-neutral economy by 2050.	The Cork County Council Climate Action Plan ('the Plan') 2024-2029 was adopted on 12th February 2024. The Plan was prepared by the Cork County Council Climate Action Response Unit and the Atlantic Seaboard South -Climate Action Regional Office (CARO), who are based at the Cork County Council. The Plan is aligned with the Climate Action and Low Carbon Development (Amendment) Act 2021 to deliver a reduction in greenhouse gas (GHG) emissions by half to 2030 (based on levels recorded in 1990) and to climate neutrality by	In accordance with part 16 (14B)(2)(b) of the Climate Action and Low Carbon Development (Amendment) Act 2021, the Cork County Council can publish a subsequent climate action plan once	Implications: To be reviewed. Potential: To be monitored.

	2050. The Plan reflects the Government's National Climate Objective to make the country a climate resilient, biodiversity rich, environmentally sustainable and climate neutral state by 2050. A reduction and elimination in GHG emissions for the Council and the county's society and economy is the primary requirement of the Plan. Energy efficient practices and behaviours and changes in approach is required at council and county level to achieve the objectives and goals in the plan. Ambitious climate action projects will be developed and rolled out by the Council and its citizens to achieve national climate transformations at a local level. Funding from the EU and the Government will be sourced to develop and kick-start these projects. The Council have designated a decarbonisation zone in Macroom, which will act as a test bed for the development of a range of climate mitigation, adaptation and biodiversity measures in the town and surrounding area and that can be replicated in other parts of the county, if proven to be successful.	within the 5-year period to 2029. In accordance with part 16 (14B)(10) of the Climate Action and Low Carbon Development (Amendment) Act 2021, the Cork County Council may vary or revise their Climate Action Plan at any time.	

Norway – Bodø Municipality			
Relevant National Legislation - The Climate Change Act 2021			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The Climate Change Act 2021 promotes the implementation of Norway's climate targets as part of its process of transformation to a low-emission society by 2050 (Climate Change Act 22.07.2021). The purpose of the Act is also to promote transparency and public debate on the status, direction, and progress of this work. The Norwegian Government's climate policy is intended to improve welfare standards at the same time as cutting emissions. Climate policy must not be considered in isolation, but as the sum of policy in many areas. Close coordination and an integrated policy for sustainable development in all sectors are an essential basis for achieving climate targets. The Government will therefore pursue an ambitious climate policy that will make it possible to achieve climate targets and at the same time provide a good framework for more jobs, greater welfare, and sustainable growth of the Norwegian economy. The effect of Norway's participation in the EU Emissions Trading System (ETS) contributes when assessing progress towards this target. The agreement with the EU does not set national targets for ETS emissions in the same way as for non-ETS emissions. The installations covered by the EU Emissions Trading System (EU ETS) must collectively reduce their emissions to achieve the overall target. Climate action and decarbonization	No significant changes.		

Transition to Net Zero and achieve a climate neutral economy by no later than 2050. In its annual reporting to the Storting (Norwegian Parliament) under the Climate Change Act, the Government will assess the implementation of Norway's progress towards the 2030 target. In its budget proposal for the following year, the Government shall give an account of: A. how Norway can achieve the climate targets set out B. the expected effect of the proposed budget on greenhouse gas emissions. Each year, the Government shall, based on scientific information, provide the Storting with the following, in a suitable manner: • an account of changes in emissions and removals of greenhouse gases, projections of emissions and removals, and progress towards the climate targets, • an account of how Norway is preparing for and adapting to climate change, • an overview showing sectoral emission trajectories for emissions that are not covered by the EU Emissions Trading System and the types of measures that will be necessary to achieve them, and • status report on Norway's carbon budget, considering relevant arrangements within the framework of joint fulfilment with the EU.			
Relevant National Policy - Norway's Climate Action Plan for 2021–2030			

Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Climate action plan 2021-2030 puts Norway on track to achieve its enhanced target of cutting greenhouse gas emissions by 50–55 % by 2030, and its long-term target of reducing them by 90–95 % by 2050. The plan includes measures and instruments for reducing both ETS (Emissions Trading System) and non-ETS emissions, and for increasing CO2 removals and reducing emissions from forest and other land categories. Specific measures and instruments to cut non-ETS emissions by 45 % from a key element of the plan. The Government's target is for Norway to reduce its non-ETS emissions by 45 % between 2005 and 2030. Converted into an emission budget, this corresponds to total emissions over the next ten years of no more than 201.8 million tonnes CO2eq. Under its climate agreement with the EU, Norway has an additional commitment to ensure that emissions from the land use, land use change and forestry (LULUCF) sector over the period 2021–2030 do not exceed removals. Preliminary calculations indicate that Norway's net emissions may be around 18 million tonnes CO2eq, if the managed forest land flexibility (often referred to as the compensation mechanism) that is part of the EU accounting rules is included. Today, climate-related taxes combined with emissions trading are proving effective in cutting greenhouse gas emissions across sectors. These two policy instruments apply to more than 80 % of greenhouse gas emissions in Norway. Cross-sectoral instruments such as taxation of greenhouse gas emissions and emissions trading are the main instruments of Norwegian climate policy. These instruments put a price on emissions and give every	No significant changes.		

