Controllers: the heart of the microgrid system

Controllers manage a distributed energy or microgrid system’s components to provide power in the most economic way possible.

With the HOMER Controller API, you can make your controller available to designers as they choose the components to optimize their hybrid energy systems. HOMER Controller API enables you to:

- Write your own control algorithms to be used internally, distributed to your partners, or promoted throughout HOMER Energy’s customer base*.
- Simulate system operation with resource data and specified equipment.
- Make your custom branded controllers available in the HOMER Pro or HOMER Grid components menu.

HOMER (Hybrid Optimization Model for Multiple Energy Resources) software, HOMER Energy by UL’s platform for optimizing microgrid design, includes your choice of out-of-the-box controller algorithms. Or if your business has its own proprietary controller solution, you can use the HOMER Controller application programming interface (API) to deliver your controller and its logic as an option in the HOMER platform.

Model your control algorithm within HOMER software
How does it work?

The HOMER Controller API gives you access to the necessary data objects in HOMER Pro or HOMER Grid, such as system load, battery state of charge and more.

The Controller API includes sample control algorithms to give developers a head start. But all development and compiling is done by your programmers, so your proprietary intellectual property, code and algorithms are confidential.

Your executable DLL file can be distributed with HOMER Pro or HOMER Grid.

Benefits of HOMER Controller API

- Engineered into the system – your controller is the center of the system from the beginning
- Value-add for your customers – your controller is customized to work with their microgrid system
- Easily distribute your proprietary controller solution to your channel partners and HOMER customers.*
- Educate customers on how your controller works with their microgrid system

*HOMER Controller API distribution license applies

Put the power of HOMER to work

HOMER Energy by UL provides training, advisory, analytic services, and community tools to industry, government, researchers, and enthusiasts in the energy industry. Our software has enabled more than 200,000 users in over 190 countries to produce economic feasibility studies, system design, energy insight and energy cost savings. HOMER software set the global standard for decision making concerning the optimal mix of resources, system configuration, and capital and operating costs of microgrids. HOMER Energy by UL provides a strong foundation to empower people around the world with tools, services, and information to accelerate the adoption of renewable and distributed energy sources.

For more information, visit www.homerenergy.com.