Gday, I just read about the inquiry and wanted to give you a few thoughts on it. I only just read about it and it is due on Monday and yours was the only contact details provided. Could you put this email forward?

A few thoughts on energy policy

- 1. AC vs DC. This was settled by Tesla and Edison a hundred years ago. It has to be AC. Musk style community batteries will not ever be sufficient storage. You can't have large batteries at people's houses the risk of lightening strikes etc is too high. One megawatt hour (a large aircon unit will use 6 megawatts) is 0.86 tons of TNT! It's too dangerous.
- 2. The cost of generators for the home market needs to be considered

A) a second hand 40 KVA diesel generator (enough for a large McMansion) is only \$10,000.

B) a 40 KVA generator uses 8 I/hr and at \$1.60/I is competitive with large scale generated electricity. It is competitive for many farms and businesses to use. The fuel cost will set the upper limit for what commercial generators can charge as over the next 10 years, it will make economic sense to have a generator in South Australia or the tropics.

Petrol, ethanol, bio-diesel, lpg, coal or other fuels will probably be able to have similar generators.

- C) if the policy aim is to decrease carbon emissions, commercial electricity prices must be competitive. Diesel has 40 MJ/I energy and is not efficient as an energy source.
 - 3. As I'm sure many others will submit, within a hundred years we will have to move to nuclear power probably thorium for Australia initially then fusion reactors. The physics was done a hundred years ago it's just the engineering and investment in that that remains to be done.

The main goal should be to invest in the future which must be nuclear. If Australia wants to solve the world's carbon emission and energy problem, virtue signalling with RET and expensive electricity is self-harming and pointless. Don't wait for the USA or our grandchildren to come up with a solution , invest now.

Dr Paul Kennedy

3.2.18