I would like the committee to start from a different premise. Rather than trying to *defend renewables* we should start from a premise that all our energy is already produced from renewables, *and let us imagine that we are trying to justify introducing methods of generation such as coal, oil, nuclear and gas.*

If we take this approach we see that *the down side risk* of coal, oil, nuclear and gas is high. The risks are:-

- Over production of CO2 into the atmosphere causing global warming
- Production of particulate air pollution in the case of coal
- In the case of coal the production of acid rain
- In the case of oil air pollution
- In the case of oil, misuse of a scarce chemical resource needed for production of other essential products, plastics, medicinal products, building materials.
- In the case of nuclear the persistent pollution of radionucleides in the air, soil and sea, the problem of cost and the problem of the safe disposal of nuclear waste.
- When this approach is taken we see that renewables because they do not pollute our air, sea and land and because they do not deplete our other essential resources are unequivocally the way to go.
- We also see that the objections to renewables fall away to weak arguments about aesthetics and doubtful arguments about efficiency grounded on a *partial view* of traditional energy generation methods.
- When traditional energy generation methods are properly measured for efficiency that is with a global view of their true economic costs to the planet then their case is wholly undermined.

Alastair MacLeod
5 February 2012