



NATIONAL ROUND TABLE ON THE ENVIRONMENT AND THE ECONOMY
TABLE RONDE NATIONALE SUR L'ENVIRONNEMENT ET L'ÉCONOMIE

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Engineering for Sustainability: Moving from Principles to Practice

A Professional Development Workshop
for Canadian Professional Engineers & Geoscientists

A Report to
The National Round Table
on the Environment and the Economy
On

Design, Marketing and Delivery
of the Initial Full-Scale Workshop
in Vancouver, BC



**Environmental & Management
Consultants**

March, 1997

NRT-1997004
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1. PURPOSE AND BACKGROUND

1.1 Purpose of Report

This report summarizes the preparation, marketing and presentation of the initial full-scale version of the workshop "Engineering for Sustainability: Moving From Principles to Practice", in Vancouver on 17th March 1997. The workshop was developed on behalf of the National Round Table on the Environment and the Economy (NRTEE). Over time the workshop will be presented across Canada.

1.2 Objectives of Project

The project described in this report covered preparation, marketing and delivery of the initial full-scale workshop, and had the following objectives:

1. To design a full-scale workshop on the topic of engineering for sustainability, based on the results and recommendations contained in the report by IES Ltd. (see references) and other documents.
2. To deliver the full-scale workshop in Vancouver, BC before 30th March, 1997.
3. To carry-out marketing and advertising for the full-scale workshop.
4. To prepare a package of background materials to be provided to registrants in conjunction with the workshop.

1.3 Background

Progress towards sustainability is of major importance, both in Canada and around the world. This progress in turn will depend on effective dissemination of knowledge concerning the principles and practice of sustainability. The NRTEE has recognized this, and has established a program to focus on education for sustainability. In turn the NRTEE Education Program has established three strategic objectives in 1996-97. The second strategy focuses on education tools for professional associations. The project described in this report supports this second strategy.

In October 1996, IES Ltd. of Victoria BC was asked by the NRTEE to plan, design and deliver a pilot scale workshop for Professional Engineers in BC on the topic of sustainability. The pilot workshop was held on 17th December 1996 in Vancouver. A report on the design and delivery of the pilot workshop was subsequently prepared by the project team, and is available as a reference.

The participants in the pilot workshop included engineers and geoscientists from a range of backgrounds and professional specialisations. This was done partly to obtain a broad perspective on the format and content of the workshop. Following the pilot scale workshop a more specific target market for the full-scale workshop was identified. This target market was defined as professional engineers and geoscientists who are also leaders and managers in government and crown corporations. The target market also included managers in the private sector who want to improve understanding of government decision-making.

As part of the initial assignment to IES, commenced in October 1996, a preliminary marketing plan for the full-scale workshop was developed. This preliminary marketing plan was described in a report prepared by IES Ltd. in January, 1997 (see references).

2. TASKS AND PROJECT TEAM

This section of the report outlines the main project tasks, and describes the project team.

2.1 Tasks

The project to design, market and deliver the full-scale workshop was broken into the tasks outlined in this section. The results of these tasks are described in Section 3.

Task 1: Design of Workshop

The design of the workshop was based on the outcome of the pilot scale workshop, as reported elsewhere (see references). The original objectives for the workshop were modified, case study presentations were prepared, and worksheets and other materials made up.

Task 2: Preparation of Background Package

A background package was assembled, partly using research undertaken as part of the pilot-scale work. This package included the items identified in the report on the pilot workshop.

Task 3: Delivery of Workshop

This task covered delivery of the workshop on 17th March 1997. The workshop involved several facilitators who both make brief presentations and worked with small groups of participants in hands-on activities.

Task 4: Implementation of Marketing Activities

This task covered the preparation of marketing materials. It included sending a notice and registration form by both fax and direct mail to individuals making up the target market in British Columbia.

