

Item 1

15th March 2017



Glasgow City Council

Sustainability and the Environment Policy Development Committee
15 March 2017

Report by Acting Executive Director,
Land and Environmental Services

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CITY CARBON EMISSIONS UPDATE

Purpose of Report:

The purpose of this report is to advise members of progress towards Glasgow's 2020 reduction target for carbon emissions.

Recommendations:

It is recommended that committee notes:

- (i) the progress being made towards the city's 2020 reduction target for carbon emissions;
- (ii) the potential development of further reduction targets for carbon emissions in Glasgow beyond the year 2020.

Ward No(s):

Citywide: ✓

Local member(s) advised: No

consulted: No

1. Background

- 1.1 This report provides an update to members on how Glasgow is progressing in working to reduce its carbon emissions. Carbon dioxide is the principal greenhouse gas which contributes to global warming and is directly linked to human activity.
- 1.2 In recognition of the seriousness of climate change, the Council established Sustainable Glasgow in 2010 to harness partners' collective thinking on how to address this agenda. It set out a target of reducing the city's carbon dioxide emissions by 30% by the year 2020. This has been set from a 2006 baseline and is equivalent to the national emissions target (which has been established by the Scottish Government from an earlier baseline). Glasgow's work in this area therefore contributes to national ambitions as well as the Council's own commitment to become one of the most sustainable cities in Europe over the next twenty years.
- 1.3 Sustainability has become one of the key drivers of a competitive city offer to residents, visitors and investors in a global context. Glasgow's work to reduce its carbon emissions presents opportunities for both the Council and the city to:
 - Act on a world stage by doing their bit to reduce emissions.
 - Save energy and thereby save money.
 - Support a high quality urban life.
 - Build green economic growth.
- 1.4 The social justice agenda is also very much at the forefront of partners' thinking in developing a more sustainable city. This has been focused on work to provide affordable warmth to vulnerable residents, as well as the potential for jobs in green industries to generate well-paid work.
- 1.5 The Council has worked with partners to draw up an Energy and Carbon Masterplan. It sets out the main route map for de-carbonising both domestic and economic life in the city and it states a range of actions in support of the city's emission reductions target. Partners acknowledge that successful delivery of these actions requires the support and collaboration of a wide range of local and national stakeholders, including the public sector, private sector, community groups and citizens. There is much that the Council can do in this respect, but equally its direct influence over much of the life of the city is limited and depends on wider partnerships.

2. Annual progress

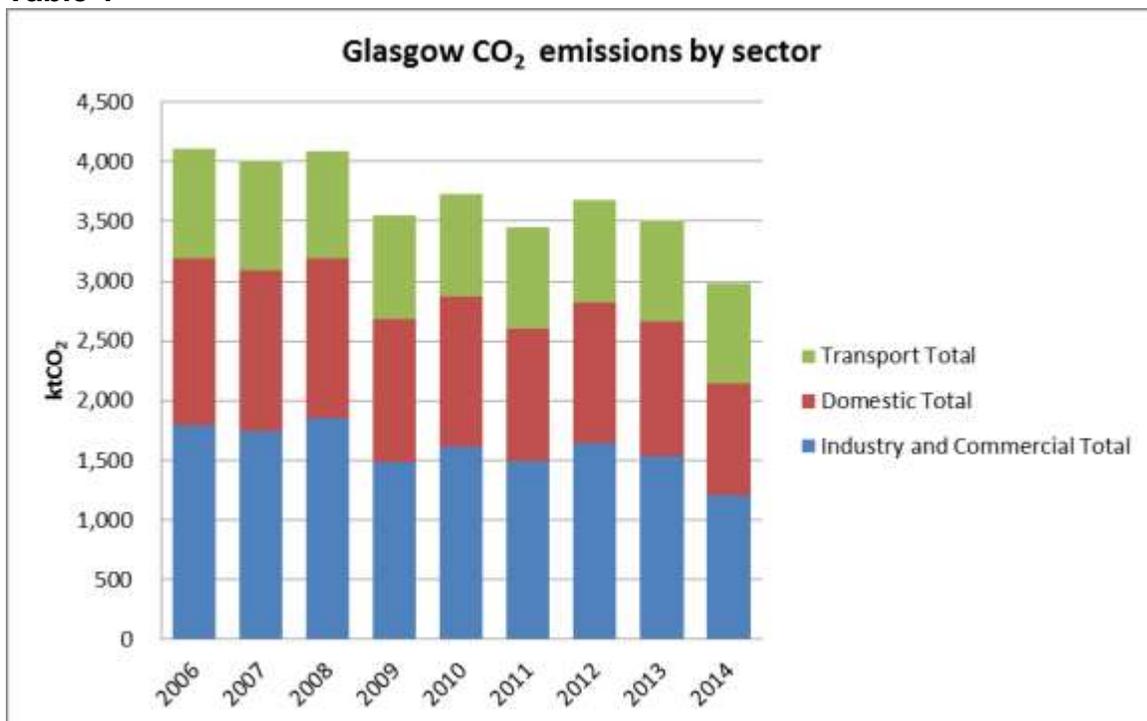
- 2.1 The main overall indicator of progress is to be found in the city's carbon emissions and whether these are on track to meet the 2020 target. The UK Government's Department for Business, Energy, & Industrial Strategy

(BEIS) releases data on energy consumption and carbon emissions for local authorities. These are released annually, but are two years in arrears because of the complex work required to collate and analyse them. The most recent BEIS data for Glasgow therefore relates to the 2014 calendar year.

