EXECUTIVE NOTE

THE CLIMATE CHANGE (INTERNATIONAL AVIATION AND SHIPPING) (SCOTLAND) ORDER 2010

SSI 2010/218

1. The above instrument will, if approved, be made by the Scottish Ministers in exercise of the powers conferred by section 16(1) to (3) of the Climate Change (Scotland) Act 2009 ("the Act"). This instrument is subject to the draft affirmative procedure.

Policy objectives

2. This instrument forms part of an implementation package, to be laid before Parliament alongside other instruments made pursuant to the Act. Separate Executive Notes have been drafted for each instrument.

3. The purpose of the instrument is to describe the method by which emissions of greenhouse gases from international aviation and international shipping that are attributable to Scotland are calculated.

International aviation

4. The instrument sets out a formula to calculate the emissions from international aviation attributable to Scotland as follows –

$$A = B \times \frac{C}{D} \times E$$

Where:

"A" is the amount of gas emitted ;

"B" is the amount of gas emitted by the UK as shown in the sectoral table of greenhouse gas emissions from international aviation annexed to the UK National Inventory Report;

"C" is the fuel use for aircraft flights to international destinations from airports in Scotland;

"D" is the fuel use for aircraft flights to international destinations from airports in the UK; and

"E" is the radiative force factor.

5. The UK National Inventory report is the annual UK submission to the United Nations Framework Convention on Climate Change, detailing UK greenhouse gas emissions for the year in question (http://www.ghgi.org.uk/unfccc.html).

6. As required by section 16(3) of the Act, the calculation includes a multiplier, or radiative force factor, to reflect the direct and indirect non-carbon dioxide impacts of emissions at altitude from international aviation.

International shipping

7. The instrument sets out a formula to calculate the emissions from international shipping attributable to Scotland as follows:

$$F = G \times \frac{H}{I}$$

Where:

"F" is the amount of gas emitted;

"G" is the amount of gas emitted by the United Kingdom as shown in the sectoral table for greenhouse gas emissions from international shipping annexed to the UK National Inventory Report;

"H" is the all ports traffic figure for Scotland provided in Table 1.1 (all ports traffic) of the Department for Transport Maritime Statistics; and,

"I" is the all ports traffic figure for the United Kingdom provided in Table 1.1 (All ports traffic) of the Department for Transport Maritime Statistics.

8. The Department for Transport Maritime Statistics above are available at http://www.dft.gov.uk.pgr/statistics/databasespublications/maritime/compendium.

Greenhouse gases included

9. As required by section 16(2)(a)(i) this instrument covers each greenhouse gas as defined in section 10(1) of the Act, i.e. carbon dioxide, methane, nitrous oxide, hydrofluourocarbons, perfluorocarbons, and sulphur hexafluoride.

10. The latter three gases, hydrofluourocarbons, perfluorocarbons, and sulphur hexafluoride are fluorinated greenhouse gases and are normally referred to as the "F-gases".

11. Uses of F-gases include refrigeration and air-conditioning, fire protection systems and high voltage switchgear. However, it should be noted that there are no emissions associated with F-gases from international aviation and international shipping. Therefore, emissions of these gases from these sectors will be zero.

Consultation

12. A consultation on proposals for a Scottish Climate Change Bill, took place between 29 January and 23 April 2008. The consultation received 21,046 responses and helped the Scottish Ministers make several important decisions about the Bill. The Scottish Ministers noted the strong views expressed on emissions from international aviation and international shipping. Recognising the significance of these emissions Ministers decided to include these emissions within the targets set by the Act.

13. Responses to the consultation were published in October 2008 in the Scottish Government's response to the outcomes of the Bill consultation and included the commitment to having a framework of annual targets rather than multi-year emissions targets. The response is available at the following address – http://www.scotland.gov.uk/Publications/2008/10/response.

14. In line with section 16(6) of the Act, the Scottish Ministers requested the advice of the UK Committee on Climate Change (CCC) as to the Scottish share of emissions from international aviation and international shipping, and an appropriate multiplier, or radiative force factor, to apply to emissions from international aviation.

15. The CCC's advice states that the calculation methods detailed above, for disaggregating international aviation and international shipping emissions to Scotland are imperfect but that it is appropriate to use them for the time being.

16. On the radiative force factor, the CCC's position is that scientific uncertainty over the issue means that further consideration is needed before it can advise further on the appropriate factor. The CCC therefore recommend that the factor should be set at 1 (i.e. having a neutral effect), meeting the requirement in section 16(3) of the Act for a multiplier to be applied. The CCC's advice was published on 24 February 2010, and is available at the following address - http://www.theccc.org.uk/reports/scottish-report.

17. As this is a complex area, officials also issued a targeted email in December 2009 to those identified as having an interest/expertise in international aviation and shipping emissions to inform and develop thinking behind this instrument. The responses to this email are available at the following address – http://www.scotland.gsi.gov.uk/Topics/Environment/climatechange/scotlands-action/climatechangeact/aviationshipping

Regulatory impact assessment

18. A Regulatory Impact Assessment is not required as the instrument will not, in itself, impose new regulatory burdens on businesses, charities or the voluntary sector. The policies and proposals to achieve the emissions reductions will be identified in the statutory Report on Proposals and Policies, to be laid in draft before the Scottish Parliament in September 2010. The individual measures, or related groups of measures, detailed in the Report on Proposals and Policies will be subject to Regulatory Impact Assessment as appropriate.

19. A Regulatory Impact Assessment was carried out for the Climate Change (Scotland) Bill. The final Assessment was published in May 2009, and is available at the following address – http://www.scotland.gov.uk/Publications/2009/05/01155216/0.

Financial effects

20. Establishing the means to calculate emissions from international aviation ad international shipping does not in itself have financial effects. The Act requires that a Report on Proposals and Policies for meeting annual targets is published as soon as reasonably practicable after setting annual targets. The draft Report will be published in September, and the measures contained in that report will be subject to Regulatory Impact Assessment, as appropriate.

21. The inclusion of emissions from international aviation and international shipping in the emissions reduction targets has implications for how difficult it will be to meet our targets. Given that international aviation and international shipping emissions are not anticipated to fall significantly by 2020, the CCC's analysis suggests that emissions would have to fall by 44% in other sectors of the economy to meet the 42% target.

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16 April 2010