
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**

**Senator Steven Bradford, Chair
2023 - 2024 Regular**

Bill No: SB 1413 **Hearing Date:** 4/16/2024
Author: Niello
Version: 2/16/2024 Introduced
Urgency: No **Fiscal:** No
Consultant: Nidia Bautista

SUBJECT: Year-round standard time

DIGEST: This bill repeals daylight savings time in California, and adopts year-round standard time.

ANALYSIS:

Existing law:

- 1) Establishes, under federal law, the standard time of the United States for each of nine zones and advances the standard time of each zone by one hour during the period commencing at 2:00 a.m. on the second Sunday of March of each year and ending at 2:00 a.m. on the first Sunday of November of each year. Establishes the standard time within California is that of the fifth zone designated by federal law as Pacific Standard Time (PST). Prohibits a state from setting its standard time to year-round daylight saving time (DST). (15 U.S. Code §260 et seq.)
- 2) Establishes the standard time for California, consistent with federal law, is PST, and sets DST to begin at 2:00 a.m. on the second Sunday of March of each year and end at 2:00 a.m. on the first Sunday of November of each year. Authorizes the Legislature, by a two-thirds vote, to change the dates and times of the DST period, consistent with federal law, and if federal law authorizes the state to provide for the year-round application of DST. (Government Code §6808)

This bill:

- 1) Repeals DST in the state and the provisions regarding the Legislature's authority to amend observance of DST provisions by a two-thirds vote.
- 2) Requires the state and all political subdivisions of the state to observe year-round standard time.

- 3) Exempts the state and all political subdivisions of the state from the provisions of federal law that establish the advancement of time.

Background

Daylight savings time v. standard time. DST is often referred to as “summer time” and standard time is often referred to as “winter time.” In California, DST, summer time, is observed during the time of year when clocks “spring forward,” between the second Sunday of March and first Sunday of November, consistent with federal law. Standard time, or winter time, in California is observed during the time of year when clocks “fall back,” between the first Sunday of November and second Sunday of March.

History of DST. The first modern DST was established during WWI as an effort to save energy and conserve fuel. In April of 1916, at 11:00 p.m., Germany and Austria advanced the hands of their clocks one hour and kept them that way until the following October. Many other nations—mostly in Europe, but including Tasmania and some Canadian provinces as well—followed suit. Two years later, the United States, too, established in law DST and created a standard time. That law defined standard time zones and set summer DST to begin on March 31, 1918. The nation observed DST for seven months in 1918 and 1919 but ceased to do so when congress repealed the DST law. Nonetheless, from February 9, 1942, to September 30, 1945, President Franklin Roosevelt instituted year-round DST, or “War Time.” From 1945 to 1966, there was no federal law regarding DST, leaving it to states and localities to choose whether and when to observe DST.

California Daylight Saving Time Act. California voters, in 1949, established *The California Daylight Saving Time Act* through the passage of Proposition 12. The proposition established standard time within California as the time which the federal government describes and designates as United States PST. The initiative also required that the state advance time one hour during the period from the last Sunday in April until the last Sunday in October. In the mid-1960s, Congress enacted *The Uniform Act of 1966* to establish a uniform standard DST within each time zone. The act set DST to begin on the last Sunday of April and to end on the last Sunday of October. This act exempted any state from observing DST if the state passed a law that results in year-round observance of standard time. Two states—Arizona and Hawaii—have done so. Federal law does not, however, give states the option to observe DST year-round. In an effort to save energy, Congress passed *The Energy Policy Act* in 2005 to extend DST in the U.S. by three weeks in the spring and one week in the fall. This change created a conflict between California’s DST law and the federal law on DST. However, since federal law provides states only two options: 1) observe standard time throughout the year, or

2) observe DST on federally mandated dates, California has observed the dates consistent with the adjusted federal dates.

California passes Proposition 7 in 2018. In 2018, AB 807 (Chu, Chapter 60, Statutes of 2018) placed a ballot measure before voters to make changes to the state's observance of DST. Specifically, Proposition 7 (November 2018) which passed by 59.75 percent - 40.25 percent margin, allows the Legislature by two-thirds vote to make future changes to California's DST period, including applying year-round application of DST, if changes are consistent with federal law. Proposition 7 also conformed California DST to current federal law. To enact Proposition 7 the measure also repealed Proposition 12 of 1949, a ballot initiative that established DST in California.

