

# Re: Solar, not nuclear

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- *From:* "bill" <[ford\\_prefect42@xxxxxxxxxxxx](mailto:ford_prefect42@xxxxxxxxxxxx)>
  - *Date:* 1 Feb 2007 17:09:40 -0800
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On Feb 1, 7:36 pm, dave.walt...@xxxxxxxxxxxx wrote:

On Feb 1, 2:20 pm, "bill" <[ford\\_prefec...@xxxxxxxxxxxx](mailto:ford_prefec...@xxxxxxxxxxxx)> wrote:

On Feb 1, 4:45 pm, dave.walt...@xxxxxxxxxxxx wrote:

On Feb 1, 6:38 am, "bill" <[ford\\_prefec...@xxxxxxxxxxxx](mailto:ford_prefec...@xxxxxxxxxxxx)> wrote:

And  
why  
should  
anyone  
be  
content  
with  
European  
scale  
efficiencies?  
Improved  
lifestyles  
can  
be  
had  
at  
a  
third  
of  
their  
energy  
consumption,

Re: Solar, not nuclear

if not less.

Even if that  
were true  
then we  
would still  
need to  
double  
Earth's  
energy  
supply.  
Doubling  
supply  
through  
conservation  
is  
impossible;  
we need  
new  
clean  
energy  
sources.

Doubling through  
conservation is trivial. 80%  
of the work done in Europe  
has no productive value.  
Europe's economy still  
produces and imports  
products that are designed to  
fail, designed to be  
unserviceable once key  
components fail, etc.

Designing today's drill to be unserviceable  
when part x fails is  
for efficiency, it's more energy efficient to  
replace the drill than it  
is to keep a vast inventory of parts for failed  
obsolete drills. My  
makita 9.6 volt lasted 12 years of contractor  
level use, that's pretty  
efficient, I ran 10 times as much energy  
through the 4 replacement  
batteries I bought for it during its useful life  
as was involved in  
manufacturing it.

## Re: Solar, not nuclear

Consider the example case of rechargeable drills. Every year manufacturers release new models with a differently constructed battery pack such that the old batteries no longer fit. They make them a little wider or a little fatter, or a little deeper, or change the mounting clip or alter the placement of key mounting slots or mounting posts.

Oh, you mean the case where the interface between the drill and the battery pack is patented? the one where it would cost manufacturer X an exorbitant amount of money to use manufacturer Y's patented locking system? And incidentally the one where you can buy batteries for any drill ever manufactured from the original manufacturer? That case?

There is only one reason why there needs to be more than 1 18 volt NiCad battery pack. They all operate the same, produce the same voltage, last the same length of time, etc. The reason is to force the consumer to purchase a new drill once their battery packs are spent, even if the old drill body itself is still functional. Businesses regularly have their employees, destroy or render useless parts like chargers, batteries, and other components, so that they can <NOT> be resold or used as

Re: Solar, not nuclear

replacements should a customer need such a replacement.

Copier companies scraping older copiers are instructed to "render useless" any and all parts that may be used on still servicable machines so that customers are <FORED> to purchase freshly manufactured parts at higher cost.

These are just to examples, of a technique used by corporations all over the world to force consumers to repurchase the products they have already purchased. Thus keeping the producer in business.

All this is endemic of the diseased communist mind that thinks that anything done by profit motivated corporations is evil and therefore inefficient, the "render useless all parts" is for EFFICIENCY moron, if you take a part that is still "good" out of dead copier x and put it in newer copier Y, then that part will fail before the bulk of the copier, you will need to send a repairman 20 miles in a car to fix it and the office will be without their copier for the day not to mention that there's a good chance that the shitty part you just put in will break other good parts around it when it goes. This creates greater inefficiencies than replacing the part with a newly manufactured one because manufacturing processes are SO ASTOUNDINGLY EFFICIENT.

Re: Solar, not nuclear

Efficiency  
first.  
Renewables  
next,  
then  
supplement  
with  
nuclear  
and

oil as needed.

Supplement  
with oil?  
Increased  
use of fossil  
fuels is  
suicide.

