

## Re: Are nukes the answer to global warming?

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**From:** BlackWater (bw\_at\_barrk.net)

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On Mon, 07 Feb 2005 13:34:08 GMT, Steve Spence  
<spence@green-trust.org> wrote:

*>I don't subscribe to the global warming theory, I subscribe to the  
>global climate change theory, without being convinced that man has had a  
>catastrophic impact on that change. I do believe that increasing  
>concentrations of CO2 can have an effect on climate change, and would  
>prefer to see co2 neutral biofuels, wind, solar, hydro, and yes, nuclear  
>if we must, replace coal and oil. I do believe nuclear is the only way  
>to a "hydrogen economy", if there ever is one.*

And how will we MAKE the hydrogen ? Magic wands  
have surely been tried – and failed. If you want  
H2, you've gotta put IN as least as much energy,  
usually electricity, as you plan to get out. It's  
The Law.

And electricity ... it cometh from coal, oil and  
gas mostly – all of which generate CO2. We might  
build nuke plants, but the same greenies who whine  
about CO2 also whine about nuclear power. Most of  
the good hydroelectric spots are already used, and  
the greenies will whine about eco-damage caused by  
new dams and their associated reservoirs.

Yea, yea ... wind, tide and sun ... alas they just  
don't seem up to the challenge. Priced photoelectric  
arrays recently ? We keep hearing about 'alternative'  
energy, but it's beginning to sound like Hitlers  
promises of 'wonder weapons' to save Germanys bacon.  
Possible, but never quite practical – drawing boards  
pipe-dreams.

Oh yea ... hydrogen isn't environmentally neutral  
either – and being an itty-bitty molecule it's prone  
to leaking. Leaks, even small ones, also bring  
\*EXPLOSIONS\* when consumers are involved. Then there  
is the STORAGE bugaboo ... while they're doing better

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you STILL can't carry-around much of the gas and the storage media are expensive.

Really though, there's nothing really "wrong" with the hydrogen idea ... but there are a lot of gotchas to be worked out. Hydrogen MIGHT be better used not to reduce global CO2 emissions, but to shift POLLUTANT emissions away from urban areas. Put the big smokey powerplants well outside town and run in-town cars on H2.

Even thus, hydrogen + oxygen + NITROGEN + heat-&-pressure = nitrogen oxides and ozone to some extent and those = SMOG.

Only practical fuel cells can prevent that ... and they're still about ten or twenty years away from being really practical/reliable/affordable. Consumer apps are gonna be ROUGH service with SPOTTY maintenance.

Personally, I advocate switching to METHANOL derived from coal/water and/or biomethane synthesis. It's a convenient liquid – compatible with the existing infrastructure – it burns very clean, burns in existing IC engines with just trivial adjustments and has the highest hydrogen/carbon ratio going. Not "perfect", but BETTER. Oh, and they now DO have methanol fuel cells – the practicality/reliability/cost factors I'm not sure about.

As for H2 ... it may be more suited for INDUSTRIAL heating uses – big, fixed facilities with room for tank-farms and such.

As for 'global warming' ... well ... it's been going on since the end of the last ice-age. Did WE speed it up ? Hard to say. Since it doesn't seem practical to deny anybody their share of carbon-based fuels I'd suggest finding CHEATS to get-around the CO2 problem. Some have suggested fertilizing the oceans to increase CO2-eating plankton. I've suggested injecting precisely-sized dust into the upper stratosphere as a 'heat shield' that would last about five years before requiring renewal. Other approaches may be feasible.