

Checklist for analysis on EU proposals

<p>Title of EU proposal: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL discontinuing seasonal changes of time and repealing Directive 2000/84/EC</p> <p>Lead dept/agency: Department for Business, Energy and Industrial Strategy (BEIS)</p> <p>Other depts/agencies with an interest: Department for Health Department for Transport Department for Digital, Culture, Media and Sport</p> <p>Date:</p>	<p>Lead policy official: Ian Young ian.young@beis.gov.uk 020 7215 1850</p> <p>Lead lawyer: Andrew Willett Andrew.willett@beis.gov.uk 020 7215 0181</p> <p>Lead economist: Peter Collins peter.collins@beis.gov.uk 020 7215 3328</p> <p>Lead UKRep desk officer: Alex Gozney Alexander.gozney@fco.gov.uk +32 (0) 2 282 6364</p>
<p>What are the potential impacts of the Commission proposal on the UK?</p> <p>The proposal is intended to address the issues highlighted in the Public Consultation on summer time arrangements by the European Commission. The consultation ran from 4th July 2018 to 16th August 2018, gathering 4.6 million responses from across the European Union. Many of the responses raised concerns with the current summer time arrangement. The proposal aims to change the current system of bi-annual clock changes by:</p> <ul style="list-style-type: none">• Removing the requirement for Member States to apply seasonal changes to their standard time, coming into effect after the application of summer-time in March 2019• Allow Member States to apply a final seasonal change on 27th October 2019 <p>It is important to note that this does not affect the competence of Member States to change their standard time, outside of seasonal changes. The standard time currently applied across the United Kingdom is Greenwich Mean Time (GMT).</p> <p>The Commission notes in the proposal that the overall impact is likely to differ depending on the geographical situation of each Member State. The northern Member States have a larger variance in available daylight over the course of the year. As one of the more northern Member States, this would lead to a proportionately larger impact on the United Kingdom, and would be even greater in the north of Scotland.</p>	

As set out in the explanatory memorandum, the Government, working closely with Devolved Administrations, will seek further information on the scale of the potential impacts from the proposal. No impact assessment has yet been carried out by the UK Government relating to this proposal. Therefore, the indications below are based on an initial scoping of the likely implications of implementing the proposal. These indications have not been through independent scrutiny via the Regulatory Policy Committee and so will be subject to revision as new evidence is collected.

That said, in 1968 there was a three-year experiment when British Standard Time (GMT +1) was employed all year round; the clocks were advanced in March 1968 and not put back until October 1971. This period provided an opportunity to evaluate the effect of the daylight change on a number of factors, particularly road accident casualties. A parliamentary review of the experiment reported that it was “impossible to quantify a great many of the more important advantages and disadvantages of British Standard Time. The final decision as to whether or not the new time system (permanently GMT +1) should be retained must therefore rest largely on a qualitative judgement”.¹ The House of Commons debated the issue in December 1970 and voted against continuing the scheme by 366 to 81. The Summer Time Act 1972 was then enacted.

Affected Sectors

There have been numerous studies of the EU summer-time arrangements, both prior to and post-implementation of Directive 2000/84/EC. The Commission believes that there are adverse effects from summer-time arrangements that outweigh the potential benefits. The main impacts are anticipated to fall into the following areas:

Internal Market: Directive 2000/84/EC harmonised the date for seasonal time changes across all EU Member States. The main driver was to ensure the proper functioning of the single market. Although mainly concerning the transport and communications sectors, it was anticipated that the impact would be felt across all sectors. As the proposal would end the requirement for Member States to implement seasonal time changes, we do not anticipate any significant impact on the internal market as the current level of harmonisation would continue. This is because no member states would be able to change their clocks, resulting in a constant time difference throughout the year. Any de-harmonisation of the timing of Member States changing their clocks is anticipated to be detrimental to the integrity of the internal market.

Energy: One of the main drivers of the current summer-time arrangements was the potential for an energy savings effect from summer-time, with the scale of the savings varying depending on geographical location. However, more recent research highlighted by the proposal suggests that across the EU these savings are marginal.

