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## SENATE RESOLUTION

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REQUESTING THE DEPARTMENT OF TRANSPORTATION TO COMPLY WITH COUNTY ORDINANCES AND STANDARDS RELATING TO OUTSIDE LIGHTING AT AIRPORTS AND HARBORS, AND TO PROVIDE CUT-OFF OR FULLY SHIELDED LENS FIXTURES TO DIRECT ARTIFICIAL LIGHTING DOWNWARD TO PREVENT DIFFUSION THE LIGHT INTO THE ATMOSPHERE, ON THE ISLAND OF HAWAII AND THE ISLAND OF MAUI.

1           WHEREAS, Hawaii is home to two of the world's premier  
2 astronomy observatories, Haleakala on Maui and Mauna Kea on  
3 Hawaii; and  
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5           WHEREAS, Mauna Kea is considered to be the finest site for  
6 astronomy observation in the world; and  
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8           WHEREAS, one of the most critical needs for preserving the  
9 value of these sites is to reduce bright sources of light that  
10 illuminate the dark night sky; and  
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12           WHEREAS, recent nighttime images from the international  
13 space station revealed that some of the brightest sources of  
14 light on Maui and Hawaii are the airports and harbors on both  
15 islands; and  
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17           WHEREAS, astronomers on Mauna Kea are now detecting  
18 artificial light sources from urban areas that diminish the  
19 telescopes' ability to do research; and  
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21           WHEREAS, over the last decade, artificial lighting on the  
22 island of Hawaii has slowly increased, and is now threatening  
23 the ability of the telescopes on Mauna Kea to study faint  
24 objects in the night sky; and  
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26           WHEREAS, the spectral signatures of high-pressure sodium  
27 lamps and mercury lamps are now seen, despite Hawaii County  
28 attempts to regulate those sources by ordinance; and  
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30           WHEREAS, a dark night sky is essential to the continued  
31 success of the Mauna Kea observatories; and  
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1           WHEREAS, every one percent of artificial brightening of the  
2 night sky results in an effective loss of telescope aperture by  
3 one percent; and

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5           WHEREAS, according to scientists at Mauna Kea observatory,  
6 much of the lighting at the airports and harbors on the Island  
7 of Hawaii does not conform to the county lighting ordinance that  
8 was intended to protect the dark sky over Mauna Kea; and

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10          WHEREAS, the ramp lighting at Kahului Airport points  
11 directly at the summit of Haleakala and is not properly  
12 shielded; and

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14          WHEREAS, the lighting along the approach road to Kona  
15 Airport, along the roads where the rental car companies are  
16 located at Kona Airport, and in the Hilo Airport parking lot  
17 should be changed to low-pressure sodium lighting so that  
18 astronomers would be better able to filter out light emitted  
19 from them; and

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21          WHEREAS, the Department of Transportation has jurisdiction  
22 over commercial harbor pursuant to chapter 266, Hawaii Revised  
23 Statutes, and over airports pursuant to chapter 261; and

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25          WHEREAS, it is essential that the Department of  
26 Transportation take immediate steps to diminish the adverse  
27 effects on astronomy of bright night lights at airports and  
28 harbors on the island of Hawaii and the island of Maui; now,  
29 therefore,

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31          BE IT RESOLVED by the Senate of the Twenty-third  
32 Legislature of the State of Hawaii, Regular Session of 2006,  
33 that the Department of Transportation is requested to comply  
34 with county ordinances and standards relating to outside  
35 lighting to the extent practicable and not in conflict with any  
36 safety regulation or federal law, regulation, or mandate, and to  
37 provide cut-off or fully shielded lens fixtures to direct  
38 artificial lighting downward to prevent diffusion the light into  
39 the atmosphere, at airports and harbors in the County of Hawaii  
40 and the County of Maui; and

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42          BE IT FURTHER RESOLVED that the Department of  
43 Transportation work collaboratively to resolve or otherwise



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1 ameliorate the bright night light problem with the appropriate  
2 county agencies of Hawaii and Maui; and  
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4 BE IT FURTHER RESOLVED that certified copies of this  
5 Resolution be transmitted to the Director of Transportation,  
6 Governor of Hawaii, the Mayor of Hawaii County, and the Mayor of  
7 Maui County.  
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OFFERED BY:

*Imacine J. Irvine*

