The Targets

2030 Target
Renewable Energy - 32%

- 145,000 kWh
- 64,300 EV
- 28,000 kWh
- 32.5%

Share of renewable electricity
Share of renewable gas
in the 3 Counties by 2030
Ban on purchase of new diesel and petrol cars by 2030
Energy efficiency

Gap to Target

- €1.8bn
- 3,077GWh
- 1,922 tonnes CO₂

Share of renewable electricity
Share of renewable gas
in the 3 Counties by 2030
2017 Target

10.9% Renewable Energy

5% Energy Efficiency

70% renewable electricity equate to a total installed capacity of

529MW of onshore wind turbine or 1,345MW of offshore wind turbine or 423MW of solar PV
Partners in Strategy Delivery:
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1. Chairperson’s Statement

Ireland is committed to achieving a low carbon and climate resilient future by 2050 and meeting the targets of the EU 2030 Framework for Climate and Energy.

3 Counties Energy Agency (3cea) has been to the forefront of these challenges over many years driving innovative, community-based responses and providing independent, expert and trusted support to all the diverse people and organisations that we work with.

We recognise that current and future developments will offer great opportunities and will allow our communities to harness a range of benefits into the future. Working in partnership with our members, we will continue to create sustainable, green jobs, more sustainable food production options, deepen our energy security, improve the quality of our lives and make our working and built environments healthier for the South East Region of Ireland.

3cea is supporting investment in the low carbon economy, through people, businesses and communities, delivering economic growth. We will also be focussing on improving awareness through exchanging knowledge, providing training and education, and building capacity to create a sustainable energy region.

This 10-year Energy Transition Strategy represents a substantial step forward for 3cea and helps assure a positive, sustainable future for the Region.

John Carley
Chairperson 3 Counties Energy Agency
2. Manager’s Statement

Delivering the Energy Transition is a defining challenge for our generation. It will involve changes for every household, every business and all parts of our society. To be successful, people and organisations will need support. Innovations will need to be piloted and rolled out. There will be a need for co-ordination and learning across organisations and localities. Never has the need for what we do been so clear.

I am honoured to be the Manager of the 3 Counties Energy Agency (3cea), working with exceptional staff and supported by an exceptional voluntary Board. Together and particularly working with local authorities through their transition to delivery as the lead authority under the Climate Action Plan, we have a critical role to play in leading and supporting the Counties of Carlow, Kilkenny and Wexford to reduce their CO₂ emissions and create a more sustainable future.

The process of developing this strategy has helped us to see more clearly the importance of relationships, both across the region and inputting into national conversations. I want to thank all those who have contributed to the development of this pathway for 3cea to drive sustainability towards 2030 and beyond. The fact that communities and their cross sectoral members keep returning to us at 3cea for support, year after year, gives me great encouragement, although I recognise that there is still much work to do to reach out to and include many others across the regions communities. Cementing our need to further raise awareness under the County Climate Actions Plans towards 2030 (SCAP’S).

We pride ourselves on the quality of what we deliver. Embedded in the principle of continuous improvement to achieve more, it upsets us when systems lead to delays and the momentum of the energy transition is endangered, as some people start to lose faith that change is possible. We will do all we can to simplify participation in the energy transition and deliver value for money for all concerned.

As well as working with individuals, we have a strong role to play in helping to aggregate projects and achieve economies of scale at local, county and regional level as appropriate to build the fabric that can sustain beyond 2030 and deliver a truly low carbon region by 2050. Our involvement in streetlamp retrofitting has been a great example of this, with 2020 targets exceeded across the 3 counties and a 65% energy reduction delivered since 2014 in those lamps retrofitted.

We are already co-ordinating approx. €10 million of energy efficiency investment each year under the County Sustainable Energy Action Plans and this strategic plan helps us to chart how this investment will need to grow at least 10 fold to meet the scale of the challenge with €100m per annum needed across the 3 counties by 2022 to reach 2030 targets.

