Arup Sustainability

Our ref 0002Letter to SPU.doc

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Professor Peter Newman Director Sustainability Policy Unit

Department of the Premier and Cabinet 15th Floor, 197 St Georges Tce PETH WA 6000

Dear Professor Newman

Re: WA State Sustainability Strategy

Following receipt of Focus on the Future: Opportunities for Sustainability in Western Australia, Arup Sustainability takes this opportunity to provide comment and makes the following submission to the Sustainable Policy Unit (SPU).

The following are a potential list of generic factors that require either inclusion or consideration in formulating the State's Sustainability Strategy. Arup is a consulting firm and provides advice in greater detail on issues of sustainability across a range of disciplines. In many cases the following reiterate what the SPU have already proposed but which Arup believe are essential in the formation of this Strategy.

- 1. The Strategy should contain clearly stated objectives, tangible to all levels of government, industry and individuals. It should clearly state the intent of the strategy, the incentives and benefits to stakeholders.
- 2. The Strategy should clearly define what is not covered, intended or seen as undesirable outcomes. For example an undesirable outcome would be the perception that the Strategy was just another layer of bureaucracy and encumbrance on industry or veiled attempt at dealing with an issue without delivering anything tangible or measurable.
- 3. The State Government needs to lead by example to avoid being accused of hypocrisy by industry and the community. A lack of compliance with its own Strategy or failure to keep pace with industry may inhibit or prevent full acceptance of sustainability in this State.
- 4. The State Government must commit all departments and agencies to the State's Strategy/policy on sustainability. This should include requirements for recording and reporting on sustainability performance and targets.
- 5. The Strategy must provide guidance and support of benchmarking or measurement of sustainability. This benchmarking tool or measure needs to be universally recognised and accepted; similar to or the replacement of the widely recognised 5 star energy rating system.
- 6. Measurement and assessment of sustainability must be credible and unbiased. The Strategy's objectives need to define targets that are based on the principles of sustainability; while preventing their weighting or bias generated by external influences (political lobbying/action groups). Once established the targets can then be prioritised and weighted in importance or preference.



- 7. The real value of the Strategy will be derived from practical change. This requires new decision making processes, which go beyond the economic motivators that have historically driven development. The Strategy needs to support a decision making framework that allows individuals to prioritise recommendations for development in accordance with social, economic and environmental factors. This framework should attempt to work off existing decision making processes and structures to encourage an efficient and seamless change. This should ultimately be seen as a risk/projects management aid that facilitates sustainability in practice.
- 8. Incentives or reward that recognises good practices in achieving a benchmark level of sustainability should be considered. Incentives that support research and development in improving sustainability of design, materials, manufacture, packaging, distribution, disposal or management aspects might include join venture funding or tax benefits/breaks.
- 9. State decision making authorities (e.g. EPA, DEWCP, MPR or DPI) should adopt holistic sustainability assessment measures for project approval and reporting requirements. This is equally applicable to small and large scale projects. Key aspects of projects are generally assessed in isolation, by different departments, and often do not cover the project as a whole in terms of sustainability. For example the EPA's mandate to only assess a project on its environmental merits and not take into consideration the issues of economics is not necessarily the best possible outcome in terms of sustainability and net regional benefit.
- 10. Legislative changes should be considered to support the principles of sustainability and empower authorities to make informed decisions from a holistic sustainability perspective and which are not constrained by specific issues (triple bottom line components) in isolation.
- 11. Consideration needs to be made to include more than just the triple bottom line (TBL) components established more than a decade ago. The Strategy needs to consider the inclusion of natural resource and governance as specific factors.
- 12. There is a high degree of rhetoric and lip-services to the endorsement and practice of sustainability. In many cases the word sustainability is used frivolously to coach and engender an application, report, policy or strategy to win acceptance and improve perception. Sustainability jargon is often used with little understanding or ability to substantiate its use, which reduces the credibility of the move for greater sustainability performance and reform.
- There appears to be a common misconception in the wider community that sustainability is an issue of 13. environmental protection. Although this is partially the case sustainability is a much broader issue and greater understanding and knowledge needs to be established to address improved awareness and education at all levels of government, industry and the community.

A diverse range of means and methods can be established to support the above suggestions and the final Strategy. Arup Sustainability would be happy to expand on the above and provide greater detail on its extensive experiences in specific disciplines and industries. Arup is one of the world's largest and most reputable engineering consulting firms and recognised as a leader in a number of fields. Arup has been established for over 45 years, nearly thirty of which have been based in Australia. Over 7000 staff from offices around the world provide a diverse range of consulting skills and services across a range of disciplines.

Arup has been recognised with numerous awards and accolades for its vision and leadership of global market issues, trends and practices. The philosophy of sustainability is one such issue that Arup has embraced, championing its cause within its own organisation and with clients. Arup staff continue to improve their understanding of sustainability and drive innovative changes in our professional services (i.e. design, materials and management) that support sustainability.

A clear example of Arup's innovation is the development of SPeARTM (Sustainable Project Appraisal Routine), a universal design tool enabling companies and organizations to assess their sustainability performance over time. The tool represents a step change in both the understanding and application of sustainability theory and practice, and it is an innovative approach to a sometimes complex and often uncertain issue. SPeAR can be used for assessing the sustainability of projects, products and organisations. Central to SPeAR is the 'rose diagram'. It combines in a graphical format the diverse issues that need to be considered for sustainable design and performance, including social, economic, natural resource and environmental issues. Enclosed is a brochure on SPeAR, which displays the rose diagram and goes into greater detail of its application and benefits.

