



Comhairle Contae Thiobraid Árann  
Tipperary County Council

# A new Tipperary County Development Plan 2022 - 2028

~ Background Paper



## Low-Carbon and Climate Resilient Society



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## **1.0 Introduction**

The purpose of this briefing paper is to assist in the participatory processes that will inform the preparation of the Tipperary County Development Plan 2022 – 2028. This paper is one of three papers prepared to help stimulate debate, discussion and input into the plan-making process, these papers should be considered together. The other papers are entitled: ‘Settlement, Population and Transport’ and ‘Economy and Employment’.

Spatial planning is a core mechanism in the delivery a low-carbon and climate resilient society as highlighted in the in the National Planning Framework 2018 (NPF). National and regional policy and trends that will influence the preparation of a new County Development Plan are presented, along with information on sustainable energy development, energy use mitigation and climate action for the county in the context of the NPF and the Southern Regional Spatial and Economic Strategy (RSES) 2020. Finally, key areas for consideration are discussed to assist in considering how, through spatial planning and related mechanisms, we can move towards a low carbon and climate resilient society.

## **2.0 A Low-Carbon and Climate Resilient Society**

### **2.1 Why now?**

In 2019, we saw the global movement to address the climate crisis gather momentum. This was illustrated by the world-wide youth climate protests, with people taking to the streets of towns across Ireland, calling for society to do more to reduce greenhouse gas emissions and tackle climate change. With the launch of the Climate Action Plan 2019 (DCCA, 2019) and as a signatory to the Paris Agreement, the Government has committed to ‘the transformation required achieving a low carbon resilient future’. The Climate Action Plan puts in place ‘a decarbonisation pathway’ to 2030 consistent with reaching the EU Target of Net Zero emissions by 2050. The achievement of these targets requires transformational change effective immediately.

The new Tipperary County Development Plan, will be adopted in 2022, and will be in place until 2028. It is important as policy makers, stakeholders and citizens that collectively we ensure that the new Plan remains effective by 2028, and beyond.

## 2.2 Energy Use in Ireland

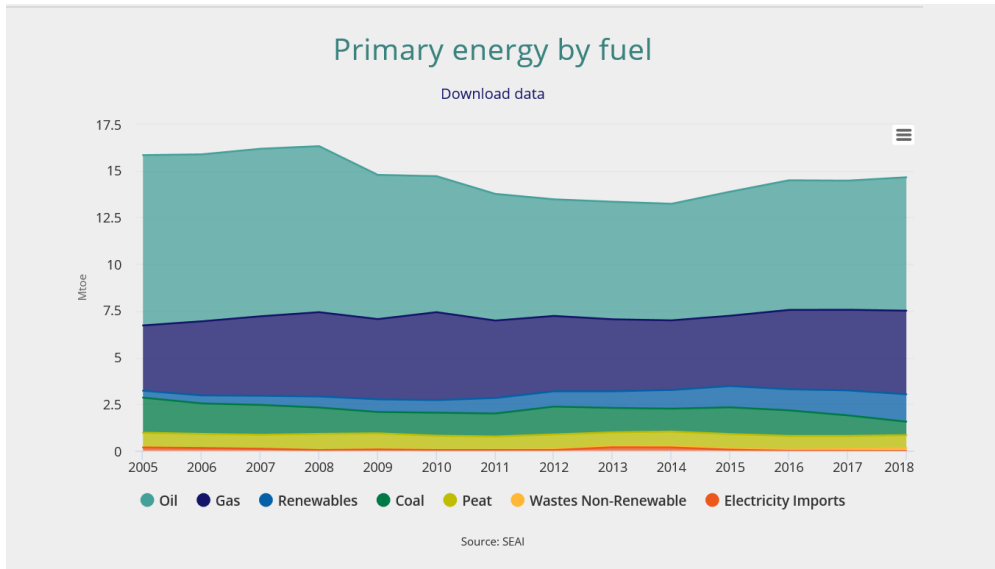
The Sustainable Energy Authority of Ireland (SEAI) produces an annual report<sup>1</sup> on energy in Ireland. It was found that during 2018, overall energy use had increased by 4.5% across the key sectors of residential, transport, industry and services.

