



[CONTACT WORLD ENERGY MANAGEMENT](#)
[THE VISION](#)[THE TEAM](#)[THE TECHNOLOGY](#)[THE FUTURE](#)[LICENSING](#)[PRESS ROOM](#)[Q-A](#)

New Questions Answered: 01/06/03

Q: Will each Edison Device produced or delivered by different licensees be the same?

A: No. Each licensee will have the ability to custom configure their version of the Edison Device to meet the needs of their intended market. World Energy Management will offer licensees a selection of potential configuration options to choose from, including the amount of electrical and gas energy their devices will deliver and store. While each licensee will be free (within certain limitations), to custom configure their individual products, each Edison Device from the licensed manufacturers will be required to be 100% compatible with each and every Edison Device on the market.

New Questions Answered:

▶ [01/06/03](#)

▶ [12/17/02](#)

Q: How does the Edison Device create and deliver electricity in a consumer usable form?

A: The Genesis eCell, like other fuel cells, produces direct current (DC) voltage. Each eCell in a stack of eCells typically produces between 1.0 volts at no load, and as little as 0.5 volts under full load. Therefore, a series of eCells is connected together into stacks to obtain the correct range of voltage the Edison Device requires to operate on a self-contained basis. To greatly simplify matters related to delivering voltage and current in a consumer usable form, the Edison Device is configured to operate only at predefined levels of electrical output. The electrical energy produced by the Edison Device is then stored in special DC batteries. When electrical energy is needed to support a customer's needs, it is then inverted into the type of electricity delivered by utility companies.

Q: What establishes the amount of hydrogen and oxygen gas that is needed by the eCells in the Edison Device to create electricity?

A: The amount of hydrogen and oxygen gas that is needed to generate the correct amount of voltage and amperage is determined through a calculation called the stoichiometric rate. This calculation assures that the right amount of hydrogen and oxygen gases are delivered to the eCells to meet the electrical current generation demand required at any given moment. The Edison Device is designed to greatly reduce the complexity and cost of managing proper gas flows by operating only at a limited number of predetermined electrical output levels, based on the amount of electrical energy being stored in the batteries of the Edison Device at any given time.

Q: How much electricity will the Edison Device deliver?

A: It is easiest to think of the Edison Device as a generator that charges batteries, which can then deliver consistent levels of voltage and amperage when needed to DC to AC inverters. The DC to AC inverters in turn deliver electricity to consumers in the same form as utility companies deliver electricity. Since each licensee will have the ability to custom configure electrical and gas energy outputs to meet the needs of their intended markets, the final energy outputs of each Edison Device marketed will be related directly to how each manufacturer configures their individual product offerings. In simple terms, the electrical generation aspect of the Edison Device is rated like traditional generators. The Edison Device's battery storage capacity is rated in kilowatt hours of reserve. Consumers should select a version of the Edison Device that allows them to meet their average kilowatt hours of consumption, with the Edison Device operating no more than 75% of maximum output. In addition to storing reserves of electrical energy, the batteries in the Edison Device also function as a method of seamlessly meeting periods of electrical demand that exceed the Edison Device's maximum electrical output. The batteries in the Edison Device are recharged at any time electrical demand is less than the output of the Edison Device.

Q: Is the Edison Device totally self sufficient from outside energy?

A: The Edison Device initially requires either outside electricity or hydrogen and oxygen gas to start the process and to develop internal reserves of electrical and gas energy. Depending on the configuration of the Edison Device offered by individual licensed manufacturers, the Edison Device typically becomes independent of outside energy within an hour. From that point on, the Edison Device is designed to retain enough reserve energy to restart itself in the event that shutdown is required for maintenance, for example, when replacing the water filters.

Q: Will I be without electricity or gas energy if the Edison Device is turned off for any reason?

A: No. Reserve electrical energy is stored in batteries, which will continue to provide electricity through the DC to AC inverters for a period of time even when the Edison Device is turned off. In addition, a limited reserve of hydrogen gas is stored in a small, low-pressure metal hydride container, which will continue to supply gas until depleted. Depending on each customer's needs, the Edison Device will typically be configured to store enough energy for one to two days.

Q: What costs will licensees be required to pay Genesis World Energy?

A: There are no costs paid by potential licensees until each qualifying licensee has the opportunity to examine independent operational lab results and working devices. Payment will be due upon acceptance of the license terms at which time the licensee will be presented with a license, data package, and a production representative Edison Device. The Edison Device that is delivered will be used as a standard for all Edison Devices that are ultimately delivered to consumers. Once in production, a reasonable royalty fee will be added to the cost of each gCell and eCell used in the device.

Q: Will there be future public demonstrations of the Edison Device?

A: Yes. The device will be demonstrated for selected members of the media and other invited interested parties in the future.

Q: Has Genesis World Energy accepted any public or private investment?

A: No.

Q: Who has previously been invited to demonstrations of the Edison Device?

A: The Edison Device has been demonstrated to people from many walks of life. Previous invitees have included past and present US Senators and members of congress, the Dean of a university, science and engineering professors, community leaders, CEO's of major corporations and engineering firms. Individuals that attended the presentations viewed the entire working process on an unrestricted basis.

Q: How complex are the gCells and eCells?

A: Each original pre-production version of the gCell contained approximately 600 precision components. Each pre-production version of the eCell contained approximately 400 precision components. The production versions of the gCell and eCell will contain approximately 300 and 200 precision components respectively. Manufacturing tolerances for some components are within 0.0002 of an inch.

Q: Is it difficult to mass-produce the Edison Device?

A: No. Every component within the Edison Device is engineered to be produced using readily available manufacturing processes.

Q: Can the assembly of the Edison Device be automated?

A: Most aspects of the Edison Device can be automated; however, the Genesis Team elected to focus on creating quality jobs for people instead of investing in automation. The net effect of the cost to consumers is very little.