household and company incentives to reduce emissions and to develop and deploy climate-friendly solutions. Government intends to make stepwise increases in the taxation level for non-ETS greenhouse gas emissions, reaching NOK 2000 per tonne CO2eq in 2030. The Government will make use of the purchasing power of the public sector to speed up the pace of development, for example by including climate-related requirements in public procurement processes in the transport sector. Norway is at the forefront in the use of electric vehicles. Various other regulatory measures have also been adopted, such as a prohibition on using mineral oil to heat buildings and biofuel quota obligations for both road transport and aviation. Norway is already making good progress. Since the peak year 2015, annual greenhouse gas emissions from road traffic have declined from 10.1 million tonnes CO2eq to 8.5 million tonnes CO2eq in 2019. Buildings where people live and work must be climate-friendly both in the construction phase and when they are in use. By re-using materials and buildings for new purposes, it is possible to reduce raw material and energy use and cut waste generation and greenhouse gas emissions. The central government administration owns large numbers of buildings across the country and will provide a good example by seeking to achieve a common set of climate and environmental aims for public buildings. It will not be possible to achieve national and international climate targets without reducing greenhouse gas emissions from construction and			

buildings. In Norway, the sector accounts for roughly 40 % of energy consumption and a large proportion of resource use and waste generated. The energy requirements in Norway's Technical Construction Regulations have thus far dealt with energy efficiency and the use of renewable energy largely by requiring an energy-efficient building structure and the use of renewable energy supplies. It is important to reduce energy consumption as far as possible and reasonable in financial terms. Energy efficiency is still important in all sectors, and it often pays for individual people to improve their energy efficiency. Smart meters provide better information on electricity consumption and are important as a tool for facilitating other technological solutions, for example smart charging of electric cars. If energy now used in buildings is freed up, it could be used in other sectors to replace fossil energy and reduce the need for new electricity production and developments in undisturbed areas. The aim is that in 2030, Norway will be a major producer of renewable energy. Norway has plentiful supplies of renewable energy resources, mainly in the form of flexible hydropower production. About 98 % of Norwegian electricity production is renewable. In addition, market design and the structure of the power grid ensure that the overall power system is used effectively. A flexible energy system can speed up electrification and result in lower costs for households and the business sector. Optimal use of grid capacity is an essential basis for the success of electrification. If the grid is not used effectively, there is a risk that it will be expanded more than necessary. This can result in environmental disturbance that could have been avoided and in higher tariffs than necessary for households and businesses.			

Expanding production of renewable energy from offshore wind and solar power and making greater use of hydrogen and battery technology will offer opportunities for new commercial activities related to production, maintenance, control systems and other services. The development of battery technology and battery production are vital for further electrification of the transport sector both in Norway and internationally. Hydrogen technology is another area where Norway has considerable potential. The white paper on long-term value creation from Norwegian energy resources will include a roadmap for hydrogen technology. The Norwegian Public Roads Administration will include a requirement to use hydrogen technology for the ferry service Bodø–Røst–Værøy–Moskenes, which is part of the national road system. Progress and emission reductions will also depend on the ability to take other considerations into account, for instance relating to the economy, food security, biodiversity, and adaptation to climate change. The Government is using tax breaks and grants through Enova to ensure that businesses have the freedom and opportunity to choose electric vehicles. Facilities for shoreside electric power, charging infrastructure and later, infrastructure for alternative transport fuels such as hydrogen, ammonia, and biofuels, must be developed to facilitate zero-emission maritime transport. Enova is supporting the development of this type of infrastructure. Since its establishment in 2001, Enova has supported the implementation of more than 7,000 energy and climate projects. The Government has given Enova a clearer climate profile for the next four-year period, so that its purpose is to contribute to Norway's emission reduction commitment and contribute to Norway's transition to a low-emission			

society. Enova will contribute to the development of technologies necessary towards 2030 and the low emission society in 2050. Enova's activities focus on late-phase technology development and early market introduction. Grants for late-phase technology development help to speed up the pace and scale of pilot and demonstration projects and full-scale testing, so that new technologies and solutions reach the market more quickly. Enova has a role to play in finding good solutions that meet the need for an energy system that is effective during a period of major change. For instance, coordination between thermal energy and the power system needs to be improved, and new technologies and solutions for energy storage and demand response must be developed.			
Relevant Regional Policy - Regional plans and decarbonisations objectives and goals of Nordland County Council			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Regional plan for climate and environment is anchored in the regional strategic plan 2016-2020, but it also reflects the strategies and goals of the ongoing strategic plan 2021-2024 and underpins actions towards Sustainable Nordland 2030. As a link between state, municipal and other regional authorities, Nordland County Council is responsible to contextualize national goals and guidelines. December 2020: The county council decided and implemented a climate budget of its own activity. This is to support the ambition of the Nordland County administration (NFK) to reduce its own greenhouse gas emissions.	No significant changes.		

Climate accounting can have different perspectives such as direct emissions perspective or footprint perspective. Direct examples are fossil fuels and footprints. Indirect examples are through trade of goods and services. A climate budget should be integrated into the financial budget to be an effective management tool. Objectives and sub-goals until 2030: • Greenhouse gas emissions in NFK must be reduced by 60% by 2030, compared to 2009. • In 2030, industry and business in Nordland will be a global player in green transition. • Nordland has municipalities that are capable of adaptation, that manage climate risks and utilizes the opportunities of a changing climate. • In 2030, the infrastructure in Nordland for fossil-free fuels is well developed. • In 2030, the transport sector in Nordland has reduced its greenhouse gas emissions by 70% compared to 2009. • In 2030, the energy demand for the building stock in Nordland has been reduced by 20% compared to 2009. • In 2030, construction and construction sites in Nordland will be fossil-free. • In 2030, the agricultural and aquaculture industry in Nordland has reduced fossil emissions by 50% compared to 2009. These objectives are obtained through instruments as green public procurement, energy efficiency and a transition to fossil-free transport.			

Renewable energy is the key to sustainable growth and zero emissions. Furthermore, the use of short-distance power will reduce the need for power lines and reduce energy loss in the transmission network. The action program of NFK is revised every one or two years and an assessment is made on whether the Climate action plan is on track to achieve its goals. The implemented Climate Budget tool is important to make this assessment. The climate and environmental plan will be a guide for other regional plans such as the regional transport plan and ariel plans. The Nordland County administration plays a decisive role to facilitate networks and partnerships, to encourage dialogue, cooperation, and exchange of experience. Changing attitudes and actions is an important element in bringing about a transition to a climate-adapted low-emission society. 5 strategies for good climate communication: • Motives through social networks. Motivation for climate- and environment-friendly choices should therefore take place through existing networks and groups. • Relate climate to other important topics. Must show which options exist and what those options lead to. • Point people in the right direction. Make it easier to make climate-and environment-friendly choices. • Use the power of stories to reach more people with knowledge about climate and to change behaviour and attitudes, we should open up more ways to talk about climate change. • Who delivers the message matters.			