Renewable energy made up only 11% of gross final consumption, relative to a 2020 target of 16%. The share of electricity generated from renewable sources increased by 3.1 percentage points, to 33.2%. The 2020 target is 40%. The share of energy used for transport from renewable sources decreased from 7.4% in 2017 to 7.2% in 2018. The 2020 target is 10%. The share of energy used for heat from renewable sources decreased from 6.7% in 2017 to 6.5% in 2018. The 2020 reduction target is 12%.

Fossil fuels accounted for 89% of all energy used in Ireland. Oil is the dominant energy source with a 49% share of primary energy use. Oil is mostly used for transport and heating. Natural gas is the next largest energy source and accounted for 31% of primary energy use. Most natural gas is used for generating electricity. It accounted for 54% of energy inputs to electricity generation. Wind is by far the largest source of renewable energy, accounting for 55% of all renewable energy produced.

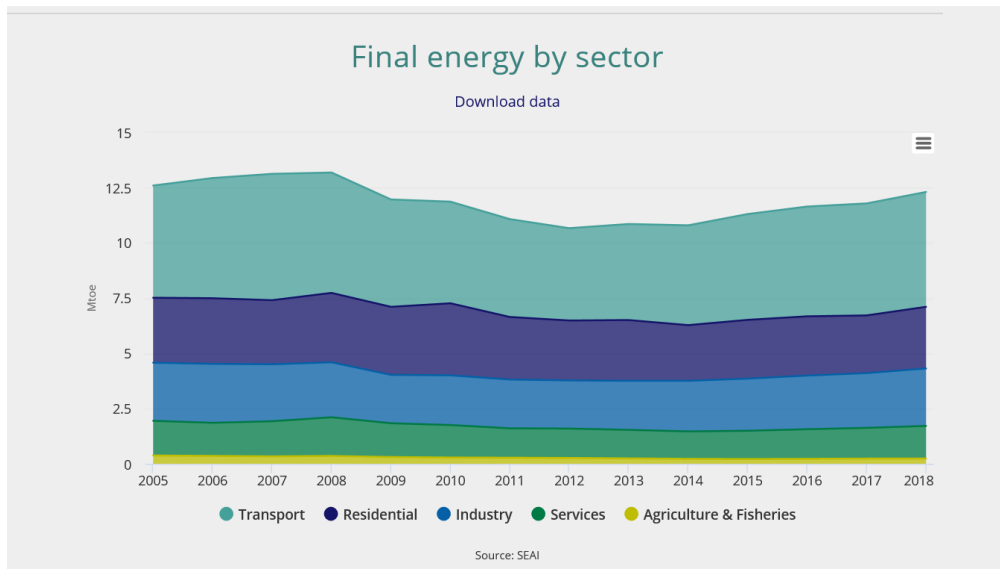
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<sup>1</sup> <https://www.seai.ie/publications/Energy-in-Ireland-2019-.pdf>



**Figure 1: Primary Energy use by fuel (SEAI)**

Transport has by far the largest share of energy use, accounting for 42% of final energy demand in 2018. The next largest sources of energy demand are households and industry. They accounted for 23% and 21% of final energy use respectively.



**Figure 2: Energy use by sector (SEAI)**

However, we are faced with an enormous challenge in reducing our reliance on fossil fuels in transport and in heating. We will also have to change our ways i.e. in how and when we decide to travel, where we build homes and businesses and in our methods of construction. The County Development Plan, with stakeholder and community input and support, will be at the centre of planning for this transition.

## 3.0 Policy Frameworks

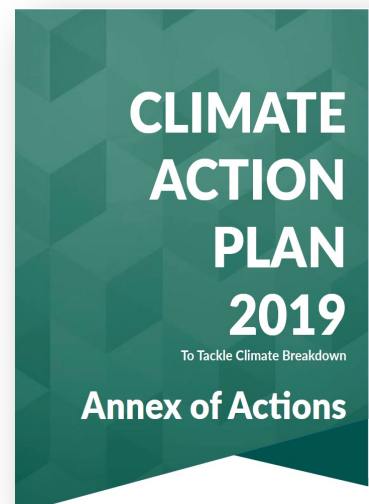
The principle of planning for a low-carbon economy and society is enshrined in international and national legislation. A legally binding, global agreement on climate change was agreed in Paris on 12<sup>th</sup> December 2015 and put in place the necessary framework for all countries to take ambitious mitigation action. It sets out a long-term goal to put the world on track to limit global warming to well below 2 degrees centigrade above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5 degrees. The agreement also places significant focus on actions needed, both nationally and globally, to help people adapt to climate change.