2.2 Project Team

The project team consisted of: Vern Rogers, Team Leader, Carla Doucet, Policy Advisor to the NRTEE and Joanne Perdue, Project Manager for the C. K. Choi building. As part of the workshop delivery Carla Doucet described the background package, Joanne Perdue presented the afternoon case study, and Vern Rogers led the morning case study. These individuals were also involved in the pilot-scale workshop in December, 1996.

Two members of the NRTEE, Allan Bruce and Karen Morgan, also participated in proceedings, and assisted in opening and closing the workshop.

3 THE FULL SCALE WORKSHOP

3.1 Objectives of Workshop

Objectives for the workshop were initially established in October 1996. These were subsequently modified as a result of experience gained with the pilot workshop held in December 1996. Objectives for the initial full-scale workshop were:

1. To outline:
 - the need for sustainable development
 - the principles of sustainability
 - the role of engineers and geoscientists
2. To provide direct experience of projects which illustrate aspects of the practice of sustainable development.
3. To assist in application of the Guidelines for Sustainability

3.2 Results of Work

This section outlines the results of the tasks outlined in Section 2 above.

Workshop Design

The agenda developed for the for the full-scale workshop is given in the Appendices. The workshop consisted of three main elements. These were firstly an introduction to the principles and practice of sustainability, in the form of a slide presentation. This was followed by two interactive case studies; one in the morning, the other in the afternoon. The final element was designed to help participants to review and apply the Guidelines for Sustainability of the Association of Professional Engineers and Geoscientists of BC. Material which further illustrates the design of the workshop will be found in the background package.

Workshop Marketing

The primary means of marketing the Vancouver workshop involved use of a direct mail package. The package consisted of a notice and registration form made up by NRTEE staff. Copies are included in the appendices.

The target market for the full-scale workshop was primarily engineers and managers in government. Copies of the direct mail package were sent out to individuals on mailing lists and fax lists. In turn these lists were made up from sources such as directories published by the private sector, and internal telephone directories obtained from government. Copies of the

package were also sent to all universities and post secondary institutions in the province. A summary, showing the recipients of the mail-out and fax-out packages, is given in the appendices under the heading "Marketing Implementation".

A secondary target market was engineers and geoscientists in the private sector who have a technical interest in the projects covered by the case studies, or who work with government clients. A mailing list for this target market was made up using directories and other means. An enlarged version of the mail-out package was used for this target group. This enlarged package emphasized the business opportunities presented by the workshop topic. Copies of the additional items making up this package are included in the appendices.

Since the target market consists of engineers and geoscientists, the workshop was also advertised in *Innovation*, the journal of APEGBC. However due to the compressed timetable of this project, this journal did not reach all members of APEGBC before the date of the workshop. Copies of the notice and registration form were also sent to APEGBC, with a request that they be included in mail-outs to all branch members.

Partly due to the compressed timetable, the target number of 30 registrants was not achieved. In the week prior to the workshop, in an attempt to increase registrations, a secondary fax-out was undertaken. This fax out was sent to municipalities in the Lower Mainland, and emphasized in a direct way the opportunities to save money and to encourage innovative environmental design that were covered in the workshop.

Workshop Delivery

The workshop was held on 17th March, 1997 at the Plaza 500 Hotel in the City of Vancouver, BC. A list of participants is available from NRTEE staff. The workshop was opened by Allan Bruce, a member of the NRTEE.

Following the opening slide presentation, the first of two interactive case studies was undertaken. For the interactive case studies the participants were broken into two groups of about 7 each. The first case study described the establishment of regional environmental priorities. The second case study, carried out in the afternoon, was concerned with the design of an innovative building which minimizes waste and provides other environmental benefits. Both case studies are described in more detail in the background package.

After the second case study the participants worked in two groups to apply the APEGBC guidelines to the case study projects. The workshop was closed by Karen Morgan of the NRTEE. Participants were asked to complete a workshop assessment form, the results of which are given in the appendices.

Background Package

Recommendations from the pilot workshop held in December 1996 covered the production of a background information package. As a result, a comprehensive background package was prepared for the Vancouver workshop. The background package covers material related to the

topic of the workshop, but which due to time constraints could not be covered as part of the agenda. The Table of Contents for the background package is given in the appendices. The background package was given to registrants at the opening of the workshop.

