

Agricultural Competitiveness White Paper Submission - IP330-01  
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### **Australian multi state water transfer project to expand agriculture and low carbon energy for exports.**

The rise of the Asian consumer presents a unique opportunity for Australian agri/food and energy industries to expand into consumer markets that are relatively close to Australia. Reliable water will be a future requirement to expand a range of export opportunities in all states. The attached map shows how a first stage project in the eastern states can divert a fraction of seasonal water going to sea in the north, so it can be stored and moved by canal to service regions in north and south. Overseas investors have seen the long term potential of such a project and are willing to invest in a private JV or a public private partnership. The Canal and canal/river route option shown in attached map, and/or others under consideration, have been spatially designed to move 3750 GL pa of water through suitable land for cropping and pastoral activities while still maintaining flow to key environmental sites. Preliminary capital estimates available show how a multi staged project can be profitable in the early stages of construction. Main canal operation data of interest are- flow rate 100km/day, water losses ~4%/1000km, delivered water cost for, Main canal only ~\$135/ML, for-Main Canal and river route ~\$61/ML.

**Agriculture and food production** The canal route as indicated in attached map will be the first stage of a plan to expand Australian food output to meet significant overseas food demand. Asian and middle- east groups looking for future food supply recognise reliable water will be a key factor. We have identified following opportunities.

- An aquifer near Richmond in N/Qld has potential to hold 20,000 GL water. A study is needed to confirm.
- Food demand needs to be quantified, involvement of local super markets would assist in overall study.
- Water infrastructure development should include considerations of flood mitigation as well as drought.
- Distribution to meet demand should include bulk transport, containerised shipping, and air transport.
- Industry and government support is needed to improve food safety and techniques to expand shelf life.

**Energy and communication outputs.** (technologies considered will gradually lead to ultimate CO2 reduction)

- Farm waste crop biomass can be converted into ethanol &/or bio-oil. Lignin from wood extraction can be converted to carbon fibre suitable for production of lightweight, strong car bodies. [www.INEOSBio.com](http://www.INEOSBio.com)
- The canal route goes over 3 shale gas basins on route through Qld/NSW, available water can be used to extract large volumes of gas and oil in place to meet eastern state energy demands and/or export to Asia.
- The main canal in W/Qld/NSW is a high solar input region that could enable new PV solar hydrogen from water technology to be introduced, [www.HyperSolar.com](http://www.HyperSolar.com), hydrogen can produce power for wide usage. [http://www.hydrogen.co.uk/h2/solar\\_pv.htm](http://www.hydrogen.co.uk/h2/solar_pv.htm) what is being looked at in N/Africa could also be in Australia.
- Canal water can be economically delivered to capital city dams to replace desalinated water. Energy and carbon savings made by so doing, could be used to reduce the cost of irrigation water to regional farms.
- Rapid location of bush fires by 24hr/day drone surveillance can enable fast water bombers to be directed to landing strips built into canal and then sent to put out fires before they get too big to handle. This has the potential to halve Australia's estimated \$18bn pa fire protection costs, while reducing loss of lives& homes.
- Canal fibre optic control systems can be enlarged to also carry inland broadband communications that can be transmitted to over 40 major regional inland towns. NBN savings through joint plant usage will be high.

Future agri/food expansion in northern and southern regions may best come from importing country investors. We welcome expressions of interest from overseas state or private owned enterprises interested in investing in joint venture land purchases, service roads or food plant. We can advise on best technologies for food imports.