### 3.1 National Climate Action Plan 2019

The Climate Action Plan sets out profound changes in the systems and practices which support our lifestyle.

Some of the key measures include:

- Development and implementation of a national Green Procurement Strategy,
- Targets of 50% Energy Efficiency and 30% GHG emissions reduction,
- A trajectory for the price of carbon that will create an incentive to help avoid locking in carbon intensive technologies,
- The realisation of the principle underpinning Project Ireland 2040, for compact, connected, and sustainable development,
- Competitive funding rounds to promote research and innovation to meet the climate challenge,
- A sectoral roadmap to deliver a cumulative reduction in emissions.



### 3.2 Project Ireland 2040

Project Ireland 2040 is the government's long-term overarching strategy to make Ireland a better country. It is comprised of the NPF and the National Development Plan (NDP) both adopted in 2018.

The NPF acknowledges that the planning process provides an established means through which to implement and integrate climate change objectives, including adaptation, at local level. Under the NPF, the Government will support:

- Integrating climate considerations into statutory plans and guidelines In order to reduce vulnerability to negative effects and avoid inappropriate forms of development in vulnerable areas.
- More energy efficient development through the location of housing and employment along public transport corridors, where people can choose to use less energy intensive public transport, rather than being dependent on the car.
- The roll-out of renewable energy technologies and protection and enhancement of carbon pools such as forests, peatlands and permanent grasslands. It is necessary to ensure that climate change continues to be taken into account as a matter of course in planning-related decision making processes.
- The development of sustainable supply chains in the bio economy.
- Grey adaptation which typically involves technical or engineering-oriented responses to climatic impacts, such as the construction of sea walls in response to a sea-level rise.
- Green adaptation which seeks to use ecological properties to enhance the resilience of human and natural systems in the face of climate change, such as the creation of green spaces and parks to enable better management of urban micro-climates.

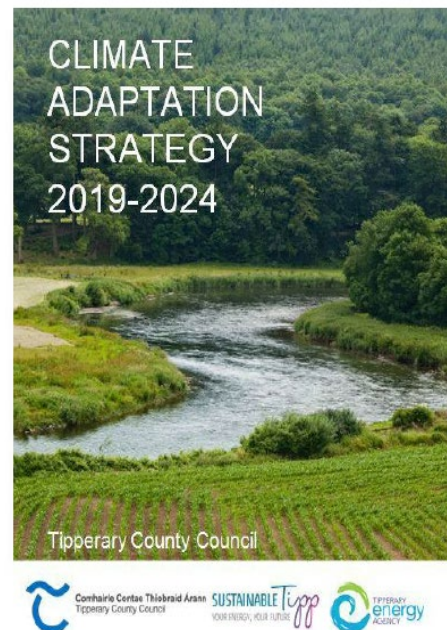
National Policy Objective 54 sets out to; reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.

### 3.3 Regional Spatial and Economic Strategy

The RSES is committed to the implementation of the Government’s policy under Ireland’s ‘Transition to a Low Carbon Energy Future 2015- 2030’<sup>2</sup> and Climate Action Plan. It is an objective to promote change across business, public and residential sectors to achieve reduced GHG emissions in accordance with current and future national targets, improve energy efficiency and increase the use of renewable energy sources across the key sectors of electricity supply, heating, transport and agriculture.

### 3.4 Climate Adaptation Strategy 2019

County Tipperary forms part of the Eastern and Midlands Climate Action Region of Ireland. Under the Climate Action and Low Carbon Development Act 2015, and with the guidance of the regional office, Tipperary County Council produced a Climate Adaptation Strategy<sup>3</sup> in 2019. The purpose of this strategy is to plan for, respond to, and adapt to extreme weather events, while at the same time take advantage of any opportunities that may arise in terms of economic development through supporting the development of green businesses.



### 3.5 A sustainable Tipperary County Development Plan 2022 -2028

The Planning and Development Act 2000 (as amended) in Section 10, sets out that the County Development Plan must address in its Core Strategy:

- (n) The promotion of sustainable settlement and transportation strategies in urban and rural areas including the promotion of measures to –

<sup>2</sup> <https://www.dccae.gov.ie/en-ie/energy/publications/Pages/White-Paper-on-Energy-Policy.asp>

<sup>3</sup> <https://www.tipperarycoco.ie/environment/climate-action>



- (i) reduce energy demand in response to the likelihood of increases in energy and other costs due to long-term decline in non-renewable resources,
- (ii) reduce anthropogenic greenhouse gas emissions,
- (iii) address the necessity of adaptation to climate change.

