

Carbon reduction target and strategy for higher education in England

Report of the consultation seminars

Executive summary

Purpose

1. This report summarises feedback from two consultation seminars held in September 2009 concerning a carbon reduction target and strategy for higher education (HE) in England. The seminars formed part of a joint consultation by HEFCE, Universities UK (UUK) and GuildHE. The information gathered at the seminars has been used alongside the written consultation responses to inform a carbon reduction target and strategy for HE in England¹.

Key Points

2. The report is structured to reflect discussion in the break-out groups and the plenary sessions at both seminars.

Action required

3. No action required. This report is for information only.

Report of the consultation seminars

Introduction

4. In July 2009 HEFCE published a joint consultation with UUK and GuildHE: 'Consultation on a carbon reduction target and strategy for higher education in England' (HEFCE 2009/27). The consultation was circulated to all higher education institutions (HEIs) in England and to other agencies and bodies. The deadline for written responses was 16 October 2009. The sector, individuals and other interested stakeholders submitted 120 written responses. HEFCE has also published an analysis of the written feedback².

5. As part of the consultation process HEFCE arranged two consultation seminars in London and Manchester in September 2009. The objectives of the seminars were to hear views about the proposed target and strategy for reducing carbon emissions. The seminars also provided a forum for participants to discuss and feed into the development of sector guidance on developing carbon management plans.

¹ 'Carbon reduction target and strategy for higher education in England' (HEFCE 2010/01). All HEFCE publications are available at www.hefce.ac.uk under Publications.

² 'Summary of written responses to the consultation on a carbon target and strategy for higher education in England' is available at www.hefce.ac.uk under Publications alongside HEFCE 2010/01.

Seminar programme

6. The two consultation seminars followed similar themes and formats. Each seminar consisted of a presentation from HEFCE, the Carbon Trust and an institutional perspective. Breakout groups were convened to discuss issues and to provide feedback to a concluding plenary session. Delegates were invited to question a panel comprising HEFCE, guest speakers and Assen Gasharov from SQW Consulting who undertook the carbon reduction research that informed the consultation.

7. Full details of each consultation seminar, and links to the presentations can be found on the HEFCE web-site³.

Sector-level target

8. In the main, participants were positive about the targets. The risk of failure and the stigma attached to this appeared to drive unease over target setting. This prompted a suggestion from some participants that less ambitious targets might be preferable, and that relative targets are better than absolute ones. However, it was commented that UK targets are absolute and therefore, the HE sector target should also be absolute. Participants stated that it would be helpful to have further context and comparative studies on the national and international picture regarding carbon emission targets.

9. Discussions also revealed some concern for, and a need for further clarification of, the baseline for targets. The 1990 baseline is perceived as being difficult, perhaps even impossible to establish at institutional level because of the lack of data, mergers and sector growth since the baseline date. Overall there was a general preference to set targets against the 2005 baseline at an institutional level.

10. Participants expressed more confidence in data for 2005, but they also wanted clarification of what would be included in the target. Discussions confirmed that participants consider the proposed targets extremely challenging. They referred to an 80 per cent reduction by 2050 as requiring radical change. They also recognised that institutions will need to reduce emissions by 50 per cent against current levels in order to achieve a target of 34 per cent based on 1990 levels. Some participants expressed a concern that the sector might be 'setting itself up to fail', and that perhaps the target might be too high.

11. There was wide recognition that institutions will be starting from different positions in respect of carbon reduction activity, and some concern that institutions who were early adopters may be disadvantaged by a funding system based on reductions in emissions since 2005.

12. Participants also commented on what the targets would mean in practice, and the need for everyone to understand the targets themselves. Participants suggested that aspirational targets for the sector are good, some suggested essential, to meet the national

³ Available at www.hefce.ac.uk/lgm/sustain/carbon

target. Many considered the use of interim targets and milestones an incentive that will help maintain and monitor progress.

13. There was also concern about how an HE sector target would be apportioned to institutions, and how this will correspond with national objectives. Some participants expressed uneasiness about the expectation that the sector should seek to exceed UK targets; but others mentioned that other funders are asking for more exacting measures on environmental performance.

14. Participants expressed the view that a sector-wide target should recognise the operations of different types of institutions in the sector. Some suggested that different targets should be identified according to the type and predominant activity of an institution. Growth and the need to recognise this in the context of carbon reduction was also considered a significant issue. It was highlighted that institutions have grown, and that there is a government aim to increase student numbers. Participants suggested that growth should be considered in the sector-level target.

