

# Corporate Policy and Strategy Committee

10.00am, Tuesday, 4 December 2018

## Sustainable Energy Action Plan: Further Update

Item number	7.6
Report number	
Executive/routine	Routine
Wards	All
Council Commitments	<a href="#">C18</a>

### Executive Summary

---

At its meeting on the 2 October 2018, the Corporate Policy and Strategy Committee agreed to continue consideration of the [Sustainable Energy Action Plan](#) update report and to receive a further update on the progress of the Sustainable Energy Action Plan (SEAP), specifically reporting progress against the target of reducing carbon emissions by 42% by 2020. This activity is aligned with the audit of sustainability being undertaken by the Edinburgh Centre for Carbon Innovation (ECCI) which is assessing the resourcing of the SEAP.

## Sustainable Energy Action Plan: Further Update

### 1. Recommendations

---

- 1.1 The Committee is asked to:
  - 1.1.1 Note that an update on the SEAP was presented in October 2018 and was continued in order for progress against the SEAP to be reported;
  - 1.1.2 Note the progress against each of the SEAP actions as set out in appendix 1;
  - 1.1.3 Note that an Annual Review of progress is due to be presented to Committee in June 2019 and that progress updates will be reported every two months to this Committee; and
  - 1.1.4 Note that the SEAP is aligned to the Sustainability Audit which has been undertaken by the ECCI.

### 2. Background

---

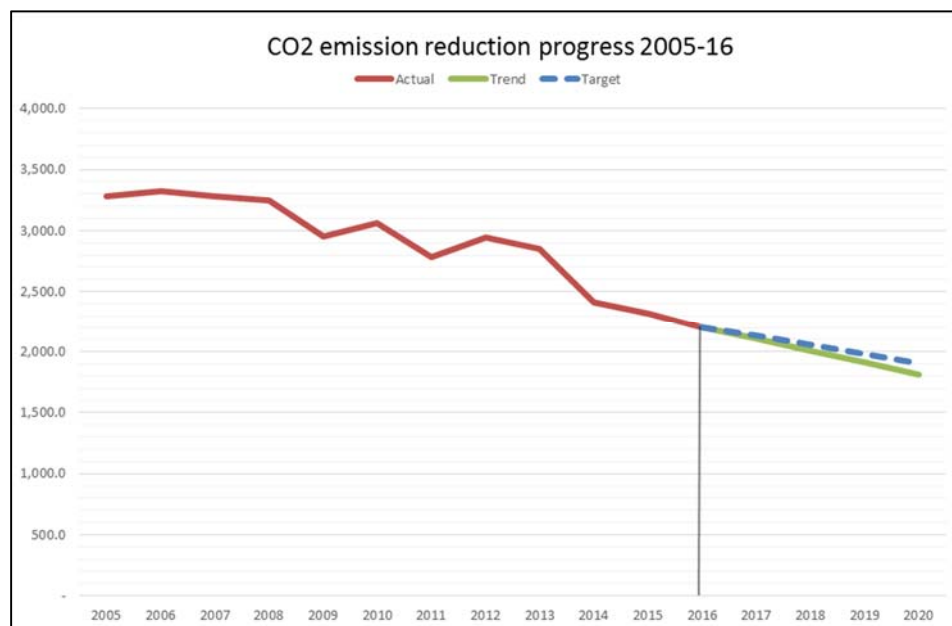
- 2.1 The SEAP was approved by Corporate Policy and Strategy Committee in [February 2015](#) and set ambitious targets for the city to reduce carbon emissions by 2020.
- 2.2 At the 2 October 2018 meeting, the Committee received an update report on the Council's SEAP.
- 2.3 The Committee agreed to continue consideration of this issue for one cycle to receive a further update.
- 2.4 This activity is aligned to the findings of the sustainability audit being undertaken by the ECCI.

### 3. Main Report

---

- 3.1 The report of 2 October highlighted that carbon emissions across the city have reduced by 33% between 2005 and 2016 against a target of a 42% reduction by 2020. The largest fall in emissions is from the domestic and industrial/commercial sectors, mainly from electricity consumption.
- 3.2 However, emission reductions from gas, especially from domestic properties, have not decreased significantly while emissions from transport (mainly freight transport) have shown an increase over the last two consecutive years of monitoring in 2015 and 2016.