Annually 3cea will continue to oversee and coordinate as the trusted intermediary capital energy reduction investments, renewable energy investments and lever those to grow significantly across Transport, Residential, Commercial and Public Sector to deliver 2030 Carbon Emissions reduction targets through Mitigation. 3cea will continue to acquire and analyse honest data to ensure that the Measurement and Verification of these is completed to support and influence the policy and decision makers on investment.

The spread of skills required within the gambit of activities for a local energy agency are many. Our focus on alleviating fuel poverty is key in residential sector. Utilising this public led sector over coming 3 years to leverage and build up skills, capacity and financial solutions is exciting and challenge that 3cea are looking forward to delivering on.

I am excited by the challenges and looking forward to working with the all communities to make real the vision of our region as a leader in sustainability.

Paddy Phelan
CEO of 3 Counties Energy Agency
3. Vision, Mission & Values

3cea's Vision

Our Region is a leader in sustainable efficient use of locally produced clean energy delivering low carbon homes, jobs and enterprise.

By 2030 we will
- **Be Energy Efficient**: A region that encourages and enables its energy consumers to act responsibly.
- **Use Clean Energy**: A Region that has produces surplus local clean energy supply. (a nett positive energy region).
- **Empower Citizens**: (Citizen participation A region that encourages and enables its citizens) to act and participate easily and effectively in the energy transition with rewards for their investment (time, effort, money and actions).
- **Be Sustainable**: A region that is an attractive place to live, work, play and invest.

3cea's Mission

The 3cea will play a strategic role regionally, partnering with its members and supporting all stakeholders on their energy transition journey to 2030 and beyond.

3cea will continue to play a leading role in the region by initiating exemplar local actions, working in collaboration with our member groups:
- Carlow County Council
- Kilkenny County Council
- Wexford County Council
- County Kilkenny Leader Partnership
- IT Carlow
- Waterford IT
- Chambers of Commerce
- Electricity Association of Ireland
- Irish BioEnergy Association
- Irish Wind Farmers Association.
To achieve our mission, 3cea will:

- **Be the Trusted Intermediary** between the citizen and the system.
- **Offer support** to all citizens, communities and businesses, so that they can become increasingly active participants in navigating the energy transition.
- **Partner** with actors with similar goals and values, to ensure achievement of regional targets by 2030.
- **Develop and deliver projects** which increase aggregation and efficiency at a regional level.
- **Reduce and minimise** barriers and challenges.
- **Prioritise** the reduction of fuel poverty and ensuring that no section of the community is left behind.

**3cea's Values**

*We have framed our values in three pairs, as below. Within each pair, we recognise there is a potential tension that needs to be monitored and managed. (i.e. It matters to us to be independent, but if we are too independent, we could risk become difficult for others to partner with. Equally, if we are too close in our partnerships, we could risk losing the independence that we value etc).*

**We are Independent and Work in Partnership**

3cea is an independent entity of its founders at which its members represent the company whilst sitting upon its board. We will do and say what we believe to be necessary to achieve the region’s energy transition and, at the same time, we will work in partnership with others for the benefit of the region.

**We People-Centred and Evidence-Based**

The energy transition needs to work for, make sense for and include all people and all communities. We will help to make the transition no more complicated than necessary and, at the same time, our work is based on evidence (data, research and reflection). We will seek to use our experience and evidence to contribute to continuous improvements in policy and practice.

**We are Innovative and Reliable**

At 3cea, we enjoy innovating and removing barriers and seek to share our innovations widely. We can be trusted to deliver ongoing services reliably to high standards and to be open, honest and accountable for our results.
4. Building on the Past

Our Origins

3cea was established in 2002, with the support of Carlow County Council, Local Development companies and Kilkenny County Council. Its formal registered name remains ‘Carlow Kilkenny Energy Agency CLG’). Since 2017, it has been trading as ‘3 Counties Energy Agency’, with Wexford County Council joining the partnership.

