Neighborhood Development Package Revisited

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Since I wrote Neighborhood Development Package [1] on November 11, 2006, I have been thinking about the pieces needed to make the system work 24/7. The full article is below but let me give you a short review. My idea was to electrify a neighborhood in order to educate, communicate, and pump water.

There ought to be one change in the system though. Television will get changed to One Laptop Per Child [2]. And of course instead of a TV station you have WiFi cells.

But that is not the big change. What is needed also is 24/7 capability and standby generation capacity. What would be ideal for that? A series plug in hybrid capable of sourcing or sinking energy. i.e. you can recharge the battery if power is available or supply power if it is needed. The engine (gasoline or diesel depending) would fire up when ever the battery was low. And best of all it could be used for transportation when needed.

Why a series hybrid? Because the engine/generator combination would be optimized for efficiency as an MG set.

Here is my original idea:

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This is a call for engineers, anthropologists, and other interested parties to develop a Neighborhood Development Package™ (NDP™). The purpose of the neighborhood development package is to provide the minimum services to bring a neighborhood into the 21st Century.

What do underdeveloped areas need the most? Security, clean water, education, communication.

So the NDP would provide cell phone service, internet service, a low power TV station, a low power AM station, satellite reception and transmission (Beam me up Scotty).

It could be designed to be a multi-use construction. Combination wind mill, antenna farm, and water tower/water purification plant.

Energy could be stored in batteries, ultracapacitors, or flywheels. Some energy could also be recovered from the falling water in a water tower application. Back up would be a diesel generator set. Where available the electric grid or natural gas (or even biogas) could provide backup.

Since this is only preliminary any advice is welcome including how to raise the funds for deployment.

You can contact me for help with developing neighborhoods or for anything else (I like to write) by getting my e-mail from the sidebar at IEC Fusion Technology [3].

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http://www.ecnmag.com/blogs/2009/12/neighborhood-development-package-revisited?qt-video_of_the_day=0

Links:
[1] http://powerandcontrol.blogspot.com/2006/11/neighborhood-development-package.html
[2] http://laptop.org/en/
[3] http://iecfusiontech.blogspot.com/