- 3.3 On 2 October members indicated that they required reassurance that the SEAP is on course to meet its target by 2020.
- 3.4 Progress on the SEAP is monitored in two ways:
- 3.4.1 there is statistical analysis undertaken by the UK Government Department of Business, Energy and Industrial Strategy (BEIS). The BEIS statistics are used by all local authorities to measure progress towards carbon reduction and it is these statistics that are reported annually to Committee; and
  - 3.4.2 monitoring and reviewing the overall SEAP programme using a 'traffic light' system. The programme consists of over 100 projects, with a majority of these being taken forward by Council service areas although some will be delivered by external partners.
- 3.5 Progress is regularly reviewed throughout the year with actions taken if projects appear not on track. In addition, because there is still a gap of 12% in reaching the overall target, new projects are added to the programme wherever possible. This approach, combined with the BEIS statistics, tries to ensure that there is as robust an assessment of progress as possible.
- 3.6 Figure 1 below shows the progress towards Edinburgh's carbon reduction between 2005 and 2016 (Appendix 1 details the figures). The red line shows the actual reduction while the dotted blue line shows the target to be achieved. If progress with the annual reduction continues in line with the current trend the Council is on course to meet its target by 2020.



**Figure 1: Progress in Carbon Emissions Reduction 2005-2016**

- 3.7 As mentioned in paragraph 3.2, the reduction in emissions from gas, particularly from domestic properties is a particular challenge but there are some actions which the Council is taking in respect of Council and owner occupied properties in the city to help address this, as outlined below.

- 3.8 The Energy Efficiency Standard for Social Housing (EESSH) is a Scottish Government initiative which aims to improve energy efficiency in social housing by December 2020. Over the last five years this Council has embarked on a comprehensive EESSH programme for all 20,000 council homes to ensure not just compliance with the standard, but to go beyond this and where possible exceed it to achieve an Energy Efficiency Rating of C or above.
- 3.9 The Scottish Government's Home Energy Efficiency Programme Scheme: Area Based Scheme (HEEPs:ABS) programme provides funding for energy efficiency measures in owner occupied homes including wall and roof insulation and repair work to the fabric of a building. In 2016/17 it is estimated that home owners in the city have saved around £70,000 per year in energy and fuel bills with a carbon saving of 336 tonnes per year. This work is on-going and will continue to deliver improvements.
- 3.10 Reducing the emissions from vehicles, especially freight vehicles is more challenging for the Council to influence with transport emissions actually increasing over the last two years.
- 3.11 The Council is involved in the ECO Stars initiative which encourages freight operators to reduce their transport related emissions by driving in a more eco-conscious way. To date over 200 operators have joined the Edinburgh scheme (their combined responsibility is for around 8,000 vehicles).
- 3.12 In addition, the emerging City Mobility Plan will include actions to address emissions from freight.
- 3.13 Regular monitoring of projects on an ongoing basis will continue to maintain momentum. In addition new projects will continue to be added and monitored as they arise.

### **Sustainability Audit**

- 3.14 At its meeting on [28 June 2018](#), the Council noted the intention to carry out a sustainability audit of the Council's policies and activities. ECCI were asked to carry out the audit and the outcome of this is being reported as part of another report on today's agenda.
- 3.15 The outcome of this audit will be used to define the Council's approach to sustainability in the future. As well as setting targets for beyond 2020, this will also need to take account of emerging challenges and be as ambitious as the current SEAP set out to be.

## **4. Measures of success**

---

- 4.1 The key measures of success for the SEAP is a reduction in carbon emissions across the city. Other measures however will include a reduction in the number of households in fuel poverty, the amount of renewable energy generated across the city and the number of local energy projects initiated.

- 4.2 For the Council a measure of success will be the potential savings in energy consumption across the estate in terms of buildings and infrastructure. The SEAP will also be a key programme in meeting the Coalition pledge to reduce carbon.

## **5. Financial impact**

---

- 5.1 A number of SEAP projects may result in both financial savings for the Council as well as a potential revenue stream although further work will be needed to determine these benefits. These will include energy generation, renewable and storage projects as well as projects on electric vehicles. This work will feed into the transformation change strategy.

## **6. Risk, policy, compliance and governance impact**

---

- 6.1 By implementing a SEAP, the Council is mitigating any risks of non-compliance with the Climate Change (Scotland) Act 2009. In addition, a number of the SEAP projects will assist the mandatory carbon emissions reporting under the Public Bodies Duties introduced by Scottish Government.
- 6.2 The SEAP also complements or directly links to a number of other key strategies including the City Housing Strategy; Local Development Plan and associated guidance documents; the Local Transport Strategy and Sustainable Edinburgh 2020. In addition, the SEAP feeds into key programmes such as the City Deal, City Vision and Scottish Cities Alliance low carbon programme.