15. It was also suggested carbon reduction programmes will compromise growth. Some participants suggested that any carbon-reducing programme should include overseas students, others that they should be excluded and that instead, institutions should concentrate on measurable targets.

16. Overall the participants seemed concerned that there should be some recognition of individual circumstances in the development and application of a carbon reduction strategy.

Carbon management plans

17. The seminars identified that participants were looking for links with wider low-carbon reduction activity and guidance. They felt that national energy policy was central to the sector carbon reduction strategy, and that they were aware of available methodologies for reporting. The Treasury, it was noted, had recently released guidance and information on this⁴.

18. Participants were of the view that carbon management plans needed mechanisms and systems for long-term use, (for example to show continuous improvement). They recognised a need for more cohesion between institutional activities. They also referred to carbon plans as covering all scopes, and asked how the specific requirements of HEFCE's Capital Investment Framework (CIF) would fit with this.

19. HEFCE's position, that HEIs should include scope 3 emissions in their carbon management plans, was considered to be good, and participants seemed to agree with a concentration of initial effort to reduce scope 1 and 2 emissions. However, a number of participants referred to 'ignoring the elephant in the room' if scope 3 is not more fully addressed in the strategy, and it was felt that a steer needed to be given about what is

⁴ See www.hm-treasury.gov.uk under Public spending & reporting/Government Financial Reporting Manual/Sustainability and environmental reporting.

expected from the sector. Many participants suggested that a carbon reduction strategy needs to include elements linked to scope 3, and that institutions should seek to include scope 3 activities within carbon management plans. Some asked whether HEFCE should go further with scope 3 emissions, which would be helpful for institutions already working in this area. It was also felt that these institutions should be recognised for already monitoring and managing scope 3 emissions.

20. It was mentioned that there is a possible risk of HEIs 'manipulating outcomes' (for example, through outsourcing student accommodation in order to move emissions to scope 3). Some participants suggested that the availability of travel data is limited, and questioned the need for universities to collect university vehicle-emissions data as it is not a major source of emissions. They suggested that data may not accurately measure travel as they will not cover private vehicle usage for business travel. It was also suggested that the Estate Management Statistics (EMS) should try to consider wider transport issues covering both university vehicle fleets and private vehicles.

21. There was a suggestion that the contribution of waste in carbon emissions can be significant, and that the issue should have a higher profile when looking at ways to reduce carbon.

22. Discussions about scope 3 emissions revealed differing views about including them in carbon plans. Some participants thought that at this stage targets should not be set, but institutions should be asked to report on them. Others thought that the inclusion of scope 3 emissions may dilute action on major opportunities to reduce carbon within scopes 1 and 2.

23. In the main, participants considered scope 1 and 2 emission reductions achievable. Some considered scope 3 unattainable at present, but that carbon plans could accommodate it over time.

24. Other issues discussed by participants included the need for predictions of changes in the conversion factors used to convert fuel use to carbon emissions. Participants suggested that this will help institutions predict the contribution that decarbonisation of the electricity supply will have in reducing emissions.

Capital funding and other financial incentives

25. Participants generally support the proposal to link capital funding and carbon reduction. It was suggested that HEFCE should seek to learn from the NHS and others, including international examples. Others questioned whether linking funding with carbon will produce the 'green' university, and it was suggested that more capital is needed for the wider sustainable development agenda, not just for carbon reduction.

26. Participants discussed how capital funding should be linked to carbon performance. Concerns were expressed that withholding funding from poor performers may create a two-tier system. However it was accepted that 'sticks' as well as 'carrots' are needed, and that the sector has been given fair warning of expectations for carbon management plans and carbon reduction. There was discussion about the need to balance rewards for better

performers and penalties for poor performers. Overall participants expressed a preference for rewarding good practice, rather than penalising poor performance. Poor performers, it was suggested, may be smaller, struggling institutions who need help and funding rather than punitive measures. Nevertheless, there was a view that penalties would encourage improvement.

27. Participants suggested that funding linked to carbon could run alongside the current funding system in order for institutions to understand what would be required in a change to a carbon-based funding model. It would allow an institution to understand the implications of a carbon strategy, and to test the actions needed to address the carbon reduction target without incurring any sudden changes in funding. Participants generally agreed that confidence was needed in any data used to make funding decisions.

