



GE

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Ms Margaret Liveris,  
Committee Clerk  
Standing Committee on Environment and Public Affairs  
Legislative Council  
Parliament House  
GPO Box A11  
Perth WA 6837

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**RE: Inquiry into the Implications for Western Australia of Hydraulic Fracturing for Unconventional Gas**

General Electric notes the Legislative Council Environment and Public Affairs Committee are undertaking an investigation into hydraulic fracturing for unconventional gas, and specifically into:

- a) how hydraulic fracturing may impact on current and future uses of land;
- b) the regulation of chemicals used in the hydraulic fracturing process;
- c) the use of ground water in the hydraulic fracturing process and the potential for recycling of produced water; and
- d) the reclamation (rehabilitation) of land that has been hydraulically fractured.

Through its involvement in the development of unconventional gas resources, such as coal seam gas in Queensland, GE would like to share its views and experiences for the benefit of the Committee's deliberations.

Recent discoveries of natural gas formations, combined with advances in technology, have resulted in significant growth of natural gas development via a process known as hydraulic fracturing.

These previously relatively inaccessible natural gas deposits are collectively known as "unconventional gas" supplies.

As these reserves have been developed, there has been heightened public and government attention to mitigating any environmental impact.

These concerns can be grouped into three main categories:

1. water supplies;
2. air emissions; and
3. development/site impacts.

Governments and industry are moving to address these concerns by considering new regulations and encouraging the use of best practices, such as through the Standing Council on Energy and Resources in Australia.

GE recognizes natural gas as a cleaner, abundant, secure and affordable source of primary energy, and endorses the safer and more environmentally responsible development of unconventional gas resources.

More specifically, GE supports:

- increased transparency by the unconventional gas industry to enhance understanding of the impacts of production;
- continued development and implementation of industry best practices to mitigate environmental concerns;
- reasonable and protective regulations that promote the adoption of advanced technologies that can be efficiently implemented with appropriate reviews and approvals; and
- collaboration among government, industry, non-governmental organizations, universities and the private research community to develop and deploy additional technologies and cost-effective best practices and regulations to minimize potential environmental concerns.

Technology-based solutions that help mitigate environmental impact, increase ultimate recovery and improve process efficiency will drive the success of unconventional plays globally.

GE technologies and services are assisting suppliers and operators to work together to create tomorrow's unconventional solutions to improve operational performance.

For example:

- GE's Jenbacher gas engine technology can perform mobile/stationary engine applications. These engines can provide cleaner, on-site power generation relative to older technologies such as diesel generators, resulting in reduced costs, emissions and site truck traffic;
- GE's wellhead and flow control offerings, together providing more comprehensive advanced technology solutions in the unconventional oil and gas segment; and
- GE's fixed and mobile evaporators can treat severely impaired waters, such as produced water, making it possible to reuse the water in the industrial process, reduce the amount of fresh water consumed and the associated development and transportation impacts and reduce any subsequent environmental impact from discharge.

If I can provide any assistance, please do not hesitate to contact me on 07 3001 4339

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