Networks, meeting places and partnerships are recommended to mobilize the public, private and civil society in work on transitioning to a low-emission society. Collaboration in networks such as Klimapartnere Nordland, which includes various industries and the public sector, is a good example of a forum for developing new solutions and increasing competence.			
Relevant Regional Policy - Regional strategies for decarbonisation of Nordland County Council			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
In Nordland, electric power is today the dominant source of energy with approx. 57% of total consumption. Other major energy sources are petrol and auto diesel (10%), fossil fuel industry (8%), marine gas oil and jet paraffin (7%) and wood, district heating and heat pumps (7%). Stationary energy consumption (mainly construction and industry) accounts for approximately 78% and the transport sector for 22% of consumption. Strategy 1: The environment and climate challenges require investment in education, research, and innovation. Climate and environmental perspectives should be incorporated into educational plans and curricula from kindergarten to higher education. The upper secondary schools will also be important arenas for communicating the climate message. Strategy 2: Public procurement is a powerful tool for reducing the footprint of public enterprises and for establishing and promoting markets for circular products and services. By setting requirements in procurement	No significant changes.		

within construction, food, transport, electronics, office furniture, etc. the public creates a demand for circular products with a low climate footprint. Strategy 3: Green industrial development based on renewable energy. Industry in Nordland plays an important role in production. Renewable energy carriers such as hydrogen and biogas and minerals and metals as well as the production of new technologies such as batteries. At the same time, the industry is a source of almost half of all greenhouse gas emissions to the air in Nordland, and it is important that arrangements are made for the industry to develop and adopt low and zero emission technology, as well as to streamline the use of energy and raw materials. Strategy 4: Building infrastructure for future energy systems. Distribution of grid costs is a challenge in the current user-financed model and investment in power grids is a high financial threshold for many sectors when it comes to converting to electric operation. We also follow developments in the use of batteries as grid support, and as a possible alternative to provide greater flexibility in the grid with lower costs and planning requirements. To meet electric car drivers' needs for charging, arrangements must be made for charging along transport corridors and at workplaces, visitor buildings and housing associations. Ships that are docked can reduce their emissions by using shore power instead of their own diesel engines. Strategy 5: Create greater flexibility in the energy system. Local production of renewable energy is part of today's and future's energy system. Today, there are various sources of renewable energy. The largest sources come from hydro and wind power. Of other sources of renewable energy, the most common are heat pumps, district heating, wood burning, geothermal heating and solar energy. These can have great potential and are used as			

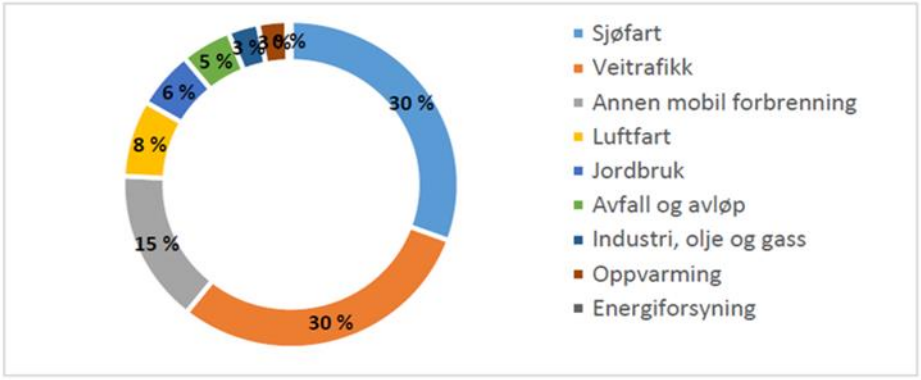
energy supplies for both construction and industry. Little space-consuming, Solar energy on roofs and other existing surfaces is a good example. Contribute to creating greater flexibility in the energy system by providing both electricity and heat without major losses in the power grid. District heating plays an important role by utilizing waste resources and waste heat and provides greater flexibility in the energy system by relieving the power grid and reducing the need for investment in the power grid. Strategy 6: Use efficient transport systems and climate-friendly forms of transport. To reach the climate targets, requirements must be set for zero or low emission solutions based on technological neutrality. It is likely that the solutions within road traffic will be different, but electrification will play a key role and as a supplement where electrification is not appropriate, other energy carriers such as hydrogen, hybrid technology will be used. In collaboration with Vestland, Trøndelag, Nordland and Troms and Finnmark county council in the project Fremtidens hurtigbåt, work is being done to develop the world's first zero-emission speedboat. Strategy 7: Energy efficiency of buildings. Energy efficiency measures in buildings reduce greenhouse gas emissions and are often economically profitable. Freeing up energy use in the building stock is also crucial to cover the growing need for electricity in the transport sector. Tools such as energy management and smart energy management systems and systems for energy storage must be used to reduce energy use in buildings.			
Relevant Local Policy - Local plan and decarbonisation goals of Bodö Municipality			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES

Bodø Municipality will create good local communities for its residents and is an active contributor to achieving the UN Sustainable Development Goals. This is due to its responsibility as a planning authority, a buyer and developer, as owner and operator of infrastructure, buildings, and roads, and its key role in sustainable social development. The Climate and Energy Plan 2019-2030 is the governing document for Bodø Municipality's efforts relating to climate and energy. The Climate and Energy Plan is also part of the municipality's overall *'smart initiative'*, which defines an area of opportunity for sustainable growth. The Climate and Energy Plan is strongly linked to the municipality's Smart City initiative and its vision to create a more human-and environmentally friendly city. One of the key areas of the smart initiative focuses precisely on climate and environmental considerations and renewable and efficient solutions relating to energy use. The Climate and Energy Plan is a cross-sectoral thematic plan which borders on many of the municipality's priority areas and other plans: 1. The municipal master plan's societal section (KPS) sets out guidelines and anchoring for the municipality's planning and project work. Bodø Municipality shall facilitate the development of a compact city and local communities where new solutions create attractive residential and living conditions, within the framework of climate and environmental considerations. 2. The municipal master plan's land-use section (KPA) is the municipality's management tool for the use and protection of land.	Recently Bodø municipality has approved the new climate and energy plan (2025-2035). Bodø Municipality, in its role as a community developer, government executive and planning authority, purchaser, owner and operator, can influence various climate measures, and act as a driver, initiator and facilitator for climate change in the Bodø community. The Climate and Energy Plan outlines the strategic direction for Bodø's transition to a circular, area-neutral low-emission society. The plan presents 5 climate goals for Bodø, in addition to 9 focus areas with sub-goals and strategies. The climate and energy plan guides the entire municipality's activities and municipal enterprises, in addition to providing guidance for the area part of the municipal plan. Decarbonisation objectives for Bodø municipality-- 1. Significantly reduce indirect greenhouse gas emissions and strengthen the circular economy 2. Bodø will be area-neutral and have compact urban development 3. Reduce direct greenhouse gas emissions by 70% by 2031. Bodø will be a low-emission society in 2050.		

3. The municipal sector plan for cycling describes how Bodø Municipality is working to achieve the goal of a 25% cycling share in 2025. 4. The plan states that an action plan will be prepared for stormwater management in the municipality. 5. The Regional Transport Plan for Nordland 2018-2029 sets out transport policy guidelines for the county, with action plans relating to public transport, commercial transport, county roads and cycling and walking. Decarbonisation objectives Bodø Municipality: • 2030 - Reduction in direct greenhouse gas emissions by 70% compared with the 2009 level. • 2030 - Bodø Municipality shall have a recycling rate of 70% as regards household and industrial waste. • 2050 - Bodø shall be a low-emission society. Sub goals of Bodø Municipality its own enterprises: • 2025 - Bodø Municipality shall reduce its greenhouse gas emissions from new buildings and the refurbishment of existing buildings by at least 35% compared with the industry norm in 2017. • 2025 - Energy consumption in Bodø Municipality's existing building portfolio shall be reduced by at least 25% compared with the 2009 level. • 2030 - Bodø Municipality shall reduce its overall climate footprint by 50% compared with 2017.	4. Bodø will be an energy-efficient society that uses emission-free energy 5. Bodø will be a climate-robust city Other measures regarding building, energy and transport- - Thermal energy with low greenhouse gas emissions should be sought for heating purposes rather than electricity. Continue the requirement for new buildings to connect to the district heating network in areas close to a district heating facility. - All new municipal buildings with a cost frame above 100 million shall meet the requirements for the BREEAM-NOR Very Good standard, or equivalent. The additional cost of achieving the Excellent level shall be considered. All new buildings shall be constructed as zero-emission buildings. - A transformation project shall be carried out where the building meets the requirements for BREEAM In-use or equivalent, with the aim of introducing this as a standard in all transformation projects. - Map and utilize the potential for placing renewable energy production on developed land, including urban areas (solar panels, near-		

	shore/small-scale wind power, and other alternatives). - All new cars must be emission-free. Introduce a fleet management system and a car-sharing scheme. Encourage walking, cycling, and public transport, and facilitate this through measures such as bicycle parking.		
Relevant Local Policy - Status of Direct emissions in Bodø Municipality			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Direct emissions of carbon dioxide (CO2), methane (CH4) and dinitrogen oxide (N2O) within Bodø Municipality's boundaries was in 2016 measured to 204,000 tonnes CO2e. Compared to baseline of 2009 and based on population development for this period, emissions have been reduced by 10% per capita in Bodø Municipality. Road transport and shipping are two other largest sources of emissions in Bodø Municipality. Emissions from road transport are mainly linked to light vehicles such as cars, and these emissions were reduced by 7% between 2009 and 2016. Emissions from shipping rose by 15% from 2013 to 2016. The 'passengers' category (ferries, high-speed ferries, and cruise ships) accounts for this increase. The statistics also include through traffic. DNV GL has estimated that around 7% of national emissions from inland shipping originate from ships in port. By providing onshore power to Hurtigruten alone, we will be able to save almost 4% of the total emissions originating from shipping in Bodø Municipality.	Direct emissions of carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) within Bodø Municipality's boundaries in 2023 amounted to approximately 20,011.6 tonnes CO_2-equivalents (CO_2e). The distribution of direct greenhouse gas emissions in Bodø municipality in 2023. The largest source is other mobile combustion, accounting for 41% of total emissions, mainly from construction machinery, equipment, and other non-road engines. The second-largest contributor is aviation, which makes up 21%, reflecting the significant airport activity in Bodø. Land transport follows with 18%, showing that road traffic is still a major emission source. Smaller but notable		

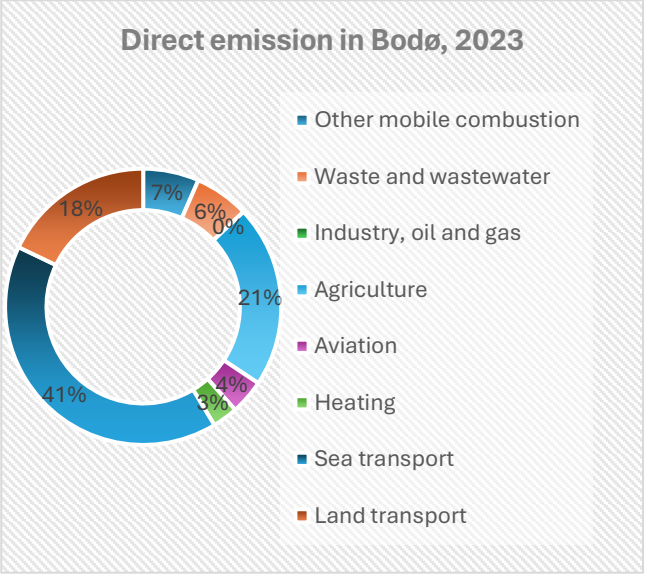
3% of Bodø Municipality's direct greenhouse gas emissions originate from industry. Bodø sildoljefabrikk AS accounts for 84% of emissions from industry in Bodø.