The original purpose for establishing the agency was to support the local authorities in:

a) Meeting and exceeding their statutory administrative requirements

b) Supporting wider communities within their counties to deliver sustainable programs and actions under County Sustainable Action Plans (updated to County Climate Action Plans in 2020 SECAP)

This purpose arose both as a response to the challenges of reducing emissions and in recognition of the possible inherent opportunities (jobs, food production, energy security, quality of life, health of environment etc).

Achievements

3cea has achieved delivery through combining specific technical expertise and local community knowledge in aggregation of county wide energy efficiency projects of scale since 2012. Coordinating mitigation actions annually at the local level.

It coordinated the winning entries in the community category of the SEAI Best Energy Community Awards in 2013, 2014 and 2016 (as well as runner-up entries in 2015 and 2017).

Working as a trusted intermediary, accessing funding and supporting partners, 3cea has delivered:

- €12 million of savings in energy spending over the last 7 years (50% heating, 16% transport, 35% electricity).
- €34.3 million of capital investment via Better Energy Communities (BEC) and other programmes, supporting over 300 jobs annually.
- 42% - 60% savings in the cost of street lighting across target areas in Counties Carlow, Kilkenny and Wexford, over 55% of Kilkenny lamps changed with overall average of 42%
- A further €1.4 million funding to improve HGV fuel efficiency delivering 10% savings.
Acknowledgements

It has taken considerable effort and vision since 2002 to get us to where we are today, ready for the next level of challenges that lie between here and 2030 and the EU policy to be carbon neutral by 2050.

Our core local authorities, working in partnership with the local development company, showed great foresight to establish 3cea in 2002 as an independent company and a ‘trusted intermediary’ (a role that has become recognised as critical in more recent national policy having been central to EU policy since 1995).

3cea’s previous five-year strategy (2013 – 2018) served it well.

The core members of the Energy Agency have benefitted directly too from their foresight in setting up an independent energy agency as a Company Limited by Guarantor through

- Their own challenges: Carlow and Kilkenny County Councils surpassing their 33% EE target in 2017 and Wexford on track to achieve this by the 2019 deadline set out in the National Energy Efficiency Action Plan 2009.

- EU project Funding
- County SEAPs- drawing promoting almost €40m in energy efficiency actions since 2012 as lead partners across the county wide Better Energy Communities grant programmes distributed by SEAI.

The role of the Leader Companies in delivering their ERDF across the low carbon and energy sector. Such successful animation of Energy Communities since 2002 right up to Energy Towns 2019. Supporting many RE technologies across Biomass, Biogas and Solar filling the void in national support programs having been largely absent, save wind, over the past 18 years in the backdrop of large interventions across.

The role of SEAI as the National Energy Authority as the agent for the DoCCAE to support the Energy Transition. It’s clear and evident that SEAI have benefited from the work of 3cea as have 3cea from the program development and innovations on delivery by SEAI. Partnering to deliver the Energy Transition for all within our regions of activity.
5. Preparing for the Future

“The strategy process has been an interesting one and the challenge will be to become both recognisable nationally and to be very visible delivering on a local level.”

In early 2019, as part of preparing for this plan, 3cea undertook a process of stakeholder engagement. This included:

- Consultation meetings with staff and board members
- Interviews with over 50 key stakeholders across the Energy Community (Residential / Citizens, Transport, Business, Agriculture & Public Sector)
- A citizen surveys

This process has helped us to identify both the challenges we will need to face and opportunities for us to grow and develop our role in making the region’s energy transition happen primarily as follows:

