Is renewable energy too expensive?

Debates about renewable energy promotion in France often end with statements such as: anyway, solar and wind energy cost too much. Yet, are these energy sources really more expensive than usual ones?

Are wind energy and photovoltaics more or less costly than fossil and nuclear energy? There is no single answer to this question, since many aspects are to be taken into account: the location, future fossil energy prices, interest rate, discount rates, etc.

Nevertheless, in most countries the cost of a kilowatt-hour produced by onshore wind or solar farms is now close to that of a kWh from fossil fuels, and lower than for nuclear when including all investment and production costs. The cost of renewable energies has dramatically dropped in the last years, and the trend is expected to continue in the future.

Switching to a 100 % renewable electricity supply by 2050 in France is now considered feasible without significant extra cost. A recent study by the French energy agency Ademe concludes that reaching 100 % would hardly be more expensive than stopping at only 40 % (€ 50.4 billion compared to 49.6 billion, i.e. a 2 % difference).