5 Issues Concerning Nuclear Power for New Zealand

1. **Requires High Security.** Nuclear power installations require significant security mechanisms and procedures in order to insulate them from sabotage. These procedures are not conducive to an open and free society.

2. **Contributes to Industry Concentration.** Nuclear power is based on a few, high-technology installations that generate the power in a handful of locations and distribute it to the rest of the country. This reinforces industry concentration into the hands of a few players. It is better, all other things being equal, to invest in technologies that are widely distributed and localized. Distributed industrial production is a more fail-safe approach that avoids the single-point-of-failure vulnerabilities of concentrated industries. It is also a better long-term influence on the political economy. Concentrated power industries with centralized foci of control are difficult to manage politically and generally contribute to highly uneven wealth distribution.

3. **Safety**.
   a. Nuclear power plants are highly complex and can suffer from catastrophic breakdowns. Although careful control and management operations can reduce the risk of severe breakdowns, such risks are inherent in systems of this complexity. Should an accident occur, then the local population near a plant must suffer a disproportionately high level of damage and injury compared to the overall population.
   b. There are also still-disputed claims that low-level background radiation from nuclear power plants has adverse long-term health consequences. Once a heavy investment is made in nuclear technology, there will always be economic pressures to dismiss negative reports on nuclear power safety in the future.
   c. The problem of what to do with spent fuel has never been adequately addressed. So far it has been economically underwritten by military programmes that already have to deal with this problem. But whether it is applied for nuclear weapons or for nuclear power generation, there is a long-term problem in terms of the storage and safe disposal of spent nuclear fuel rods.

4. **No Local Infrastructure**. New Zealand will never have the locally-based technological support and infrastructure for nuclear energy. This means that the deployment of nuclear energy installations would necessarily entail dependency on overseas control institutions which are highly concentrated in a few countries and may be subject to political vicissitudes. To establish nuclear power in New Zealand is effectively to hand over political power to foreign agencies.

5. **Not Economical**. Nuclear power has never been shown to be economically competitive compared to other energy-producing technologies. It has always been the power generation technology "of the future". There is reason to believe that alternative technologies, such as coal conversion, sea current turbines, wind turbines, solar power, etc., will always remain economically preferable. The principal support for nuclear power generation has so far come from (a) a nuclear engineering community that has a vested interest in the further deployment of this technology and (b) organisations and countries holding nuclear weapons, for which the control of nuclear energy has potential political advantages for its overseers.

– Martin Purvis, January 2009