## **7. Equalities impact**

---

- 7.1 There are no adverse equalities impact associated with this report.
- 7.2 By delivering affordable energy and reducing fuel poverty, the SEAP will contribute positively to key equalities outcomes of reducing inequality, poverty and deprivation.

## **8. Sustainability impact**

---

- 8.1 The SEAP will have a positive impact on sustainability through actions specifically designed to lower carbon emissions through energy efficiency, encouraging sustainable travel, resource efficiency and encouraging low and zero carbon energy generation. This will increase the city's resilience to climate change impacts.
- 8.2 The projects within the SEAP will benefit a sustainable Edinburgh by helping alleviate fuel poverty in communities and by improving both quality of life and the environment. It will assist in making local businesses more resilient, provide business opportunities for local suppliers, and provide local people with more

disposable income, providing a boost to the local economy and a knock on effect in terms of employment opportunities.

## **9. Consultation and engagement**

---

- 9.1 There is ongoing engagement on the SEAP with a wide range of organisations. The SEAP is a standing item on the Edinburgh Sustainable Development Partnership and updates are provided on a regular basis.

## **10. Background reading/external references**

---

- 10.1 N/a

### **Paul Lawrence**

Executive Director of Place

Janice Pauwels, Sustainable Development Manager

E-mail: [janice.pauwels@edinburgh.gov.uk](mailto:janice.pauwels@edinburgh.gov.uk) | Tel: 0131 469 3804

## **11. Appendices**

---

- 11.1 Appendix 1 – Table Detailing Sectoral Carbon Emissions in Edinburgh 2005-2016.  
11.2 Appendix 2 – Sustainable Energy Action Plan Progress Update.

## APPENDIX 1

**Table 1: Sectoral Breakdown of Carbon Emissions in Edinburgh 2005-2016**

YEAR	SECTORAL EMISSIONS			TOTAL
	Industrial and Commercial	Domestic	Transport	
<b>2005</b>	1,387.5	1,183.4	707.0	<b>3,277.9</b>
<b>2006</b>	1,441.1	1,178.4	701.1	<b>3,320.6</b>
<b>2007</b>	1,415.7	1,163.0	706.2	<b>3,284.9</b>
<b>2008</b>	1,413.9	1,160.7	669.9	<b>3,244.4</b>
<b>2009</b>	1,251.6	1,041.1	657.1	<b>2,949.8</b>
<b>2010</b>	1,313.5	1,104.0	646.0	<b>3,063.5</b>
<b>2011</b>	1,177.1	973.6	629.5	<b>2,780.2</b>
<b>2012</b>	1,270.6	1,059.4	617.2	<b>2,947.2</b>
<b>2013</b>	1,218.0	1,023.8	610.6	<b>2,852.4</b>
<b>2014</b>	937.2	857.0	614.9	<b>2,409.1</b>
<b>2015</b>	868.0	829.5	624.6	<b>2,322.0</b>
<b>2016</b>	786.0	778.3	638.7	<b>2,203.1</b>

## SEAP Annual Review 2017-18

### APPENDIX 2: REVIEW OF SEAP ACTIONS

Project started/ongoing/completed/ No concerns			Project in development/might be resourcing or funding issues but commitment to take forward. Some concerns	Project has stalled due to resource/ funding/other constraints. In danger of not progressing		
Lead	Project	CO <sub>2</sub> (kt) reduction	Comment		Status as at May '18	Status as at Nov '18
SEAP PROGRAMME 1: ENERGY EFFICIENCY			Sub Total : 141.55ktCO <sub>2</sub>			
CE  Sustainable Development (SD)/Property	RE:FIT Project	8.865	Energy retrofit programme for the largest energy consuming properties in the Council. Eight properties now completed with measures installed in seven schools: St Thomas HS, Sciennes Primary, Leith and Trinity Academies, Balerno and Currie HS and Wester Hailes Education Centre and the City Chambers. Four CHP units have been installed in Trinity, Balerno, Currie and Wester Haile. The last building for works is the Usher Hall.		Completes in July 2018	PROJECT COMPLETED
CEC  Property/SD	RE:FIT Phase 2	7	Second phase of energy retrofit programme for non- domestic buildings. As Phase 1 completes in July – consideration being given to taking forward other key properties for retrofit – dependent on the outcomes and review of Phase 1.		Need review of Phase 1 before Phase 2 begins.	Reviewing outcomes of Phase 1
CEC Roads Services	Street Lighting Retrofit	20.275	In January 2018, a three-year contract was awarded to Amey for the replacement of approximately 54,000 street lights across the city with Low Emissions Diodes (LED) making the whole estate more energy efficient.		Due for completion in 2020	Status unchanged
Edinburgh Leisure	Carbon Managemen t Programme	10.685	Ongoing programme from Edinburgh Leisure for energy efficiency across its estate including the installation of controls, pool air handling units, CHP and high efficiency controls. 2017 saw the first full year of operation of three 20kW CHPs at Swim Centres at Leith Victoria, Portobello and Warrender.		Ongoing Programme	Status Unchanged



