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# Response to the Consultative Committee Report on the Canadian Consulting Engineering Industry



Government  
of Canada

Gouvernement  
du Canada

Regional Industrial  
Expansion

Expansion industrielle  
régionale

Canada

**RESPONSE OF THE FEDERAL GOVERNMENT  
TO THE RECOMMENDATIONS OF THE**

**CONSULTATIVE COMMITTEE**

**ON THE**

**CANADIAN CONSULTING ENGINEERING INDUSTRY**

**February 1984**



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Members of the Consultative Committee on the  
Canadian Consulting Engineering Industry



PART I

INTRODUCTION AND EXECUTIVE SUMMARY



## INTRODUCTION

The Consultative Committee on the Canadian Consulting Engineering Industry was established at the initiative of the Minister of Industry, Trade and Commerce in March 1981. The committee consisted of 15 senior executives from consulting engineering firms across Canada and was chaired by S. J. Cunliffe, Chairman of the Board, Willis, Cunliffe, Tait/Delcan. Provincial government representatives also took part in the meetings and departmental officials provided secretariat support to the committee.

The terms of reference of the committee were to review the current status of the industry, assess its potential in terms of the contribution it can make to Canada's economy and the constraints it might face in realizing this potential. The committee was asked to make recommendations which could be implemented by the industry, its associations and the government toward maximizing the industry's performance.

The final report submitted to the government entitled Realizing the Potential contained 46 recommendations. Many of the recommendations deal with issues for which prime responsibility rests with several departments of the federal government, others relate to matters under provincial jurisdiction or for initiative by industry.

Several recommendations relate to changes or shifts in government policy which can only be accomplished over the longer term. Others concern proposals such as tax policy changes which can only be addressed in the context of specific measures such as a budget. However, most recommendations outline actions which can be best implemented as a result of ongoing co-operation between government and industry. The response of the government to each specific recommendation, therefore, indicates that such an evolutionary process is taking place in relation to the special requirements of the consulting engineering industry.

Because of the knowledge and expertise of the consulting engineering industry, it is in an exceptional position to contribute valuable advice for the public management of complex issues. This is recognized by the federal government and it is most important to note that a very active and dynamic dialogue is maintained with the consulting engineering industry in Canada. Briefs regularly submitted by industry members on a broad range of issues are fully considered by the government. Several industry leaders are personally active in selected government advisory groups, for instance the Science Council of Canada, the Export Trade Development Board, the Construction Industry Development Council, to name a few.



The Association of Consulting Engineers of Canada (ACEC) in particular is most active in this process of consultation, meeting with Cabinet Ministers and senior government officials, presenting industry views and position papers on specific issues of concern or proposed government actions. The association, which represents a major portion of the industry (member firms' billings account for over 85 per cent of total industry billings), implements a yearly action plan through committees in liaison with specific government departments. The current action plan, as noted by the president of the association in his 1982-83 annual report, incorporates initiatives by each of these committees to follow up jointly with government on pertinent recommendations of the consultative committee.

The federal government, in presenting the following response to the work of the consultative committee, therefore fully recognizes the need for ongoing dialogue to achieve the desired results. The federal government will continue its co-operation with ACEC and other industry representatives to achieve further progress in maximizing the contribution of the consulting engineering industry to the Canadian economy.

### EXECUTIVE SUMMARY

The formulation of the response by the federal government was co-ordinated by the Department of Regional Industrial Expansion (DRIE) and its precursor Department of Industry, Trade and Commerce and Regional Economic Expansion (ITC/REE) in consultation with the department responsible for the policy implications of each recommendation. The federal departments or agencies primarily involved were: Agriculture; Canadian International Development Agency; External Affairs; Employment and Immigration; Energy, Mines and Resources; Export Development Corporation; Finance; Indian and Northern Affairs; Ministry of State for Economic and Regional Development; National Defence; Public Works; Science and Technology; Statistics; Supply and Services; Transport; and the Treasury Board of Canada.

The publication of this response, as noted in the introduction, is an integral element of the continuing process of consultation with the consulting engineering industry. Industry is invited to react to the responses stated in this document. Further, progress in resolving the issues identified will be monitored formally through the ACEC/Industry and Trade Liaison Committee.

