



## ES-5700 Energy Server

*Welcome to clean, quiet electricity that's always on.  
Welcome to the ES-5700 Energy Server.*



### **CLEAN POWER ON DEMAND**

Bloom Energy's ES-5700 delivers clean power to meet your base load electricity needs. Seamlessly producing power in parallel with the utility grid, the ES-5700 will reduce your emissions and save you money.

### **RELIABLE RISK MITIGATION**

The ES-5700 operates at unmatched electrical efficiencies. That means that it consumes less fuel and produces less CO<sub>2</sub> than competing technologies. By providing efficient power on-site, the economic and environmental benefits of your ES-5700 will continue to increase.

### **INNOVATIVE TECHNOLOGY**

Utilizing solid oxide fuel cell (SOFC) technology first developed for NASA's Mars program, the ES-5700 produces clean power. Unlike other fuel cell technologies, Bloom's SOFCs are well-suited to high-volume, low-cost manufacturing which also makes them uniquely affordable. The ES-5700 also employs a modular architecture that enables the total installation size to be tailored to your base load electricity demand.

### **ALL-ELECTRIC POWER**

The ES-5700's superior electrical efficiency eliminates the need for complicated CHP systems, and expands the deployment opportunities available to you. Your ES-5700 can be installed outdoors in hours rather than months or years.

### **FUEL FLEXIBILITY**

The ES-5700 can run on natural gas, as well as renewable fuels like biogas. You choose what works for you. Onsite fuels can provide added insurance for your critical loads, and the ES-5700 can easily accommodate those needs.

Future generations of Bloom's Energy Servers will offer the unique capacity to operate both as an energy generation and storage device, thus creating a bridge to a 100% renewable energy future.

### **About Bloom Energy**

Bloom Energy is making clean, reliable energy affordable. Our unique on-site power generation systems utilize an innovative fuel cell technology with roots in NASA's Mars program. By leveraging breakthrough advances in materials science, Bloom Energy systems are among the most efficient energy generators; providing for significantly reduced operating costs and dramatically lower greenhouse gas emissions. By generating power where it is consumed, Bloom Energy offers increased electrical reliability and improved energy security, providing a clear path to energy independence.

### **Headquarters:**

Sunnyvale, California

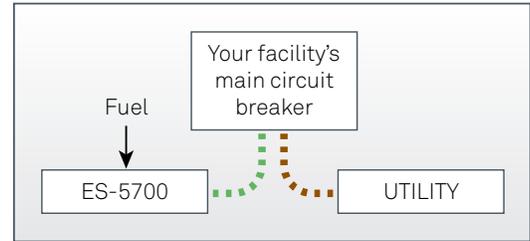
### **For More Information:**

[info@bloomenergy.com](mailto:info@bloomenergy.com)

# ES-5700 Energy Server

## YOUR POWER IS SECURE

The ES-5700 has been designed in compliance to a variety of safety standards, and is backed by a comprehensive warranty. The ES-5700 actively communicates with Bloom Energy's network operations center. Should the system require unscheduled maintenance, we'll be deploying a solution before you even know there's a problem.



## Technical Highlights

### Inputs

Fuels	Natural Gas, Directed Biogas
Input fuel pressure	15 psig
Fuel required @ rated power	1.32 MMBtu/hr of natural gas

### Outputs

Nameplate power output (net AC)	210kW
Base load output (net AC)	200kW
Electrical efficiency (LHV net AC)	> 50%
Electrical connection	480V @ 60 Hz, 3 or 4-wire 3 phase

### Physical

Weight	19.4 tons
Size	26' 5" x 8' 7" x 6' 9"

### Emissions

NO <sub>x</sub>	< 0.01 lbs/MW-hr
SO <sub>x</sub>	negligible
CO	< 0.10 lbs/MW-hr
VOCs	< 0.02 lbs/MW-hr
CO <sub>2</sub> @ specified efficiency	773 lbs/MW-hr on natural gas; carbon neutral on Directed Biogas

### Environment

Standard temperature range	-20° to 45° C (extreme weather kit optional)
Humidity	0% - 100%
Seismic Vibration	IBC site class D
Location	Outdoor
Noise @ rated power	< 70 DB @ 6 feet

### Codes and Standards

Complies with Rule 21 interconnection and IEEE1547 standards
Exempt from CA Air District permitting; meets stringent CARB 2007 emissions standards
Product listed by Underwriters Laboratories Inc. (UL) to ANSI/CSA America FC 1-2004

### Additional Notes

Includes a secure website for you to showcase performance & environmental benefits
Remotely managed and monitored by Bloom Energy
Capable of emergency stop based on input from your facility



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