

‘Renewables’ or ‘Ruinables’?

Only in pixie land do ‘*ruinables*’ become cheaper than reliable energy sources like ‘*fossils*’, nuclear, and hydro. The reason why CSIRO gets away with this ‘*pea and shell*’ trick is ‘*Levelised Costing*’: defined as the cost of the power source divided by the amount of energy produced during the power source’s lifetime. On that simple, narrow basis wind and solar win every time! They win **because every other relevant cost item is ignored!** Those items include:

1 ‘*Ruinables*’ receive \$13 billion in **DIRECT government subsidies per annum**. So-called ‘*Fossils*’ get **no** subsidies; they get tax deductions for the costs of running their business which are offset against the profits they make. Wind and solar do not get tax deductions because the income they get is from those direct subsidies, preferential access to grid sales when they are running - about 30% of the time – and *Large-Scale Generation Certificates* (LGCs). LGCs are paid by the so-called ‘*fossil*’ energy companies (**and indirectly by the taxpayer**), to the wind and solar when they are producing - about 30% of the time. So, wind and solar **get paid by their competitors** to sell the limited amount of electricity they produce!

2 Backup: ‘*Ruinables*’ require vast amounts of backup because they only produce power for about 30% of the time. That backup is usually so-called ‘*fossils*’, because batteries do not produce power - **only store it inefficiently**. The cost of that backup **is not included in the Levelised Costing comparison**.

3 ‘*Ruinables*’ produce the **WRONG** sort of electricity; wind and solar produce ‘*Direct Current*’, [DC], instead of *Alternating Current*, [AC] - which is what the grid runs on. **The DC produced by wind and solar must be changed into AC**. This is done, like rooftop solar, by using an ‘*inverter*’. The large inverters for wind and solar ‘*farms*’ are condensers; **are very expensive; and have to be replaced much more often** than the solar panels or wind towers.

4 Raw materials: Solar and wind ‘*farms*’ use enormous amounts of raw materials, including COAL. **This cost is not included**.

5 Wind and Solar need to be located in the best positions, and these are far away from the grid. The cost of moving the grid to these remote locations, which is vast, **is not included**. The grid also **has to be changed** to accommodate the DC electricity produced by wind and solar.

When all of these costs are included, **not only are wind and solar much more expensive than so-called ‘*fossils*’,** but they also have an *Energy Return on Energy Invested*, [EROEI], **of less than 1**; which means **the energy produced by wind and solar is LESS than the energy needed to set up wind and solar!**

In no sane Universe are ‘*ruinables*’ cheaper than so-called ‘*fossils*’.