2021 April 15

Committee on State & Local Government Maine State Legislature 100 State House Station Augusta, Maine 04333

Re: LD-826: Oppose. Amend to include study of permanent Eastern Standard Time. Amend to include study of health, safety, and education effects.

Dear Honorable Committee Members,

LD-826 seeks to study permanent Atlantic Standard Time. However, Maine is almost entirely located within the longitudes of Eastern Standard Time (EST). Atlantic Standard Time in Maine is simply permanent Daylight Saving Time (DST) by another name, which is unanimously opposed by advocates for health, safety, and education.

Furthermore, LD-826 seeks to study only the immediate economic effects of permanent DST. However, civil clocks unavoidably affect the public's health, safety, and education—issues which themselves affect the economy. It is therefore a diversion from what should be this body's primary concern: the physical and mental well-being of the public at large.

Scores of organizations representing thousands of scientists/doctors and millions of teachers/parents oppose permanent DST and endorse longitudinally correct, permanent Standard Time. Among these are the National PTA, National Safety Council, American Academy of Sleep Medicine, American College of Chest Physicians, National Sleep Foundation, American College of Occupational & Environmental Medicine, Start School Later, Society for Research on Biological Rhythms, Association of Canadian Ergonomists, and Canadian Society for Chronobiology (example expert statements enclosed). [AASM][CSC][NSF][RIVM][SRBR]

Permanent EST is the quickest way to end clock change, as the Uniform Time Act pre-approves any state's self-declared exemption from DST and restoration of longitudinally correct, permanent Standard Time. Recent scientific polling shows strong public support to end clock change, with slight preference for longitudinally correct, permanent Standard Time. [AP] History shows support for permanent DST reverses into strong opposition once its forced early waking in dark, cold winter mornings is experienced. Permanent DST has repeatedly failed around the world; it was a deadly disaster in the US in 1974. [BBC][Ripley][Yorkshire]

With EST, your sunrises never come later than 8am (when most work and school days start<sup>[CDC][Silver]</sup>). Permanent DST would delay sunrises in Maine to 8:22am, and past 8am up to 2.2 months (photos enclosed). It would depress and endanger schoolchildren and workers. It would undo the benefits of starting school later. [Cell][Skeldon] Permanent EST instead preserves morning sunlight, when human biology needs it most. [AASM][CSC][Juda][RIVM][Roenneberg][SRBR]

Sleep is essential to viral immunity (including COVID), [Meira][Panda][Ray] and for years the CDC has classified sleep deprivation as a nationwide epidemic. [Jin] Springing clocks forward to DST acutely deprives sleep. Leaving clocks forward on DST chronically deprives sleep (estimated average 19 minutes nightly). [CSC][Giuntella][Roenneberg] Artificial delay of sunrise by one hour each day (such as by DST) manifests as statistically significant increases in accidents, disease (certain cancers up 12–36%), and healthcare costs, and as statistically significant decreases in learning, productivity, and earnings (individual wages down 3–5%). [CSC][Gibson][Giuntella][Gu][Juda][RIVM][Roenneberg] It's not just clock change that harms, but also DST's forced early waking. Permanent EST lets us sleep. [AASM][SRBR]

Please oppose LD-826 and recommend its amendment to include study of permanent EST and study of health, safety, and education effects.

Sincerely,

Jay Pea

Founder & President

jay@savestandardtime.com

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#### Endorsements of Permanent Standard Time as the Better Year-Round Clock

The following parties reject permanent Daylight Saving Time and endorse permanent Standard Time as the better year-round clock. These are not implied to be endorsements of the Save Standard Time entity.

