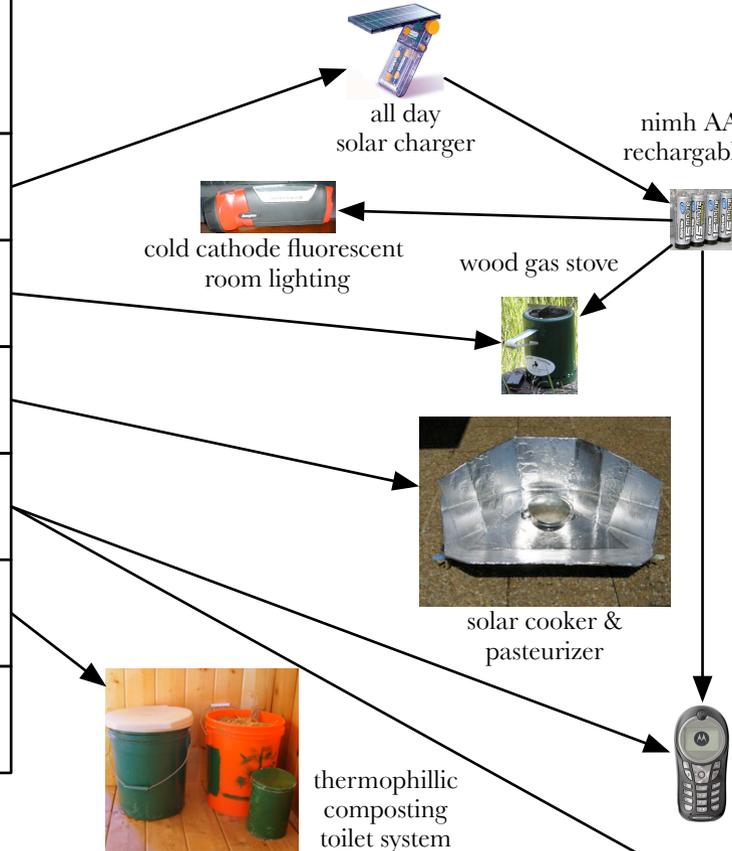


# Hexayurt Infrastructure



Pipe/Wire	Developed World Civilian Infrastructure	Hexayurt Utilities Package
Electricity	National grid	Solar with rechargeable AA battery storage
Gas	Natural gas system (pipelines, terminals)	Wood Gas Stove Wood and other biomass fuels
Water	Water treatment plants, viaducts	Solar Water Pasturizers
Comms	Wired phone network, cell towers	\$100 computers? Cell phones?
Sewage	Sewer system, sewage treatment plants	Composting toilet
Storm-water	Storm drains	Drainage ditches

## Household Infrastructure Systems



## Village Infrastructure Systems

15 minute fast charger

large solar panel

At 15 minutes per set of batteries, a single solar panel can charge around 40 sets of batteries per day. That might be enough to keep the lights on in 40 to 80 homes. Pull-cord chargers might offer even better performance.

Cooking can be done with either the solar cooker or the wood gasification stove. Solar Cookers International calls an approach like this Integrated Cooking and has boards about it here. We favor the wood gas stove because we include electrical supplies and it is more efficient, but without electrical supply, the Rocket Stove is an excellent choice.

Communications systems and the internet rely on regional infrastructure like the cell phone networks, or relatively expensive municipal infrastructure like a satellite internet connection.

### The Hexayurt Utilities Package

The Hexayurt Project developed a very simple approach to providing the same essential services as developed world infrastructure systems, but for a total cost of \$100 - \$200 per home. The infrastructure is self-contained and portable, so it can be transported with people when they are resettled at the end of a crisis. These infrastructures are mostly at early stages of development, or adapted commercial products. A full program of testing and additional development will be required before this system is ready to save lives. However, as you can see, the essential systems are very simple and inexpensive.

### Property & Ownership

Household systems are typically owned outright by individuals, where as village systems may either be shared or operated as businesses by an owner or a collective. Items like a personal battery charger might be purchased by more affluent families to give the same services that others get from the shared systems. Over a period of time these incremental improvements could lead to a higher standard of living even within a refugee camp.