4 RECOMMENDATIONS

Workshop assessment forms were used at the conclusion of the workshop to collect feedback from participants. Summaries of information provided on these forms are given in the appendices. The following recommendations are based partly on the responses on the workshop assessment forms, and partly on the experience of the project team. These recommendations supplement those produced as a result of the pilot workshop.

Marketing

- continue to carefully select target market; identify benefits that will attract participants and provide a focus; for example for government participants the opportunity to protect the environment or save money; for the private sector the opportunity to build business.
- provide adequate time to market the workshop effectively and economically. With sufficient lead time, marketing materials can be included with mail-outs sent as a matter of routine to members of the target market by groups such as the Association of BC Municipalities. This can save considerable time and money. Sufficient lead time also means that advertising placed in specialist journals will achieve maximum effectiveness; it may also give opportunities to publish short articles about the themes of the workshop, which will build awareness.
- plan marketing material to speak to the needs of engineers and geoscientists, and specifically the target participants; produce an eye catching brochure which not only stresses benefits but outlines the technical content of the case studies, and briefly describes the background of the speakers.

Content

- the full-scale workshop should continue to emphasize the use of case studies. Possibly three or even four case studies should be included, in a form shortened from that used in the Vancouver workshop.
- continue the approach used in the Vancouver workshop; introduce each case study, and then analyze it in the form of small group discussion and by other means. Selection of case studies may be helped by examining key sustainability issues in the community or region.
- encourage participants to think about the characteristics that make a project a good example of sustainable development. Have participants develop criteria against which a project can be assessed to determine how effectively it demonstrates sustainable development.

Format

- continue to firmly manage the process so that the intended learning outcomes are achieved. Manage the tendency of participants to move into consideration of the technical details of a project.
- continue to ensure there are several opportunities for the participants to have direct engagement with the tools, and materials provided in the workshop

Background Package

- continue to prepare a background package that includes material on the NRTEE, information on the importance and evolution of the concepts of sustainable development, definitions of sustainable development, and material concerning the components of a human ecosystem that are influenced by the work of engineers and geoscientists.
- include material in a background package on work in other jurisdictions, and resources available to assist the practice of sustainability. Include a list of organisations which assist in the practice of engineering for sustainability.

APPENDIX 1: MARKETING MATERIALS

This appendix includes copies of the Notice and Registration Form. It also includes a summary of Marketing Implementation information.



National Round Table on the
Environment and the Economy

Table ronde nationale sur
l'environnement et l'économie

7th February, 1997

To Whom It May Concern,

About Engineering and Sustainable Development

“ Sustainable development is a process of change in which exploitation of resources, the direction of investments, the orientation of technical development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations...”

Our Common Future, World Commission on Environment and Development, 1987

“ ...we must strive topromote universal adoption of a sustainable development ethic; particularly among private and public sector decision makers, developers, investors, and local, regional, national, and international governing bodies.”

The Role of Engineering in Sustainable Development, AAES and WEPSD, 1994

“We cannot risk the consequences of a future built on an unsustainable foundation. It is up to us - the engineers and stewards of sustainable development - to see that future generations receive their heritage. “

Accepting the Challenge of Sustainable Development, Henry J. Hatch, P.E., Former Chief, US Army Corp of Engineers, 1992

About the Workshop

The National Round Table on the Environment and Economy is sponsoring a workshop : *“Engineering for Sustainability: Moving from Principles to Practice”* . Information about the workshop is given on the attached Notice and Registration Form. We would be very grateful if you will arrange for copies of the Notice to be placed on your notice boards, and for copies of this package to be circulated to key staff as soon as possible.

Thank you very much.

Yours truly,

Vern Rogers M.Sc., P. Eng.