## SEAP Annual Review 2017-18

CEC - Property	CEC – Properties Energy Efficiency Upgrades	13.59	Large scale BMS upgrades. Now in year 3 of a four-year programme, with BEMS in over 50 operational properties now upgraded in line with the Council's BEMS Specification.	Ongoing Programme to 2020	Status Unchanged
CEC - Property	CEC – Properties Energy Efficiency Upgrades	2.24	Oil to gas boiler conversion. Fox Covert Primary School and Sciennes Primary School have converted from oil to gas heating. A couple of smaller properties that are fuelled from oil remain but these will be phased out where possible as plant is replaced.	Ongoing programme	Status unchanged
CEC - Property	CEC – Properties Energy Efficiency Upgrades	0.125	Heating conversion electric to ASHP. Nether Currie Primary School has now been converted from all electric heating to air source heat pumps.	<b>Completed</b>	<b>PROJECT COMPLETED</b>
CEC - Property	CEC – Properties Energy Efficiency Upgrades	0.6	Lighting conversions. The advantages in LEDs, both in terms of energy and maintenance, have resulting in them being the fitting of choice for lighting refit. A number of large scale LED projects have been completed under both RE:FIT and SEEP, as well as independently through both Capital and maintenance programmes.	Ongoing programme	Status unchanged
CEC - Property	Knowledge Transfer Partnership	tbc	The three year Knowledge Transfer Partnership project with Napier University is due to finish in summer 2018. Work is currently underway to finalise outputs that will inform future energy strategy.	<b>Due to complete in summer 2018</b>	<b>COMPLETED. Findings being assessed.</b>
CEC/University of Edinburgh	ENHANCE project	tbc	The Council has been involved in a research project with the University of Edinburgh to help analyse and better understand its energy use. The project has been running since 2016 in the Assembly Rooms on George Street. Funded by Engineering and Physical Sciences Research Council (EPSRC), the project used a	Ongoing due to complete in 2019.	Status Unchanged.

## SEAP Annual Review 2017-18

			'living lab' approach and modern data collection and visualisation techniques to engage with staff on site.		
Heriot Watt University	LED street lighting	0.6	Programme to replace the street lighting across the University's campus estate at Riccarton.	Ongoing	
CEC – Property/SD	SEEP Phase 2 - Duncan Place Retrofit	1.8	SEEP Phase 2 funding secured for energy efficiency upgrades to Duncan Place Resource Centre. This will include an air source heat pump system, LED lighting and an advanced building energy management system	<b>NEW</b> project – completes in March 2019	Project well underway.
CEC – Property/SD	SEEP Phase 2 – CEC non-domestic programme	0.525	SEEP Phase 2 funding secured for energy efficiency upgrades to all 4 museums on the Royal Mile, the Assembly Rooms, Royal Mile Primary School and Edinburgh Bus Station. The upgrade measures will include a mixture of advanced building energy management system upgrades and LED lighting replacement.	<b>NEW.</b> Completes in March 2019	Project well underway.
CEC Property/SD	SEEP Phase 1 – CEC non-domestic programme	0.405	A combination of advanced building energy management systems and LED lighting upgrades were installed across 8 Primary Schools, 1 Community Centre, 1 neighbourhood Office, and 1 equipment store as part of the SEEP Phase 1 non-domestic programme.	<b>Completed</b>	<b>PROJECT COMPLETED</b>
Dunedin Canmore HA	Smart Metering	tbc	Dunedin Canmore housing developments in Edinburgh will see wireless smart metering technology installed into a total of 228 properties by Vital Energy. The work will run until June 2018. Featuring no wired infrastructure, data can be collected remotely using GPRS to prevent any need to enter a customer's home.	<b>NEW</b>	To complete later in 2018.
CEC – Housing	Stair lighting	2.4	Programme to replace all Council communal stair lighting areas with LEDs.	<b>Completed</b>	<b>COMPLETED.</b>
CEC - Housing	Capital Investment Programme - Council homes	4.6	Improve Council homes through the Council Capital Investment Programme. Council homes have received extensive investment over the past few years to ensure they are more energy efficient so that tenants can benefit from cheaper fuel bills.	Ongoing programme to 2020	Status unchanged.

