
A BILL FOR AN ACT

RELATING TO LIGHT POLLUTION.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that dark night skies
2 hold important cultural, scientific, astronomical, natural,
3 landscape, and tourism related value. Light pollution caused by
4 the excessive, misdirected, or obtrusive use of artificial light
5 has become a worldwide problem, and is now posing significant
6 challenges for the State. The inappropriate use of lighting at
7 night includes over-illumination, with excessive use of
8 artificial light, use of fixtures that direct light upwards
9 causing glare and sky glow, and use of fixtures that have
10 excessive amounts of blue light.

11 Light pollution is a statewide issue because light travels
12 far distances. For example, the western part of Molokai has a
13 much brighter night sky than the eastern part due to the sky
14 glow from Oahu; and the sky glow from Oahu is easily visible
15 from Haleakala and interferes with astronomical observations in
16 the western part of the sky.



1 Light at night interferes with various species of animals,
2 including threatened and endangered birds and turtles.
3 Historical use of poorly designed light fixtures has required
4 very costly retrofits to reduce the impact on these species.
5 Light at night, particularly blue light, also interferes with
6 circadian rhythms, including those in humans. The World Health
7 Organization has listed "shift work" that involves circadian
8 disruption as a probable carcinogen. According to Professor
9 Steven Lockley of Harvard Medical School, light intrusion, even
10 if dim, is likely to have measurable effects on sleep disruption
11 and melatonin suppression. Even if these effects are relatively
12 small from night to night, continuous chronic circadian sleep,
13 and hormonal disruption may have longer-term health risks.

14 Another consideration concerning night light is the cost
15 involved. Nighttime illumination of state highways, harbors,
16 airports, and other facilities is costly and consumes large
17 amounts of energy. Application of new lighting technologies may
18 produce substantial energy and cost savings.

19 The legislature finds that the preservation of the State's
20 dark night skies is essential to the State's well-being and that



1 the State needs a statewide coordinated strategy to address this
2 issue.

3 The purpose of this Act is to address the preservation of
4 dark night skies in Hawaii.

5 SECTION 2. (a) The department of business, economic
6 development, and tourism shall develop a statewide dark night
7 skies protection strategy.

8 (b) There is established a dark night skies protection
9 advisory committee, to be placed within the department of
10 business, economic development, and tourism for administrative
11 purposes. The advisory committee shall assist the department of
12 business, economic development, and tourism in developing a
13 statewide dark night skies protection strategy. The members of
14 the advisory committee shall include the following persons or
15 their designees:

16 (1) The director of business, economic development, and
17 tourism;

18 (2) The comptroller;

19 (3) The director of the University of Hawaii institute for
20 astronomy;

21 (4) The director of health;



- 1 (5) The director of transportation;
- 2 (6) The chairperson of the board of land and natural
3 resources;
- 4 (7) The mayor of each county;
- 5 (8) The administrator of the Office of Hawaiian Affairs;
- 6 (9) A representative of the University of Hawaii at Hilo;
7 and
- 8 (10) Any invited members that choose to join the advisory
9 committee pursuant to subsection (c).

10 The director of business, economic development, and tourism
11 shall designate a chairperson from among the members of the
12 advisory committee.

13 (c) The chairperson of the advisory committee shall invite
14 interested parties to serve on the advisory committee,
15 including:

- 16 (1) A representative from the United States Fish and
17 Wildlife Service;
- 18 (2) A member of the Hawaiian astronomical society; and
- 19 (3) A lighting engineer.

20 (d) In developing the dark night skies protection
21 strategy, the department of business, economic development, and



1 tourism and the advisory committee shall consider and evaluate
2 issues that include:

- 3 (1) Reduction of light pollution in the State;
- 4 (2) Methods to conserve energy;
- 5 (3) Cultural, scientific, astronomical, natural, tourism,
6 and landscape related values associated with dark
7 night skies;
- 8 (4) Protection of threatened and endangered species that
9 are affected by artificial light;
- 10 (5) Impacts of light pollution on astronomical
11 observations from Mauna Kea, Mauna Loa, and Haleakala;
- 12 (6) Educational uses of the dark night sky by K-12 and
13 higher education students;
- 14 (7) Establishment of dark night sky parks, which are
15 designated locations that have special protections for
16 the night sky, and are locations where residents and
17 visitors can view the night sky with minimal
18 interference from artificial light;
- 19 (8) Statewide monitoring of light pollution to monitor
20 light pollution levels and long-term trends;



1 (9) Public safety issues related to the reduction in
2 artificial light; and

3 (10) Any additional considerations that the advisory
4 committee believes will help to protect dark night
5 skies in the State.

6 (e) In conjunction with assisting the department of
7 business, economic development, and tourism develop the
8 statewide dark night skies protection strategy, the advisory
9 committee shall consult frequently with the United States Fish
10 and Wildlife Service.

11 (f) Members of the advisory committee shall not be
12 compensated but shall be reimbursed for necessary expenses
13 incurred, including travel expenses, in carrying out their
14 duties. The department of business, economic development, and
15 tourism shall provide all necessary administrative,
16 professional, technical, and clerical support required by the
17 advisory committee.

18 (g) The advisory committee shall be dissolved on June 30,
19 2021.

20 SECTION 3. The department of business, economic
21 development, and tourism shall report its initial findings and



1 recommendations, including any proposed legislation, to the
2 legislature no later than twenty days prior to the convening of
3 the 2017 regular session. The department of business, economic
4 development, and tourism shall report its updated findings and
5 recommendations, including any proposed legislation, to the
6 legislature no later than twenty days prior to the convening of
7 the:

- 8 (1) 2019 regular session; and
9 (2) 2021 regular session.

10 SECTION 4. This Act shall take effect on February 19,
11 2022.



Report Title:

Dark Night Skies; Light Pollution; DBEDT

Description:

Establishes a dark night skies protection advisory committee to assist DBEDT in the development of a statewide dark night skies protection strategy to preserve dark night skies and reduce light pollution. (HB2160 HD1)

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