Consultant to the National Round Table on the Environment and the Economy: Engineering for Sustainability
Principal: IES Ltd; Victoria, BC (tel: 250 472 8660; fax: 250 472 8633)

NRTEE Workshop on 17th March 1997, Vancouver, BC

Marketing Implementation:

Fax Outs

A fax out consisting of a fax cover sheet and Notice will be sent prior to 8th February to:

27 regional districts	Faculty of Engineering, University of British Columbia
152 municipalities	Faculty of Engineering, University of Victoria
37 offices of the BC Ministry of Environment	Royal Roads University
25 consulting companies in Victoria and the Lower Mainland	Simon Fraser University
7 Members of the APEGBC Sustainability Committee	Camosun College
Offices of Environment Canada in Vancouver	British Columbia Institute of Technology
	University of Northern British Columbia

News Items in Newsletter etc

Representatives of the following organisations have been faxed with a request to include an item in their next newsletter:

- APEGBC (Dale Lessoway)
- BC Water and Waste Association (Inder Singh)
- Coast Waste Management Association (Andy Schiller)
- Engineering Institute of Canada (Gregg Ovstass/ Peter Burrage)
- Consulting Engineers of British Columbia (John Wilkins)
- All 13 Branches of APEGBC (Branch Chair and Branch Vice-Chair)
- APEGBC web page and ITE web page
- internal BC Ministry of Environment circulation

Mail Out

A Mail Out containing the Notice, Registration form and covering letter will be mailed before 10th February. The covering letter will request the notice and registration form be circulated to interested staff, and displayed on notice boards. The mail out will go to:

27 regional districts	Faculty of Engineering, University of Victoria
152 municipalities	Royal Roads University
37 offices of the BC Ministry of Environment	Simon Fraser University
25 consulting companies in Victoria and the Lower Mainland	Camosun College
7 Members of the APEGBC Sustainability Committee	British Columbia Institute of Technology
Offices of Environment Canada in Vancouver	University of Northern British Columbia
Faculty of Engineering, University of British Columbia	(256 pieces)

National Round Table
on the Environment
and the Economy

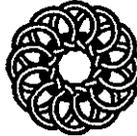


Table ronde nationale
sur l'environnement
et l'économie

Engineering for Sustainability: Moving from Principles to Practice

A Workshop for Professional Engineers and GeoScientists Sponsored by the National Round Table on the Environment and the Economy

Sustainable development is one of the most important topics on the agenda of government at all levels. Professional Engineers and GeoScientists have a major role to play in the practice of sustainability. This is reflected in the Guidelines for Sustainability issued by the Association of Professional Engineers and GeoScientists of BC (APEGBC).

The National Round Table on the Environment and the Economy (NRTEE) is sponsoring a workshop called "Engineering for Sustainability: Moving from Principles to Practice". The workshop is designed for Professional Engineers working in government. The workshop will also be helpful to those in the private sector who work with government. It will illustrate a process that can be used to set environmental spending priorities in the public sector. The workshop will also show how design professionals and government agencies can cooperate to produce innovative design. The workshop will be based around two case studies, which will help participants to explore several important aspects of the practice of sustainability.

Participants will:

- Learn about a very practical approach to setting regional environmental priorities. Establishing environmental priorities for government is a challenging process that should involve the community, technical specialists and elected representatives. This workshop will show how it can be done.
- Gain direct experience of a project that has won several awards as an example of innovative environmental design. The project conserves energy, minimizes waste, and reuses materials. It involved cooperation among designers, builders and government agencies.
- Gain a greater understanding of the APEGBC Guidelines for Sustainability, as they are used in reviewing the case studies.
- Receive an information package containing useful information about the practice of sustainable development by Professional Engineers and GeoScientists.

The workshop will be held in Vancouver, BC on March 17, 1997.

