

NO	Action	Time Frame	Indicators	2019 Outcome
ENERGY PLANNING				
E1	Create Energy Master Plan for the Dublin Region	2018 onwards	Website with e-Map	The Dublin Region Energy Masterplan is progressing as planned. The team have now developed a model of the 'current situation' of energy demand and supply in the residential, commercial and public sector buildings on an hourly basis. This model has been coded in Python to allow easy manipulation and automatic update of data into the model from online sources. New sources of data have been incorporated, such as the smart gas and electricity meter trial data, and we are now incorporating new data from SEAI on all public buildings in Dublin and the BER data broken down by small areas, which allows us to more accurately estimate energy demand in the residential sector. We have experienced some delays due to accessing data from other organisations, but we are working with the CSO and NTA on accessing updated data based on the 2016 Census, providing special tabulations that we can incorporate into the model. Work has also started on identifying all the low-carbon potential in the Dublin region, starting with local sources of fuel and heat which can be used to offset reliance on fossil fuels currently used for heating. An analysis of the electricity grid impacts has also begun, using data from ESB networks, looking at distribution grid capacities and the effects of increased demand for EV charging, heat pumps and data centres on the Dublin grid, and the possible conflicts between these demands in the future. We have also arranged a workshop with the Planning group established by CARO to get planning feedback and input into the masterplan model.
E2	Requirement for all new developments to be district heating-enabled in Poolbeg West, North Lotts and Grand Canal SDZs	Ongoing	# of buildings DH-enabled	Poolbeg West SDZ received approval from An Bord Pleanála in 2019, with a requirement to install the necessary infrastructure to allow all buildings to connect to the District Heating Network. The developer has submitted a infrastructure plan for approval, which includes the DH pipes as part of the sites utility infrastructure. Planning submissions in respect of the built environment are expected in 2020. Docklands' SDZ – development in the Docklands SDZ is ongoing with 46 building completed which are DH enabled and 28 Under Construction, which are conditioned to be DH enabled.
E3	Prepare Dublin City Sustainable Energy and Climate Action Plan	2019	SECAP complete	DCC SECAP complete in Q3 of 2019. The CoM SECAP is based on the Dublin City CCAP and the Dublin City Baseline Emission Report 2016, the actions, energy and emission baseline inventory, adaptation baseline, the risks and vulnerability assessments were extracted from the CCAP and uploaded to the CoM SECAP web template. The Dublin City SECAP overview can be found on the CoM website https://www.covenantofmayors.eu/about/covenant-community/signatories/action-plan.html?scity_id=11815
E4	Evidence-based Climate Change Chapter in City Development Plan 2022-2028	2020 onwards	Chapter with policies and development management standards	CARO met with DCC Planners regarding the Variation to the City Development Plan. CARO published a Discussion Paper titled Planning for Climate Action in Dublin City / County Development Plans.
ENERGY MANAGEMENT				
E5	Develop ISO 50001 compliant energy management system	Ongoing	System developed and ISO 50001 compliant	ISO50001 Internal Auditing training completed.

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E6	Annual Monitoring and Reporting to SEAI	Annually	DCC's energy use monitored and reported	The M&R process was completed for 2018. SEAI's 2019 Public Sector report is due out in January before the Public Sector Energy Conference. Preliminary data indicates that DCC have reached their 2020 energy efficiency target of 33% two years early. With new energy efficiency targets released by the government SEAI are currently looking at updating the M&R methodology. They have released a consultation paper looking for input to certain aspects of the new proposed methodology. Codema are currently drafting a response to this consultation.
E7	Publish Energy Review annually	Ongoing	Review published,	The 2018 Energy Review was published in June 2019. The review clearly demonstrated where energy is used within the DCC's significant energy users, what drives their consumption, and where the greatest energy saving potential is. The review also identifies where DCC is currently in relation to public sector energy targets, and what areas need to be addressed in order to meet these targets between now and 2020.
			# of recommendations implemented	The review can be viewed on the Codema website
E8	Display Energy Certificates for public buildings	Ongoing	Compliant with legislation	In 2019 Codema published 44 Display Energy Certificates for DCC buildings over 250m2 and frequently visited by the public. The certs were sent to each facility with an information booklet about Display Energy Certificates and also what is needed in relation to energy savings to achieve the next energy rating.
ENERGY EFFICIENCY & RENEWABLES				
E9	Dublin District Heating System	2023	# of buildings connected	DCC are progressing the design of the District Heating network with a view to commencing construction of further sections of the distribution network in 2020.
E10	Identify sites for trialling renewable energy projects, including solar PV	2019	Properties identified, project plans	Solar PV being installed on 4 buildings as part of EPCII works.
E11	Energy efficiency works in 30 Council owned and operated buildings	Ongoing	# of buildings upgraded	25 sites received various upgrade works under 2019 Better Energy Community Scheme programme. All works were completed by the 30th of September 2019.
E12	Dublin Fire Brigade energy efficiency works	Ongoing	# of buildings upgraded	DFB are currently looking to commence the design process for the redevelopment of North Strand and Dolphins Barn Fire Station. DFB is also looking to commence the design process for the redevelopment and relocation of Stanley Depot. DFB with the aid of Codema have recently gone to tender for the complete design and install of the heating system within the O'Brien Institute on the Malahide Road. The procurement process used was a Energy Performance Related Payment (EPRP) which incentivises the designer and contractor to remain involved with the project until pre-agreed energy savings are established.
E13	Continue the Fabric Upgrade Programme of housing stock	Ongoing	Completion of 300 retrofits per annum, to C1 level or better	Phase Two of the programme commenced in March 2018. 360 houses upgraded in 2018 & 412 upgraded in 2019. Funding allocation for 2020 has yet to be announced.
E14	Develop and implement Public Lighting Master Plan	2019	% public lighting converted to LEDs	Project tender documentation and technical specifications progressed and Project was formally lodged with DPER. Currently on track to publish stage 2 tender documents in Q1 2020.
E15	Landlord lighting upgrades in 15 complexes across the City	Ongoing	# of lights retrofitted	After the initial scoping exercise the project requires further design process and funding stream identification. The outcome of the initial scoping exercise was to divide the project into smaller manageable call off contracts.
E16	Facilitate EPC project in 7 leisure centres/dry sports centres across Dublin City	2019	EPC project delivered	Works commenced and progressing well.
E17	Install PV panels on Council buildings in Dominick Street, North King Street, Cornamona Court	2019	PVs installed	Installation of panels included in three ongoing construction projects - Handovers due : O'Devaney Gardens (2020) Dominick St (2021) Cornamona (2021)