- The need for significant social and behavioural change, including the need to generate support for local energy developments (as an opposing force to nimbysim)
- The need to improve data and understanding re energy consumption patterns (this has led to the development of the regional energy observatory, www.energyhub.ie)
- The need to improve communications in relation to the energy transition
- The importance of highlighting and addressing policy conflicts
- The need to grow the skills and capacity of stakeholders to undertake the energy transition (n.b. in some ways, the transition is likely to get more difficult to achieve the further we get into it)
- The importance of providing support and evidence for politicians and policymakers to take difficult decisions (to set clear priorities, develop carbon taxation etc)
- The need to increase our effectiveness at spreading learning from innovative projects into the mainstream
- The importance of schools and children / young people as catalysts for a better future
- The need to build partnerships and networks, particularly in the local development of renewable energy.
- Achieving a stable, sustainable financial model for Energy Agencies (balancing core funding, research & development funding and project development/delivery funding)

1 Figure 2: Quote from Chair of the Strategic Committee - Dara Lynott
3cea’s Strategic Space

3cea seeks to operate in a strategic position – big enough to have the necessary technical expertise and small enough to know and stay close to our stakeholders. The scale at which we operate has been proven to be optimal in the experience of hundreds of local and regional energy agencies working across Europe through the ManagEnergy Programme.²

By working across the Region, we can pilot innovations and ensure learning is spread. At this scale, we can access funding for our beneficiaries across all energy sectors and achieve economies of scale that wouldn’t be available at a local level.

On occasions, 3cea will work outside its immediate geographical area. This may be appropriate and necessary for larger projects, also possibly to help with the setting up of new energy agencies. Sometimes, work in other areas enables 3cea to develop expertise that it can then bring back for the benefit of the region.

**Being an Intermediary Body:** 3cea sits between local energy users, producers (citizens, businesses and local authorities) and funders and policy makers (local, regional, national and European authorities). By working from this in between position (identified as essential in the 2015 Energy White Paper), 3cea is uniquely well-placed to accelerate the region’s energy transition, helping local energy users and producers to get the best from the system and helping the system to hear the feedback it needs to hear from the local level.

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² [https://www.managenergy.eu/](https://www.managenergy.eu/)

Energy Agencies leading the Energy Transition

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Local Energy Communities and Renewable Energy Communities at the centre of this regions transition.
6. 3cea Strategic Goals & Enablers

The outcome of the consultation process and the review of the policy environment has identified four strategic goals for 3cea over the period 2019-2030 with four Strategic enablers for the goal delivery.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Strategic Goal 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG1</td>
<td>Energy Efficiency</td>
</tr>
<tr>
<td>SG2</td>
<td>Clean Energy (Increase Renewable Energy production locally)</td>
</tr>
<tr>
<td>SG3</td>
<td>Empowered Citizens</td>
</tr>
<tr>
<td>SG4</td>
<td>Sustainability</td>
</tr>
</tbody>
</table>

Based on the above high-level goals, 3cea will work to achieve the following strategic objectives to enable Energy Transition to accelerate.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Strategic Enablers 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE1</td>
<td>Awareness and Capacity Building</td>
</tr>
<tr>
<td>SE2</td>
<td>Partnership &amp; Network Building</td>
</tr>
<tr>
<td>SE3</td>
<td>Market &amp; Employment Development</td>
</tr>
<tr>
<td>SE4</td>
<td>Data Management and Research</td>
</tr>
</tbody>
</table>
Knowledge Sharing 2019. Polish Energy Agency Mentoring provided by Kilkenny County Council and 3cea to support European wide experience to deliver mitigation on the ground at the local level.
7. Appendices