28. There was a strong view that the next Capital Investment Framework (CIF2), which will be used to allocate any capital funding from 2011, should allow relative carbon reduction. Participants commented that a range of metrics should be used, including space use, staff and student numbers, income, maintenance, and capital spend on carbon reduction projects. It was commented that the choice of metrics could favour certain types of institutions, and it was noted that HEFCE is undertaking work to ascertain if this is the case. Participants asked for early clarity on the metrics to be used.

29. Participants expressed concern about the robustness of institutions' existing estates strategies, and whether they need reviewing and modifying to include carbon, especially if funding is to be based on them.

30. Some participants commented more generally about available funding. They described the current payback periods allowed under the Revolving Green Fund (RGF) as too short, and said that longer payback periods would stimulate innovation. There was a strong feeling that the value of funds under the RGF is too small to facilitate the scale of reduction needed, and participants called for the size of the fund to be increased. A capital funding system whereby a proportion of funding is automatically allocated for CO₂ reduction projects was suggested.

Estates

31. Participants discussed widely issues related to an institution's estate. The discussion examined where the sector should concentrate activity to reduce carbon emissions, and what a low-carbon estate of the future might look like. Views included the development of high-specification buildings with improved space utilisation, on-site energy generation, and labour-intensive campus food production.

32. Participants identified research-intensive, city and rural campus locations as significantly different in terms of carbon emissions. It was suggested that HEFCE should consider the diversity of estate in terms of condition as well as type (for example, listed buildings, age of estate, and the problem of 1960s buildings built to budget, rather than carbon efficiency).

33. Discussion revealed that there are issues and concerns around the decisions to be made by institutions (for example, for new-build or refurbishment, whether research and teaching buildings should be more segregated so that buildings can be closed down for longer periods, and whether residential and other university-owned accommodation is to be included in a carbon reduction strategy).

34. Participants advised that some estates have a large number of buildings leased to private operators. At the moment the occupiers usually operate these buildings independently. This raises issues about how carbon should be accounted, and how controls can be included in lease agreements. There was a request for guidance in managing this.

35. Participants identified the metrics to be used when measuring and evaluating carbon savings as an issue. They discussed the pros and cons for using square metres, staff and student full-time equivalent, or income. A number of participants suggested the importance of Whole Life Costing as a process that can drive carbon efficiencies.

BREEAM

36. The Building Research Establishment Environmental Assessment Method (BREEAM) was a major item of discussion at the seminars, especially in terms of usefulness, and how far it should be made a condition of HEFCE funding. Generally there was a positive view and support for this, but with some concern about affordability.

37. Participants recognised BREEAM as a tool and not a solution in carbon reduction. Because it is also concerned with transport and wider sustainable development objectives, delegates suggested that it will encourage a 'way of thinking' and not be seen solely as a 'badge'. The ethos it affords was considered useful, but efficacy in terms of achieving refurbishment and carbon reduction was questioned. There was a view that if scores become linked to funding, then the choice between new-build and refurbishment may be an issue for institutions.

38. Participants thought that a requirement for BREEAM 'excellent' or 'very good' for refurbishment might be problematic. It was suggested that there is evidence that BREEAM might not be the right tool as some 'excellent' rated buildings have poor Energy Performance Certificates or Display Energy Certificates. Some participants hinted that there may be a need for something beyond BREEAM that focused on carbon emissions in operation.

Space management

39. Participants thought space management was very important, and that better utilisation of the estate and assets will lead to carbon reduction while also allowing institutions to grow without increasing the estate. Participants suggested that longer winter breaks and condensed courses could lead to space efficiency benefits, but there was some doubt about how far this could be taken. However, it was widely accepted that better asset utilisation is a key to achieving carbon reduction.

Research

40. Research- and energy-intensive universities expressed concern that it would be difficult to reduce carbon emissions relating to research activity. Participants raised questions around the 'ownership' of research programmes in terms of carbon accounting. For example, an institution leading a collaborative research project, perhaps concerning solutions to climate change, may be penalised if they have to account for a large proportion of the carbon emissions associated with the programme. Similar issues could arise with shared facilities, such as energy-intensive data centres. Participants questioned the fairness of carbon accounting at institutional level, and suggested that this could be better managed as part of a national research programme.

41. Some participants called for more joined-up thinking within institutions and the sector. An example cited was the Research Assessment Exercise system that provides points for international papers, thereby potentially exacerbating international travel and carbon implications.

Renewable energy

42. The seminars revealed that the generation and use of renewable energy is an important issue, and that there is potential for this within the sector. Participants suggested, however, that the focus should be on reducing consumption, and that the most cost- and carbon-effective projects may not be large-scale renewable projects.