In its report, the consultative committee made recommendations relating to the following broad subject areas:

1. The need for an improved information base.
2. Contracting-out policies and practices.
3. Major projects in Canada.
4. Research and development.
5. The export opportunity.
6. Economic Spinoffs.

1. The Need for an Improved Information Base:

The committee, early in its work, recognized the lack of background material and statistical data on the industry. Several recommendations address the need for an improved information base including:

- up-to-date statistics on industry performance and on its impact on other economic sectors;
- the level of engineering carried out in-house (government and industrial) and the potential for contracting-out;
- the level of imports of engineering services;
- the performance and potential of the industry in research and development;
- the supply and demand of personnel.

The generation of appropriate information is costly and highly time consuming. Under the circumstances, both industry and government are doing their utmost in directing scarce resources to such tasks, and systematic progress is being achieved in this area through the following measures:

- completion of the Statistics Canada Survey for 1982 on Engineering and Technical Services. Undertaken by Statistics Canada with the support of DRIE, this survey is to be published by April 1984;
- compilation by DRIE of a yearly survey of selected major export firms on consulting contracts and follow-on sales. The first results for 1982 have been released by the department;
- undertaking by the National Research Council, through its Program for Industry/Laboratory Projects (PILP) of a major study on the role of consulting engineering firms in R&D and potential for increased involvement;
- the maintenance by DRIE of an inventory of major projects in Canada;
- the maintenance of a Canadian Engineering Manpower Inventory by the Canadian Council of Professional Engineers in co-operation with the Canada Employment and Immigration Commission (CEIC);
- ongoing monitoring by major contracting departments and Treasury Board of the level of government contracting-out activities;
- the publication by First Choice of Consulting Engineering Services - Delivering to the World in co-operation with DRIE and the Department of External Affairs. This brochure is to be used by industry and government for export promotion initiatives.

## 2. Contracting-Out Policies and Practices

The committee recognized the great importance of the contracting of more of Canada's engineering work to the private sector consulting industry to strengthen its capability. This is considered essential not only to increase its domestic growth but also to enable Canadian firms to compete more actively in international markets. A number of recommendations, therefore, dealt with the effective implementation of contracting-out policies by all federal departments, crown corporations and agencies and for support for such policies by provincial and municipal governments and industrial corporations.

The federal government is in agreement with these recommendations and is pleased to note the committee's acknowledgement that substantial progress has already been achieved by federal departments in this regard. Practices, of course, need to be continuously monitored to ensure the implementation of the policy.

Also, crown corporations and agencies, while not subject to the policy, are encouraged to adopt contracting-out in their corporate planning. The federal government's activities may help strengthen the industry's case with other levels of government and other industry client groups for the implementation of such policies.

### 3. Major Projects in Canada

Major project developments in Canada over the next two decades represent a unique opportunity for Canada to develop management skills, systems and know-how that are the key to the conduct of such projects, particularly in the energy sector. On this issue, the committee recommended that Canadian consulting engineering firms be engaged wherever possible in the execution of major projects. In particular, the committee recommended that governments reconsider their policies relating to industry taxation and the National Energy Program and that every reasonable effort be made to ensure that Canadians have access to all managerial, professional and technical positions throughout all stages of major projects.

Companies which cannot satisfy their needs from Canadian sources may be required, as a condition of foreign recruitment, to implement human resource plans to reduce or eliminate future dependence on foreign workers.

The budget of April 19, 1983, contained two provisions with respect to the taxes on oil and gas revenues to meet the requirements of the changing economic environment. First, the provisions suspending the incremental oil and revenue tax (IORT) on conventional oil were extended a further year to May 31, 1984. Second, the budget introduced tax relief to encourage the recovery of conventional light and heavy crude oil through tertiary recovery projects.

### 4. Research and Development

The committee stressed the role the consulting engineering industry can play in research and development, and its significance for the growth of the industry. However, it is generally recognized that a better understanding is required of the achievements of consulting engineers in the R&D process, the potential participation of the industry and of the optimum approaches to be used to overcome constraints. Specifically, the committee recommended that the provisions of the Income Tax Act aimed at encouraging research and development in the manufacturing sector be extended in full to the Canadian consulting engineering industry for "own account" research and development. Further it recommended that government grants or shared cost programs be used to accelerate R&D efforts in the consulting engineering industry.

