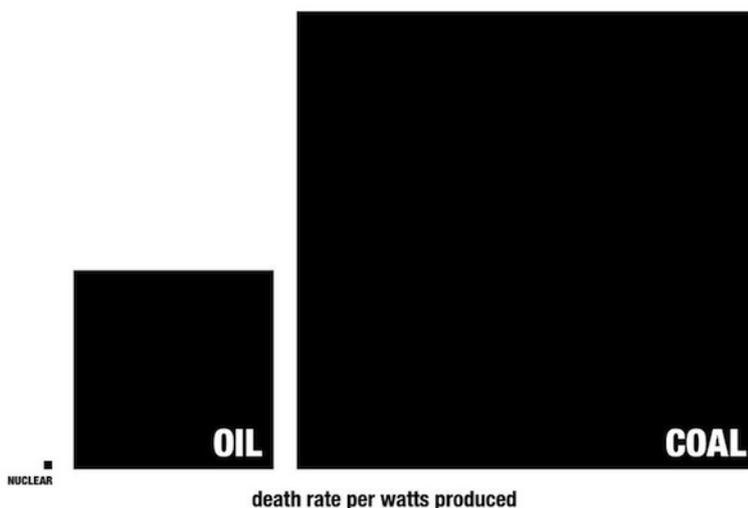


## [A free market solution to pollution](#) [1]

Written by [Sam Bowman](#) [2] | Monday 23 April 2012



The chart above shows the number of deaths per watt of energy produced by various different energy sources. (Data from the World Health Organization, image from [Seth Godin](#) [3], original graphic [here](#) [4].) Coal is by far the worst offender, causing 161 deaths per terawatt hour (TWh). Nuclear power is remarkably safe by comparison, with just 0.04 deaths per TWh. Shale gas also does well compared to coal and oil, with 4 deaths per TWh.

Clearly, there are significant, unaccounted external costs to the use of fuels like coal and oil compared to fuels like nuclear power. This does not mean that coal and oil should be banned, though many environmentalists would like it, because they both produce significant real benefits as well ? cheap energy is one of the cornerstones of modern civilization. The optimal outcome is not a total ban or a total free-for-all. As with motoring, where some deaths are an inevitable outcome of socially beneficial activity, the optimal number of deaths is greater than zero.

This is a classic case of conflicting property rights: what we need is a situation that can balance the property rights of polluters with those people whose air is being polluted against.

The standard pseudo-market solution is to assign an arbitrary value to each life and tax polluters by a fraction of that, to ?price in the cost to society?. But this is a poor approach, because the cost is borne by the individuals who get sick and die ? not by society in general or the government, which gets the money.

A free market solution to pollution would, through courts or voluntary agreement, force polluters to compensate the people they pollute against. If the property rights of the polluted-against were upheld, this would lead to a situation where both parties would agree a pollution premium: a middle-point where the polluter is compensating local people enough to continue polluting.

This would have the happy outcome of incentivizing polluters to move away from urban areas. It might also incentivize people who care less about their lungs, like smokers, to move to areas of higher pollution. The big obstacle to this is that the technology for measuring air quality is quite primitive, and probably wouldn?t allow us to find this balance. But this isn?t as significant a problem as it seems: the very fact of these

property rights being upheld (even crudely) would incentivise innovation in demarcating property rights, and so on.

Best of all, it would rebalance the relative price of dangerous fuels, like coal, against safer fuels, like shale gas and nuclear power. Currently, nuclear power isn't really viable as a free market fuel source ? it requires massive government subsidies for the initial investment. With a "free market environmentalist" mechanism that puts respect for property rights at its core, this could change ? relative to coal and oil, nuclear may become quite competitive. Shale gas, cheap and relatively clean, would probably become even more invested-in than it is now. And the real costs of pollution would be mitigated to an acceptable level. There's no need for complex regulation and arbitrary "social" taxation. For an energy industry that bears the costs of its pollution, all we need to do is recognise property rights.

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