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May 12, 2025

# Testimony of Representative Laurie Osher presenting LD 1934, An Act to Promote Responsible Outdoor Lighting Before the Joint Standing Committee on State and Local Government

Senator Baldacci, Representative Salisbury, and colleagues of the Committee on State and Local Government, I am Laurie Osher and I represent District 25, the majority of Orono. Thank you for the opportunity to present LD 1934, An Act to Promote Responsible Outdoor Lighting.

If you have ever seen a nighttime satellite image of the United States,<sup>1</sup> you may have been struck by how incredibly bright the eastern U.S. is. 99% of Americans live under light-polluted skies.<sup>2</sup> But not here in Maine. In Maine, we have some of the darkest areas in the northeast: The Maine North Woods. Unlike the rest of the eastern seaboard, northern Maine's skies are almost completely dark.

When I moved to a rural part of Hampden, Maine, in 1999, I looked up and saw so many stars, and I thought we all did. Two years later, I was finally able to find a house in Orono, in town, where my soon-to-be-born twins would be able to walk to school. That first night in Orono, I realized that not all of Maine enjoyed dark skies. I couldn't see as many stars because our town had street lights and brightly lit parking lots and some businesses that had lights at ground level that pointed upwards to illuminate their signs or their buildings. With each year, the amount and intensity of outdoor lighting has increased. We've joined the 80% of North Americans who can't look up and see the stars at night.

Other municipalities in Maine were also getting brighter with each year that I'd called Maine home. That's because businesses and municipalities were switching to LEDs, and the lower cost per bit of brightness allowed people to feel comfortable investing in more outdoor lighting. If this lighting trend continues, the light from municipalities in Maine will soon prevent so many of us from looking up at night and seeing the stars.

Why does this matter? Throughout history, all life on Earth lived with and adapted to a day-night cycle that included nighttime periods of darkness. But today, many of us never experience truly dark nights.

<sup>&</sup>lt;sup>1</sup> https://eoimages.gsfc.nasa.gov/images/imagerecords/84000/84722/unitedstates\_dnb\_2012\_lrg.jpg

<sup>&</sup>lt;sup>2</sup> https://www.darksky.org/80-of-world-population-lives-under-skyglow-new-study-finds/

Research links nighttime artificial light to harmful human health effects ranging from sleep and mood disorders to metabolic disease and cancer.<sup>34</sup> Just as it disrupts our human circadian rhythms, it also disrupts the natural rhythms of and causes harm to our wildlife and ecosystems, interfering with migration, reproduction and the predator-prey relationship, among other effects.<sup>5</sup> Unnecessary outdoor lighting further harms our planet by wasting energy, contributing to climate change and wasting valuable resources.<sup>6</sup> Our dark skies are an incredible asset, one we should protect and expand on.

Some Maine communities are already recognizing just how valuable our dark skies are. Already, twelve municipalities in Maine have Dark Sky ordinances, and you'll hear from representatives of some of those communities in this public hearing and in written testimony. Other communities are interested, too. In western Maine, Rangeley residents are seeking certification as a Dark Sky Community, knowing the designation will draw attention and visitors to the region.<sup>7</sup> To the east, the Acadia Night Sky Festival draws hundreds of stargazers each year.<sup>8</sup> They know that, in addition to the environmental and health benefits, dark skies have the potential to be a considerable economic driver.

The good news is that light pollution is both preventable and reversible, and there are a number of relatively simple ways to address it. Dark Sky International, a recognized worldwide authority combatting light pollution, lists five basic principles for responsible outdoor lighting:

- 1. All light should have a clear purpose that cannot be addressed through some other means.
- 2. Light should be directed only where it's needed.
- 3. Light should be no brighter than necessary.
- 4. Light should only be used when it's useful, using strategies like timers or motion detectors.
- 5. Whenever possible, shorter wavelength (blue-violet) light should be limited in favor of warmer color lights.