## SEAP Annual Review 2017-18

CEC - Housing	Future investment in Council homes	7.6	Future investment in Council homes to meet the Energy Efficiency Standard for Social Housing by 2020, following on from SHQS achievements. Investment is currently being accelerated to ensure Council homes across Edinburgh meet the energy efficiency target by 2020. Measures include new energy efficient heating systems, boilers, windows and insulation.	Ongoing programme to 2020	Status Unchanged.
CEC - Housing	Scottish Government Funded Energy Efficiency Measures	48.2 (37)	This involved a number of historic energy efficiency measures carried out via the Housing Improvement Scheme (HIS), the Universal Housing Investment Scheme (UHIS) and HEEPS:ABS funding(first year of HEEPS:ABS). Private homes have benefited from insulation measures funded by the Scottish Government, leveraging in additional ECO funding. Homes will benefit form a range of measures including external, internal and cavity wall insulation. (6700 homes)	Completed	PROJECT COMPLETED
CEC - Housing	CEC HEEPS: ABS programmes 2014/15, 2015/16 and 2016/17	8 (0)	Home Energy Efficiency Programmes for Scotland (HEEPS) is the Scottish Government initiative to tackle fuel poverty and increase energy efficiency in homes. HEEPS is a cluster of programmes currently including: Area Based Schemes (ABS). (4000 homes)	Completed	PROJECT COMPLETED
CEC - Housing	HEEPS: ABS for private owners (2017 – 2020)	2.5	Projects will continue to target fuel poor homes to ensure that residents can benefit from lower energy bills. Projects will include a continuation of investment in Dumbiedykes, Westburn, South Queensferry. Hard to treat homes across Edinburgh will also be targeted for insulation.	Ongoing programme through to 2020	Status unchanged.
CEC – Sustainable Development / Housing / Changeworks	SEEP Phase 1 – Domestic programme	1.405	Funding was secured through phase 1 of SEEP for domestic energy efficiency upgrades across a number of hard to treat cavity properties in the Leith area. In total 241 domestic properties received upgrades and 9 additional properties had internal wall insulation works carried out.	Completed	PROJECT COMPLETED

## SEAP Annual Review 2017-18

EWHT/ Sustainable Development (CEC)	SEEP Phase 2 - Basil Spence Building (Canongate)	TBC	Funding was secured through phase 2 of SEEP for energy efficiency upgrades to domestic and non-domestic properties at the Basil Spence Building in Canongate. The lead partner on this project is the Edinburgh World Heritage Trust (EWHT).	<b>NEW</b> Ongoing programme to March 2019	Project underway. Extension to Dec 2019
CEC – Housing	Energy Advice Initiatives	0.1	Promoting energy advice and raising awareness of Home Energy Scotland, energy efficiency funding and energy advice services such as CEC's 'Warm Your Home' Campaign and 'Affordable Warmth' Project. Projects include the Healthy Homes project. Awareness will be raised of grants, loans and incentives available to private landlords to improve their properties.	Ongoing programme	Status unchanged.
<b>SEAP PROGRAMME 2: DISTRICT HEATING</b>			<b>Sub Total : 59 ktCO<sub>2</sub></b>		
CEC – Sustainable Development	Heat Opportunitie s tool	50.0	Using the Scottish Government's Heat Opportunities Tool, the potential for heat networks across the city suggests large savings in carbon emissions but is reliant on new project opportunities being developed. An example is the refurbishment of Meadowbank Stadium and assessing the potential for district heating.	Ongoing	Status unchanged.
CEC – number of service areas	India Quay District Heating Scheme	3.22	A Business Case has been developed for a district heat network at India Quay for a gas CHP scheme. Work is ongoing to assess other alternative technologies such as heat from waste.	Still a commitment to take forward.	Work now progressing on the delivery options.
BioQuarter Partners	BioQuarter District Heating Scheme	5.78	Work progressed over the last year to identify the possible procurement route, resource and expertise needed to deliver the district heating network. Partners remain committed to taking the project further. Funding sources being evaluated.	Still a commitment to take forward.	Status unchanged
<b>SEAP PROGRAMME 3: RENEWABLES</b>			<b>Sub Total 5.1 ktCO<sub>2</sub></b>		