The federal government in its Technology Policy for Canada, enunciated by the Honourable Donald J. Johnston in May 1983, has recognized the importance of research and development to the achievement of national objectives. Also, there is agreement in government departments with the committee that a vast reservoir of scientific skills and expertise exists in the consulting engineering industry. At the same time, it is recognized that a better understanding is required of the consulting engineers' interaction in the R&D process in Canada. In this context, the National Research Council established an Associate Committee on Consulting Engineering and Technology Transfer (ACCETT). The purpose of the committee, which consists of some 20 representatives from concerned private and public sector groups, is to assist NRC to become better acquainted with the mechanisms associated with the development of the technology base and the participation of consulting engineers. As a first step, a major study has been commissioned by NRC to address these issues and provide recommendations for government and industry.

In addition, further to the April 19, 1983, budget, mechanisms have been established which will increase the ability of firms to make use of existing R&D tax incentives and to provide avenues for R&D performers to use the incentives to attract outside financing. These provisions would apply to any sector of the economy undertaking R&D including the consulting engineering industry. With respect to contributions toward the costs of projects, Bill C-165 has been enacted, establishing a new Industrial and Regional Development Program (IRDP). The new program mix includes assistance in the areas of new product and process development and productivity improvement through innovation. However, operations within the service industry must first be designated by the Minister before being eligible under the IRDP.

##### 5. The Export Opportunity

The committee endorsed the principle that Canada must continue to place the highest priority on the export of capital goods and services as a means of sustaining the domestic economy. Canadian consulting engineers have established a strong international reputation, and currently achieve export sales in the order of \$350 million annually. For the industry to maintain this position and to improve its share, the committee believed that it must be given support as favourable as that available to its competitors from their home governments. Specifically, the committee recommended increased front-end marketing cost sharing, expanded

risk-sharing for large capital projects abroad and expanded insurance coverage, preferential tax treatment on foreign-earned income and more attractive taxation allowances for offshore employees, and a number of amendments to federal export incentive programs such as the Program for Export Market Development (PEMD).

The committee recommended that closer attention should be given to finding ways to enable small and medium-sized firms to increase their participation in exports. It recognized that many of these firms, although possessing specific technical capabilities required by foreign markets, may lack the unilateral breadth, the financial and other resources needed to develop and engage in foreign business. However, federal government policies increasingly are focusing on programs of assistance to small and medium-sized firms with the aim of developing their strengths as well as improving their export possibilities.

In January 1982, the Prime Minister announced the reorganization of economic departments to provide a government focus on regional economic development and to help exporters to successfully confront tough trade competition abroad. The Department of External Affairs was restructured to aggressively pursue export markets. Much greater weight will be attached to economic factors in the design of foreign policy and the conduct of our foreign relations to ensure they serve Canadian trade objectives. Organizational readjustments were further put into effect in July 1983 to improve the efficiency of the department in meeting its mandate.

Fiscal policies and the treatment of export revenue and income are most significant to the international competitiveness of Canadian exporters. Further to a review of the Canadian system, the government, in its budget of April 19, 1983, replaced the existing overseas employment deduction with an 80 per cent tax credit applicable to the Canadian tax otherwise payable on up to \$100 000 on qualifying overseas employment income. At the same time, recognizing the importance of the Program for Export Market Development (PEMD) to exporters, the government is adding \$20 million over the next four years to the program funds which stood at \$22 million in financial year 1982-1983.

#### 6. Economic Spinoffs

Recently, considerable attention has been focussed on the economic impact of follow-on sales related to consulting contracts abroad. While discussions to date have demonstrated the complexity of this issue, there is wide agreement that securing an overseas contract

by Canadian consulting engineers can lead to substantial opportunities for follow-on sales of machinery, equipment and other services. The consulting engineering profession in Canada is essentially independent of other manufacturing or financial sectors. While maintaining a non-conflicting relationship with both clients and suppliers, the Canadian consulting engineering industry attaches great importance to further developing the link between the role of engineering services abroad and follow-on sales of Canadian equipment and other goods. To realize this objective, the committee recommended a number of measures, including the need for federal and provincial governments to improve their sourcing information and distribution systems relating to Canadian capability. Also, it recommended that Canadian consulting engineers strive to establish a more effective information exchange with potential manufacturers and contractors concerning export projects.

