# **GENERAL ATOMICS ENERGY GROUP**



# POWERING THE FUTURE WITH TODAY'S INNOVATIONS

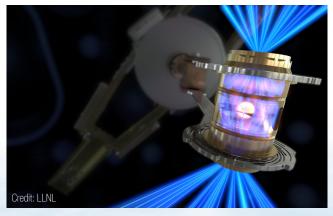
Leveraging decades of experience pioneering fusion technologies, the General Atomics (GA) Energy Group is advancing science and transforming the clean energy landscape.

#### RESEARCH AND ENERGY PROGRAMS



### **DIII-D National Fusion Facility**

DIII-D, operated by GA on behalf of the United States Department of Energy, is the largest magnetically confined fusion research machine in the U.S. and at the forefront of fusion energy science.



# **Stockpile Stewardship**

GA supports the National Nuclear Security Administration's research in Inertial Confinement Fusion, and provides components and services that helped achieve the world's first controlled fusion ignitions in a laboratory setting.



#### **Fusion Pilot Plant**

GA's steady-state Compact Advanced Tokamak fusion pilot plant concept maximizes efficiency, reduces maintenance costs, and provides around-the-clock sustainable energy without any harmful emissions or long-lived waste.



# **Inertial Fusion Energy**

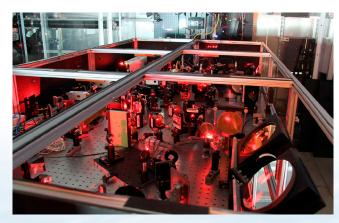
GA's Inertial Fusion Technologies team applies world-leading capabilities and expertise in advanced manufacturing to design targets and components supporting the development of inertial fusion energy.

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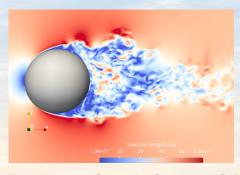
## **ITER CONTRIBUTIONS**





GA is fabricating waveguides, diagnostics, and the world's most powerful pulsed superconducting electromagnet for the international ITER experiment, an unprecedented scientific collaboration of 35 nations that will prove the feasibility of fusion as a source of virtually limitless, safe, and renewable energy.

# **CENTERS OF EXCELLENCE**

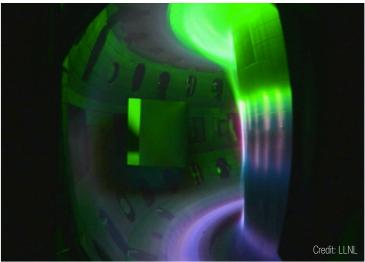


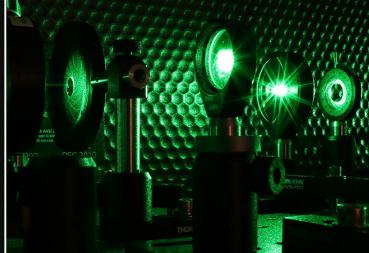




The Energy Group's Centers of Excellence for Advanced Materials, Theory & Advanced Computing, and Diagnostics & Sensors leverage a multi-disciplinary team of scientists, mathematicians, and engineers to create scalable solutions for magnetic and inertial fusion applications. With a wide range of capabilities and state-of-the-art laboratory space, our Centers of Excellence are at the forefront of research, development, and innovation.

### **ENERGY GROUP CAPABILITIES**





DIII-D plasma experiment

Inertial fusion laser diagnostic

- **Additive Manufacturing**
- **Advanced Diagnostics**
- **Advanced Materials**
- **Experimental Physics**
- **Fusion Technology Systems**
- **GALADRIEL Laser Facility**
- **High Performance Computing**
- Machine Learning and **Artificial Intelligence**

- **Metrology and Electron Microscopy**
- Micromachining Technologies
- **Microwave Technologies**
- **Plasma Control Systems**
- Plasma Theory and **Computational Science**
- **Robotics and Automation**
- **Superconducting Magnets**
- **Tokamak Operations and Engineering**

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