Energy savings? Claims of energy savings underlie observance of DST during the spring and summer. The argument is simple: by springing the clock forward during the summer when there is more sunlight we can take advantage of natural light and use less energy or fuel. Yet, there is no clear evidence that DST results in energy saving and some evidence suggests the contrary. In 2008, the National Bureau of Economic Research released a study on the effectiveness of DST. The study sought to provide the first empirical estimates of DST effects on electricity consumption in the United States by focusing on residential electricity demand as far back as the mid-1970s. The bureau's main finding was that, contrary to the intent of the policy, DST increases residential electricity demand by approximately one percent. According to the study, during DST, there is a tradeoff between the demand for electricity and the demand for heating and cooling. That is, as the demand for electricity is reduced, the demand for heating and cooling is increased. These findings estimate that DST increased cost of electricity to Indiana households by about \$9 million per year. The study further speculates that this impact is likely to vary by region, with regions where demand for heating and cooling is greater experiencing a higher increase in electricity use.¹

In 2007, the California Energy Commission (CEC) released a study in response to the expansion of DST by *the Energy Policy Act of 2005*. This study, titled "*The Effect of Early Daylight Saving Time on California Electricity Consumption: A Statistical Analysis*," revealed that the "extension of DST to March 2007 had little or no effect on energy consumption in California, according to a statistical analysis. The most likely approximation is a 0.2 percent decrease during these three weeks."² The findings of the study in relation to energy savings of the

¹ Grant, Laura and Kotchen, Matthew. "Does Daylight Saving Time Save Energy? Evidence from a Natural Experiment in Indiana." October 2008. <http://www.nber.org/papers/w14429.pdf>

² California Energy Commission. *The Effect of Early Daylight Saving Time on California*. May 2007. <<http://www.energy.ca.gov/2007publications/CEC-200-2007-004/CEC-200-2007-004.PDF>>.

changes to DST were largely inconclusive as the 95 percent confidence interval could result in a range of 1.5 percent energy savings to 1.4 percent increase in energy consumption.

Comments

Bill seeks year-round standard time. The author is seeking to do away with the biannual changing of the clocks, and establish year-long standard time. In support of this goal, the author and supporters, cite various studies as to the benefits of having year-round standard time. The main benefits cited are the avoidance of public health impacts associated with switching the time by an hour twice a year, including increased heart attacks and strokes, traffic accidents, and workplace injuries as residents adjust to the time differences.

Changing electricity generation sources. Since the 2007 CEC study, the state has increased its use of intermittent renewable resources, particularly solar generation which can only be used during the time the sun is shining. It is unclear how changes to DST could affect demand of energy resources and the particular effects on the electrical grid when solar generation is increasingly relied upon. In recent years, the state's largest electrical grid operator, the California Independent System Operator (CAISO) has experienced challenges maintaining electric grid reliability in the evening hours of the late summer when solar generation has plummeted and hydroelectric resources have been reduced. As a result, the state has invested billions from the general fund and utility ratepayers to help shore up resources. It is unclear whether a move to permanent standard time might exacerbate these conditions, as the sun would set earlier on these days.

Legislature empowered? Act of Congress not needed to establish standard time. Existing federal law does not allow states to establish year-round DST, but does allow year-round standard time. A previous author abandoned a previous attempt to establish year-round standard time due to opposition against such a change, including concerns that standard time would limit daylight activities and other impacts. If the Legislature passes this measure by the required two-thirds and the Governor signs this bill into law, the bill would take effect on January 1, 2025. As such, the clocks would NOT spring forward on March 2025 in California and the state would remain on Pacific Standard Time.

What did voters support? Voters supported the passage of Proposition 7 in 2018. However, it seems a valid question as to whether voters supported doing away with the biannual clock changes or if they support permanent year-long DST or permanent year-long standard time. Lacking any more recent data and analysis, this bill would go into effect on January 2025 and immediately adopt year-long

standard time. It is unclear whether the state is prepared for doing away with the time change and the full ramifications of this policy to a myriad of operations, including: schools, logistics industry, communications, transportation, and many others, as well as, the effects on individuals adjusting to the new sunrise and sunset hours during the summer time (DST). The reality for most individuals is they may not fully appreciate the changes being proposed until they are clearly explained and potentially experienced.

In 1974, as a response to the global energy crisis, the federal government under President Nixon attempted a year-long DST which, according to some news reports, was abandoned by the fall due to the political backlash, public outcry, and concerns about safety due to the later sunrises (and darker mornings as a result). It is unclear whether a change to yearlong standard time would engender a similar response.

Impacts to communities along the state's borders. California shares borders with three states and the country of Mexico. The constant movement of people and goods across those borders requires coordination. The economies and societies of the border communities are interdependent. Currently, Arizona does not observe DST. Mexico recently did away with observing DST, however, the border areas maintain alignment with U.S. states. Changes to DST in California have the potential for considerable disruption. For example, when Congress passed the Energy Policy Act of 2005, which amended the dates of DST in the United States, it resulted in a time difference, for a period of a couple of weeks, between communities in the U.S. and communities in Mexico. This had a huge effect on border communities. In order to address this effect, the Congress of Mexico passed a law to allow border communities to adopt a DST pattern consistent with the United States. However, given Mexico has moved to year-long standard time, it is unclear whether a similar move by California would have a similar effect.

