Dear Sir/Madam,

This is a slightly late submission re the enquiry into "fly-in, fly-out" workforces in regional Australia. I have been away in central Australia, partly checking on local reactions to my views, hence the late submission, but as submissions only officially closed last Friday and this is Sunday I hope you will include it in your considerations.

As a retired climate change scientist and author (see below) and former worker on Aboriginal rights from the 1960s, I have seen a connection that may have been missed. Essentially my concern is with Aboriginal development and relates to my early advocacy of Indigenous land rights because of both the traditional spiritual connection of Aborigines and Islanders with their land and its benefit as an economic base in the modern world. My concern relates to several of the terms of reference in the Committee's deliberations.

Due in part to the advocacy of such people as Andrew ("Twiggy") Forrest (and his Australian Employment Covenant) and Noel Pearson of the Cape York Institute, there has been a significant increase in the number of Aborigines gaining on-the-job training and employment in mining and other ventures in regional and remote Australia. This has acknowledged benefits in terms of training and income but it also has drawbacks in that it takes usually young Aborigines, who often have families and who are potential leaders in their home communities, away from their families and communities, thus isolating them for long periods of time from family and traditional influences. This deprives the home communities of potential leadership and the individuals of moderating influences that might keep them from over-indulgence in alcohol or other undesirable substances. It also deprives other young people in the home communities of every-day role models. "Town camps" such as those in Alice Springs suffer from some of these same problems.

My central idea is that what most remote communities (and regional Australia more generally) has in abundance as a potential economic resource is access to renewable energy, mainly solar power but also in some cases wind, geothermal or tidal/wave power. These resources are widely spread and thus their development could be co-located close to many regional or remote communities if they wanted them, thus obviating the need for long-distance fly-in/fly-out employment, thereby providing economic development where the people are.

The obvious problem with this idea is the cost of such developments and especially of any needed extension of the electrical grid to enable large-scale renewable energy to be "exported" from these locations to where it might be used in more closely settled areas of the country.

However the twin developments of the need for renewable energy to meet the climate change problem and the imminent problem of "peak oil" mean that such large-scale renewable energy developments are in the national interest and may well soon become economic. This is already recognised in part through various government initiatives including making Alice Springs a "solar city", and the proposed Clean Energy Finance Corporation. Extension of the electrical grid to Innamincka has already been costed by the Australian Energy Market Operator AEMO so that it could pick up power from the geothermal development there. This could well be extended to Alice Springs at a small fraction of the total estimated cost of the National Broadband Network and would enable better use of renewable energy by smoothing out weather-related and seasonal variations.

In the absence of any grid connection, large-scale renewable energy might also be used to provide electricity for charging batteries for vehicles, as electrically powered vehicles are rapidly becoming more common, and also for generating hydrogen to power fuel cells or even to generate liquid ammonia for use as a motor fuel. Conversion kits for using liquid ammonia similar to those for using LPG are already available in the US.

What I am advocating is that serious strategic consideration should be given to the socio-economic co-benefits of providing local economic development in remote Australia via large-scale renewable energy projects on top of helping Australia meet its renewable energy targets. I believe this would greatly assist remote communities which presently suffer from unemployment and related social problems, without the down-side of the fly-in/fly-out system.
All this is more fully documented in the attached paper which has now been accepted for publication by *The Rangelands Journal*, and which will be presented by me at the 4th Desert Knowledge Symposium in Alice Springs in early November.

Yours Sincerely,

Dr. A. Barrie Pittock, PSM

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