Priority Issues from Stakeholder Engagement Process

In distilling the outcomes of the consultation processes with the staff and key stakeholders several priority issues that will impact on 3cea over the short- and medium-term can be identified. These priority issues are summarised in the following table.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Priority Issue</th>
<th>Time-frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>The need for a change in social attitude towards energy usage and climate change.</td>
<td>Short-term</td>
</tr>
<tr>
<td>C2</td>
<td>The lack of capacity for public, business and community sectors to transition to a low-carbon and climate-resilient society.</td>
<td>Short-term</td>
</tr>
<tr>
<td>C3</td>
<td>Inherent national policy conflicts (such as new-build housing and improving existing housing stock).</td>
<td>Short-term</td>
</tr>
<tr>
<td>C4</td>
<td>Impact of increasing carbon taxation might result in instances of fuel poverty amongst the most disadvantaged.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>C5</td>
<td>There is generally a lack of capacity to engage with local communities on matters relating to transition.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>C6</td>
<td>Voluntary action and activity embody considerable limitations relating to capacity, quality and sustainability of response.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>C7</td>
<td>3cea exists in a poorly defined operational space with effectively two other agencies, each with a distinct ethos and approach.</td>
<td>Short-term</td>
</tr>
<tr>
<td>C8</td>
<td>3cea does not have a well-developed public profile resulting in the potential for a lack of a coherent offering.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>C9</td>
<td>There is currently no coherent support for communities wishing to transition to a low-carbon and climate-resilient society.</td>
<td>Long-term</td>
</tr>
<tr>
<td>C10</td>
<td>There is a relative concentration of Energy Agencies in South East resulting in a lack of national strategic coherence.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>C11</td>
<td>The emergence of Eastern and Midlands Climate Action Regional Office represents a significant potential threat and opportunity.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>Reference</td>
<td>Priority Issue</td>
<td>Time-frame</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>O1</td>
<td>The public sector can show leadership by demonstrating key aspects of applied energy efficiency.</td>
<td>Short-term</td>
</tr>
<tr>
<td>O2</td>
<td>Possible expansion to other counties not currently served by an Energy Agency.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>O3</td>
<td>Further capitalise on project management expertise.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>O4</td>
<td>Become key proponent of the circular economy as a mechanism for encouraging climate action.</td>
<td>Long-term</td>
</tr>
<tr>
<td>O5</td>
<td>Effectively harness Measure Three of the Rural Development (LEADER) Programme.</td>
<td>Short-term</td>
</tr>
<tr>
<td>O6</td>
<td>Develop an appropriate community engagement model.</td>
<td>Short-term</td>
</tr>
<tr>
<td>O7</td>
<td>Increase level of integration between 3cea and the Local Authorities in supporting Climate Mitigation and SDG.</td>
<td>Short-term</td>
</tr>
<tr>
<td>O8</td>
<td>Explore a CARO sub-office role of the core local authorities.</td>
<td>Short-term</td>
</tr>
<tr>
<td>O9</td>
<td>Address the increasing demand for technical support at local level.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>O10</td>
<td>Develop or partner with the a training and awareness-building offering for delivery through Local Authorities and local level.</td>
<td>Short-term</td>
</tr>
<tr>
<td>O11</td>
<td>Enhance engagement with young people.</td>
<td>Medium-term</td>
</tr>
<tr>
<td>O12</td>
<td>Establish enhanced operational partnerships with Tipperary Energy Agency and the South-East Economic Development Office in addition to the Eastern and Midlands Climate Action Regional Office</td>
<td>Short-term</td>
</tr>
</tbody>
</table>
The National Climate Action Plan places the Local Authorities as the closest arm of the state to their communities.

This strategy has set about the actions which the 3 Counties will deliver in the context of the overall Regional Energy Transition challenge to reach 2030 targets as set out in the European Energy Directives as they are approved by the commission and adopted by the member states.

3cea will support the coordination and collaboration of local actions on a regional basis to bring the Climate Adaptation and Mitigation County Plans together to support Jobs, Skills, Green Enterprise and Generational Sustainability across the South East Region.
Sectorial Challenge

Residential

- Number of homes in the 3 Counties: 109,214
- Number of homes below BER equivalent BER in the 3 Counties: 102,000
- Minimum number of existing homes to upgrade to ‘G’ equivalent BER by 2030: 32,166
- Capital Expenditure Required: €758.82m
- Number of fuel poor homes in the 3 Counties: 37,132

Transport

- Number of cars in the 3 countries in 2017: 145,000
- Number of Goods Vehicles in the 3 Counties in 2017: 64,000
- Increase the number of EVs by 2030: 28,000
- Ban on purchase of new diesel and petrol cars by 2030: 565 GWh