The federal government is fully supportive of industry actions to help maximize the follow-on sales of Canadian goods and services resulting from consulting contracts abroad, and is intent on facilitating this process. The recent reorganization of the Department of External Affairs, with increased emphasis on trade considerations, together with the strengthening of the regional offices of the Department of Industry, Trade and Commerce and Regional Economic Expansion (now the Department of Regional Industrial Expansion), should contribute to the objective of increased exports. Greater focus is to be or assisting in the identification of export opportunities, together with potential domestic capabilities, while at the same time designing ways to improve the information flow. The two departments are also most interested in continuing their dialogue with the Export Capital Projects Steering Committee, which consists of the major national associations interested in major projects abroad. The government is fully supportive of the initiatives being taken by this committee to maximize follow-on sales on consulting contracts abroad.

In summary, the government fully endorses two basic principles of the report:

- the importance of and the need to establish and maintain a strong domestic base. In this context the report itself refers to the fact that the federal government has recognized this principle and has developed strong contracting-out policies. Much of the work now required is to ensure improved and extended implementation of these policies, not only within the federal government but also, to the extent feasible, within provincial governments and municipalities.
- The need for the industry to be provided with support in the export field in order to ensure that Canadian firms which are competitive in terms of price, quality and delivery are not otherwise at a competitive disadvantage.

In this case, the government is pleased that the industry has recognized recent actions such as the reorganization of Department of External Affairs and the formation of the Department of Regional Industrial Expansion, which are intended to provide for a more cohesive strategy for export development.

The government's role in assisting industry in meeting these principles is primarily through the establishment of a favourable climate for performance. This climate can be created through a framework or set of policies and programs supportive of the industry initiatives. This response, together with the ongoing process of consultation taking place with the private sector, should help ensure that the Canadian consulting engineering industry reaches its full potential.



PART II

THE FEDERAL GOVERNMENT'S RESPONSE

TO THE REPORT

"REALIZING THE POTENTIAL"

**THE CONSULTATIVE COMMITTEE ON  
THE CANADIAN CONSULTING ENGINEERING INDUSTRY**

**THE DOMESTIC OPPORTUNITY**

**RECOMMENDATION 1**

That a task force under the joint ACEC/DRIE committee be set up to determine:

- a) The total amount of engineering done in-house in Canada by federal, provincial and municipal governments including their various agencies, universities, utilities and crown corporations.
- b) The total amount of engineering done in-house in Canada by construction, industrial and manufacturing corporations.
- c) The proportion in (a) and (b) that could conceivably be done by the consulting engineering industry.

**Action**

The former Department of Industry, Trade and Commerce and Regional Economic Expansion (ITC/REE) carried out a preliminary survey of in-house work of some 15 federal government departments and agencies during the work of the committee. While a global estimate was developed as stated in the report, major limitations were also identified relating for instance to difficulties in defining the work contracted out. The survey demonstrated, however, that substantial progress has been achieved in the volume of work contracted out by the federal government. Further, departments continuously evaluate their practices in order to better meet the requirements of the policy.

The government recognizes the need to improve the referenced data base. However, the costs of generating more detailed statistics on federal departments contracting-out activities may not be warranted considering the available estimates. It is proposed that the ITC/REE survey should be maintained up-to-date annually. Further, DRIE will co-operate in initiatives undertaken by the ACEC/DRIE committee, now known as the ACEC/Industry and Trade Liaison Committee, to develop improved statistics with respect to contracting-out for other government levels and other industry sectors.

**RECOMMENDATION 2**

That a task force be set up by the joint ACEC/DRIE committee to evaluate the amount of consulting engineering services that are imported to Canada, the nature of the services imported, and the countries from which they come.

### Action

Increased efforts are being placed on developing the statistical data base of the Canadian service industries. Such initiatives have been intensified as a result of following up on the recommendations of the Report of the Task Force on Trade in Services. This task force was established to develop a Canadian position for discussion in the OECD and GATT forums. In this context, also, the U.S. government is endeavouring to develop a more complete data base relating to trade in services. These statistics should cover consulting engineering trade flows, including exports to Canada. U.S. exports to Canada should provide a useful indication of total Canadian imports since they are estimated to represent about 80 per cent of the total imports. In addition, Statistics Canada is currently carrying out a Survey of the Offices of Architects and Consulting Engineers 1982. The questionnaire, updated and revised from the 1978 version in consultation with DRIE, will provide principal statistics for 1982 including breakouts of personnel, revenues, expenses and of fees earned by sector and by region, by client, as well as fees and source of funds, by country and type of client from foreign awards.

