

## REGULATORY IMPACT STATEMENT

### Executive summary

1. The main purpose of daylight saving is to provide an additional hour of daylight in the evenings for outdoor recreation. The period of daylight saving in New Zealand has been reviewed to see whether there would be any advantages in extending the period. It is proposed that daylight saving begin on the last Sunday in September (instead of the first Sunday in October) and end on the first Sunday in April the following year (instead of the third Sunday in March). This would increase New Zealand's period of daylight saving from 24 weeks to 27 weeks. This extension would provide an extra hour of daylight in the late September and early April evenings for outdoor recreation, would avoid a clash with the fourth school term, and benefit the tourism sector by extending the 'peak summer season'. There would be minor one-off compliance issues for businesses, as they would need to update computer systems to reflect the new dates.

### Adequacy statement

2. The Department of Internal Affairs considers this Regulatory Impact Statement to be adequate. The Department of Internal Affairs confirms that the principles of the Code of Good Regulatory Practice and the regulatory impact analysis requirements (including the consultation Regulatory Impact Analysis requirements) have been complied with.

### Status quo and problem

3. The Department of Internal Affairs administers the Time Act 1974 and the New Zealand Daylight Time Order 1990. Currently, daylight saving runs for a period of 24 weeks, starting on the first Sunday in October and ending on the third Sunday in March the following year. The main purpose of daylight saving is to provide an additional hour of daylight in the evenings for outdoor recreation.
4. Last year, the end of daylight saving generated public debate and an increase in Ministerial correspondence. Some correspondents want an earlier start to daylight saving to avoid a clash with the start of the fourth school term. The reasons offered in support of an extension to the end date of daylight saving include:
  - the 'New Zealand lifestyle' i.e. an increased time for outdoor recreation; and
  - longer opening hours for some tourist attractions and an extended peak summer season.
5. New Zealand has had the same period of daylight saving for 17 years. In contrast, the United States of America in 2007 increased its period of daylight saving by four weeks (to a total period of 34 weeks) in a bid to reduce energy consumption, and Canada has followed suit to align with the USA. In light of international changes to daylight saving, and public debate about daylight saving in New Zealand, a review was timely.
6. In May 2006, the Department of Internal Affairs began consultation with government agencies about whether there would be any advantages in having a longer period of daylight saving, and if so, how far could the period be extended.

## Objectives

7. The objective of the policy is to maximise the benefits of the daylight saving regime.

## Options

8. Any option for extending the period of daylight saving is made up of two parts:
  - (a) whether daylight saving should start earlier; and
  - (b) whether daylight saving should end later.

### Part one: An extension at the beginning of daylight saving

9. There may be modest electricity savings in the order of \$0.5 million annually for each week that daylight saving starts in September. However, these could easily be outweighed by the impact on transport fuel use from changed travel patterns and increased energy use from economic activity in the evenings.
10. Retaining the status quo would align the start date of daylight saving with the proposed start date of daylight saving in New South Wales, Victoria, Tasmania and the Australian Capital Territory, which could provide benefits for trans-Tasman businesses. However, starting daylight saving earlier would mean that, unlike the status quo, the start date would not clash with the start of the fourth school term. When there is a clash, the 'double transition' can be difficult for students, who lose an hour of sleep. This can affect students' study.
11. The earlier daylight saving starts, the greater the negative impact on people affected by darker mornings, such as dairy farmers and early morning commuters.

*Starting daylight saving one week earlier (preferred start date)*

12. An extension of *one week* at the beginning of daylight saving would provide an extra hour of daylight in the late September evenings for outdoor recreation, may lead to small electricity savings, and would avoid a clash with the fourth school term. For these reasons, starting daylight saving one week earlier, i.e. on the last Sunday in September instead of the first Sunday in October, is the preferred start date.
13. This option would mean another week where some milking on dairy farms is done in the dark. In addition, there would be one-off compliance issues for businesses, as they would need to update computer systems and schedules to reflect the new date. These costs are expected to be minor. This is because large-scale changes were made to computer systems and programmes to remove 'hard-coded' date and time references as part of the Y2K project before 1 January 2000. Currently, date and time references in computer systems are held in a form that allows for quick and easy changes to be made. Therefore, changes to the dates on which time needs to be adjusted for daylight saving should be easy to accommodate.
14. The Department of Internal Affairs would work with Microsoft and other computer companies to update computer operating systems, and the banking, health, aviation and energy sectors may need to test their systems. To reduce compliance costs, the Department of Internal Affairs would look at making upgrades available on its website, so that individuals and business could download the required programmes to update computers. The implementation costs for the Department of Internal Affairs in extending the period of daylight saving are minor, and would be met from within existing appropriations.