The preparation of a new County Development Plan will be underpinned by a Strategic Environmental Assessment (SEA). This is a process for evaluating, at the earliest stage, the environmental consequences of implementing plans/programmes at a national, regional and local level. The purpose is to ensure that the environmental consequences of plans and programmes are assessed both during their preparation and prior to adoption. The SEA process also gives interested parties an opportunity to comment on the environmental impacts of the proposed plan or programme and to be kept informed during the decision making process. The SEA process will take account of the Council's obligation to comply with all environmental legislation including that governing a transition to a low-carbon society, to assist the Plan in its aim of providing policy guidance for the sustainable development of the County.

## 4.0 Tipperary's Transition

The RSES supports the leadership of the public sector in the transition to a low-carbon economy. Tipperary County Council has been proactive itself in move towards a more sustainable and low-carbon society and to reduce its own carbon-footprint in the delivery of its services.

### 4.1 Covenant of Mayors

The Council became a signatory of the EU Covenant of Mayors<sup>4</sup> for Energy in 2015. This is a voluntary initiative whereby signatories commit to reducing the CO<sub>2</sub> emissions in their areas by 40%



by 2030. A core requirement is the preparation of a Sustainable Energy Action Plan

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<sup>4</sup> <https://www.covenantofmayors.eu/>

(SEAP) to address energy use reduction through the organisation. The Council, across all of its services and in accordance with its SEAP has reduced its energy consumption by 47%. An Energy Management and Climate Action Committee work with the TEA to identify ways to further reduce energy consumption and adapt to climate change, some of the actions are set out below:

**Solar Photovoltaic Installation** – in 2014, 800 photovoltaic solar panels were installed on 9 public buildings in towns across Tipperary. The buildings include fire stations, libraries, civic offices and a leisure centre and the project has resulted in significant savings of over €30,000 per annum.

**Cycleways, Greenways and Blueways** - The Council has planned, co-funded and delivered approximately 50km of segregated cycle lanes, including Greenways and Blueways across the county. Excellent examples of these are the Suir Blueway and the Clonmel By-pass cycleway.

**Public Lighting** - To date approximately 20% of the Council's public lighting infrastructure has already been upgraded to LED<sup>5</sup> lighting as it is much more energy efficient than traditional lighting. In addition, the Council is a partner on the Interreg NWE Smart Space<sup>6</sup> project, which aims to facilitate the uptake of smart lighting in local authorities to enhance energy-efficiency and reduce CO2 emissions.

**Promotion of Nearly Zero Energy Homes (NZEB)** - The Council with the support of the TEA have actively promoted (NZEB) design and construction since 2019. A regional training event held in Thurles on the 26th of November 2019. This was attended by over 100 persons involved in the design and delivery of new homes.

**Flood risk management** - The Office of Public Works (OPW) with the support of the Council has delivered a number of successful flood risk management schemes in Tipperary. The Suir River Basin Flood Risk Management Plan was completed in 2018 and sets out a programme of further flood schemes for the county.

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<sup>5</sup> Lighting Emitting Diode

<sup>6</sup> <https://www.tipperarycoco.ie/roads/interreg-smart-space-initiative>

**All Ireland Pollinator Plan 2015 - 2020<sup>7</sup>** - The Council is a member of the All Ireland Pollinator Plan and is taking actions to support pollinators on public land with local community groups, residents' associations and schools to help raise awareness of the role of biodiversity.

## 4.2 Tipperary Energy Agency

The Council is supported by the TEA which was founded as a partnership between the Council and the Tipperary Institute (now LIT Tipperary) in 1998 and is one of the most successful energy agencies in Europe. The objectives of the agency are as follows:



- To reduce energy related CO2 emissions
- To reduce the energy costs of the local authorities
- To make the County as a whole more sustainable and competitive
- To aid the development of renewable energy in the County
- To maximise draw down of European funding for local sustainable energy projects.

## 4.3 Tipperary County Council Renewable Energy Strategy

In 2016, a Renewable Energy Strategy was prepared by Tipperary County Council and it is intended to bring forward this strategy into the new County Development Plan.