### RECOMMENDATION 3

That a task force be set up by the joint ACEC/DRIE committee to study the relationship of domestic strength to export capability.

### Action

Consideration will be given to this action, which could be carried out through the ACEC/Industry and Trade Liaison Committee.

### RECOMMENDATION 4

That a task force be set up by the Canadian Consulting Engineering Industry and the federal government to make recommendations to the Minister for the development and expansion of the industry's EPC role in the public sector market.

### Action

Departments currently comply with the guidelines and procedures set out by Treasury Board on the use of consulting services which, to some extent, are already directed at strengthening Canadian capability. It is recognized that the establishment of such a task force could provide useful suggestions to deal with existing procurement practices, which might be inhibiting the more extensive use of consulting engineers in domestic turnkey projects. Consideration of the establishment of such a task force will be given in discussions of the ACEC/Industry and Trade Liaison Committee.

**RECOMMENDATION 5**

That all levels of government and industry recognize that fee schedules and price bases must allow cash flows and levels of profitability which will maintain a healthy industry.

**Action**

The policy implemented by user departments recognizes the cash flow concerns of the consulting industry. It is the practice of departments, such as Supply and Services Canada (SSC), to negotiate consulting contracts which are fair and equitable considering the circumstances. Further, it is now SSC's policy to pay its account monthly and to pay interest on balances outstanding over 30 days. Payments against contracts or holdbacks on progress payments are negotiated on a case by case basis.

**RECOMMENDATION 6**

That the proposed legislation relating to work in process be eliminated.

**Action**

The change in the tax treatment of work in progress was one of many tax deferral mechanisms which were phased out in the November 1981 budget; these changes allowed the government to lower the top tax rates for individuals and to increase the amount of income to be taxed at the lower corporate tax rate.

The new provision is consistent with the basic requirement that business income be measured on the accrual basis. The main purpose of the accrual method of accounting is to match income receipts and expenses incurred with the proper year of economic activity to which the required income inclusion and expense deduction relate. Expenses should be deductible only from the income to which they are associated.

The November 1981 budget extended the same rules to all professionals. In subsequent representations, it was apparent that there was very little tax deferral for most law firms, and virtually none for dentists, doctors, veterinarians and chiropractors who traditionally bill for services as soon as they are rendered. The conclusion was that there was little practical consequence in forcing these professions to account for professional work in progress. The same is not true for many other professionals where failure to take into account the costs to be covered in future billings would seriously distort the measurement of income.

The tax provision with respect to work in progress will be phased in over two years; for many taxpayers, the tax-relieving measures of the April 19, 1983, budget together with the tax decreases of the November 1981 budget will offset the impact of the work in progress measure.

## PROCUREMENT POLICIES AND PRACTICES

### RECOMMENDATION 7

That the Canadian Consulting Engineering Industry:

- a) Continue its dialogue with the federal government through the ACEC on the subjects of contracting-out, procurement practices and contractual agreements;
- b) Establish dialogue with the provincial and municipal governments through the member organizations of ACEC to develop policies for contracting-out, procurement practices and equitable contractual agreements;
- c) Establish dialogue with the private sector through ACEC and its member organizations, jointly with the industry and trade associations, such as the Canadian Construction Association (CCA) and the Canadian Manufacturers' Association (CMA), to develop mutually acceptable policies for contracting-out, procurement practices, contractual agreements and other mutual concerns.

### Action

The federal government is supportive of the ongoing dialogue on these subjects, and takes an active part in the work of ACEC's liaison committees. More specifically an Interdepartmental Liaison Committee, under the leadership of the Department of Public Works and including client departments such as National Defence, Indian and Northern Affairs, and Transport, meets on a regular basis with ACEC and the Royal Architectural Institute of Canada (RAIC). A joint RAIC/ACEC/Federal Government conference is also held annually to review current major issues and programs achieved over the year.