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E18	New nZEB Super Depots	2020	Completion of depots, # of depots merged into super depots	: Procurement of a Works Contractor is on-going under the Competitive Procedure with Negotiation. A redesign of certain elements of the NCOD are currently in hand and when ready will be issued to the tenderers for Best and Final Offer bids. The expected time-frame for bids is Q1 2020.
RESEARCH & INNOVATION				
E19	Develop proposal to use Docklands SDZ to test smart public lighting infrastructure	2020	Proposal developed	See E14
E20	Expand and develop Small Business Innovation & Research (SBIR) programme	Ongoing	Energy and climate change challenges identified for yearly SBIR challenge	A number of projects are in train under this initiative, most of which relate to sustainable transport and will be brought to the March meeting of the SPC
E21	Work with CARO on research and project proposals for grant funding	2019 onwards	# of research projects initiated	CARO are involved in discussions with researchers in the 4 main Dublin Universities and are also working closely with Climate Ireland on developing a GIS project.
E22	Develop an understanding of deep geothermal resources in Dublin through the GEO-URBAN Project	2021	Report complete	Work Package 2 Completed. Currently processing the Geophysical data from survey works to prepare a 3D model of the subsurface strata of the project area within Dublin City.
ENERGY AWARENESS				
E23	Continued staff energy awareness in Council buildings	Ongoing	# of staff participating in events and activities	DCC organised three Let's Talk Climate Action Workshops in 2019. These half day workshops are aimed to assist you better understanding the need for climate action at a local level and build local climate knowledge.
E24	Engage with students about energy and buildings through CPD Programme/Engineers Week	Ongoing	# of students participating in events and activities	CPD Development Committee in partnership with Engineers Irelands STEPS Young Engineers Award programme in November 2019 gave presentations/webinars to over 35 primary schools reaching over 900 students. The CARO office have also engaged on several occasions with the Comhairle naon Óg including sitting as a panel member at the recent meeting of the National COMhairle in Dáil Eireann. Staff from that office have also met with and spoken to Transitions year students.
E25	Provide citizens with energy awareness material in public buildings	Ongoing	# of materials available in public buildings	In excess of 1200 home energy saving kits loaned from Public Libraries since the scheme launched and Guide to Home Energy Savings and Guide to Energy Saving Lightbulbs leaflets were distributed to Council offices and libraries again before Christmas
E26	Provide City Council tenants with energy awareness materials at home, particularly at the time of taking up new tenancy	Ongoing	% tenants receiving information	Tenant Manual provided by City Architects on occupation of new dwellings includes a section on Energy Awareness. Specification systems operations manual are also provided. Both are written in 'plain English'. An addition to the existing tenant handbook is also under review
E27	Monitor and develop the Home Energy Savings Kits in DCC's public libraries	Ongoing	# of kits borrowed	Home Energy Saving Kit contains 6 practical tools to assess your home's energy efficiency and identify areas for improvement. DCC public libraries were the first to pilot the scheme in 2016, which has now expanded to 67 libraries across Ireland. This includes all 21 DCC library branches – to date, the kits have been borrowed 1,221 times from DCC libraries. Top 5 libraries: Raheny, Cabra, Rathmines, Central Library & Ballymun