43. Some participants wanted the consultation process and its outcomes to address issues around the use of renewable energy (for example, whether its use should be encouraged). Participants commented that 'green' tariffs won't contribute to meeting targets, as the conversion factor for green tariffs is the same as grid electricity. Following guidelines from the Department for Environment, Food and Rural Affairs (DEFRA) on carbon accounting, on-site generation of renewable energy may only be zero-rated if the renewable obligation certificates (ROC) are retained or not claimed. It was highlighted that the sale of ROCs helps support the financial case, and that, if they are sold, the generation of renewable energy will not benefit carbon reduction for the institution or sector.

Offsetting

Participants considered carbon offsetting to be an important issue, as it may limit efforts to reduce carbon because it does not directly encourage reduction. Generally there was a consensus that there is a need for strict criteria and controls, but some offsetting activity may be acceptable. As an example, it was said that purchasing tracts of rain forest would not be appropriate, but a campus site generating and exporting green energy would be.

Monitoring and reporting

44. Participants considered milestones important in assessing performance against targets, and that there should be some early check points. Some considered it useful for institutions to check their progress every year by using appropriate internal measures, but national progress could be checked less frequently. It was also suggested that frontloaded

milestones would perhaps indicate a level of urgency and importance that should be attributed to carbon reduction. Milestones with interim targets for 2012 and 2017 seemed widely acceptable.

45. The seminars indicated the need for clarity in respect of monitoring and reporting. Participants suggested that there are dangers with data if they are not collected appropriately, as it may lead to institutions losing funding. It was asked whether the sector is comfortable with the accuracy of existing data, and whether there is a need to collect data on other activities. There was concern about different versions of data being required by different organisations, and for different purposes.

46. Participants suggested that there needs to be a way of recognising relative as well as absolute reductions, and some believe that the Carbon Reduction Commitment (CRC) and BREEAM may not address long-term carbon reduction. Linked to this was an interest in developing EMS data to provide greater granularity, and becoming a robust tool that can be audited.

47. Participants cited different reporting time periods as an issue. Discussion of one example highlighted that the EMS are based on the academic year, whereas the CRC is based on financial year. Participants suggested that institutions would prefer to align measuring performance with other reporting requirements for institutions (for example, the CRC and the European Union Emissions Trading Scheme).

48. Further issues raised by participants suggested that clarification is needed for green energy tariffs as some institutions believe they may be zero-rated, leading to inconsistencies in EMS data. It was noted that DEFRA reporting guidelines state that green tariffs should have the national grid average electricity conversion factor applied. Participants referred to other anomalies: one concerned the CRC focusing on energy purchased, whereas EMS focuses on energy consumed; the other concerned data discrepancies when buildings are leased out to other users.

49. The seminars revealed concern about league tables linked to carbon emissions. There were also concerns about institutional reputation, especially for those that will not receive recognition for having already delivered significant carbon reduction.

Training and awareness

50. Participants identified that there is a need for awareness raising, capacity building and training. They suggested that this should include professional skills, knowledge in carbon management, and general awareness for all staff and students. It was felt that behavioural change programmes should involve professional bodies and organisations. Participants indicated that many people still do not understand that carbon reduction includes cultural and behavioural change.

51. Participants described that some professions are already properly engaged in this respect, but governors and other decision makers need to be targeted where expertise is

needed. It was suggested that further energy management skills are needed, and that this might be an issue for smaller institutions.

52. It was noted that individuals in an institution may take time to change their behaviour, but a rolling carbon management plan for an institution should benefit from new people and ideas that will drive programmes forward. Participants suggested that programmes should include networks, demonstrator workshops, and training up to and including formal qualifications.

53. The need for effective employee engagement was stressed. There was agreement that general staff at universities are crucial to this agenda, and the importance of people, especially in the use and management of space, is critical.

Leadership

54. A number of participants felt that the awareness-raising potential of carbon reduction activity is as important as focusing on the detail. They described initiatives to stimulate cultural change as necessarily involving all HEI staff, students and senior managers. There was a strong view that cultural change is an essential element in achieving carbon reduction. There was also agreement about the importance of carbon champions at senior level, and the need for more joined-up thinking at institutional level to achieve change.

55. Participants discussed carbon reduction in terms of student and staff activity and experience, and the relationship between academic and business interests. Mandatory modules on sustainable development and climate change for all degrees were suggested as a way of influencing behaviour.