2.2 Glasgow's emissions are measured in kilotonnes of carbon dioxide (CO₂), where 1 kilotonne is equal to 1,000 tonnes. In 2014, these totalled 2,996.4 kilotonnes of carbon dioxide (ktCO₂). This represents a 15% decrease from 2013 and a 27% decrease from the baseline, putting Glasgow close to achieving its 2020 reduction target of 30%. This large reduction is largely the result of local and national efforts to increase renewable energy generation and thus reduce the carbon intensity of electricity.

2.3 The main sectors contributing to this reduction were: the industrial and commercial sector (330ktCO₂ reduction); the domestic sector (196 ktCO₂); while the transport sector demonstrated the smallest reduction (1 ktCO₂). The majority of carbon savings by energy source were seen in electricity (324 ktCO₂) when compared with 2013. Table 1 below illustrates the different contributions made by these sectors to Glasgow's emissions since the baseline year.

Table 1



- 2.4 These are clearly very positive statistics for the city. The latest forecast shows that Glasgow will need to achieve a continuing minimum annual reduction of 0.58% to reach the 30% reduction target by 2020. This is achievable if partners maintain their collective commitment to action in support of lowering their emissions – with there being room for improvement in relation to the transport sector in particular.
- 2.5 Examination of CO₂ emissions per capita also shows that Glasgow's was just under 5.0 tonnes in 2014, which is lower than Scotland's average CO₂ per capita (at 6.6 tonnes). This indicates that life in a densely populated city with transport alternatives to car use can help to build sustainable outcomes. It may also, however, reflect the challenges of fuel poverty for many residents who struggle with their bills and therefore keep their heating off.

3. Current and developing work

- 3.1 Scotland has made a major contribution to the de-carbonisation of the electricity supply managed through the UK National Grid through its renewable energy output. One of the main challenges, however, in continuing to drive progress will be to reduce energy consumption. It is therefore important for stakeholders from the different sectors to build upon the commitment of the Sustainable Glasgow partners. These are principally the transport sector (public and private transport), the residential sector (private and social housing) and the commercial/industrial sector.
- 3.2 There is a range of work being undertaken in Glasgow which should help to maintain the positive direction in driving down both municipal and city emissions. They include:
- The work now underway to replace 10,000 street lights and 3,000 in the city centre with energy efficient LED lanterns, with more investment to come.
 - The continuing administration by the Council of Scotland's largest domestic energy efficiency programme.
 - Development of the electric vehicle public charging infrastructure to its current 93 charge points.
 - Support for local fleet operators to improve vehicle efficiency through a free scheme, which has now passed its 5,000th member vehicle.
- 3.3 Many of the actions which are contributing to the city's reduction in its emissions have been reported to this Committee. This will continue and 2017 will also see actions where further progress will be delivered. Significant amongst them are the contribution of the Glasgow Recycling & Renewable Energy Centre and further development of renewable energy installations across the Council estate.

3.4 Regular reporting on many of these issues is also made to the Council's Energy and Carbon Working Group. This performs both a scrutiny role and support function for the Council's own carbon management activity as a distinct organisation.

3.5 BEIS publicise energy and carbon emissions data two years in arrears, due to the complexity of collating data from different sectors and sources that consume energy and emit carbon emissions. This limits our ability to present current information on energy and carbon performance at a city level. Therefore in 2020, the most up to date information will correspond to 2018 and establishing a target line for 2018 and, as current data availability dictates, results for 2020, will not be known until 2022. The latest forecast shows that Glasgow will need to achieve a further reduction in its emissions of 111 ktCO₂ to reach the 30% reduction target by 2020.

4. Next steps

4.1 Members will be aware that the Scottish Government issued its draft Climate Change Plan earlier this year. This sets out a comprehensive assessment of the contribution of different sectors to Scotland's carbon emissions and to their reduction. It also looks beyond the current 2020 target year to further emissions reductions in future years and suggests potential targets through to the year 2050. The Sustainable Glasgow partners have therefore begun to consider how the city should respond to the national discussion on future reductions and how it can add greater momentum to both local and national ambitions for a lower carbon future.

4.2 Proposals will be developed for the city's carbon emissions reductions beyond 2020 and presented to a future meeting of this committee.

5. Policy and Resource Implications

Resource Implications:

Financial: None

Legal: None

Personnel: Managed within existing staff resources.

Procurement: None.

Council Strategic Plan: Reducing carbon emissions is a key means of

delivering on the Council's strategic objective of becoming a more sustainable city.

Equality Impacts:

EQIA carried out: N/A.

Outcome:

Sustainability Impacts:

Environmental: The city's carbon emissions are reducing.

Social: Lower carbon and renewable energy systems are a key aspect of the city's aim to provide affordable warmth for its most vulnerable residents.

Economic: The potential benefits from Glasgow's transition to a lower carbon economy form a key aspect of the city's new Economic Strategy.

6. Recommendations

It is recommended that the committee notes -

- (i) the progress being made towards the city's 2020 reduction target for carbon emissions; and
- (ii) the potential development of further reduction targets for carbon emissions in Glasgow beyond the year 2020.