Shipping
Road transport
Other mobile combustion
Aviation
Agriculture
Waste and wastewater
Industry, oil and gas
Heating
Energy supply

Buildings and infrastructure account for just under 42% of the climate footprint (including investments, operations, maintenance, as well as the production and transport of construction materials). The largest emissions in this category are attributed to transport, housing, primary and lower

contributors include waste and wastewater (7%), agriculture (6%), sea transport (4%), and heating (3%). Industry, oil, and gas represent almost no emissions. Overall, the graph highlights that mobile sources—both road and non-road—together with aviation dominate Bodø's direct emissions profile.



secondary schools, the health service and roads, sewage and waste disposal (see Figure 3). 20% of the climate footprint of the municipality's operations stem from purchases of consumables, particularly in the health sector. Purchases of services contribute 17% of the municipality's climate footprint. The climate footprint of Bodø Municipality's operations by 21% between 2009 and 2017.			
Relevant Local Policy - Local strategies and decarbonisation tasks for Bodö Municipality			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Procurement: Procurement regulations will have clear requirements and guidelines concerning environmental considerations, which must be documented in all procurements. Bodö Municipality has decided that new procurement praxis will address environmental and climate considerations, as well as social and ethical requirements. **Energy, buildings, and construction:** Bodø Municipality has implemented a strategy that encourage to choose construction materials that is: • Short travel/locally sourced • Sustainable materials, with a high recycling rate and low climate footprint. • RES energy solutions in new-build projects. • High energy efficiency in existing buildings. After 1st of July the following energy and environmental requirements is enforced for the municipality's buildings:			

• New build: passive house standard • Refurbishments: passive house standard, provided that the buildings are not protected • Partial refurbishments: passive house standard, provided that the buildings are not protected • Existing buildings: Up one class from the previous energy classification in 2010 Review energy-intensive processes on construction sites that can be replaced: • Construction machinery and equipment at the construction site • Building heating and drying • Transportation of personnel and materials to/from construction sites An emission inventory shall be prepared for all municipal new-build projects, which will show the measures that are needed to reduce emissions by at least 30% relative to a reference building in accordance with the industry norm (TEK-17). A ZEB building will be constructed according to the ambition level ZEB - O. Furthermore, Bodö Municipality will introduce a certification system such as BREEAM for new buildings, minimum level "Good". Through stakeholder engagement and dissemination of information the municipality will ensure that local construction industry is competitive about new requirements in planning and implementation of zero-emission buildings and zero-emission neighbourhoods. To increase the use of wood materials in construction projects is also a priority.			

• wood materials to always be competitive, in terms of emission inventories, indoor climate and economics and from a life-cycle perspective. **Transport and land use:** A central strategy of Bodö Municipality is to reduce emissions from transport. This is done by: • Enabling and influencing other major players to reduce car use and demand. • Utilising the municipality's roles and instruments to reduce emissions from shipping. Land-use section of the municipal master plan is the strongest instruments for reducing demand for transport and is facilitating walking, cycling and travel by public transport. Furthermore, the following concreate task will support sustainable sea transportation: • Roll out onshore power to piers no. 1, 3, 4 and 5 in the Port of Bodø. • Explore the possibility of onshore power for ships which require a high-voltage power supply (cruise ship size) in the Port of Bodø. Implemented by Nordlandsnett AS latest 2025. • Continue the study of hydrogen as a fuel for heavy transport vehicles, rail and shipping – instigate the establishment of a hydrogen refuelling station in Bodø Municipality. • Work to promote a smarter system for the high-speed ferries to reduce demand for transport in the inner harbour between the high-speed ferry terminal, the freight terminal and bunkering.			

• Urban growth agreement in Bodø, will help to achieve the goal of zero growth of car use in the city. • Use the scope open to the municipality to ensure that the Nordland Line is operated by hydrogen-powered traction in the future.			
Sweden – Umeå Municipality			
Relevant National Legislation - Sweden's Climate Act and Goals			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The Climate Act establishes the following: • The government's climate policy must be based on the climate goals. • The government is required to present a climate report every year in its Budget Bill. • Every fourth year, the government is required to draw up a climate policy action plan to describe how the climate goals are to be achieved. • Climate policy goals and budget policy goals must work together. The framework contains several climate goals for Sweden: By 2045, Sweden is to have zero net emissions of greenhouse gases into the atmosphere. This means that greenhouse gas emissions from activities in Sweden should be at least 85 percent lower than in 1990. The remaining 15 percent can be achieved through supplementary measures such as increased carbon sequestration in forest and land, carbon capture and storage technologies (CCS) and emission reduction efforts outside of Sweden. After 2045 Sweden should achieve negative emissions, meaning	Aligned with the EU Commission's recommendation, the Swedish government has presented a position supporting the reduction of net emissions by 90 percent by 2040, compared to 1990, but under certain conditions. For the Swedish government to support this target level, it assesses that the implementation of the climate target needs to be realistic and that: • The framework must be designed so that all EU member states achieve climate neutrality by 2050. • The EU should not rely on difficult-to-achieve commitments for net uptake in LULUCF but should consider the central role of the bioeconomy in the climate transition and create conditions for long-term increased and sustainable food production.		