Public Sector

- 2009 Primary Energy Consumption Baseline: 690 GWh
- 2017 Primary Energy: 565 GWh
- 2030 Public Sector Target Primary Energy Consumption: 345 GWh
- 50% increase in energy efficiency from 2009 baseline: 2030 Target
**Commercial/SME and Industry**

- **32,609**
  - Number of Businesses in the 3 Counties
- **2,163**
  - Total Energy in 2017 (GWh)
- **1,524**
  - 2030 Target (GWh)
- **178.7m**
  - Capital Expenditure Required to Reach 2030 Targets
- **638.3m**
  - Energy Savings by 2030 (GWh)
- **€37m**
  - Cost Savings by 2030

**2030 Energy Consumption by Sector**

- **2.4%**
  - Agriculture
- **4.7%**
  - Public Services
- **20.6%**
  - SME/Commercial and Industry
- **32.9%**
  - Residential
- **39.6%**
  - Transport

**2017 Energy Consumption by Sector**

- **297 GWh**
  - Agriculture
- **565 GWh**
  - Public Services
- **2,163 GWh**
  - SME/Commercial and Industry
- **3,480 GWh**
  - Residential
- **3,985 GWh**
  - Transport

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**Agriculture**

- **418**
  - Crop area (kha) in the 3 Counties
- **172,800**
  - Number of Dairy Cows in the 3 Counties
- **626.03**
  - Equivalent kilotonne CO₂ emissions
- **1,400**
  - Number of bulls in the 3 Counties
- **4.05**
  - Equivalent kiloton CO₂ emissions

**By 2030**

- A total capacity of **315 MW** of biogas plant has to be installed to balance the total emissions from the livestock.

---

**2030 Energy Consumption by Sector**

- **Total 7,412 GWh**

**2017 Energy Consumption by Sector**

- **Total 10,489 GWh**
### 2030 Energy Consumption by Fuel Type

- Coal & Peat: 0%
- Non-renewable waste: 0.3%
- Solar: 0.3%
- Geothermal: 1%
- Biomass: 2.6%
- Liquid Biofuel: 3.1%
- Biogas: 5.6%
- Fossil Gas: 20.2%
- Electricity: 27.7%
- Oil: 24.1%

### 2017 Energy Consumption by Fuel Type

- Solar: 0.1%
- Biogas: 0.1%
- Non-renewable waste: 0.2%
- Geothermal: 0.4%
- Biomass: 1.1%
- Liquid Biofuel: 1.3%
- Coal & Peat: 4.3%
- Fossil Gas: 13.1%
- Electricity: 30.6%
- Oil: 48.6%

### 2030 CO₂ Emission by Sector

- Agriculture (Livestock): 45.3%
- Transport: 21%
- Residential: 17.4%
- SME/Commercial and Industry: 11.5%
- Public Services: 3%
- Agriculture (Energy-related): 1.8%
- Total: 2,262,000 tonnes

### 2017 CO₂ Emission by Sector

- Agriculture (Livestock): 49%
- Transport: 18.9%
- Residential: 17.4%
- SME/Commercial and Industry: 10.3%
- Public Services: 2.7%
- Agriculture (Energy-related): 1.6%
- Total: 4,184,600 tonnes
Measurement and Reporting

3cea actions

1. Monthly internal Reports
2. Annual Report to Board
3. Publication on Regional Energy Observatory of Actions
4. Review and adaptation of the 3cea annual work plan baselined across the 10-year strategy

Review it annually against and report through Regional Energy Observatory

KPI linked to Goals

- Locally – By County
- Regionally – 3 Counties
- Nationally – Counties and Regions performance vs National
- CO₂ tonnes saved
- € energy spend saved
- % Clean Energy
- Jobs Created
- Income for 3cea
- Appropriate internal resources
- External partnerships
- Outcome Indicators
- Process Indicators