

High Cost Of Nuclear Power

Nuclear power was touted in the past as being a cheap way to produce power, but it couldn't be further from the truth. Our plants were built on borrowed money with no plan to factor the capital costs into the price of power. And now we are stuck with an Albatross of debt hung around our necks right when we either need to rebuild or build new nuclear plants.

The price of nuclear construction has risen sharply to the point where it is not cost effective to build nuclear plants. It can only be done with massive amounts of government money. If AECL gets the bid for Darlington B, any cost overruns will be born by the federal government, as the Ontario Government will not pay any more than the agreed price. Of course, even if they do agree, we pay. Look at how they got hoodwinked by Bruce Power into partially covering cost overruns. If it was cost effective, Bruce wouldn't have needed such a provision.

What would be the cost of power from a new Darlington?

Capital Cost

$$2200\text{MW} \times \$7,000/\text{kW} = \$15,400,000,000$$

$$15 \text{ years}@6\% = \$129,953,951/\text{mth} \quad \text{http://www4.bmo.com/popup/loans/Calculator.html}$$

$$\$129,953,951 \times 12 = \$1,559,447,412/\text{year}$$

$$20 \text{ years}@6\% = \$110,330,383/\text{mth}$$

$$\$110,330,383 \times 12 = \$1,323,964,596/\text{year}$$

Power Production

$$2200\text{MW} \times 24\text{hours} \times 365\text{days} \times 90\% \text{ capacity factor} = 17,344,800\text{MWh}$$

Capital Cost Per MWh

$$\$1,559,447,412 \div 17,344,800\text{MWh} = \$89.91/\text{MWh}$$

$$\$1,323,964,596 \div 17,344,800\text{MWh} = \$76.33/\text{MWh}$$

So it will be between 7.6 and 9 cents/kWh just for the capital cost alone. Bruce is getting 7.1 cents/kWh for rebuilt units, plus cost of living. You could buy some very effective emission controls for the coal plants for less than half that kind of money.

As for CO₂ from the coal plants, you don't have to eliminate it; you only have to cut it in half to make it equivalent to gas, at least as far as point of combustion emissions are concerned.