## SEAP Annual Review 2017-18

Edinburgh Community Solar Co-op	Solar Energy from buildings	2.35	Project up and running. Solar PV installed across 24 buildings generating around 1.3MW of energy per annum. A community benefits scheme has also been created.	Completed	COMPLETED
CEC – SD and Greenspace	Saughton Park Micro Hydro Scheme	0.234	A detailed design package has been produced for a micro hydro scheme at Saughton Weir which would serve to power the GSHP system currently being installed. An application for funding is currently being investigated.	Ongoing	Funding application successful. Project going ahead.
Harlaw Hydro	Micro Hydro Scheme	0.516	The Harlaw Hydro Scheme has now been operational for 2 years Scheme now generating electricity currently 61 KW enough for the average consumption of 127 homes.	Completed	PROJECT COMPLETED
CEC – SD / Parks and Greenspace	SEEP Phase 2 - Saughton Park	tbc	Funding secured through phase 2 of SEEP for the installation of two separate Ground Source Heat Pump systems at Saughton Park as part of the wider redevelopment works taking place. On vertical (64kW) GSHP will provide heat to the Winter Garden and two horizontal 12.5kW GSHP systems will provide heat to the new build developments and existing buildings at the site.	Completed Pumps now installed	PROJECT COMPLETED
Various energy partners	Tower Power	tbc	The Council was a partner in the Scottish Government funded trial of Tower Power. Along with Community Energy Scotland, Our Power, Energy Local, and TMA, which aimed to aggregate the energy demand of blocks of housing and achieve savings for residents through local supply and collectively negotiating energy deals.	Completed Report due end of April 2018	PROJECT COMPLETED
CEC – Sustainable Development	Park and Ride - Solar Car Ports	2.0	An updated outline feasibility study exploring solar PV car port opportunities at Hermiston and Ingliston Park and Ride sites has been completed, which shows significant generation potential at both sites.	NEW	Atkins appointed. Business Case now being developed.

## SEAP Annual Review 2017-18

CEC – Sustainable Development	Solar PV assessment	tbc	The Ongen tool will be used to assess a range of CEC properties and their potential for generating renewable energy. Solar PV will be the primary technology that will be assessed.	Due for completion in summer 2018.	Due for completion end of 2018
<b>SEAP PROGRAMME 4: RESOURCE EFFICIENCY</b>			<b>Sub Total : 93.763 ktCO<sub>2</sub></b>		
Resource Efficient Scotland	Resource Efficient Scotland - Advice and Support Service	7.9	Since the 1st April 2013 The Resource Efficient Scotland Advice and Support Service have worked on a 1-2-1 basis with 228 organisations in Edinburgh to be more resource efficient. Figures are updated each year but cumulative identified savings for these businesses stand at over £1.96M and carbon savings of over 7900tCO <sub>2</sub> e.	Ongoing programme	Status unchanged
CEC Procurement	Sustainable Procurement Policy	0.23	Improve energy efficiency of local Council suppliers and their supply chain through implementation of the Council's Sustainable Procurement Policy and Sustainable Procurement Action Plan.	To be reviewed further as to the savings potential	Status unchanged
CEC Procurement	WARP:IT reuse network	208 tonnes (indirect)	The WARP:IT scheme is set up for organisations and is an on line reuse network that allows staff to redistribute unwanted and underused items. The scheme also allows donations to charities. The Council is currently in “silver” place in the League with staff having donated £192,843 to charity. A total of 208 tonnes of carbon has been saved but these are indirect emissions (part of the supply chain) so not included in the total reductions	Ongoing	Status unchanged.
	SHARC – waste heat from sewage	0.556	This project was to evaluate a scheme piloting waste heat from sewage pipes for Council buildings. Currently there is no funding to support a pilot.	Stalled	Not being taken forward.
	Fleet Biofuel opportunities	4.5	Trial a pilot using biofuel in the Council fleet to other partners with large scale fleet e.g. Lothian Buses. Currently there is no funding to support a pilot.	Stalled	Not being taken forward.