LD 1934 was developed following the guidance from the Dark Sky International. As drafted, LD 1934 seeks to apply these principles to outdoor lighting in Maine. This bill requires the State of Maine, our municipalities, and grantees whose projects are funded with public funds to use responsible outdoor lighting. It requires that outdoor lighting installed or replaced after October 1, 2026, comply with standards intended to reduce the amount of unnecessary light emitted. Public outdoor lighting, with the exception of outdoor sports lighting, may not exceed 125% of the light level recommended, meaning it can't be too bright. It shouldn't trespass, meaning it shouldn't go beyond where it is needed. It should be directed and shielded. Nonessential light should be turned off late at night. The bill directs departments to adopt rules to implement the requirements of this bill, with coordination by the Maine

<sup>&</sup>lt;sup>3</sup> https://www.darksky.org/light-pollution/human-health/

<sup>&</sup>lt;sup>4</sup> https://pmc.ncbi.nlm.nih.gov/articles/PMC2627884/#

<sup>&</sup>lt;sup>5</sup> https://www.darksky.org/light-pollution/wildlife/

<sup>&</sup>lt;sup>6</sup> <u>https://www.darksky.org/light-pollution/energy-waste/</u>

<sup>&</sup>lt;sup>7</sup> https://www.mainebiz.biz/article/rangeley-group-seeks-dark-sky-designation-as-economic-driver

<sup>&</sup>lt;sup>8</sup> https://skyandtelescope.org/astronomy-news/stars-shine-brightly-for-acadia-night-sky-festival/

Office of Community Affairs (MOCA). Also, MOCA is charged with developing a model ordinance. Municipalities are directed to adopt a local ordinance by December 31, 2028, and may adopt ordinances that are stricter than what is required by this bill.

I have brought with me today a proposed amendment. I request that your committee add to the bill a legislative finding. The inclusion of a finding is consistent with other areas of statute, including the Natural Resources Protection Act in Title 38<sup>9</sup>, the purpose and scope of the Land Use Planning Commission in Title 12<sup>10</sup>, and the Land for Maine's Future program in Title 5.<sup>11</sup> Adding this language will assist future decision makers to understand this Legislature's reason for passing the bill.

## The amendment reads:

"The State of Maine finds that the natural dark sky is our common and universal heritage, a source of wonder and awe that has inspired science, religion, philosophy, art, and literature; that Maine is privileged with dark skies, a precious natural resource increasingly rare in our modern world; that natural dark skies contribute to the proper functioning of ecosystems and therefore to continued biodiversity; and that preserving the night sky and rural character of the state by avoiding wasteful lighting is in the public interest.

The legislature further finds that misuse of outdoor artificial light at night can negatively impact safety, adversely affect health, damage ecosystems, waste energy, and unnecessarily brighten the night sky."

Last year offered a reminder of just how lucky we are to be able to see the night sky in Maine. Across the state we delighted in the northern lights and the October appearance of a bright comet. The April eclipse of the sun demonstrated that people are willing to travel here to experience the awe and beauty that our skies can offer.

Nearly a quarter-million visitors traveled to Maine to experience it, spending over \$200 million. We have something here that is rare in the eastern United States, and we would be wise to protect it.

We can prevent light pollution and its negative impacts on humans and the natural world; save electricity and money and reduce carbon emissions; and conserve a vanishing resource, our night sky. In doing so, we can attract visitors willing to spend to experience something they cannot see at home. I ask you to support LD 1934, and I would be happy to answer any questions.

Thank you for your consideration. I am happy to answer any questions you may have for me.

<sup>&</sup>lt;sup>9</sup> https://legislature.maine.gov/legis/statutes/38/title38sec480-A.html

<sup>&</sup>lt;sup>10</sup> https://legislature.maine.gov/legis/statutes/12/title12sec681.html

<sup>&</sup>lt;sup>11</sup> https://legislature.maine.gov/legis/statutes/5/title5sec6200.html

### Proposed amendment to LD 1934 An Act to Promote Responsible Outdoor Lighting Sponsored by Representative Laurie Osher May 12, 2025

LD 1934 is amended with the insertion of the following:

## An Act to Promote Responsible Outdoor Lighting Sec. 1. 5 MRSA chapter 21 is enacted to read:

#### **Chapter 21 Responsible Outdoor Lighting**

#### § 1. Findings.

The State of Maine finds that the natural dark sky is our common and universal heritage, a source of wonder and awe that has inspired science, religion, philosophy, art, and literature; that Maine is privileged with dark skies, a precious natural resource increasingly rare in our modern world; that natural dark skies contribute to the proper functioning of ecosystems and therefore to continued biodiversity; and that preserving the night sky and rural character of the state by avoiding wasteful lighting is in the public interest.

The legislature further finds that misuse of outdoor artificial light at night can negatively impact safety, adversely affect health, damage ecosystems, waste energy, and unnecessarily brighten the night sky.

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