¹ Home Office, “Review of British Standard Time”, Cmnd 4512: HMSO, 1970 , page 64

Given our northern location, ending seasonal time changes in the UK is likely to affect the patterns of energy (both electricity and gas) demand. The impact of this would depend on whether the UK chooses to remain on British summertime or Greenwich Meantime all year round.

Any changes in energy demand patterns are likely to have wider effects on the energy system via shifting peak demand. For example, remaining on Greenwich Meantime in the summer months would result in peak energy occurring later in the evening which may reduce the role that solar generation can play in meeting peak demand, potentially raising prices and emissions. To illustrate this the other way, remaining on British summer time during winter may enable solar generation to play a larger role in winter, reducing prices and emissions. However, this would also mean that mornings would be darker in the winter, implying changes for the level of energy consumption in winter mornings. Further research is needed to determine the scale of the various impacts on energy consumption over the course of a year from remaining on a single time zone.

In addition to these domestic factors, the eventual impact on the UK's energy system will also be affected by the time-zone choices of its neighbouring countries with whom it trades gas and electricity. For example, France is currently one hour ahead of Great Britain. This means that peak demand is staggered across the countries and allows for interconnectors between the two countries to play a role in meeting peak demand throughout the year. This results in lower energy generation required in Great Britain and lower prices for consumers. If the time difference were to change it could have impacts across the energy system, including on the benefits assumed from interconnection. There is yet to be any comprehensive research on the scale of the interconnectivity benefits driven by time differences, and so further study would be required to understand how these factors interact.

Northern Ireland's energy system is connected to Ireland's energy system in the Integrated Single Electricity Market (I-SEM). It is connected to Great Britain's energy system via interconnectors. The considerations for Northern Ireland would likely be similar to those set out for Great Britain, including the choice of time zone in connected countries, particularly Ireland.

Road Safety: The current system of bi-annual clock changes may have some impact on road safety. Advancing the clock in spring creates a short-term disruption in sleeping patterns which can cause fatigue. This can lead to inattention, poor decision making and delayed reaction times, all of which are contributing factors to road traffic accidents. It should be noted that more recent research suggests a similar, although reduced impact in Autumn when the clocks go back one hour.

There is a lack of recent UK-specific research on driver fatigue and its implications for road safety. In 2011, the Department for Transport carried out a review of driver fatigue evidence, which although dated, is the best available data. The review suggested that tiredness may be a contributory factor in up to 20% of all road accidents.²

In 2017, fatigue contributed to 2% of all reported accidents (4% of all fatal accidents and 2% of all serious accidents)³. This figure differs from the 2011 review and is believed to be an underestimate as fatigue is typically defined as 'falling asleep at the wheel'. Thus, it does not capture accidents caused by the symptoms of fatigue. It is anticipated that ending seasonal changes of time will remove the accompanying increase in fatigue. We cannot estimate the marginal increase in fatigue from changing the clocks a single hour when compared to other contributing factors, as this is a relatively short-term disruption, it is not anticipated to be a significant change.

It is noted that there are clear seasonal patterns to injuries to pedestrians from driving incidents. There is a 26-percentage point reduction in the number of pedestrians killed or seriously injured (KSI) between March and April (when the clocks move forwards) and a 23-percentage point increase in KSI's between October and November (when the clocks go back)⁴. These patterns do not imply causation; more factors contribute to KSIs than the changes in the clock. Without further research, we are unable to determine how significant the seasonal clock change is in the seasonal pattern of KSI's. It should be noted that there will be impacts on commuters either commuting to work or from work in the dark, depending on whether the UK eventually opts for summer-time or winter-time, although the scale of this impact is not known at this stage.

Health:

There is evidence to suggest that summer-time arrangements may generate positive impacts from outdoor leisure activities. These outdoor activities benefit both the physical and the mental wellbeing of individuals and can also counter obesity and other weight-related health problems.