that the amount of greenhouse gas emitted is less than what can be reduced through the natural eco-cycle or through supplementary measures. By 2030, emissions from domestic transport will be reduced by at least 70 per cent compared with 2010 (excluding domestic aviation which is included in the European Union Emissions Trading System). By 2030, emissions in Sweden in the sectors covered by the EU Effort Sharing Regulation should be at least 63 per cent lower than in 1990, out of which 8 percent may achieved through supplementary measures. By 2040, emissions in Sweden in the sectors that will be covered by the EU Effort Sharing Regulation should be at least 75 per cent lower than in 1990, out of which 2 percent may be achieved through supplementary measures. These goals also reflect Sweden's aim to show international climate leadership, and to show that Sweden undertakes to achieve emission reductions that far exceed the requirements under the EU Effort Sharing Regulation.	• The systems for trading emission allowances should be the main track, and national commitments under the Effort Sharing Regulation should cease after 2030. • Incentives should be created for permanent negative emissions after the 2030 framework, and new climate targets should be combined with a technology-neutral energy policy where all fossil-free alternatives, including nuclear power, are included.		
Relevant National Policy - Sweden's climate policy framework			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
In 2017, Sweden's Riksdag decided by a large political majority to introduce a climate policy framework with a climate act for Sweden. This framework is the most important climate reform in Sweden's history and sets out implementation of the Paris Agreement in Sweden. By 2045, Swedens			

mission is to have zero net emissions of greenhouse gases into the atmosphere. Current government has stated that Sweden's ambitious climate goals remains, and that the climate policy framework remains valid. The framework contains ambitious climate goals, a climate act and a climate policy council. The framework aims to create order and stability in climate policy. It provides business and society with the long-term conditions to implement the transition needed to address the challenge of climate change. For the first time, Sweden also has an act under which each elected state government has an obligation to pursue a climate policy based on the climate goals adopted by the Riksdag. Each government must provide clear reports on how work to achieve the goals is progressing, and an independent climate policy council reviews how well the government's overall policy meets the climate goals. The reform is a key component of Sweden's efforts to comply with the Paris Agreement. The new government has however announced a major overview of the Swedish climate work and instigated an inquiry which will provide the new guidelines for the climate work in Sweden.			
Relevant Regional Policy - Regional development and climate strategy 2020-2030			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The Region council of Västerbotten has committed to a regional development strategy. In the partial prioritization 4.4 named *"Sustainable consumption, inclusive energy use"* states that *"All actors in society are consumers, from individuals to companies, authorities and organisations. The consumption choices they do is decisive for the environmental and climate impact that occurs globally, at all stages of the chain, from raw material to final*			

use. To achieve sustainable consumption, a circular approach is required, such as reusing and recycling." Another important environmental gain, in which there is solid experience in Västerbotten, is energy efficiency and energy recycling. Through its renewable energy resources, Västerbotten has unique prerequisites for the establishment of electricity-intensive industry, which in turn creates further opportunities for efficient energy recovery. A large part of the electricity production takes place in the northern parts of the county, where wind and hydropower are the main sources. Large energy losses in connection with the transmission of electric power and bottlenecks in the infrastructure create advantages for establishment close to the electricity production in the north. Access to sustainable energy is also important from a climate perspective, as well as a circular perspective. The climate strategy states that the region must reduce its climate impact by 60 percent by 2030. In 2045, the region must be climate neutral, which means that it must reduce their emissions by 8 percent per year. Overall areas where the region has the greatest impact on the environment and where activities will be carried out are: - Climate neutrality and mitigation - Healthy and non-toxic environment - Sustainable use of resources			
Relevant Regional Policy - County administrative board climate role and strategy			

Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The County Board's role is to coordinate the regional work with the environmental goals. They work together with municipalities, businesses, voluntary organizations and other actors, so that the environmental goals will have an impact in the county and the environment will improve. The County administration board also follow up on how the environmental work is going. The County Administrative Board shall: - coordinate the regional target and follow-up work - develop, coordinate and implement regional action programs with broad roots in the county to achieve the generational goal and environmental quality goals - support the municipalities with data in their work with the generation target and the environmental quality targets - work to ensure that the generational goal and the environmental quality goals are reflected in local and regional social planning and contribute to their consideration in the regional growth work. The county administrative boards in Sweden have been commissioned by the government to produce regional plans for infrastructure for electric vehicles and renewable fuels and work on implementing these plans. The purpose of this plan is to promote and coordinate an expedient expansion of distribution facilities for renewable fuels (filling and charging stations).			
Relevant Local Policy - Umeå climate roadmap			

Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Umeå's climate roadmap is two things at the same time: a compilation of what needs to be done to reduce climate emissions in Umeå, and a platform where the whole city of Umeå can strengthen each other and work together for climate change in accordance with the Paris Agreement. The climate roadmap is coordinated by the City of Umeå, but the content is created jointly with companies and organizations who joined the endeavor. The roadmap has five focus areas where everyone in Umeå is needed to reduce emissions: 1. Mobility and transport 2. Energy and the built environment 3. Consumption and circular economy 4. Food and agriculture 5. Other supplementary measures Signatory organizations commit to sharing information annually on activities and results in their climate work. These can be reported through one or more of the following: a) The organization's external sustainability report b) Open on the Umeå climate roadmap website c) Other way specified in the undertaking			

The aim is a climate-neutral municipality in 2040 and that the City of Umeå is climate-neutral in 2030.			
Relevant Local Policy - Umeå climate action plan			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
To limit the global temperature increase to 2 degrees Celsius, and ideally to no more than 1.5 degrees, everyone must contribute to reducing greenhouse gas emissions. At a local level, everyone who lives and work in Umeå must contribute by reducing our climate-impacting emissions. Greenhouse gas emissions from energy use per inhabitant in Umeå has been steadily decreasing since 1990, however as the population of Umeå is growing, the actual emissions have remained essentially the same since the 1990s. The same is true for consumption-related emissions which have remained stable at the national level in recent years. In Umeå, consumption-related emissions in 2018 were 11.5 tonnes per person per year, according to a survey of consumption habits commissioned by City of Umeå. A long-term sustainable level is 1 tonne per person per year, which must be achieved by 2050 if we are to meet the goals of the Paris Agreement. Activities and goal in Umeå Climate Action plan: - Municipality of Umeå will be climate neutral 2040, net zero emissions of greenhouse gases. - The Umeå municipal group will be climate neutral by 2025, net zero emissions of greenhouse gases.			