## SEAP Annual Review 2017-18

Lothian Buses	Recycling	0.35	Recycling initiative that quantified the carbon savings from the Lothian Buses recycling operation.	Completed	COMPLETED
CEC SD/ ZWS and CofC	Circular Economy - Cities and Regions Programme	tbc	The Council is currently working with Zero Waste Scotland (ZWS) and the Edinburgh Chamber of Commerce (CofC) via ZWS Circular Economy Cities and Regions Programme. Phase 1 includes a report identifying circular opportunities in Edinburgh and Phase 2 will involve business engagement work with the business community regarding the identified opportunity sectors.	NEW Phase 1 completes end of April 2018, Phase 2 underway until Dec 2018	Status unchanged.
CEC/Midlothian	Food Waste Treatment Project	14.635	Work was undertaken to assess the carbon savings from the Food Waste Treatment plant at Millerhill.	Operational in 2017	PROJECT COMPLETED
	Residual Waste Treatment Project.	65.592	Work was undertaken to assess the carbon savings from the new Residual Waste Treatment	Operational in 2019	Work underway to assess potential waste heat opportunities.
CEC Sustainable Development / BRE	MEMPHIS (waste heat) Project	tbc	The Council is currently collaborating with the Building Research Establishment (BRE) on mapping the potential of waste heat across the city. Edinburgh will be used as a pilot analysing low-grade and spatially distributed heat from small, medium industries, the service sector & sewage water systems.	NEW	First phase of project complete. Due to finish summer 2019
<b>SEAP PROGRAMME 5: SUSTAINABLE TRANSPORT</b>			<b>Sub Total : 41.129 ktCO<sub>2</sub></b>		
CEC – SD/ University of Edinburgh	EV charging opportunities for Taxis	14.8	The upcoming EV business Case will identify the most appropriate locations for charging hubs that will benefit transport providers such as the taxi trade in Edinburgh. Funding for any scheme will be progressed via funding from OLEV or Transport Scotland. The Business Case is expected the end of April.	To be reviewed once EV Business Case completed	Business Case approved. Project moving to implementation

## SEAP Annual Review 2017-18

Lothian Buses	Lothian Buses fleet upgrades	1.0	Lothian Buses are continuing to improve the EURO standards of its fleet.	Ongoing	<b>PROJECT COMPLETED</b>
Lothian Buses	Lothian Buses – Electric / Hybrid-electric fleet	3.088	Lothian Buses are continuing to invest in both fully electric and hybrid electric fleet vehicles. 6 fully electric buses were added to the fleet in 2017 with a further 5 expected in 2018.	Ongoing	<b>PROJECT COMPLETED</b>
Enterprise Car Club	Increase EVs by 10 in 2014/15.	0.019	The Car Club now has several electric cars in the fleet.	<b>Completed</b>	<b>PROJECT COMPLETED</b>
Enterprise Car Club	Increase EVs to 10% of the fleet by 2020.	0.036	Without additional publicly accessible EV charging infrastructure the City Car Club is not yet in a position to invest in any additional Electric vehicles.	To be reviewed	EV Business Case now approved. Moving to implementation
CEC – Registration Services	ECOSTARS fleet recognition scheme	12.063	The Council joined the ECO stars programme in August 2011, which is a voluntary, free to join fleet recognition scheme providing guidance on environmental best practice to operators of goods vehicles, buses and coaches operating in Edinburgh. In 2012 there were 14 operators in the scheme and a total 1,684 vehicles by 2017 this had increased to 154 operators in the scheme and a total of 7,061 vehicles.	Ongoing	Status unchanged.
CEC – Sustainable Development	Pilot of On - Street Electric Vehicle	0.0415	The upcoming EV business Case will identify the most appropriate locations for on-street charging hubs and funding for any scheme will be progressed via funding from OLEV or Transport Scotland.	To be reviewed once EV Business Case completed.	EV Business Case now approved.



