



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

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Statement of Rep. Stephen Knight (R-Calif.)
Committee Markup of the *Solar Fuels Innovation Act*

Rep. Knight: Thank you Mr. Chairman for the opportunity to speak on behalf of this important legislation.

H.R. 5638, the Solar Fuels Innovation Act, will direct the Department of Energy to establish a basic research initiative in solar fuels.

The solar fuel process, also known as artificial photosynthesis, harnesses energy from sunlight to create a range of chemical fuels.

Basic research in artificial photosynthesis and related research could lead to a solar fuels system that consolidates solar power and energy storage into a cohesive process. This would be a game changer for California, and the United States.

Researchers up and down the coast of California are undertaking this research, from universities in Southern California to Lawrence Berkeley Lab in the Bay Area.

At this time, I would like to introduce letters from researchers at the University of California, Irvine and the California Institute of Technology into the record.

The research authorized in this legislation could solve this key scientific challenge, and open the door for American entrepreneurs to develop the next generation of solar technology.

The Solar Fuels Innovation Act will also enable universities and the DOE labs to train the next generation of scientists through a multidisciplinary approach, bringing together students in chemistry, physics, and materials science.

This legislation provides a framework for more coordination between basic research and early-stage translational research in solar fuels. H.R. 5638 re-focuses the Office of Energy Efficiency and Renewable Energy (EERE) on the early stage research where the federal government can have the most significant impact.

H.R. 5638 reaffirms the federal government's key role in research and development. My home state of California has long been a world leader in advanced science and

high tech and is home to millions of entrepreneurs eager to take advantage of the latest breakthroughs.

Through this initiative, the transformative discoveries in energy science achieved at our universities and national labs will give the private sector the tools they need to develop the next breakthrough in solar energy technology.

This legislation is also fiscally responsible. By directing DOE to conduct this research using existing funds in the Office of Science and EERE, this legislation ensures the responsible use of limited tax dollars for the kind of research only the federal government has the tools to undertake.

Today, we hear a lot of enthusiasm for solar power. But far too often, we focus on today's technology, not the fundamentally new approach to renewable energy that is possible with this early-stage research.

In Congress, it is our responsibility to take the long-term view and be patient, making smart investments in research that can lead to the next big discovery.

DOE must focus on the kind of groundbreaking R&D that can lead to disruptive technology. Solar fuels could someday change the way we think about solar power.

I encourage my colleagues to support this legislation, and I yield back the balance of my time.

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