#### Organizations (non-comprehensive list)

National PTA

National Safety Council

American College of Chest Physicians

National Sleep Foundation

American College of Occupational/Environmental Medicine B-Society

Start School Later

Rabbinical Council of America

Society for Research on Biological Rhythms

Florida PTA

World Sleep Society

European Biological Rhythms Society

French Society for Sleep Research & Medicine

California Islamic University Agudath Israel of Florida

Francophone Chronobiology Society Association of Canadian Ergonomists

Good Light Group

Catalunya Advisory Council for Timetable Reform

California Sleep Society

Michigan Academy of Sleep Medicine

Ohio Bicycle Federation Wisconsin Sleep Society

Canadian Society for Chronobiology

Southern Sleep Society Normal Time All the Time German Society for Time Policy

Missouri Sleep Society

Solaris Fatigue Management

Sleep Medicine Association Netherlands

Chronobiology Lab Groningen

Better Times Platform

National Education Association American Academy of Sleep Medicine

American Federation of Teachers National School Boards Association

American Academy of Dental Sleep Medicine

European Sleep Research Society

Agudath Israel of America

Society of Anesthesia & Sleep Medicine

German Teachers' Association

International Alliance for Natural Time Society of Behavioral Sleep Medicine

National Commission for Rationalization of Spanish Hours American Academy of Cardiovascular Sleep Medicine

Portuguese Sleep Association

Society for Light Treatment & Biological Rhythms

Rabbinical Council of California Agudath Israel of California Northwest Noggin Neuroscience Agudath Israel of Chicago

Daylight Academy Kentucky Sleep Society Maryland Sleep Society

Australasian Chronobiology Society Cuyahoga Astronomical Association

Adath Israel San Francisco Tennessee Sleep Society Curtis Clock Lab

Capitol Neurology

Stephens Memorial Observatory Dutch Society for Sleep-Wake Research

Dakota Sleep Society

Barcelona Time Use Initiative for a Healthy Society

#### Individuals (non-comprehensive list)

Raúl Aguilar-Roblero MD PhD, Laboratory on Circadian Rhythmicity, Institute of Cellular Physiology, Mexico Konstantin V Danilenko MD PhD, Institute of Physiology & Basic Medicine, Novosibirsk, Russia

Elizabeth B Klerman MD PhD, Associate Professor, Harvard Medical School, Boston, Massachusetts

Michael T Lam MD PhD, San Diego, California

Michael McCarthy MD PhD, Center for Circadian Biology, University of California, San Diego

Thomas E Nordahl MD PhD, Professor Emeritus, University of California, Davis

David K Welsh MD PhD, Professor Emeritus, University of California, San Diego

Amir Zarrinpar MD PhD, Assistant Professor, San Diego, California

Salman Ahsan PhD, San Jose, California

Shimon Amir PhD, Professor, Concordia University, Montreal, Quebec

Sonia Ancoli Israel PhD, Professor Emeritus, University of California, San Diego

Michael Antle PhD, Professor, Hotchkiss Brain Institute & University of Calgary, Alberta

Susanna Barry PhD, College Mental Health Counselor & Sleep Coach, Cambridge, Massachusetts

William Bechtel PhD, Distinguished Professor, University of California, San Diego

Mikhail Borisenkov PhD, Institute of Physiology, Komi Science Centre, Russian Academy of Sciences

Joseph Boyd PhD, Research Scientist, MilliporeSigma, Temecula, California

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Scott Cookson PhD, Quantitative BioSciences, San Diego, California

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Grant Denn PhD, Physics Department Chair, Metropolitan State University of Denver, Colorado

Heinz Freisling MSc PhD, Epidemiologist, International Agency for Research on Cancer, Lyon, France

Frederic Gachon PhD, Group Leader, Physiology of Circadian Rhythms, Institute for Molecular Bioscience

Susan S Golden PhD, Director, Center for Circadian Biology, University of California, San Diego

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Bill Griesar PhD, Northwest Noggin Neuroscience Outreach Group, Portland, Oregon

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Dietrich Henckel PhD, Professor, Technical University of Berlin, Germany

Erik Herzog PhD, Professor of Biology, Washington University, St Louis, Missouri

Myriam Juda PhD, Researcher, Simon Fraser University, Vancouver, British Columbia

