NSW Legislative Council Hansard

Standard Time Amendment (Co-ordinated Universal Time) Bill

Extract from NSW Legislative Council Hansard and Papers Wednesday 2 March 2005.

Second Reading

The Hon. ERIC ROOZENDAAL (Parliamentary Secretary) [6.11 p.m.]: I move:

That this bill be now read a second time.

I seek leave to have the second reading speech incorporated in *Hansard*.

Leave granted.

The Standard Time Amendment (Co-ordinated Universal Time) Bill 2005 amends the New South Wales Standard Time Act 1987 to replace references to Greenwich Mean Time with Co-ordinated Universal Time.

Co-ordinated Universal Time has replaced Greenwich Mean Time as the international time standard.

There is a fundamental difference between the ways in which time is measured under these two time scales. I would like to outline this briefly for the information of Honourable Members.

Greenwich Mean Time is a solar time scale, based upon the rotation of the Earth. Each new day is defined as beginning "at the moment of mean midnight on the prime meridian of longitude," which runs through the Royal Observatory in Greenwich, England. This definition was agreed to at the International Meridian Conference in 1884.

However, scientists and technologists recognise the considerable drawbacks of measuring time based on the erratic motion of the Earth, the rate of which fluctuates by a few thousandths of a second a day.

By contrast, Co-ordinated Universal Time is maintained by highly accurate atomic clocks and is accurate to approximately a nanosecond (or one billionth of a second) per day.

The use of Co-ordinated Universal Time was strongly endorsed in 1975 by the 15th General Conference on Weights and Measures. The Metre Convention, a diplomatic treaty signed by Australia in 1947, gives authority to General Conference on Weights and Measures to act in matters of world metrology.

To determine the international standard Co-ordinated Universal Time, the Bureau of Weights and Measures co-ordinates data from atomic clocks located in timing laboratories around the globe, including the Australian National Measurement Institute and US Naval Observatory.

The Commonwealth National Measurement Act was amended in 1997 to require the Chief Metrologist to maintain Co-ordinated Universal Time, as determined by the International Bureau of Weights and Measures.

In many countries, Co-ordinated Universal Time is distributed by standard radio stations that broadcast time information. Co-ordinated Universal Time is also closely tied to the time scale of the satellite based Global Positioning System.

We live in a globally connected electronic society. The adoption of the reference to Co-ordinated Universal Time is in keeping with modern scientific practice and is highly significant in terms of modern technical applications requiring accurate synchronization. Examples of such applications include electricity distribution, high-speed computer networks and precise navigation.

Both business and the community need to be certain about the terminology used in Standard Time legislation and equivalent legislation.

The Standing Committee of Attorneys General agreed last year to introduce amendments to Standard Time Acts, or equivalent legislation, to define standard time in terms of Co-ordinated Universal Time.

To avoid confusion and allow sufficient time to facilitate the change to Co-ordinated Universal Time, State and Territory Ministers agreed to adopt the reference to Coordinated Universal Time on a uniform basis.

Ministers also agreed to commence the relevant amendments to legislation on 1 September 2005. This date is one month prior to the earliest start-up date for beginning of the daylight saving period in 2005.

Co-ordinated Universal Time is a more precise means of measuring time and is the legal reference time scale for Australia. It is the only time scale supported by a technical infrastructure.

The proposed legislation updates the New South Wales Standard Time Act to reflect the internationally accepted time standard.

I commend the Bill to the House.