For more information please contact:
Carla Doucet, NRTEE Policy Consultant
Tel.: (705) 749-0415 • Fax: (705) 749-1287
E-mail: cdoucet@oncomdis.on.ca

or

Vern Rogers, M.Sc., P. Eng., IES Ltd.
Tel.: (250) 472-8660 • Fax: (250) 472-8633
E-mail: vrogers@travelscope.com

Engineering for Sustainability: Moving from Principles to Practice

A one-day Workshop for Professional Engineers and GeoScientists
at the Plaza 500 Hotel in Vancouver, British Columbia on
March 17, 1997

Sponsored by the National Round Table on the Environment and the Economy

REGISTRATION FORM

Name

Organization

Mailing Address

Telephone Fax

E-mail

Special dietary requirements (e.g. vegetarian)

Yes, please register me for the Workshop to be held in Vancouver on March 17, 1997. I enclose the registration fee of \$200.00. Registration Deadline: March 7, 1997.

Please make payment (Cheque or Money Order) out to NRTEE.

Date Signature

National Round Table
on the Environment
and the Economy



Table ronde nationale
sur l'environnement
et l'économie

Please send this form and payment to: P. Guitard, NRTEE

1 Nicholas Street, Suite 1500
Ottawa, Ontario K1N 7B7

Registration enquiries:

Tel: (613) 947-0666 • Fax: (613) 992-7385

E-mail: mquevill@nrtee-trnee.ca • Web: <http://www.nrtee-trnee.ca>

Thank you for registering.

APPENDIX 2: SUPPLEMENTARY MARKETING MATERIALS

This appendix includes copies of supplementary marketing materials sent to consulting engineers in the Lower Mainland.



National Round Table on the
Environment and the Economy

Table ronde nationale sur
l'environnement et l'économie

15th February, 1997

Dear Member of the Consulting Engineers of BC,

Engineering for Sustainability: A Business Opportunity for You ?

Sustainable development has been called "...perhaps the dominant economic, environmental and social issue of the 21st century". Whether or not you believe this to be the case, you probably see sustainable development as an important issue that will have a significant impact on your practice.

The National Round Table on the Environment and the Economy (NRTEE) has a mandate to identify, explain and promote the principles and practice of sustainable development. As a result the NRTEE is sponsoring the workshop "*Engineering for Sustainability: Moving from Principles to Practice*". Design and delivery of the workshop was initiated in British Columbia. A pilot version was held in cooperation with APEGBC in December, 1996. Information about the workshop is given on the notice enclosed. We would be grateful if you will place copies of this notice on your notice boards and send copies to key staff as soon as possible.

Part of the workshop activity will be a slide presentation about engineering and sustainable development. The slides were prepared by a US-based organisation, the *American Association of Engineering Societies*. Clearly we need to include Canadian examples. Consulting engineers in Canada have been responsible for projects which demonstrate the practice of engineering for sustainability. The NRTEE workshop will provide a means to communicate Canadian expertise in this area. This in turn may lead to growing opportunities to export Canadian products and services.

You can help with this process. Has your company worked on projects which in some way demonstrate the practice of sustainability? Examples can be from any sector of industry or from government, because the background of participants may vary from one presentation to another. If you have examples, please provide outline information on the form attached. Please complete one copy of the form for each project. The completed forms should be faxed to IES Ltd. by 15th March if at all possible (information received after this date will be used in future workshops). IES Ltd. is undertaking design and delivery of the workshop on behalf of the NRTEE.

Those projects which are suitable will be included in a list given to workshop participants. It is planned to hold the workshop in all major centres across Canada. Some projects may also be included in the slide presentation, or even used as the basis for a case study. This could provide major benefits for you because many people will learn about your expertise.

In conclusion, it would be helpful if you will quickly circulate the enclosed information. Please also fax examples of sustainable projects as soon as possible. If you have questions, please contact the writer at IES Ltd, using the numbers shown below. Thank you very much in anticipation of your help.