- The climate impact of transport in Umeå will be reduced, this will be done by fuels that are fossil-free by 2030 and through increases in sustainable travel. - City of Umeå consumption-based climate impact is reduced to 2 tonnes of CO_2 equivalent per equivalent per person by 2040 and 1 tonne by the year 2050. - By 2025, the share of journeys by public transport, bicycle or on foot combined is at least 65 per cent of all trips for residents in the Umeå urban area. - By 2040, the air in Umeå is so clean that human health and animals, plants and cultural values are not harmed. - By 2025, green corridors and areas have been developed in Umeå's urban centres with new and existing parks and green public spaces. - In 2025, the inhabitants of Umeå have good access and accessibility to parks, squares, and recreational environments with good sound environment. - By 2025, Umeå has buildings with low energy use and environmental impact.			
Relevant Local Policy - Umeå Digital Climate road map			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The municipality is working to reduce emissions of greenhouse gases and to phase out fossil fuels. To achieve this, changes are required throughout society, where the municipality, companies, organizations and residents must work together. To gather companies and organizations around a common goal, Umeå municipality works with a digital tool called Climate OS. In the tool, one can see what the emissions in Umeå look like today			

and possible solutions to deal with them. The tool currently shows a selection of measures and does not yet provide a complete picture of what is being done in Umeå to reduce emissions. The tool is continuously developed with new solutions, better data, and more actions.			
Relevant Local Policy - Climate Neutral Umeå 2030			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Umeå Municipality is one of 23 municipalities and six authorities that have signed the Climate Contract 2030. It is a contract between cities and authorities to accelerate the development of climate neutral cities. To achieve the big change in the short term, we will require unprecedented cooperation between citizens, politicians, businesses, and civil servants. National, regional and local levels must work together in the same direction. The Treaty sets out the way forward. Climate Contract 2030 is part of the Climate Neutral Cities 2030 initiative within the Viable Cities strategic innovation programme, of which Umeå is a part. It is also part of the European Commission's initiative for 100 climate neutral cities by 2030. It will contribute to the transition by bringing many people together and testing new ways of working. The Climate Contract will be revised every year in December. Umeå municipalit's commitments:	Umeå Municipality is one of 48 municipalities and six authorities that have signed the Climate Contract 2030.		

- Implement the Umeå Local Group Action Programme to achieve agreed climate targets. - Gather strength for Umeå's climate transition together with business, civil society and academia, by coordinating and implementing the Umeå Climate Roadmap, Umeå's local climate contract. - Create a force for change in the region by establishing Umeå as a hub for innovation in sustainable and equitable urban planning, including by supporting innovation projects in cooperation with other cities in northern Sweden. - Establish a creative hub where different competences are cross-fertilised, strengthening creativity and innovation, and playing an important and cross-sectoral role in the green and digital transition, in line with the New European Bauhaus. - Strengthen Umeå as a logistics and energy hub in the region by enabling sustainable transport and logistics solutions. - Develop a new energy plan for the City of Umeå, based on scenario analyses of Umeå's future energy system. - Actively participate in the EU mission - 100 climate neutral and smart cities by 2030. - Continue to develop the *"System demonstrator for a climate-neutral Umeå based in the new Tomtebo strand district"* and the *"Roadmap for mobility hubs" system* demonstrator together with Uppsala and Linköping. - Continue to develop forms of cooperation with civil society and residents, for example in UMECOM - Umeå's Citizens' Workshop.			
Iceland – Akureyri Municipality			
Relevant National Policy - Sustainable Energy Policy towards year 2050			

Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
The energy policy states: *"By 2050, fossil fuels will have been entirely replaced by renewable energy sources. The country will have achieved carbon neutrality by 2040, as planned. Energy security has been achieved through a supply of varied renewable energy options and sound infrastructure."* This goal will be achieved through various actions directed towards different sectors. Actions within each sector to achieve energy transition is currently being developed and the Energy Fund is being expanded to support the transition with increased funding.	Iceland's Climate Action Plan lists 150 actions divided into four systems. 86 actions related to community emissions, 14 actions related to the trading system, 16 actions related to land use and finally 34 actions that are classified as cross-sectoral. The changes that have occurred since the previous action plan are the number of actions has been increased by 102. The funding status of the actions is that within the framework of the current financial plan there are 68 actions, 20 actions are partially funded, and 62 actions are outside the current financial framework of the government. The status of the actions themselves is as follows: 59 actions have been implemented, 9 actions that have been approved but not implemented, 16 actions are planned, and 66 actions are still at the conceptual stage. The updated action plan assumes that climate action will be assessed with respect to equality and their social impact, and all actions have been roughly assessed based on the following categories: equality, public health, regional affairs, household finances, and labour market issues.	We are on the right track, but there has recently been a change of government, so there may be some changes in emphasis in the coming years regarding which actions have priority and what actions will be included in the budget, but it is too early to say yet.	Very little impact on the project
Relevant Regional Policy			

Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Iceland is treated as one region when it comes to the transition from fossil fuel to renewable energy. More renewable energy will need to be provided and that this energy will need to be produced in different regions in Iceland and distributed with improved power grid. Debate is on-going between government and municipalities on how to achieve this goal with minimum impact (concerns are mostly due to increased tourism, since power plants may have negative visual impacts). Only one hydropower plant of 95 MW can be expected to be installed within the next few years and one 120 MW wind farm. Even those two projects struggle to get approval from the municipalities. A larger share of the electricity sales going to municipalities is being discussed.	It has been difficult to get a permit for a hydroelectric power plant planned by Landsvirkjun through the legal system, and the case is now before the Supreme Court. It is hoped that this will be resolved as soon as possible so that construction can begin on Hvammsvirkjun as soon as possible, as the country is expected to experience an energy shortage if major energy measures are not taken in the coming years. The wind farm is being prepared, but not all permits have been obtained for it, and there is still controversy over the role of municipalities in the operation of energy facilities.	When little has been done, the importance of energy-saving projects on a larger scale increase, and public support for this process by the public and municipalities is important. Both report on the projects that have been successful and outline the methodology from project idea to final product and list the economic and environmental savings that	Very little impact on the project