### RECOMMENDATION 8

That the Government of Canada increase the potential of the engineering industry by taking action to:

- a) Extend its contracting-out policy to all federal government crown corporations and agencies;

- b) Continue to monitor its contracting-out policy to ensure that practice does conform to the policy;
- c) Continue to co-operate with the consulting engineering industry for the improvement of procurement practices and contract agreements;
- d) Support a policy of contracting-out by provincial and municipal governments and by the private sector.

Action

The science and technology contracting-out policy is applicable to departments, departmental corporations and branches designated as departments in accordance with Schedules A and B of the Financial Administration Act and to branches designated as departments for purposes of the Act. However, crown corporations as defined in Schedules C and D are encouraged to adopt contracting-out as a consideration of corporate planning where it is in their commercial interest to do so. Further, provincial and municipal authorities will be made aware of the advantages to be realized through contracting-out their R&D requirements and related scientific activities.

User departments, as a matter of course, monitor their practices in implementing the government contracting-out policy and, as noted in the recommendation above, an ongoing dialogue is maintained with ACEC to deal with issues of concern.

RECOMMENDATION 9

That the provincial and municipal governments play a key part in the strengthening of the Canadian consulting engineering industry by taking action to:

- a) Develop policies of contracting-out for consulting engineering services;
- b) Co-operate with the Canadian consulting engineering industry in the development of procurement practices and contractual agreements;
- c) Support a policy of contracting-out for engineering services by private sector corporations.

Action

The federal government will welcome any initiatives which may be taken by ACEC through its member organizations in this matter.

RECOMMENDATION 10

That private sector owners:

- a) Enter into discussions with the Canadian consulting engineering industry through industrial and trade associations on the efficacy of contracting-out policies and the requirements of mutually acceptable procurement practices and contractual agreements;
- b) Review the advantages of contracting-out to the Canadian consulting engineering industry;
- c) Develop policies for contracting-out for the guidance of senior management.

Action

The government will welcome any initiatives which may be taken by the ACEC in this area which could help strengthen domestic consulting engineering capability.

THE EXPORT OPPORTUNITY

RECOMMENDATION 11

It is recommended that:

- a) The Canadian consulting engineering industry convene joint meetings between manufacturing, construction, government, and financial and consultant groups to discuss major projects abroad, both prior to implementation and after the awarding of a contract, to improve their knowledge about such projects and exchange information on them;
- b) Provincial and federal governments devote further efforts and resources to improving and keeping up-to-date sourcing information on suppliers in Canada and distribute this information as widely as possible in Canada and abroad. Provincial governments can play a particularly effective role here because of their knowledge of local firms. In the same context, it is recommended that the Canadian consulting engineering industry encourage engineering firms to use and subscribe to the DRIE's Business Opportunities Sourcing System (BOSS);
- c) The Canadian consulting engineering industry, through its member firms, implement further studies regarding spin-off sales of Canadian goods and services in capital projects abroad so that more complete data are available on achievements to

date, what the impediments to greater sales have been and what action is now required to maximize benefit to the industry from such sales;

- d) The Canadian consulting engineering industry prepare a report for distribution to the public and private sectors on the factors that bear on procurement and the consultant's influence on such procurement in capital projects abroad;
- e) The Canadian consulting engineering industry seek new and imaginative ways to finance the export of Canadian goods and services through the use of, for example, the Arab funding organizations.

### Action

- a) The Minister of State for Trade in February 1981 held a conference on The Potential for Canadian Goods Exports from Consulting Assignments Abroad. An Export Capital Projects Steering Committee was established following recommendations made at the conference. This committee, comprising national associations interested in major projects abroad, is implementing a plan of actions to maximize follow-on sales on consulting contracts abroad. DRIE and DEA have been supportive of this committee. A focal point has been established within DEA to interface with DRIE and the private sector on capital projects. The proposed meetings could be very beneficial, not only to exchange information on upcoming projects, but also, after the fact when discussing unsuccessful project bids, to develop a better understanding of the competitive problems faced.
- b) The DRIE Regional Offices will be working in co-operation with counterpart departments of provincial governments to identify suppliers. The BOSS system is currently being reviewed to improve its effectiveness. Improvements are also being considered for the use of the National Master Specifications (NMS) program to provide additional information for sourcing.

