



Plug-Out Inverters vs Generators



The Plug-Out and Prius combo make a phenomenal generator. Think about it. The Prius is already a great DC generator with motor and generator keeping the hybrid battery full. The Plug-Out Inverter adds high quality, pure sine wave, AC power output from the hybrid's battery. This combination yields many advantages over mechanical generators:

- Plug-Out is more reliable, quieter, longer lasting, higher quality, lower maintenance, and more efficient.

Reliability: Does your Prius always start? Indeed it does. It's used all the time. Incredible engineering, constant use and already paid maintenance mean it is always ready for emergency use. Not so with many generators. Many use modestly engineered engines, are left idle for months, and poorly maintained. As a result, they sometimes don't start when needed. Ask your friends if they have heard of someone who's generator wouldn't start. Advantage- Plug-Out

Quiet: Generators are so loud [65-80db, each 3db= doubled loudness] that they keep you and your neighbors distracted and awake. They can be dirty and smelly too. So much so, that most owners try to locate them far from the house. But when your hybrid car runs, you can barely hear or smell it [<50db]. And often its not running at all [more on that later]. The Plug-Out Prius can be run in a well ventilated garage and not even be heard. Advantage- Plug-Out

Longevity: Most generators are designed to run for 8-10 hours at a time, before needing fuel, oil check and a rest. Then they can be started again. But this means frequent interruptions and smelly fuel fillups. You can beat this with a large tank, but this can be expensive. On the other hand, the Prius tank can last for 1-5 days at a time, running continuously [24hr/d]. When needed, fill it with Gerry cans like a generator, or just unplug and drive it to the gas station. Advantage- Plug-Out

Power Quality: Most generators will "groan" for a second or so when the load changes, as the mechanical engine changes throttle and rpm to adjust to the new load. When this happens, big transients can surge throughout the appliances, like at brownouts or power outages, and in some cases damage appliances. Not so with the Plug-Out Prius. The combination of battery buffered power and pure sine wave output mean instant and clean transitions for any load changes [within power ratings], so your appliances are much safer. Advantage- Plug-Out

Maintenance: The hybrid car is already maintained for driving, and no additional maintenance is needed by the Plug-Out so maintenance cost is Zero. The mechanical generator will need periodic maintenance [hassle and payments] or it won't work. Advantage- Plug-Out

Efficiency: Take the Prius' Atkinson cycle engine. It runs about 25% more efficiently than most car engines, and car engines are more efficient than most generators. Then the Prius' start-stop technology

only runs the engine [generator] when the battery gets too low and only until it is recharged. That means only runs the engine [generator] when the battery is low. So, when fuel is used, it is burned efficiently for any power level need. No wasted fuel idling at low power levels. That's good for 50-100% better fuel use than mechanical generators, and across a wider range of power outputs. Mechanical generators are somewhat efficient within a narrow range of power output levels. But outside that range, they become less efficient.

Honda pegs its fuel efficiency for portable generators at 4-6kwh per gallon for half loading and greater. ConVerdant pegs the Plug-Out Prius efficiency at about 8kwh per gallon for nearly any loading level. Advantage- Plug-Out

Cost: Some mechanical generators can be had very cheaply in stores, but they suffer from most of the problems mentioned above. While some much larger generators cost much more than the Plug-Out system, but filling larger power needs. You generally get what you pay for. Only with Plug-Out, you already own the car, so you only have to buy the Plug-Out, resulting in unprecedented price-performance. Advantage- Generator for cheapest or higher power models. Advantage- Plug-Out for comparable features and quality.

In short, there are many advantages to choosing a Plug-Out Prius for emergency power [if you own a Prius]. Your call.