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ENERGY & BUILDINGS - ACTIONS AWAITING BUDGET				
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E28	Develop research and funding opportunities for renewable and efficiency projects	2018 onwards	Research and funding management group established	Both Codema and the CARO office work with City Council staff both together and individually in investigating and following up on funding opportunities. It is proposed to apply for CAF funding for the potential to install PV systems on all suitable local authority buildings in the Dublin region. The works will also include the potential for LED lighting upgrades to reduce the quantity of electricity used in the facilities. Staff in Flood Management, Waste Management, Smart Dublin and the CRO office have also successfully collaborated on a Climathon project and have reached the World Climathon final. There may be funding opportunities as a result of this. See also E32
E29	Undertake programme of flat complex regenerations	2022 onwards	Complete 200 regenerated flats to nZEB standard each year from 2022	9 projects at initial stages of design. 1 approval to date to appoint consultant design team. Other applications to DHPLG pending. 1 no. project (St. Finbarr Court, exist. 19 homes, prop. 46 homes) Part 8 July 2020. 3 no. projects (Glin Court, exist. 14 homes, prop. 25+ homes; Dorset Street, exist. 113 homes, prop. 158 homes; Emmet Road, prop. 470 homes) Design Team (DT) appointment underway. 2 no. DT competitions underway (St. Andrew's Ct, Grand Canal Basin, prop. 122 homes). 18 no. Feasibility Studies underway, completion Q2 2020. Min. 3 no. further DT appointments by Q2 2020 (Pending Department Approvals).
New Actions				
E30	The City Council Energy Review (mid 2019) and going forward, will include a glide path illustrating the energy efficiency and GHG emission targets for the City Council up to and including 2030.	2019 onwards	Glide path included	The 2019 Energy Review included a glide path illustrating the energy efficiency and GHG emissions targets for the City up to and including 2030.
E31	Appendix II: Total Emissions in Dublin City of the CCAP, will also be updated every two years in accordance with EU Covenant of Mayors for Climate & Energy protocol.	2022	Baseline updated	Total energy use and emissions will be updated every two years for Dublin City Council and every five years for Dublin City (in line with the publication of the Census results)

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E32	The City Architects Division of Dublin City Council is committed to participating with Irish Green Building Council and other European organisations in BUILD UPON 2. This is a project funded under the EU's H2020 programme and will run for two years from May 2019. It will work to develop long-term building renovation strategies, linked to EU and national policy, with the aim of delivering a highly efficient and decarbonised building stock by 2050.	June 2019 to June 2021	Complete participation in accordance with project Work Packages.	Both projects ongoing Two projects ongoing with Irish Green Building Council (IGBC): 'BUILD Upon 2' and 'TURNKEY' - ongoing collaboration between City Architects and SEAI Additional project ('Drive Zero') in collaboration with TUD to examine off site fabrication for extensions (House Extension Programme - Pilot Project) to commence 2020
E33	The City Architects Division of Dublin City Council is committed to participating with the RIAI in particular the Sustainability Task Force in seeking new and innovative approaches to Climate action in the built environment	Ongoing	# of meetings with task force	City Architects attended 5 of 7 meetings to date. City Architects to appoint new representative to attend RIAI Sustainability Task Force.
E34	Identify site for trialling renewable energy projects, including solar PV and Geothermal.	2020 onwards	# of site identified	See E10, E17 and E28. In relation to the deep geothermal project 'Geothermica' the identification of a site is ongoing.
E35	The City Council will undertake a research study to investigate the Lifecycle Assessment of Traditional and New Construction Methods for Residential Projects in Dublin with a view to formulating initial recommendations by end 2019.	2020 onwards	Publish research report	Phase 1: Report prepared in collaboration with Trinity College Dublin. Presentation given to City Architects in late November 2019. Final Report to be circulated. Phase 2: Sustainability Consultants appointed December 2019 to complete Carbon Audit of existing flat estate block at Dominick Street West. Architect / Urban Designer also appointed to develop a number of options. These also to be assessed by Sustainability Consultant. Feasibility Report to be completed end March 2020. Final report due in September 2020
E36	In all building projects, new build or retrofit, Swift Bricks or other nesting sites for swifts will be provided where practicable. The presence of swift breeding sites will be identified to ensure that known breeding sites are not lost as a result of construction work.	2020 onwards	# of sites provided	This has been Included in specification for St Teresas Gardens and 4 No volumetric projects tendered. Bat bricks to be incorporated into O' Devaney Gardens construction drawings.
E37	Develop maintenance and condition survey programmes for Council owned historic and ancient monuments that are informed by climate change impacts.	2020	# of surveys completed	Awaiting action

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E38	Conduct research and seek to develop City Council based case studies on appropriate and sensitive retro-fitting/energy upgrading of traditional buildings to inform works both to Council owned properties and to guide private owners.	Ongoing	# of case studies developed	The Heritage Officer is progressing the publication of Built to Last in the coming year. This is based on case studies on appropriate and sensitive retro-fitting/energy upgrading of traditional buildings to inform works both to Council owned properties and to guide private owners.
E39	All new build projects to achieve NZEB Standard.	2018 onwards		Volumetric bundle 1 projects to incorporate Exhaust Air Heat Pump (EAHP) and highly insulated and highly air-tight fabric to achieve standards.