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<sup>7</sup> <https://pollinators.ie/councils/>



**Figure 4: Officials and Elected Members at Lisheen Wind Farm**

In line with the Renewable Energy Strategy, Tipperary has had relatively good investment in wind energy development and is now in the top five counties in terms of output of electricity from wind turbines. It is estimated that there are approximately 180 commercial wind turbines in the county and approximately 100 with planning permission that have yet to be erected. In terms of solar energy development, it is estimated that 15 commercial ground mounted solar farms have been permitted to date in Tipperary. There are three grid connected hydro-powered water facilities in the county that supply electricity to the national grid. A number of farm-scale anaerobic digestion facilities are permitted, however, are yet to be built.

## **5.0 Spatial Planning Considerations**

It is an objective of the NPF to promote change across business, public and residential sectors, to achieve reduced GHG emissions, to improve energy efficiency and to increase the use of renewable energy sources across the key sectors of electricity supply, heating, transport and agriculture. These key sectors each have their own Sectoral Action Plans and will support the actions that will be addressed by spatial planning and the County Development Plan. However, the NPF emphasises that the planning process is well placed to implement and integrate relevant climate

change objectives, in particular a change to more sustainable settlement patterns and the measures set out below.

## 5.1 Transformation of the Built Environment

It is already acknowledged that the sustainable and compact growth of towns and villages, and delivery of homes and services close to each other, can facilitate sustainable urban services. In addition to this, there is a role for spatial planning in the transformation of the built environment, through innovative design of new buildings and places, green infrastructure actions, use of new technologies etc.

The County Development Plan has a role in contributing to a common statutory framework to identify, implement, and measure low-carbon interventions in the built environment in terms of new and existing development that will not only contribute to lower emissions, but will also address settlement and society needs. Built environment policies and objectives may be addressed in the following areas; appropriate use of land-zoning, planning for district heating systems, requirement for use of low-carbon design and materials, requirement for sustainable urban drainage systems (SUDS), planting and greening and use of low-carbon technologies etc.

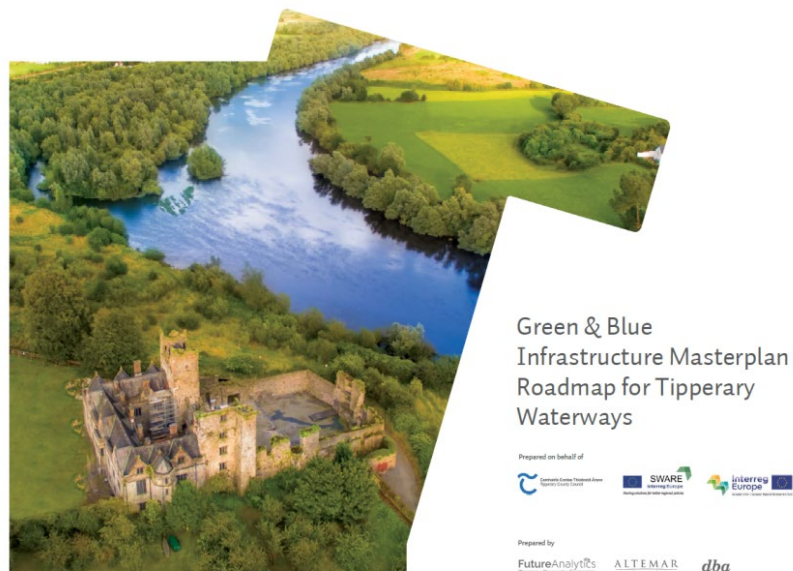


Figure 3: Green & Blue Infrastructure Master Plan Roadmap for Tipperary Waterways<sup>8</sup>

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[https://www.tipperarycoco.ie/sites/default/files/Publications/GBI%20Infrastructure%20Masterplan%20Roadmap\\_FINAL.pdf](https://www.tipperarycoco.ie/sites/default/files/Publications/GBI%20Infrastructure%20Masterplan%20Roadmap_FINAL.pdf)



**Figure 4: Solar Photovoltaic installation at Tipperary County Council building**

The Government has been active in providing funding supports for energy and climate related initiatives and research including large scale funding schemes such as the Project Ireland 2040 Climate Action Fund and Disruptive Technologies Fund. The Council in partnership with the private sector has a role in this transformative regeneration, place-making and revitalisation to help transform towns and villages and support innovation across the county. However, it is critical that actions in terms of the principles set out above are carefully considered now and set out in the new County Development Plan.