Caution! According to the Office of Legislative Counsel, SB 1413 may not be allowable as it may need to go before the voters before year-long standard time could be adopted. Legislative Counsel cautions that Section 2 of Article 2 of the California Constitution may require the voters to approve the change proposed in this bill. The Office of Legislative Counsel cautions that a change to yearlong standard time may not be consistent with the passage of Proposition 7 which authorized the Legislature to make changes to the dates of DST. The supporters of this bill contend that when AB 807 (Chu, Chapter 60, Statutes of 2018) was being debated the authors expressed that the language would still allow the state to adopt year-long standard time. They suggest that this may strictly be an issue of divergent interpretations. Should this bill proceed, the author and members may

wish to further assess whether to require the bill go before the voters, as suggested by the Office of Legislative Counsel.

Timing. The question for the Legislature is whether immediate action is necessary. It seems there may be some benefit to waiting and assessing implications of a year-long standard time before authorizing its change. The state could assess the implications and the interests of residents, communities, schools, businesses, neighboring states and others to coordinate and conform to a year-long standard time all with a more informed analysis. Such an analysis should also include more current consideration of changes to energy systems in the near-term and long-term of moving to yearlong standard time, as well as, the impacts during the different time of the year in different regions of the state, as the amount of daily sunrise/sunset is not static and changes depending on the time of year and location. *In this regard, the author and committee may wish to at a minimum amend this bill to require the CEC to develop and publish an assessment, by February 1 of next year, regarding the implications of moving to yearlong standard time with a focus on near-term and long-term energy reliability.* By requiring this assessment by February 1, the assessment can inform whether the Legislature may need to act to prevent a permanent move to standard time.

Prior/Related Legislation

AJR 33 (Chu, 2020) was a measure to urge Congress and the President to enact legislation that would allow a state to adopt DST year-round. The measure was never heard.

AB 7 (Chu, 2018) was an urgency measure that would have established year-round DST (otherwise understood as summer time) effective immediately once the federal government authorizes such a change. The bill was held in this committee.

Proposition 7 (2018) made numerous changes to the state's statute concerning DST, including: conform the dates of DST observance with those in the federal statute; authorizes the state, by a two-thirds votes of the Legislature, to adopt a year-round DST if allowed by the federal government; and repealed numerous sections of the 1949 California DST Act.

AB 807 (Chu, Chapter 60, Statutes of 2018) directed the Secretary of State to place an initiative on the ballot to allow voters to decide whether to authorize the Legislature, by a two-thirds vote of the members, to make changes to the state's observance of DST consistent with, and to the extent authorized by, federal law.

AB 385 (Chu, 2016) would have repealed the DST Act and authorized the Legislature by majority vote to amend the law for the application of permanent (year-round) DST, if authorized by federal law. The bill failed passage on the Senate Floor.

AB 2496 (Chu, 2016) would have declared the intent of the Legislature to enact legislation to establish United States Standard Pacific Time as the standard time within the state during the entire year. The bill died at the Assembly Desk.

AJR 28 (Oberholte, Chapter 167, Statutes of 2016) urged Congress and the President to enact legislation that would allow states to adopt permanent (year-round) DST.

SJRX2 1 (Karnette, Chapter 1, Statutes of 2001) memorialized Congress to approve legislation that allows a state to uniformly apply DST year-round.

FISCAL EFFECT: Appropriation: No Fiscal Com.: No Local: No

SUPPORT:

American Academy of Dental Sleep Medicine
American Academy of Sleep Medicine
California Sleep Society
Coalition for Permanent Standard Time
National Sleep Foundation
Northwest Noggin Neuroscience
Save Standard Time
Sleep Research Society
Society for Research on Biological Rhythms
10 Individuals

OPPOSITION:

California Alliance for Golf
4 Individuals

ARGUMENTS IN SUPPORT: In support of this bill, the National Sleep Foundation argues that “the human circadian system does not adjust to annual clock changes... The link between our biological clock and the sun clock has been crucial to human health and well-being for millennia.” NSF advocates “for the adoption of permanent standard time as the appropriate option for public health.”

ARGUMENTS IN OPPOSITION: In opposition to this bill, the California Alliance for Golf contends that the golf community would suffer significant harm by a year-round standard time schedule. They argue that the loss of playable daylight hours in the afternoon/evenings would limit playing opportunities and reduce golf facility utilization, and reduce income for those who derive their livelihoods from the game and lessen recreational opportunities for those who play the game.

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