Yours truly,

Vern Rogers M.Sc., P.Eng.,

Consultant to the National Round Table on the Environment and the Economy: Engineering for Sustainability
Principal: IES Ltd. tel: 250 472 8660 fax: 250 472 8633 email: general @travelscope.com

Canadian Engineering for Sustainability: Project Outline

This information is being collected in conjunction with a cross-Canada workshop sponsored by the National Round Table on the Environment and the Economy (NRTEE), based in Ottawa. The workshop is called : *Engineering for Sustainability: Moving from Principles to Practice.*

Do you have a project that illustrates aspects of engineering for sustainability? Does your project meet one or more of the criteria listed below? If so, please take a few moments and complete the form. Make copies of the form if you have more than one applicable project. Please leave blank any specific information items you wish to keep confidential. (It is likely that many of your projects meet one or more of the criteria. Please therefore include only those projects which you think advance the practice of *engineering for sustainability*, and which you think others, including prospective clients, would like to know about. We will contact you for more information if necessary.)

Your Company Name: _____

Your Name: _____ Title: _____

Your Tel: _____ Fax: _____ Email: _____

Project Name (*1) : _____

Project Location: _____ Project Owner: _____

Project Sector: (eg: mining, municipal, transport) _____

(*1 If you wish, please also fax or mail a brief project description .)

Sustainability Criteria

Please check the characteristics in the following list which apply to the project:

- | | | | |
|--------------------------------------|--------------------------|--|--------------------------|
| conserves energy | <input type="checkbox"/> | enhances health and well-being | <input type="checkbox"/> |
| conserves resources | <input type="checkbox"/> | reflects consensus decision making | <input type="checkbox"/> |
| more sustainable resource extraction | <input type="checkbox"/> | demonstrates a systematic, science-based approach | <input type="checkbox"/> |
| reduces environmental impact | <input type="checkbox"/> | incorporates life cycle assessment/ full cost accounting | <input type="checkbox"/> |
| promotes recycling / reuse | <input type="checkbox"/> | illustrates a public /private sector partnership | <input type="checkbox"/> |
| minimizes waste / reuses waste | <input type="checkbox"/> | restores/ protects natural environment | <input type="checkbox"/> |
| increases useful life | <input type="checkbox"/> | other sustainability characteristics | <input type="checkbox"/> |
| involves the local community | <input type="checkbox"/> | _____ | <input type="checkbox"/> |
| enhances social or economic welfare | <input type="checkbox"/> | | |

Please fax to: 250 472 8633

Thanks for your help. Please fax this completed form before 15th March, 1997 if possible.

Fax to: Vern Rogers, M.Sc., P. Eng. of IES Ltd., (consultant to the NRTEE for design of the workshop).

IES Ltd: 4521 Montford Crescent, Victoria, BC V8N 3W6

tel: 250 472 8660 fax: 250 472 8633 email: general@travelscope.com

APPENDIX 3: WORKSHOP AGENDA & TABLE OF CONTENTS

This appendix includes the Workshop Agenda, and a copy of the Table of Contents for the information package.

Engineering for Sustainability: Moving from Principles to Practice

A Workshop for Professional Engineers and Geoscientists

Sponsored by the National Round Table on the Environment and the Economy

Plaza 500 Hotel: Vancouver, British Columbia: 17th March 1997, 8:30 am

Agenda

- 08:30 - 08:45 Welcome, Opening Remarks, Introductions
Allan Bruce, Member of NRTEE
- 08:45 - 09:15 Background Slides & Package
- 09:15 - 10:00 Interactive Case Study #1: Environmental Priorities
Vern Rogers IES Ltd.
- 10:00 - 10:15 BREAK
- 10:15 - 12:00 Interactive Case Study #1 *(continued)*
- 12:00 - 13:00 LUNCH
- 13:00 - 15:00 Interactive Case Study #2: C. K Choi Building
Joanne Perdue; Matsuzaki Wright Architects Inc.
- 15:00 - 15:15 BREAK
- 15:15 - 15:45 Interactive Case Study #2 *(continued)*
- 15:45 - 16:20 APEGBC Guidelines
- 16:20 - 16:30 Closing Remarks
Karen Morgan; Member, NRTEE

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1 Nicholas Street, Suite 1500, Ottawa, Ontario, Canada K1N 7B7

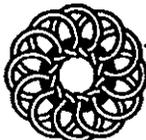


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Engineering for Sustainability: Moving from Principles to Practice

Background Information Package

This background package contains information that supports the objectives and content of the workshop. It includes important materials which due to time constraints cannot be included directly in the workshop proceedings.

