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SUBMISSION TO JOINT STANDING COMMITTEE ON TREATIES REGARDING THE KYOTO PROTOCOL.

Statement

As a leading edge supplier of efficient combustion technologies to Automotive, Marine Motorcycle and Recreational product manufacturers, Orbital supports the early ratification of the Kyoto Protocol in it's current form for the reasons identified below.

Orbital Engine Corporation

Orbital offers Direct Fuel Injection technologies to internal combustion engine manufacturers that result in significant proven benefits to the customer including world leading emissions capability, improvements in fuel economy over rival technologies and improvements in the control and operation of the products. Refer to website www.orbeng.com.au for company background.

As an indication of the scale of the contribution that Orbital can provide with it's technology, a CO2 abatement of 1.5Mt of CO2 is possible over the 2008-2012 commitment years for one production automotive application. It is possible that Orbital may be participating in a number of such programs.

Orbital would be pleased to offer further input as required by the Joint Standing Committee.

Benefits to the Australian Community and Environment

Through the widespread adoption of Orbital technology, Orbital can satisfy a proportion of the targets identified within the Kyoto Protocol and at the same time offer additional benefits to Australia in the following areas:

- The Kyoto protocol will indirectly promote adoption of products that utilise Orbital's technology that are extremely fuel efficient and produce low emissions of noxious emissions (HC, CO and NOx), meeting the future emissions standards in the most stringent markets in the world.
- > The fuel efficiency improvements offered by Orbital technology leads directly to reduction of CO2 evolution over alternative technologies over similar usage.
- ➤ Ratification of the Kyoto Protocol will lead to an increased demand for direct fuel injection and engine development services. Orbital employ in excess of 250 highly qualified engineers and associated support staff and has established an extensive 'centre of excellence' at Balcatta, Western Australia. This is being used to provide engineering services to our customers world-wide.
- Orbital uses industry suppliers around Australia in order to provide components that are suitable for high volume production. This generates a significant revenue exchange and ensures that Australian suppliers especially in WA, SA, NSW and VIC are aware of the latest future direct injection technologies.
- Through funding obtained from opportunities established through carbon credit trading, CDMs and JIs, Orbital will be in an improved position to further invest in it's Balcatta facility, more firmly establishing Orbital as a supplier of world leading combustion technologies.

In addition, the following items are generated as a result of participating in certain Kyoto Protocol activities:

- > Export credits are generated as a result of utilisation of Australian products and services overseas, beneficially affecting the Australia's balance of trade.
- Extensive technical worldwide recognition has been generated as a result of Orbital's development activities on addressing emissions and Kyoto issues. For example, Industry awards have been received from the Institute of Engineers Australia, Society of Automotive Engineers and other professional bodies.

Benefit to World Environment

The ratification of the Kyoto Protocol will favour the adoption of Orbital Direct Fuel injection which will provide the following world benefits:

- > Improved fuel economy at the same time as achieving some of the most stringent emissions regulations.
- More efficient use of scarce gasoline resources
- > By adopting Orbital technology, there is a significant impact on reducing inner city and urban pollution.
- Allowing end use customers of limited financial means to utilise more of their budget on more essential health and welfare items rather than gasoline products.

Benefits to the Company

- Early ratification of the protocol will favour the early widespread adoption of Orbital's technologies that offers significant additionality over alternative technologies, primarily due to the improved fuel economy and the ability to achieve the future emissions regulations.
- Orbital is actively pursuing participation in carbon credit flexibility mechanisms including JI opportunities in 'annex B' countries and CDM opportunities in 'non-annex B' countries. These would enable funding to commence manufacturing and product application programs to commence in these markets that would otherwise take a number of years.
- > Orbital is wishing to participate in Australian Government initiatives such as GGAP aimed at ensuring that Australia is in a position to successfully achieve it's Kyoto emissions targets.
- Orbital would benefit financially from additional licence agreements, supply agreements and engineering programs that would be required to support the application of the technology onto customers products.
- ➤ Using funding derived from Kyoto opportunities, Orbital will be able to maintain and fund further personnel, plant and machinery investments at its West Australian facilities to maintain and grow it's lead in the development of internal combustion engine technologies.

Clarification of Areas of Specific Interest to Orbital

Clarification is required on aspects of the protocol to assist efficient/economic implementation of projects utilising the Carbon trading flexibility mechanisms.

- Orbital has had independent initial baseline verification undertaken by auditors Det Norske Veritas (DNV), but would wish to have clear guidelines on the formal verification of the Carbon Credits from the CDM and JI boards.
- Clear guidelines are required to be established on the ownership of the Carbon Credits should be made in the protocol especially in the JI and CDM segments of the protocol.
- ➤ Clear statements on the fungibility of CDM credits being able to universally utilise carbon credits generated through CDM projects.

Ken Johnsen

Executive Director Business Development 10th August 2000