

sci.energy: Re: Mook's quote about nuclear being a "low grade heat". Is it true?

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On Wed, 07 Jul 2004 01:37:10 GMT, "daestrom" <daestrom@NO_SPAM_HEREtwcny.rr.com> writes:

> > > *Yes, but I was which was the whole point. People who say – gee we
> > > won't have to worry about energy when oil runs out because we have
> > > nuclear power – are wrong. We do have to worry because the cost of
> > > energy the real costs we really pay, affect our standard of living in
> > > an industrial society. Nuclear as currently configured won't cut it –
> > > not at \$5 per watt, not at \$2 per watt. It won't cut it. Which is my
> > > point.*
> >
> > *Going by daestrom's numbers of \$.05/kW*h and this above, there's a
> > serious problem. \$3/gallon gasoline is going to be terribly bad for
> > our economy. Taxes might inflate the retail expense above that in some
> > parts of the world, in which case the government would siphoning value
> > off of cheap (costing) gasoline and putting it into other projects. If
> > the actual cost was \$3/gallon, there's be nothing for the government
> > to siphon off.*
> >
> > *We'd need energy at or under penny/kW*h to afford gasoline without
> > those dislocations. Could nuclear go that cheap?*
> >
> > *Daestrom, any suggestions?*
> >
>
> *As with many economic/social changes, I feel the key factor is
> time/rate of change. If the price of gasoline is allowed to rise
> slowly as supplies dwindle, the price escalation will make more and
> more alternatives economically viable. If the price rises slowly
> enough, many alternatives become viable *and* doable within the
> given time frame. Also new forms of conservation become
> economically viable that will help limit the impact of rising energy
> prices on overall economic growth.*

If cheap oil out of the ground runs out, the price curve for oil would be very elastic, lots of sellers for a price per gallon just over the price for 40kW*h of energy and almost nobody below that price. Thus,

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the equilibrium price would remain trapped ruinously high.

If the real price curve of petroleum fossil fuels increases by , say, 5x over 100 years, the real costs transport, shipping, air travel, etc are all going to increase markedly. It'll be gradual so with luck there will be no shortages and no severe economic dislocations. Public transport and light rail may make a comeback.

But, I'm not focussing on the path of scarcity that we'll follow, but on the world that will have taken that path. At that point in time, at current nuclear power rates, transportation energy will have a real cost 5x what it is now.

The society stuck with that much larger cost will have partially compensated by changing its transportation and other infrastructure, but it'll still be impoverished compared to our current one. Our society is affluent enough to afford it. What about other societies?

Or, is there a way to make energy for less than \$.60/40kW*h – \$1.00/40kW*h?

Scott