Various departments and agencies now maintain inventories of information relevant to goods and services provided by the private sector. Discussions are taking place on the subject of a centralized inventory to be available to all departments. A major problem is the question of "out-of-date" information as a result of participating firms not keeping their files up-to-date. There are limitations also for the use of these sourcing systems by the private sector because of the company confidentiality involved and prohibitive retrieval costs.

- c) The government welcomes such initiatives. In fact, DRIE, in co-operation with the ACEC/Industry and Trade Liaison Committee, has instituted an annual survey of some 30 major consulting firms involved in exports. The two-part survey reports on consulting



contracts awarded and potential or achieved follow-on sales of other services and equipment. The findings are being used to up-date existing information on the subject.

- d) The published findings and recommendations emerging from the conference noted above include a discussion of relevant factors involved. This summary, which is still topical, is available from the Service Industries Branch of DRIE. The government would welcome any further work by ACEC on this subject.
- e) The government's foreign aid and export financing agencies have been developing further capability for "credit-mixte" and parallel financing. At the same time, DRIE has been participating in the ACEC/International Lending Agencies Liaison Committee, implementing a program of meetings with the main ILAs. The government welcomes such initiatives by the private sector. The use of alternative international financing facilities would release scarce government resources for commitment to export financing of other projects, thereby helping to increase the total volume of exports from Canada.

#### RECOMMENDATION 12

It is recommended that:

- a) The Canadian consulting engineering industry establish, as a priority, a study to determine how small and medium-sized firms can be assisted and what techniques (for example, sub-contracting) can be used to increase their participation in exports. This would also be a way of making the best use of engineering and support staff in projects, in case of shortfalls in the availability of such staff;
- b) The policies of federal government departments to support joint ventures involving various size firms and giving preference on smaller contracts/projects to small to medium-sized companies (for example, the policy of CIDA in this regard), be continued and expanded.

Action

- a) The government will welcome any initiatives which the ACEC may take in this matter. It should be noted that DRIE's Regional Offices, as part of their ongoing work, are increasing their assistance to small and medium-sized firms in exports. We support such a study and, if it qualifies, would share some of the costs (up to \$25 000) under a PEMD Section S.
- b) The federal government is implementing a general policy through its assistance programs and services to industry of encouraging the development and strengthening of small and medium-sized firms. User departments such as SSC support joint ventures of small firms with larger firms. CIDA will continue to encourage and promote the use of small and medium-sized engineering firms on projects, where it is judged that such firms possess the technical competence, depth of personnel and experience to undertake the work. It should be noted that the size or value of a project, because of the nature of the project or the complexities involved, are not necessarily directly related to the size of the firm to be employed. CIDA must thus retain the flexibility to employ larger firms where this is more suitable for a project regardless of size.

RECOMMENDATION 13

That while encouraging firms to become increasingly selective in their pursuit of projects abroad, the Canadian consulting engineering industry must make a continued and determined effort to keep member companies interested in exporting; this will help avoid any lessening of export activity and prevent a decrease in Canadian firms' interest and experience.

Action

The federal government welcomes this initiative. The government supports a number of activities designed to develop export capabilities. It should also be noted that the federal government can also complement the efforts of the industry by providing speakers and other resources for the promotion of export activity.

RECOMMENDATION 14

That the Canadian consulting engineering industry take the initiative to encourage an even closer collaboration with Canadian banks in the marketing of exports, even to the extent of having representatives of the banks accompany the marketing staff of consultants on their overseas trips.

**Action**

The government would welcome such initiatives by industry.

**RECOMMENDATION 15**

That the Canadian consulting engineering industry advise the appropriate federal and provincial government departments that it wishes to be consulted and included in any policy deliberations and discussions on the enhancement of export capability.

**Action**

The government welcomes the views of the industry, and meetings to obtain and discuss viewpoints are held periodically on issues of interest. Close liaison with various departments is maintained on an ongoing basis through the ACEC Liaison Committee network. Also, senior members of the industry take an active part in various high level government-industry committees and boards.

**RECOMMENDATION 16**

That the Canadian Project Preparation Fund (CPPF) facility of CIDA's Industrial Co-operation Program be transferred from CIDA to be an instrument of external trade. This would create a fund to provide grants for feasibility studies on projects suitable for Canadian consulting engineers' competence when there is a good chance of developing follow-on sales of engineering and equipment from Canada.