*Starting daylight saving two or more weeks earlier*

15. Starting daylight saving in early/mid September would be likely to coincide with cold, wet and windy weather, meaning that people would be unlikely to take advantage of the extra hour of evening daylight for outdoor recreation. This option would significantly inconvenience dairy farmers, who may have to complete milking before sunrise during the busy mating season. For these reasons, this option is not preferred.

**Part two: An extension to the end date of daylight saving**

16. An extension to the end date of daylight saving would provide an extra hour of daylight in the evenings in late March and April, when the weather is generally fine. However, a large extension to the period of daylight saving (i.e. until the end of April) would not be practical. From 21-22 March (the time of the autumn equinox), the nights become longer than the days. Therefore, if daylight saving continued into late April, there would be dark mornings and it would still get dark in the mid-evenings.
17. Even if the end date were extended by *three weeks*, sunrise in Invercargill could be as late as 8:20am (which is the time of sunrise in winter), and the evening daylight available would have reduced significantly (sunset in Auckland would be approximately 7:00pm, as opposed to 7:30pm three weeks earlier). For this reason, an extension of more than two weeks has not been considered.

*Ending daylight saving one week later*

18. Under this option, daylight saving would end on the last Sunday in March instead of the third Sunday in March. This would align the end date of daylight saving with the start of daylight saving in the European Union, which could result in a simplification of scheduling (and thereby lower costs) for airlines.
19. This option is not preferred because it does not bring the benefits of extending daylight saving into early April.

*Ending daylight saving two weeks later (preferred end date)*

20. Under this option, daylight saving would end on the first Sunday in April instead of the third Sunday in March.<sup>6</sup> This would enable people to take advantage of an extra hour of daylight in the early April evenings for outdoor recreation. It would also benefit the tourism sector by extending the 'peak summer season' and may be advantageous for retailers and the hospitality industry, as people may be more inclined to shop later and go to restaurants in the lighter evenings. This option would also align the end date with the proposed end date of daylight saving in New South Wales, Victoria, Tasmania and the Australian Capital Territory. This trans-Tasman alignment could result in lower costs for businesses such as airlines.
21. There would be one-off compliance issues for businesses, as they would need to update computer systems and schedules to reflect the new date. These costs are expected to be minor. Currently, date and time references in computer systems are held in a form that allows for quick and easy changes to be made. Therefore, changes to the dates on which time needs to be adjusted for daylight saving should be easy to accommodate.

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<sup>6</sup> When the last Sunday in September is the 29<sup>th</sup> or 30<sup>th</sup> of September, there will be five Sundays in the following March. When there are five Sundays in March, ending daylight saving on the first Sunday in April would amount to an end date three weeks after the third Sunday in March. However, due to the late start in September, the period of daylight saving would still total 27 weeks.

22. The Department of Internal Affairs would work with Microsoft and other computer companies to update computer operating systems, and the banking, health, aviation and energy sectors may need to test their systems. To reduce compliance costs, the Department of Internal Affairs would look at making upgrades available on its website, so that individuals and business could download the required programmes to update computers. The implementation costs for the Department of Internal Affairs in extending the period of daylight saving are minor, and would be met from within existing appropriations.

Alternative option: status quo

23. Retaining the status quo of 24 weeks of daylight saving would avoid compliance costs associated with a change and increased inconvenience for dairy farmers. However, this option is not preferred because it would ignore the benefits for outdoor recreation and the tourism industry of an extended period of daylight saving.

Alternate option: an extension to standard time

24. Rather than extend daylight saving, a different approach would be to add half an hour to New Zealand standard time and have no separate period of daylight saving. While this would avoid the disadvantages associated with the twice-yearly change for daylight saving (e.g. sleep desynchronosis and clashes with the fourth school term), it would fail to take full advantage of the settled summer weather for recreation, and would mean very dark mornings in winter. For these reasons, this option is not preferred.

**Implementation and review**

25. If Cabinet agree to the proposed change to the period of daylight saving, a new New Zealand Daylight Time Order will be drafted that will apply from the last Sunday in September this year. Before the start of daylight saving, the Department of Internal Affairs will work with Microsoft and other computer companies to update computer operating systems. The Department will also provide information on its website and issue media releases to inform the public.

26. The Department of Internal Affairs will monitor public response to the new period of daylight saving and consult with government agencies to see what, if any, impacts the changes to daylight saving have had.

**Consultation**

*Government*

27. The Ministries of Agriculture and Forestry, Economic Development, Education, Environment, Health, Transport, and Tourism, the Department of Labour, and the Treasury have been consulted and their views are reflected in the paper. The Department of the Prime Minister and Cabinet has been informed of the proposals. No significant concerns were raised.

*Industry*

28. The Electricity Commission, the Energy Efficiency and Conservation Authority and BRANZ Limited (an independent building research, testing and consultancy firm), were consulted during the review of daylight saving. The position of the Board of Airlines Representatives Inc was also taken into account. The Ministry of Tourism also contacted various tourism operators in providing its comments. No significant concerns were raised.