Submission No 96

INQUIRY INTO FEASIBILITY OF UNDERGROUNDING THE TRANSMISSION INFRASTRUCTURE FOR RENEWABLE ENERGY PROJECTS

Organisation: Uarbry Tongy Lane Alliance Inc.

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NSW Legislative Council

Standing Committee on State Development

Inquiry into Undergrounding Transmission

Submission from the Uarbry Tongy Lane Alliance Inc. (UTLA)

10 July 2023

1.0 Costs

1.1 Little doubt that cost will be higher than overhead lines, but the cost of the whole REZ + transmission (~28,000km) is already formidable and unlikely to be built as proposed in the AEMO ISP due to budgetary constraints.

1.2 Adding undergrounding will hopefully spur acceptance that the whole scheme is a bad idea that defies reality.

1.3 On a positive note, if spending huge amounts of money on inefficient and short-lived solar, wind and associated transmission projects is good for the economy and jobs, then wasting more money must be even better.

2.0 Benefits

2.1 Clearly undergrounding would remove the negative visual impact on the many landowners along the powerline corridors and the associated significant reduction in property value.

2.2 Undergrounding would allow more direct routeing in many places, thus reducing km to be built, and would save some transmission losses as well.

2.3 EM radiation is expected to also be reduced due to ground shielding, which would reduce this impact on people and livestock in the vicinity. Large farm machinery operations would be less affected than if restricted from travelling beneath powerlines.

3.0 Case Studies

3.1 Undergrounding has been standard practice within cities and towns for decades, so the same courtesy should apply to rural citizens. Similarly within wind and solar project boundaries all cables are underground - this is partly to make the projects more acceptable to landowner hosts.

3.2 Again, those outside the project boundaries, and not benefiting financially from them, must be treated with the same consideration.

4.0 Timeframe

4.1 There is no time pressure to build an inefficient, counter productive, discriminatory and repulsive scheme when the whole concept is flawed and unlikely to be built due to budgetary and engineering reality. We should not rush to commit energy suicide.

4.2 Scheduled (arbitrary) coal power station shutdowns can be cancelled and stations refurbished or rebuilt at a fraction of the proposed REZ+transmission cost, and in a shorter timeframe most likely.

4.3 Existing coal station sites have all the infrastructure in place to host new-build thermal stations - whether coal, gas or nuclear powered. These areas are already degraded industrial land rather than beautiful, fertile, productive farmland.

5.0 Environment

5.1 The immediate visual environment would certainly be improved by undergrounding.

5.2 However, the total mass of material used - iron, copper, concrete etc, and the energy required to process it, must also be tallied. More direct routes will reduce quantity by some amount, and this must be compared to the material and energy consumption for the current overhead proposals.

5.3 If more energy-intensive and scarce resources must be mined, transported, refined and manufactured overall, then the effect on the planet is a net negative. This fundamental principle must be applied to the whole REZ++ scheme before a single sod is turned.

5.4 Given the ~25 vs. ~60 year life of wind/solar vs. thermal powerplants,

their low dispatchable power (sub 20% and sub 30%, respectively), and the massive amount of steel, concrete, oil, copper required - any net environmental benefit is unlikely.

5.5 Additionally the necessarily overbuilt - to carry the design current plus a safety margin - but under utilised - due to low dispatchable power - transmisison lines must also be considered.

5.6 If large battery storage is added to compensate for the mismatch in generation, demand and transmission capability, then the environmental cost is very signficantly increased, further negating the spurious environmental benefit.

6.0 Conclusion

6.1 The 'renewable' concept will have greater negative impact on the earth than efficient thermal power production that makes use of the existing generation sites and transmission network.

6.2 Undergrounding would be welcomed if we are to be forced to succumb to the renewable (sic) fairytale, but it is likely to cause greater environmental harm, as we will consume more but produce less.

6.3 Thankyou for your interest in our plight. UTLA wishes to make an in-person submission at the Armidale Inquiry please, as we believe there is no reprsentation from the CWOREZ area..

Uarbry Tongy Lane Alliance Inc.
CWOREZ