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## Net Zero, Energy and Transport Committee

# The Climate Change (Nitrogen Balance Sheet) (Scotland) Regulations 2022



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# Net Zero, Energy and Transport Committee

To consider and report on matters falling within the responsibility of the Cabinet Secretary for Net Zero, Energy and Transport.



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# Committee Membership



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# Introduction

1. The Net Zero, Energy and Transport Committee reports to the Parliament as follows-
2. [The Climate Change \(Nitrogen Balance Sheet\) \(Scotland\) Regulations 2022](#) were laid before the Parliament on 15 December 2021 and are subject to the affirmative procedure. The regulations were referred to the Net Zero, Energy and Transport Committee for consideration.
3. The accompanying [Policy Note](#) explains that the purpose of the instrument is to establish, in law, a Scottish Nitrogen Balance Sheet. The Balance Sheet brings together evidence, from a range of sources, in relation to flows of nitrogen across Scotland's economy and environment.
4. One of the objectives of the regulations is to provide a more detailed and comprehensive method for undertaking a calculation of nitrogen use efficiency. Section 8A(5) of the Act defines the term "nitrogen use efficiency" as meaning the ratio of nitrogen removed from the environment compared to total nitrogen inputs.
5. The regulations require the Scottish Ministers to review and update the nitrogen balance sheet and lay a report before the Scottish Parliament in relation to nitrogen use efficiency annually, in each relevant year. The report must include, among other things, a new figure for nitrogen use efficiency (and state the period of time to which that figure relates), any revised figure for nitrogen use efficiency in relation to a period of time preceding the period of time to which the report relates, and an assessment of how nitrogen use efficiency is expected to contribute to achieving future greenhouse gas emissions reduction targets.
6. A non-statutory report document was published by the Scottish Government alongside laying the SSI in December 2021. It provides substantial additional detail on key findings of the Nitrogen Balance Sheet and thereby context to the instrument. [The report is available here.](#)
7. The report also outlines the importance of nitrogen and the background to the establishment of a nitrogen balance sheet. It states that:

” The efficient use of nitrogen is important as it helps to both maximise economic benefits, for example for those producing our food through reducing wastage of nutrients contained in fertilisers, and minimise a range of harms that can occur through losses of nitrogen. These harms include contributions to climate change through emissions of greenhouse gases, impacts on human health through emissions of air quality pollutants, and impacts on biodiversity in terrestrial, freshwater and coastal ecosystems through excess nutrient inputs from both atmospheric nitrogen deposition and leaching/run-off.
8. The importance of nitrogen across Scotland's economy and environment was recognised by the Scottish Parliament during the scrutiny of the Bill that became the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019. During the progress of that Bill, Scottish Ministers committed to developing the first ever statutory Nitrogen Balance Sheet for Scotland.

# Delegated Powers and Law Reform Committee Consideration

9. The Delegated Powers and Law Reform Committee considered this instrument at its meeting on [21 December 2021](#) and determined that it did not need to draw the attention of Parliament to the instrument on any grounds within its remit. [Read the official report for the meeting on 21 December 2021.](#)

## Consideration by the Committee

10. At its meeting on [18 January 2022](#), the Net Zero, Energy and Transport Committee took evidence on the instrument from Màiri McAllan, Minister for Environment and Land Reform.
11. In her opening statement, the Minister stated that the balance sheet will provide the Government and Parliament with a powerful new tool to support evidence-based policy making at the interface of several strategic areas. She added:
  - ” I am very interested in the extent to which having a balance sheet that shows us how climate change, air quality and water pollution co-exist can indicate the levers that we can pull to meet some of our policy objectives.
12. The Minister was asked about the application of the regulations, particularly how the balance sheet and the action plan that is associated with it will be used by regional land use partnerships and river basin management plans in the practical management of nitrogen. The Minister responded that the balance sheet will allow people both within and external to the Government to see how actions interact, helping them identify what actions will provide the most co-benefits across those strategic areas. However, she added that the data sets are not at regional or farm level:
  - ” We might hope to develop something like that in time, but what we have established right now is a high-level Scotland-wide and economy-wide picture from which developments will come.
13. The Minister was asked about Regulation 4, which sets a 25 per cent baseline figure for national nitrogen use efficiency. The Minister responded that the accompanying report helps explain the baseline figure fully, but added that:
  - ” How I understand it is that we have figures for nitrogen use efficiency across, let us say, food production, and we can break that down into livestock farming and crop production. The overall figure for nitrogen use efficiency in agriculture is 28 per cent, so you can see that the national figure of 25 per cent is quite heavily dominated by the agriculture figure. However, because it is a whole economy figure, we build in the figures for forestry, waste and industry, which is what gets us to 25 per cent.... [the] 25 per cent figure represents the state of play on average across the board in our economy just now.
14. The Minister concluded the evidence session by outlining the areas covered by the balance sheet and the importance of establishing it:



” Food production is at the heart of the issue, because nitrogen is at the heart of food production, but it is not the only flow-in and we have sought to reflect that in the balance sheet. It is categorically not just about agriculture and aquaculture. The balance sheet covers the use of nitrogen in forestry and flows of nitrogen that are associated with fossil fuel combustion in sectors such as transport, industry and energy supply. It also looks to waste management processes, which can serve to recycle nitrogen that is taken in through human nutrition back into parts of the wider system. We have a picture across Scotland and, where data allows, into and out of Scotland. It is a very broad-scope approach that is unique in the world, and I hope that other countries will follow where Scotland has led, so that we have an international comparison of how efficiently Scotland is using nitrogen compared with our friends and neighbours across the world.

15. There being no further questions, the Minister then moved motion S6M-02578—that the Net Zero, Energy and Transport Committee recommends that the Climate Change (Nitrogen Balance Sheet) (Scotland) Regulations 2022 [Draft] be approved.
16. There was no debate on the motion and it was agreed to without division.

# Conclusion

17. The Net Zero, Energy and Transport Committee recommends that the Climate Change (Nitrogen Balance Sheet) (Scotland) Regulations 2022 be approved.