The EU Commission emphasises research that suggests that the impact on the human biorhythm may be greater than previously understood, in particular a Bundestag report⁵ from 2016 presents this case. The report suggests that, particularly in the case of the forward adjustment in spring, that the adjustment process can take as much as four weeks or longer.

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<http://webarchive.nationalarchives.gov.uk/20121103213009/http://www.dft.gov.uk/publications/rsrr-theme3-fatigue-road-safety-analysis/>

³ <https://www.gov.uk/government/statistical-data-sets/ras50-contributory-factors>, table RAS50001

⁴ <https://www.gov.uk/government/statistical-data-sets/ras30-reported-casualties-in-road-accidents>, Table 30020

⁵ <http://www.tab-beim-bundestag.de/de/untersuchungen/u20100.html>

Alternate studies⁶ find there are no significant impacts from the seasonal clock change. Yet further evidence suggests that this backward shift of clocks in the autumn can have a negative impact on individuals' mental health.⁷

In the proposal, the Commission notes that there is no robust conclusion that can be drawn from the available evidence for the overall health impact from the seasonal clock adjustments. Without further research, this is an assessment that we are in agreement with.

Leisure and Sports – Summer-time arrangements increase the amount of light in the evening during the summer. Although the effect of the discontinuation of seasonal clock changes is anticipated to be minimal, it is anticipated that there will be impacts depending on the UK's choice of standard time, based on the quantity of sunlight available during evening leisure hours.

Tourism – Similar to above, it is not anticipated that there would be significant transitional costs for discontinuing seasonal clock changes. Again, it is anticipated that there would be impacts from the choice of standard time, with more positive benefits arising from operating on 'summer-time' than 'winter-time'. However, these anticipated impacts would not be uniform across the UK.

Agriculture: Summer-time arrangements have raised concerns about the disrupted biorhythms of animals, with respect to changing milking and feeding schedules. These impacts are expected to be reducing due to the deployment of new equipment, artificial lighting and automated technologies. It should be noted that the scale of the reduction has not yet been determined, and thus there may still be significant impacts. This is especially true in the north of Scotland which are often extensive livestock farms where it is not possible to have indoor, artificially lit, or automated processes.

Costs and Benefits

The evidence is unclear on the net costs and benefits. It is anticipated that there may be a benefit from discontinuing seasonal clock changes, although this would not be uniform across the UK as a whole. In particular, the northern parts of the UK would be more significantly affected by a change as there is greater variation in the quantity of daylight available.

Anticipated benefits are potentially arising in the form of health benefits from the reduced disruption to an individual's biorhythm, in addition to the potential for reduced driving incidents from lower fatigue.

⁶ <https://www.sciencedirect.com/science/article/pii/S0264999317312294>

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https://journals.lww.com/epidem/Fulltext/2017/05000/Daylight_Savings_Time_Transitions_and_the.7.aspx

Against these benefits there would be transitional costs from switching to a time regime without seasonal changes. IT systems would need to be reconfigured, especially for scheduling software, time-dependent software and for smart technologies. These transitional costs will be incurred regardless of whether the UK opts for 'summer-time' or 'winter-time' and could only be avoided by retaining existing time arrangements.

Whilst it is noted that there will be additional impacts depending on whether the UK opts to remain on 'winter-time' or 'summer-time', there is insufficient evidence at this stage on which to base a robust assessment as to which outcome would be of greatest, or indeed any significant benefit to the UK. A Parliamentary review of the 1968-71 experiment was unable to provide robust quantitative evidence in this regard.

Legal Implementation

Amendments to legislation would be required to reflect the repeal of Directive 2000/84/EC, and its accompanying domestic legislation; the Summer Time Act 1972. It should also be noted that should the UK opt to remain on 'summer-time', new legislation would be required to change standard time in the UK.

Ministerial sign-off:

I have read the analysis above of the potential impacts of this proposal and I am satisfied that, given the significance of the proposal, the time and evidence available, and the uncertainty of the outcome of negotiations, it represents a proportionate view of possible impacts.

Signed by the responsible Minister:



Date:

19/11/18