

# FUEL CELLS

FOR

POWER AND HEAT  
GENERATION

Roadmap  
To Zero  
Harmful  
Emissions

*Clean Efficient Resilient Sustainable*



Photo: Bloom Energy Fuel Cell System. Courtesy of Bloom Energy, www.bloomenergy.com

## Fuel cells convert chemical energy into electricity

and are the ideal source for power and heat generation because they:

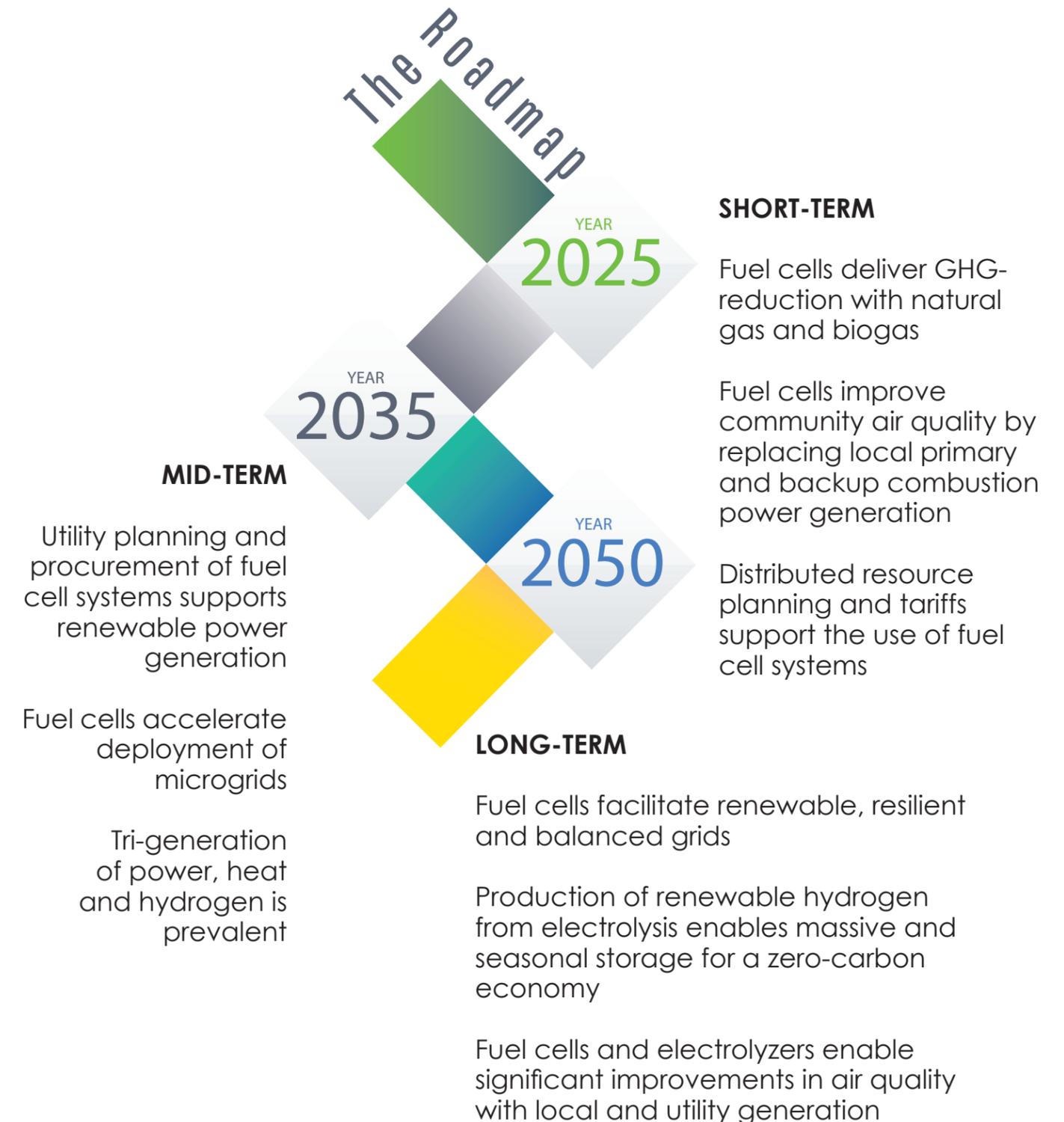
- Reduce greenhouse gases, such as methane and carbon dioxide
- Improve local air quality
- Support 100% renewable energy
- Produce massive clean energy storage
- Mitigate disruptions in the electrical grid by improving reliability
- Manage and complement clean energy, like wind and solar generation
- Provide electricity in areas not served by an electrical grid



For more information, check out the video at

[nfcrc.uci.edu/RoadmapVid](https://nfcrc.uci.edu/RoadmapVid)

The National Fuel Cell Research Center provides a roadmap for stationary fuel cell evolution that paves the way to resiliency and zero emissions for energy systems around the world. Stationary fuel cells comprise the only known clean, high efficiency, dispatchable power and heat generation class that can achieve zero harmful emissions to complement solar, wind, and other intermittent sources.





**NATIONAL FUEL CELL  
RESEARCH CENTER**  
UNIVERSITY OF CALIFORNIA • IRVINE

221 Engineering Laboratory Facility  
Irvine, CA 92697-3550 [nfcrc.uci.edu](http://nfcrc.uci.edu)

---

Founded in February 1998, the NFCRC facilitates and accelerates the development and deployment of fuel cell technology and fuel cell systems; promotes strategic alliances to address the market challenges associated with the installation and integration of fuel cell systems; and educates and develops resources for the various stakeholders in the fuel cell community. The NFCRC was established at the University of California, Irvine by the U.S. Department of Energy and the California Energy Commission with the goal of both developing and transitioning to a form of power generation that is energy efficient, resilient and environmentally sensitive.