Increase? Where do you see  
the word increase?  
Oil and coal can continue to  
be used as a fuel but only at  
environmentally sustainable  
rates. Currently we are  
emitting about 9  
gigatonnes of carbon into  
the atmosphere each year. 1  
gigatonn of emissions  
can be handled by the  
biosphere without any  
ongoing carbon  
accumulation.

Global  
warming is  
upon us  
now, and it  
takes time  
to build  
significant  
new energy  
sources.

Exactly why it is folly to put  
the world on a path to  
building 250,000 new  
nuclear power plants.

## Re: Solar, not nuclear

moron, the 15000 reactors that are the real number for full fossil fuel replacement with a doubling of demand are the only way, your efficiency bullshit is exactly why nothing will be being done for the next 20 years and all those fossil fuels will be burned. thanks for poisoning the atmosphere with your lies. you support something that manifestly doesn't work, and use that lie to oppose something that manifestly does work, as a result of which the status quo is maintained. ask yourself which you prefer, nuclear or coal, because those are the only options in the real world.

This is true...although there is no need to replace ALL fossil plants, just the most polluting (coal) and the least efficient (old ones, of all sorts, nukes, gas/oil and coal). Realistically, and if done seriously, we would build 4,000 to 8,000 new Gen III and Gen III+ plants. This would allow for growth of demand AND retirement of some of the worst plants. This could be done over the next 30 years. There really is only one problem with nuclear, which is sort of a "good" problem, and that's off-peak loading the plants. Unlike conventional steam plants, nukes need to run flat out 24/7 to work correctly. So...a good off-peak electrical sink for this much power is h2 generation. It's essentially "free" this way, and can be used to \*eliminate\* the use of natural gas in H2 production (NG is used 98% of the time now for H2 production and give's off CO2 for those that care). With increases in battery capacity and efficiency, overnight recharging of auto transport would become far more efficient.

## Re: Solar, not nuclear

Well, I doubt it will go that far, I was using the 15000 number for ALL current generation to illustrate the point. 2500 would replace ALL the currently existing coal plants worldwide, and coal plants are baseload, so there is no off-peak that needs considering in replacing those, the new nuclear plants can run flat out. Developments in pv over that time should make it a great source for peaking since it is a good scheduling match, that will render enough methane plants redundant to allow for a safety factor in the grid that will in turn make the installation of wind far more viable. Bottom line though, the bulk of the co2 emission worldwide is baseload coal plants, and nuclear is the only reliable carbon neutral source for that type of power installing those 2500 nuclear plants would give us the degrees of freedom we needed to make everything else work.

This is my position too. I'm not against wind and solar, I'm quite for it actually, but only as a supplement to nuclear. Wind can then ramp down remaining fossil to a very limited degree when the 'wind picks up'. I didn't know the 2500 number before. I appreciate that information.

I think auto emissions also play a big role, so, using non-burning fuels like H2 is not completely wild, once they figure out a way to 'carry' the damn stuff. Right now I'd never buy an H2 car. But the big breakthrough, as I see it, is nuclear-to-automotive electricity and that means better batteries (not the fantasy crap people on this list are talking about) to use the power generated by power plants and eliminate internal combustion of oil derived products.

BTW...'base load' does not mean 24/7....it just means it provide the back bone of the grid. It can mean 24/7 but doesn't have too. I work at a base load plant in California but can come down on load to about 50 mws at night then back up again in the morning. But I think your point is well taken.

You might be well advised to check my math on the 2500. I think it's close, but wouldn't want you quoting it.

The thing with hydrogen as an automotive fuel is that in order to get any kind of energy return on energy invested you MUST have a fuel cell car. otherwise it's something like 5% round trip effecient (90% electrolysis, 80% compression, 95% transportation and 33% ICE) those are currently not viable. what IS viable TODAY is the plug in hybrid. a car that runs mostly on batteries with a very small internal combustion engine to extend the range. today, they are expensive, but 2 ears ago they were impossible. a good spec for a first production model would be 50 mile battery range with a 150cc gasoline engine kicking on at half that. it gives unlimited range, almost like a car and would eliminate 3/4 of the gasoline consumed by passenger cars.

The other problem at least in the "worst" countries like

Re: Solar, not nuclear

america, australia and canada is the development style. public transportation simply cannot serve single family houses, and they are terribly expensive on heat and cooling.

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