Arup has research and development funds to investigate and develop tools (such as SPeAR) or innovative alternatives, such as design, materials or management practices. This is usually undertaken in conjunction with its clients to find solutions to complex issues, problems or challenges.

There appears to be a common misconception in the wider community that sustainability is an environmental issue. Arup's various disciplines; whether civil or structural engineering, buildings, transport, hydrology or environmental service, all consider the principle of sustainability as part of their service to clients. The exploration of disciple specific sustainability practices, such as the development of embodied energy material codes (out of London and Sydney) for construction, is strongly encouraged within Arup and seen as a fundamental step within its practice of sustainability.

Should you wish to discuss and of the above please do not hesitate in contacting me via phone or email.

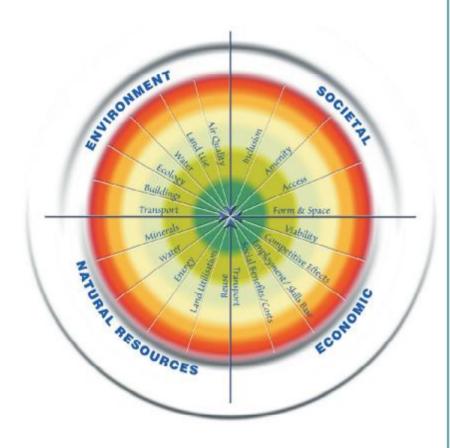
Yours sincerely

David Humphreys Manager Environmental Services

Ove Arup Pty Ltd

SPeAR TM

Sustainable Project Appraisal Routine



Applications

SPeAR™ is applicable to a wide range of sectors and at all levels of project from strategic policy development to individual project assessment.

SPeAR™ can be applied to assess and monitor sustainability performance in the following areas:

Building design

Industrial processes

Corporate Environmental Reporting

Reporting against industry codes

Policy development

Development applications

Option assessment

Monitoring EMS performance

Benefits

Allows the sustainability of a project to be assessed and illustrated graphically at all project stages, demonstrating continual improvement

Allows the various aspects of sustainability to be balanced and the inter-relationship of these assessed

Demonstrates the evolution of a project over time, as the design develops or as alternative strategies are adopted

Identifies where there may be room for improvement and so achieve optimum benefit

The logical and transparent methodology is fully adaptable

Demonstrates the interaction between the various social, environmental, economic and natural resource indicators of sustainability

The methodology behind SPeAR™ ensures that all assessments are fully audit traceable

Prompts innovative thinking to include sustainability into project design

SPeAR™: A sustainability assessment tool

Introduction

Arup has developed SPeAR™ (Sustainability Project Appraisal Routine), a universal design tool enabling companies and organisations to assess their sustainability performance over time. The tool represents a step change in both the understanding and application of sustainability theory and practice. It is an innovative approach to a sometimes complex and often uncertain issue.

SPeAR™ can be used for assessing the sustainability of projects, products and organisations. Central to SPeAR™ is the 'rose diagram'. It combines in a graphical format the diverse issues that need to be considered for sustainable design and performance, including social, economic, natural resource and environmental issues.

Project Experience

Arup's project experience includes sustainability services to:

OECD

Jaguar

General Motors

Philips Petroleum

Multiplex

Malaysian Wetland Foundation

Queensland Department of Public

Works & Housing

ATSIC

Victorian Department of

Infrastructure

Queensland Transport

University of New South Wales

Roads and Traffic Authority of New

South Wales



Arup**Sustainability**

Ecologically sustainable development (ESD) is the integration of economic, environmental and social considerations into corporate and public business decisions. Sustainability as a concept is now embedded in statutory frameworks and community perceptions. In responding to the needs of clients that need to be more aware of ESD considerations in all facets of business, Arup offers a wide range of multi-disciplinary sustainability services. These include:

Environmental Policy Development

We can develop and provide advice to clients on environmental policies, ensuring relevance to both a company's business activities and its published commitments.

Environmental Management Systems

Arup offers advice on any aspect of environmental management through to establishing and implementing a full **Environmental Management System** (EMS), for example in accordance with ISO 14001. We develop EMS procedures to meet clients' corporate or project needs, during design, construction, or operation. In addition, we also advise on the integration of EMS with Quality Assurance and/or Health & Safety systems.

Corporate Environmental and Sustainability Reporting

Our experience enables us to offer services in compiling, or verifying annual corporate environmental, social and sustainability reports.

Auditing

Arup has a team of experienced environmental auditors. Audits can be undertaken to assess environmental liabilities, risks and compliance. In addition, Arup provides services to identify improvements in sustainability performance through eco-efficiency and energy audits.

Development of ESD Assessment Tools

We can develop and provide advice to clients on ESD assessment tools that can be applied to policies, projects or processes. For example, Arup has developed the Sustainability Project Appraisal Routine (SPeAR™) which enables organisations to assess their sustainability performance over time

Sustainable Building Design

Buildings are a major contributor to energy use and greenhouse emissions. In response, Arup has been at the forefront of sustainable building design over the last 25 years with an unparalleled number of completed projects in the national and international arena. Our involvement can range from specialist studies on any aspect of sustainable building design to the full engineering design of a sustainable building. Particular issues we cover are:

Low/zero energy building design **Energy and environmental** modelling

Renewable energy studies and design

Resource and waste management studies and design

Energy management investigations

Energy efficiency briefs and technical specifications Embodied energy analysis

Audits and benchmarking

Stakeholder Engagement

the development and implementation of stakeholder and public consultation programs. Open communication, accessibility of information and using a range of consultation techniques are key success factors that Arup adopts in consulting with stakeholders.

Arup brings considerable experience in













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