## SEAP Annual Review 2017-18

	Charging Points.				Moving to implementation
CEC	Delivery of the Local Transport Strategy	7.7	The Local Transport Strategy 2014-19 is now under review.	Ongoing	New City Mobility Plan in development
CEC – Sustainable Development	Charge Place Scotland Funding	0.82	The Council received funding via the ChargePlace Scotland programme 2017-18 and installed eight EV charging units (17 charging outlet points) across six sites in the city all of which are accessible to the public. The scheme will continue in 2018	Completed	Ongoing Programme
CEC - Fleet	CEC Fleet upgrades	1.115	The Council continues to improve the EURO standard of its fleet which now stands at 74% EURO 5 or better.	Ongoing	Status Unchanged
CEC - Fleet	CEC Fleet diesel to electric upgrades	0.447	The Council continues to increase the number of electric vehicles within its fleet. There is a total of 25 electric vehicles in the Council fleet with a further 5 procured in 2017/18	Ongoing	Recent funding application to procure a further 16 electric vans.
CEC – Sustainable Development / Fleet	Switched on Fleets Funding	tbc	The Council received funding via the Switched on Fleets programme 2017-18 and procured 8 fully electric vehicles across the Community Planning Partnership. % of these vehicles will be added to the Council's fleet. The next round of funding will be 2018-19 will be released mid-2018.	Completed	Ongoing Programme
<b>SEAP OTHER PROJECTS</b>		<b>Sub Total : 66.52 ktCO<sub>2</sub></b>			
	Carbon Sequestration	26.645	Edinburgh's Tree Cover project in an ongoing programme for tree planting. Trees can absorb carbon dioxide emission thus contributing to climate change mitigation.	Ongoing	Status unchanged.

## SEAP Annual Review 2017-18

	Edinburgh College	1.36	A number of public sector partners have developed their own carbon management plans to reduce carbon emissions across their own estates. These include initiatives to improve the energy efficiency of buildings, upgrade lighting schemes, improve controls and install a range of measures to reduce energy consumption. The plans also include the use of renewable technologies and heat.	Ongoing	Status unchanged
	University of Edinburgh	33.06			
	Napier University	1.025			
	Heriot Watt University	2.59			
	Scottish Parliament	1.84			
POLICY MEASURES		Sub Total 798.325 ktCO <sub>2</sub>			
	CRC	11.0	This is UK wide scheme to increase energy efficiency in large organisations across the public and private sectors. Scheme currently being revised and phased out by 2020. UK Govt considering replacement		
	Climate Change Agreement	11.0	Local impact on businesses of the implementation of energy-intensive business packages including Climate Change Agreements, Energy Performance of Building Directive, industrial smart metering and advice and loans from the Carbon Trust.		
	Grid decarbonisation	289.0	The National Grid in the UK is decarbonising rapidly permitting the electrification of heat. BEIS published its Energy and Emissions Projection in January 2018 showing the projected Grid Carbon Factor falling dramatically from 212 grams in 2017 to just 66 grams in 2035.		
	Mandatory Car Emissions	53.0	EU Directive Local impact of new mandatory car emissions targets. By 2015, maximum average emissions from new cars will be 95g of CO2 per kilometre.		
	Bio-Fuels Targets	45.0	EU Directive Local impact of new EU bio fuels target - the Renewable Energy and Fuel Quality Directives will increase the amount of bio-fuel in the transport sector.		

## SEAP Annual Review 2017-18

	Behaviour Change	97.95	There are a range of ongoing Government behavioural change initiatives associated with energy policies and programmes including several domestic energy initiatives.
	Electric Vehicles Programme.	5.0	Scottish Government programme for the expansion of low-carbon vehicles and infrastructure. SG has committed to phasing out fossil fuel engines by 2032.
	Retrofit (SME's)	84.5	UK Govt policy. To encourage the retrofit of small to medium sized commercial buildings (e.g. shops, restaurants, offices, hotels) with energy efficiency measures. Ongoing programme.
	Retrofit (Public)	95.0	UK Govt Policy. Ongoing programme to encourage the energy efficiency retrofit of public and community buildings with measures such as better insulation and heating systems that will reduce heat and electricity demand.
	Building Standards	9.0	Scottish Building Standards have been reviewed. Stricter requirements are now in place to achieve low and zero carbon standards. This is driving change in technologies.
	Transport Technology	0.7	Ongoing - Application of Intelligent Transport Systems technology to make the most efficient use of Edinburgh's roads.
	Public sector Procurement	0.175	
	Smart Meter roll out	5	Install smart meters for gas and electricity in every home to encourage better domestic energy management.
	RHI Domestic	22.0	UK Govt Policy Measure to encourage local installation of renewable heat equipment in homes such as solar thermal technologies and heat pumps through promotion of the RHI scheme.
	RHI Commercial	70.0	UK Govt Policy Measure to encourage local installation of renewable heat equipment in commercial buildings such as solar thermal technologies and heat pumps through the RHI scheme.
	<b>Total (ktCO<sub>2</sub>)</b>	<b>1205.351</b>	<b>Breakdown of Total: Policy Measures 798.325 ktCO<sub>2</sub> /SEAP Programme Measures 407.025 ktCO<sub>2</sub></b>