Good practice

56. The seminars confirmed that there is a need for examples of good practice as well as guidance from sector organisations. Participants suggested the development of a 'case file' on renewable and technical solutions, and the sharing of ideas such as the use of hydrogen cells in the NHS.

57. Participants asked how they could benchmark. It was suggested that the sector should research, highlight and utilise existing sector achievements in carbon reduction. Some participants wanted international information, especially for benchmarks. Discussions concerning best practice also suggested that poor practice is a problem, and that competent consultants should be used when seeking external input to carbon reduction programmes.

58. A participant suggested that adaptation to climate change should be considered in any strategy. However, it was also suggested that, although an adaptation model may be possible, it is still necessary to make cuts in carbon emissions. It was mentioned that English Local Authorities are making adaptation plans, which provides an opportunity to make links with them in developing an institution's carbon reduction activities.

59. There were some enquiries about when a review of sector carbon reduction activity would be appropriate. One participant asked whether there should be mandatory auditing of data, although they recognised that it may be difficult to do so.

Collaboration

60. Participants suggested that the consultation document omits activities around university engagement with communities, business and other parts of the education sector, but it was acknowledged that this is difficult to quantify. The Royal Institute of British Architects' Higher Education Design Quality Forum was given as an example of useful collaboration.

61. Participants discussed the advantages of collective purchasing, and participation in an energy buying consortium to help drive change through demand and reduced costs. It was noted that the purchasing muscle of the HE sector could help to redress problems of payback period (for example, double glazing with a 40-year payback, or the purchase of green electricity). There was support for the use of shared services, where appropriate, and participants mentioned this as helping some, particularly small institutions, address the challenge of carbon reduction.

62. A number of participants commented on the need for strategic and spatial links, beyond the sector (for example, with the planning system). It was suggested that institutions need to make representation to the Department for Communities and Local Government on planning and HE. NI185 and NI18/6 are national indicators concerning Local Authority area carbon footprints, requiring Local Authorities to forge links with large organisations and business to achieve carbon reduction. There is an opportunity for HE to make these links within the HE carbon reduction strategy.

63. Participants suggested that partnerships with councils, and other large users of energy would help facilitate the establishment of combined heat and power systems, especially in town and city locations. More widely it was suggested that research councils and other private research funders (for example, the Wellcome Trust and the Wilson Foundation) need to be involved with the sector strategy for carbon reduction.

The role of HEFCE

64. Participants accepted that most of the work to achieve carbon reductions will rest with institutions, but they referred to a need for sector-level monitoring and support. They said it would be helpful to share best practice across the sector through bodies such as the Environmental Association for Universities and Colleges, and Higher Education Environmental Performance Improvement. Some participants suggested that HEFCE should be more prescriptive about carbon reduction (for example, it should set maximum space heating temperature in buildings, or require justification for any projects that lead to net increases in floor space).

65. Participants supported the role of the HEFCE, GuildHE and UUK partnership to organise and facilitate the sharing of good practice, relevant information, and the co-

ordination of a carbon reduction strategy. However, it was suggested that the partnership needs to become more active, and make its role more explicit. Participants advised that it should be possible to work with sector leaders to create commitment, and that the partnership should lobby professional bodies (for example, the Chartered Institute of Building Services Engineers). It was suggested that these organisations could promote training, technical specifications, and approaches to carbon reduction. They were also seen as having a role in changing 'hearts and minds'.

66. Participants thought that uncertainty about carbon reduction planning can be best addressed through HEFCE guidance on strategic national activity on carbon reduction, as well as sector-specific actions identified in a sector strategy. There was a strong view that HEFCE should lead and be a sector voice.

67. Participants also thought that HEFCE should have a guiding role. In this capacity it should provide direction on CIF2, on methods to address listed, high-energy and tenanted buildings (including special cases such as campus farms and swimming pools). It was also felt it should provide specific help in areas such as appropriate lease arrangements, and training targeted at influential teams (for example, those in senior management, estates, governance and finance).

68. It was also suggested that HEFCE should look at carbon reduction plans in the context of each institution, or at the level of sub-sector targets, set parameters for reporting and create incentives, rather than absolute and definitive approaches to carbon reduction. The HEFCE role was seen as including the modelling of institutional targets to evaluate performance against the 1990 baseline, guidance on new build and refurbishment, and the evaluation of progress by institutions in developing and/or maintaining carbon plans.

69. There was also a view that HEFCE should fund some 'outside the box' thinking, research into work and/or study patterns, and visionary research for aspirational targets to reduce carbon in the sector.