Achim Kramer PhD, Professor of Chronobiology, Charité - Universitätsmedizin Berlin, Germany

Camilla Kring PhD, Speaker, Author, & Entrepreneur, Copenhagen, Denmark

Katja Lamia PhD, Associate Professor of Molecular Medicine, Center for Circadian Biology, UC San Diego

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Erik Maronde PhD, Scientist, Frankfurt, Germany

Girish Melkani MS PhD, Associated Research Professor, San Diego, California

Martha Merrow PhD, Professor of Chronobiology, Ludwig Maximilian University of Munich, Germany

Matt Metzgar PhD, Clinical Professor of Economics, University of North Carolina, Charlotte

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Linda Petzold PhD, Professor, University of California, Santa Barbara

Frank Powell PhD, Professor of Medicine, University of California, San Diego

Kendall Satterfield PhD, San Diego, California

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Andrea Smit PhD, Researcher, Simon Fraser University, Vancouver, British Columbia

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Roger Tseng PhD, Biological Scientist, USDA, Ames, Iowa

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John F Gottlieb MD, Clinical Assistant Professor of Psychiatry & Behavioral Sciences, Chicago, Illinois

Royan Kamyar MD, Physician, La Mesa, California

Jack Kruse DMD MD, Neurosurgeon, New Orleans, Louisiana

Beth Malow MD MS, Medical Doctor & Researcher, Brentwood, Tennessee

Melody T McCloud MD, Obstetrician-Gynecologist, Atlanta, Georgia

Tessa Sugarbaker MD MFT, San Francisco, California

Nathaniel F Watson MD MSc, Bainbridge Island, Washington

Dr Archana G Chavan, University of California, Merced

Dr Chelsea Gustafson, Assistant Professor, Portland, Oregon

Dr Paul Kelley, Milton Keynes, United Kingdom

Dr Irving Lebovics, Los Angeles, California

### Atlantic Time in Maine Is Permanent DST

Forces early waking-decreases immunity and alertness.

## **Experts Urge Permanent Eastern Standard Time Instead** Longitudinally correct—best for health, safety, and education.

"Permanent, year-round Standard Time is the best choice to most closely match our circadian sleep-wake cycle.

Daylight Saving Time results in more darkness in the morning and more light in the evening, disrupting the body's natural rhythm."

Muhammad Adeel Rishi MD Mayo Clinic & American Academy of Sleep Medicine

ora/american-academy-of-sleep-medicine-calls-for-elimination-of-daylight-saying-time/

🎯 SAVE STANDARD TIME

### "The human circadian system does not adjust to Daylight Saving Time.

Sleep becomes disrupted, less efficient, and shortened... Permanent Standard Time is the healthier, more natural choice."

Nathaniel F Watson MD MSc

Neurology Professor, University of Washington, Seattle

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6557642/

SAVE STANDARD TIME

# Most work/school starts at 8am.

How would you rather start your day half the year?



Permanent Standard Time is the safest, healthiest, quickest end to clock change.

网 SAVE STANDARD TIME

8.03am average school start in the US. CDC, US ED, SASS, 2015. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a1.htm 7:55am median work arrival in the US. 538, ACS, USCB, 2014. https://fivethirityeight.com/features/which-cities-sleep-in-and-which-gel-to-wa

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### "Cancer rates significantly increase when sunrise is later.

Permanent DST would make sunrise later. while permanent Standard Time would make sunrise closer to body time."

Nicolas Cermakian PhD

President, Canadian Society for Chronobiology

https://www.theglobeandmail.com/opinion/article-turn-back-the-clock-on-daylight-savings-why-standard-time-all-year/

SAVE STANDARD TIME

"National PTA is opposed to Daylight Saving Time during the winter months because of the safety factor."

**Heidi May Wilson** 

Spokesperson for the National Parent Teacher Association

SAVE STANDARD TIME