## **5.2 Sustainable Mobility and Enhanced Regional Accessibility**

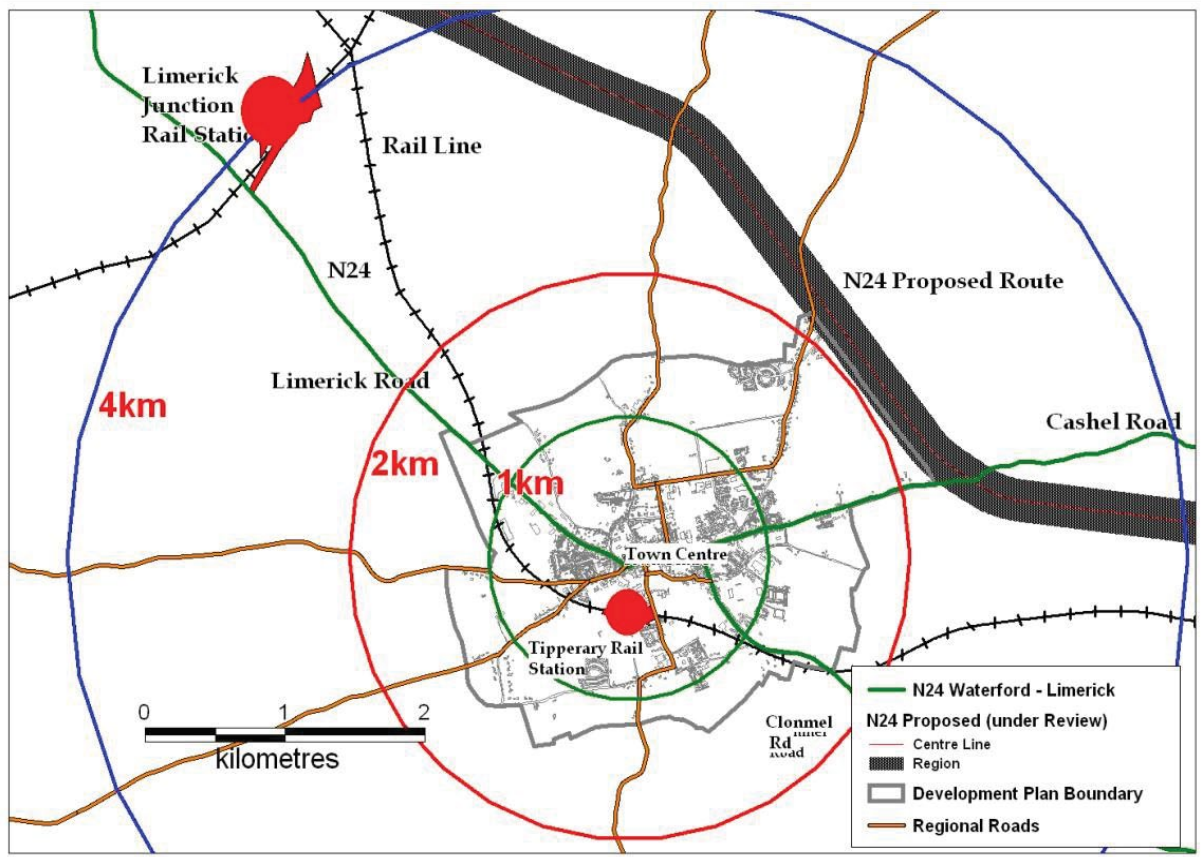
Only 12% of the Tipperary population travel to work, school or college on foot or by bicycle, despite the fact that most people in Tipperary (42%) travelled under 15 minutes to work, school or college. Having consideration to the predominance of the private car for travel, it is clear that most of these short journeys are by private car.