		result from the project.	
Relevant Local Policy			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
Iceland has 64 municipalities, ranging from only 42 individuals in the smallest municipality to 136 thousand in the largest one (Reykjavík capital). The most urban municipalities usually have published their environmental policies. On January 1st, 2023, new legislations came in force addressing the circular economy, honouring the Paris agreement and forcing all municipalities to publish their climate policy.	Most municipalities in the country have presented a climate policy and action plan. It is mainly the smallest municipalities that have not come as far in this regard. But in connection with the circular economy, a uniform classification system has been established throughout the country so that all households in the country classify their waste into the same categories and have the same bins outside their homes. Harmonizing classification is part of increasing the rate and quality of recycling in the country. Now all households have four categories outside their homes, general waste, organic waste, plastic and paper. Other categories must be taken to local recycling centres that should be in every town.	Increased emphasis could be placed on energy efficiency in the municipalities' climate actions and energy transitions and energy efficiency projects should be pushed forward, especially in those areas of the country where there is no geothermal energy supply. It is important to use as little	Very little impact on the project

		electricity as possible for heating, as it has been difficult to increase energy production in the country in recent years. But this requires investing in energy-saving infrastructure in the municipalities, which will improve energy efficiency and the operation of the municipalities in the long term, but it can be difficult to get this through the government system when	

		each municipal council is only in office for four years and has difficulty investing large amounts of capital in long-term investments.	
Relevant Local Policy - Akureyri municipality			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES
In 2016, an environmental and transport policy was put forward. A dedicated sustainability focus company called Vistorka (vistorka.is) was established in 2015 by Norðurorka (local power distributor, owned by the municipality). Recent activities include a pre-feasibility study for a biomass plant and overseeing electric vehicle charging infrastructure.	At the end of 2024, Norðurorka, the owner of Vistorka, made the decision to close the company in its current form. Vistorka's board was given the task of sharing Vistorka's projects with other parties as appropriate. Projects related to the municipality were transferred to the appropriate department of the municipal corporation, and a new employee was hired to take over projects that had previously been handled by Vistorka. This employee had previously worked at Vistorka and is therefore well-versed in the projects that the person in question will manage for the municipality related to environmental issues and energy transition. Other Vistorka projects were	It is too early to say what impact this will have on the environmental issues in Akureyri, which Vistorka was responsible for. Vistorka was working hard for the entire region and, for example,	Vistorka worked on projects for HYBES but had delivered all the work assigned to that company and had settled with the company before it was

	transferred to SSNE, EIM and the Environment and Energy Agency.	applied for countless grants that returned over 100 million ISK to the area related to environmentally friendly projects. The Líforkuver project is still active, has its own board and website, and is now more connected to the state than to the municipality.	closed. The projects related to HYBES are now the responsibility of the Environment and Energy Agency and there will therefore be no significant change to HYBES projects upon the closure of Vistorka. Ireland was interested in using Vistorka's school projects and approach to developing projects related to

			education and then related to disseminating information to the public. These projects were managed on the Vistorka website, and it is now owned by the Environment and Energy Agency so we can still share those projects in the HYBES partnership.
Faroe Islands – Municipalities			
Relevant Local Policy			
Relevant JAP Excerpt	Update	Review	Implications / Potential for HYBES

Many of the larger municipalities in the Faroe Islands have in recent years formulated policies for environment and energy with targets for reduction of emission of greenhouse gases. The goal of the municipality of Klaksvík is to reduce the emission of greenhouse gases by 20 % in 2030 compared to 2005. In the Energy Policy 2021-2027 for the institutions in the municipality of Tórshavn the goal is to reduce the emission of greenhouse gases by 50 % in 2027 compared to 2016 and with focus on 1) reduction in use of fossil fuels to heat institution within the municipality, 2) a shift to more energy saving street lightning and to 3) a shift from fossil fuel cars to electric cars. Tórshavn municipality has in 2020 installed three 15kWp solar panels on different buildings and several buildings have replaced oil burners with heat pumps in the most recent years. In April 2023 a new heating system for a school and an elderly home in the village of Lorvík (1040 inhabitants) was inaugurated. In this system ground source heat pumps replaces oil burners. The system also includes large hot water storage tanks that can utilise excess wind energy. The large industrial companies, including fish factories and fish farming facilities, are preparing for a decarbonised future. Hiddenfjord, one of the main fish farming companies, installed in 2022 a 195kWp solar system on the roof of one of their buildings and are preparing for more. nBakkafrost, another main fish farmer, built a new 15m fish farming service boat in 2022 that runs on electricity, and the concept is prepared for using excess wind for charging. The Australian magazine Baird Maritime announced this boat to be 'Best Small Fish Farm support vessel 2022'. Several fish factories are preparing to produce process heat and steam from excess wind energy rather than oil burners.	In Tórshavn Municipality the work to decarbonise all activities is ongoing and in accordance with The Energy Policy 2021-2027. There are several busses that service all parts of the Municipality. One route is now operated by electrical busses, and the goal is to replace all busses running on fossil fuel. A recent decision was made in the Municipality council that the next contract on garbage collection should be based on an electric vehicle. Solar energy has an increasing interest in the Faroe Islands and around 30 smaller systems (3-11kWp) have been installed and Hiddenfjord has added another 962kWp solar panels to their 195kWp from 2022. Meetings have been held between the authority, the utility company SEV and the House of Industry to develop a more attractive renumeration to solar panel owners. The heating system that Leirvík Municipality has installed to heat the school, and a nursing home is in continuous operation. Some difficulties with the internet link interrupted data collection for a period. Learnings until now indicate that using resistive heating even with low electricity price cannot compete with using heat pumps alone.		