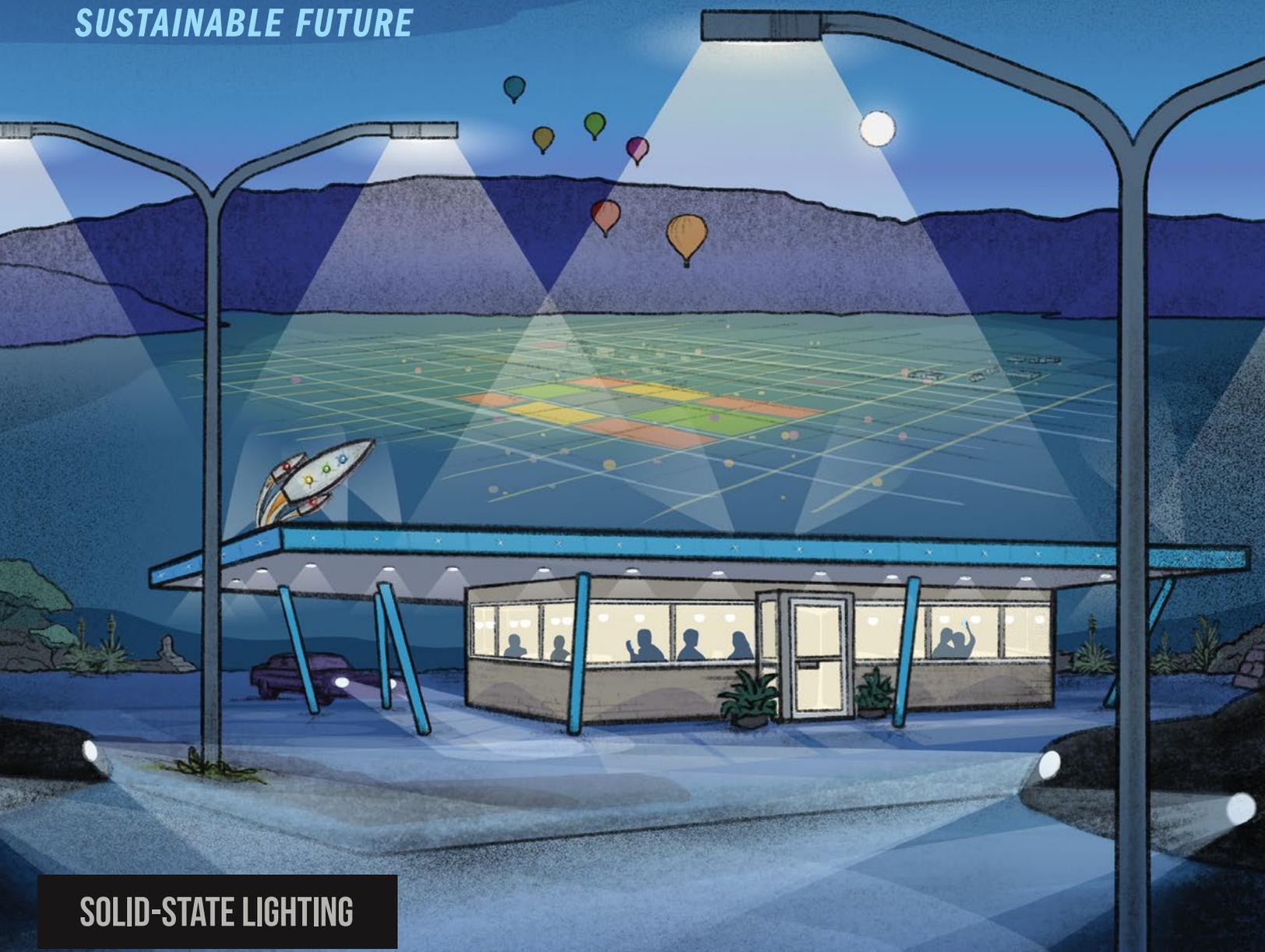


ADVANCING AMERICA *through* TECHNOLOGY TRANSFER

# SANDIA NATIONAL LABORATORIES

*LIGHTING the WAY to a SUSTAINABLE FUTURE*



**SOLID-STATE LIGHTING**

***GLOBAL ENERGY SAVINGS,  
SMART PRODUCTIVITY, and  
ENHANCED NATIONAL SECURITY***



Sandia  
National  
Laboratories

U.S. DEPARTMENT OF  
**ENERGY**

Office of  
**TECHNOLOGY TRANSITIONS**



## What's an idea brighter than a light bulb?

Since the turn of the century, scientists at Sandia National Laboratories have championed the innovative use of solid-state lighting (SSL) for a host of applications, revolutionizing the lighting industry and establishing the scientific basis for a radically new U.S. energy economy.

As global thought leaders in the adoption of smart SSL to replace traditional lighting, Sandia's team saw the vast potential of ultra-efficient light-emitting diodes (LEDs). Altering the compounds of elements used to create LED microchips enabled Sandia's scientists to produce various colors of light with greater efficiency, luminosity precision, and directional specificity than conventional incandescent or fluorescent lights. SSL technology is projected to be employed globally by 2030, saving the world a projected \$120 billion each year.

### Sandia at a Glance

Spread across the diverse terrains of New Mexico, Nevada, California, and Hawaii, Sandia's offices and test sites have served the Nation's evolving national security challenges since 1945. As the engineering arm of the Nation's nuclear weapons enterprise, Sandia develops the innovative research and technology necessary to enable a peaceful world. Today, Sandia's scientists keep the U.S. homeland secure and its armed forces safe by developing advanced technologies that effectively and reliably manage the U.S. nuclear stockpile; deter nuclear proliferation; protect critical assets and infrastructure; ensure long-term energy resilience; and reduce global threats posed by nuclear, chemical, biological, and radiological materials.

### U.S. Department of Energy Laboratories

The 17 U.S. Department of Energy (DOE) National Laboratories comprise a preeminent federal research system that executes long-term government scientific and technological missions, often with complex security, safety, project management, or other operational challenges. The National Laboratory system produces the scientific research needed to develop national energy policy and solutions allowing DOE to be one of the largest supporters of technology transfer in the federal government.

### Technology Transitions

The mission of the Office of Technology Transitions (OTT) is to expand the commercial impact of the DOE's research and development portfolio to advance the economic, energy, and national security interests of the Nation. The office develops the Department's policy and vision for expanding the commercial impact of its research investments, and streamlines information and access to DOE's National Labs and sites to foster partnerships that will move innovations from the labs into the marketplace.

[www.energy.gov/technologytransitions](http://www.energy.gov/technologytransitions)

**Current SSL technology is ten times more efficient than incandescent bulbs**

#### Sustainability

Adoption of SSL can reduce U.S. lighting energy consumption by 25%.

#### Innovation

Sandia holds more than 20 patents related to SSL and its applications.

#### Efficiency

Conversion from conventional lighting to SSL increases employee productivity by enhancing controls and optimizing lighting conditions in homes and offices.

### Contact Us

The scientific discovery highlighted on this poster is just one of DOE's many successes advancing America.

Learn more about available resources and partnering opportunities with the National Labs by visiting:

[www.energy.gov/technologytransitions](http://www.energy.gov/technologytransitions)

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