Journey time	Persons	%
<b>Under 15 mins</b>	39,096	41.74%
<b>1/4 hour - under 1/2 hour</b>	24,030	25.65%
<b>1/2 hour - under 3/4 hour</b>	13,330	14.23%
<b>3/4 hour - under 1 hour</b>	4,194	4.48%
<b>1 hour - under 1 1/2 hours</b>	4,335	4.63%
<b>1 1/2 hours and over</b>	2,282	2.44%
<b>Not stated</b>	6,406	6.84%

The NPF acknowledges the need to move away from polluting and carbon intensive vehicles to new technologies such as electric vehicles, introduction of electric and hybrid systems for public transport fleets, combined with compact forms of development that support walking and cycling. The Government has committed to a ban on the sale of non-zero emission vehicles in Ireland after 2030. This will be combined with supports such as funding for electric vehicle infrastructure, and investment in public transport systems, and will enhance the quality of life in our settlements through better air quality, pedestrian and cyclist safety and reduced noise and congestion.



Figure 5: Opening of the Cycleway along the N24 Clonmel



**Figure 6: Tipperary Town Sustainable Mobility Plan**

The RSES has set out range of measures to help address the formulation of transport policy, these include;

- Local Transport Plans for Key Settlements,
- 10-Minute Town Concepts,
- Walking and Cycling Strategies for settlements as part of Local Area Plans,
- Review of Local Link Rural Transport Programmes.





**Figure 7: Remote Working**

The NPF aims to enhance accessibility and connectivity between the key urban centres and their regions. Connectivity in terms of both digital and information systems and transport are equally important. We have all seen how important digital connectivity is during the Covid-19 pandemic in terms of social connectivity, and in supporting home-working patterns. The need to improve connectivity between Cork, Limerick, Waterford (and Galway) and the regions is essential. Good quality accessibility and connectivity between the cities in the region and the larger centres of population in Tipperary is key to ensuring that people can access higher order services in a sustainable way using high quality public transport.

### **5.3 Ecological Systems and Role in Climate Change Adaptation**

The NPF recognises that sustainable management of water and other environmental resources are critical to our environment, our well-being and the regulation of our natural ecosystem services. Collaboration between national, regional and local public bodies is crucial to ensuring our water and environmental resources are managed properly for the future.



**Figure 8: The Suir Blueway**

Key policy areas to be considered in the preparation of the County Development Plan are:

- The role of natural water and catchment based ecosystems in climate adaptation and mitigation to be recognised.
- Alignment and integration of River Basin Management Planning (RBMP) with the planning system and planning policy. In this respect, new planning guidance on land-use planning and RBMP are to be introduced by the Department of Housing, Planning and Local Government, to ensure that development plans and planning decisions are consistent with RBMPs and the Water Framework Directive and ensure a standardised nationwide approach for Planning Authorities.
- Strategic Environmental Assessment (SEA), at a strategic plan- and programme-making level, and Environmental Impact Assessment (EIA), at the project level.

- SEA and AA processes to consider the sensitivity of 'Areas for Further Assessment (AFA)'.
- Details of 'Blue-Dot' areas and AFAs to be sourced and incorporated into the GIS modeling systems for Development Plans SEA/AA.

In addition, National Policy Objective (NPO) 57 of the NPF seeks to enhance water quality and resource management by:

- a) Ensuring flood risk management informs place-making by avoiding inappropriate development in areas at risk of flooding in accordance with The Planning System and Flood Risk Management Guidelines for planning authorities;
- b) Ensuring that River Basin Management Plan objectives are fully considered throughout the physical planning process;
- c) Integrating sustainable water management solutions, such as Sustainable Urban Drainage systems (SuDs), non-porous surfacing and green roofs, to create safer places.

## 6.0 Conclusion

There is a clear mandate for change in international, national and regional legislation that requires us to collectively plan for a low carbon and climate resilient society. One of the key deliverables of RSES and the Climate Action Plan is the enabling of, and participation citizens and support for community participation. This approach has already been incorporated into the new Renewable Electricity Support Scheme (RESS)<sup>9</sup> with supports and opportunities for citizens and communities to own; to participate in; and to benefit from Renewable Electricity projects in their areas.

The new County Development Plan will also seek the support of stakeholders and communities and aim to be ambitious, visionary and proactive in encouraging more sustainable forms of development and supporting low-carbon economic development in Tipperary. Positive and creative input to the new County Development Plan review process from citizens, communities and businesses, will help tailor a planning

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<sup>9</sup> <https://www.dccae.gov.ie/en-ie/energy/topics/Renewable-Energy/electricity/renewable-electricity-supports/ress/Pages/default.aspx>

framework for Tipperary that will support the delivery of a low-carbon society, and help attract support from central government, and input is sought and welcomed during the Plan making process.