Contents

- About the National Round Table on the Environment and the Economy (NRTEE)
- NRTEE Building Consensus for A Sustainable Future: Guiding Principles
- Guidelines for Sustainability: *Association of Professional Engineers and Geoscientists of BC*
- CSCE Guidelines for Civil Engineering Practice with a Commitment to a Sustainable Future
- A Vision for the Canadian Engineering Profession; *Canadian Council of Professional Engineers*

Workshop Training Package

- Background to workshop and workshop objectives
- Notes from Slide Presentation: An Introduction to Engineering for Sustainability
- Background to the Interactive Case Studies
- About the Presenters
- Bibliography

National Round Table
on the Environment
and the Economy

1 Nicholas Street, Suite 1500, Ottawa, Ontario, Canada K1N 7B7

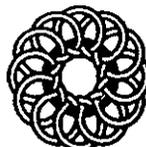


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APPENDIX 4: FEEDBACK FROM WORKSHOP PARTICIPANTS

This appendix summarizes feedback provided by participants through completion of the workshop assessment forms handed out during the workshop (*please see sample form included*).

1. Response: V-1; G-8: F-1
2. Responses: "a few more example case studies would be good"; "more case studies- done very quickly"; "more specific examples with value saved and environmental benefits" "possible ways to influence the appropriate agencies to implement change"
3. Response: V-4; G- 5: F-2
4. Response
 - V-1; G-7; F-2
 - V-1; G-8; F-1
 - V-1; G 7; F-2
 - V-6; G-4; F-0
5. Responses: "some focus on individuals and their role at home and various lifestyle choices"; "time is limited so you did a good job"; "links to other engineering areas, economics"; "defining environmental problems, identifying data to measure them, measuring results".
6. V-4; G-6
7. Yes- 4; Possibly- 2; No-1
8. Order of priority:
 - engineering for sustainability at the municipal level
 - developing public consensus on environmental priorities
 - application of consensus approach to decision making
 - development of life cycle assessment tools
 - total cost assessment of pollution prevention projects
 - restoration of natural systems
 - implementation of Environmental Management Systems
 - design of buildings for sustainability
9. No responses

WORKSHOP ASSESSMENT

Your assessment of the workshop is vital to our efforts. Please take the time to complete this assessment form. Use additional paper if necessary. Where applicable, please answer each question with:

V-very good; G-good; F-Fair.

1. Were the objectives of the workshop clearly stated? G comment: -----

2. What changes to the objectives would you suggest? *Possible ways to influence the*
appropriate agencies to implement changes

3. What do you think of the length of the workshop? V comment: -----

4. How well did the workshop meet its objectives?

- to help the move from the principles to the practice of sustainability? G
- to help you put the principles into practice G
- to help apply the APEGBC guidelines for sustainability G
- to outline examples of sustainable projects & programs V

5. What aspects of interest to you where not well covered by the workshop

SOME FOCUS ON INDIVIDUALS AND THEIR ROLE AT HOME
AND VARIOUS LIFESTYLE CHOICES / DIFFERENT FROM ENGINEERING SUSTAINABILITY

6. How do you rate the format of the workshop, including the mix of topics and visual aids? V

any comment: -----

7. Would your organisation send people to this workshop if it was "customised" to meet the needs of your organisation, and held in your offices?

POSSIBLE, WOULD NEED TO REVIEW

8. Here are possible topics for case presentations (*including those presented in the workshop*). Please rate them in order of priority; 1, 2 etc.....

- engineering for sustainability at the municipal level
- restoration of natural systems
- development of life-cycle assessment tools
- design of buildings for sustainability
- implementation of Environmental Management Systems
- application of the consensus approach to decision making
- developing public consensus on environmental priorities
- total cost assessment of pollution prevention projects
- recycling and reuses of wastes
- other-----
- other-----
- other-----

11. What other comments do you have about the case studies and the workshop?-----

Thar 1