**Action**

The Canadian Project Preparation Fund (CPPF) facility as currently established falls under CIDA's mandate for development assistance. The establishment of a similar program for trade development would lead to competitive programs and overlap with PEMD.

**RECOMMENDATION 17**

That the Export Trade Development Board be charged with reviewing the suggestion put forward by the Hatch Committee on the establishment of a risk-sharing body made up of government and the private sector. As an integral part of this review, the board should study and up-date the recommendations made by the Hatch Committee in November 1979, and answer the questions we believe have not been adequately dealt with on this issue: for what specific types of projects are the risks greatest? what types of

risks should be covered? can an entity of government be included, and, if so, what entity?

Action

Department of External Affairs' experience has shown that exporters are more concerned with the availability of competitive financing than with the commercial risk of exporting. Risk has declined as a problem because of effective hedging mechanisms now in place and because risk elements are often covered in commercial contracts. It is considered, therefore, that exporters would be better served if scarce government resources were applied to export financing than to project risk insurance. It was for this reason that the \$180 million committed for export assistance in the recent budget (Special Recovery Export Financing Fund) was specifically earmarked for financing. The government has already reviewed the issue of using the Canadian Commercial Corporation (CCC) to assume project risks by participating up-front or as a member of a Canadian consortium. However, this idea was rejected on the grounds that CCC participation would expose the Consolidated Revenue Fund to unquantifiable risk.

RECOMMENDATION 18

It is recommended that:

- a) Consideration be given to implementing the Hatch Report proposal that the board of directors of EDC have a majority of its members from the private sector and a private sector chairman;
- b) A study be commissioned either by DRIE on its own or through the Export Trade Development Board to gather information on the export insurance and financing programs of Canada's competitors and compare these programs with those currently available in Canada.

Action

- a) Under the Export Development Act as amended by Bill C-110, which was enacted on October 19, 1983, the directors, including the chairman of the board of directors of EDC, may be appointed from either the private sector or public sector. With the amendment to the Act, Cabinet now has the flexibility to appoint directors, including the chairman, from either the private sector or public sector.
- b) The Hatch Committee reviewed this issue in 1980. As a result of its recommendations, significant reforms were made to government facilities. In addition, the government continuously monitors the export insurance and financing programs of other countries in order to assure our continuing competitiveness.

RECOMMENDATION 19

It is recommended that:

- a) The Canadian consulting engineering industry, through its association, be invited to participate in these studies;
- b) Preferential taxation treatment of foreign-earned income be recognized as one of the best and most affordable solutions to promoting exports and that it be implemented by both federal and provincial governments.

Action

- a) A major study was carried out by the firm Clarkson Gordon in 1982 to assess the effectiveness of the \$50 000 overseas employment income exemption granted to Canadian employees temporarily employed on projects in foreign countries, and to determine whether the exemption permits Canadian firms to bid competitively on overseas projects. The study included a survey involving many consulting engineering firms. The report concluded that this tax legislation did not place Canadian firms on the same competitive standing when compared to the income tax legislation applicable to counterparts in other countries with which we compete. Findings of the study were also reviewed by the Export Trade Development Board which includes representatives of the consulting engineering industry. It should also be noted that the April 1983 budget proposed changes to the overseas employees income exemption (see Recommendation 20).
- b) The federal government recognizes the significance of the impact of taxation on the international competitiveness of exporting firms. In order to review relevant policies, it is important to better understand the impact of the Canadian system in comparison with systems used by other industrialized countries. In this context, the Department of Finance, in co-operation with the Export Trade Development Board, has commissioned a research study by the

Conference Board of Canada to examine the taxation of Canadian export earnings in comparison to selected industrialized countries. Specific product areas are being assessed and findings should provide guidance for policy review. The overall study is being performed over a period of two years and product areas are being studied one by one.

#### **RECOMMENDATION 20**

That Canadian citizens who are bona fide residents in other countries for at least 10 months in any taxable year be allowed to exclude foreign-earned income from taxable income.

#### **Action**

The government's budget of April 19, 1983, replaced the current overseas employment deduction with an 80 per cent tax credit in order to improve the international competitive position of Canadian companies undertaking work outside Canada or specified business activities. This measure is expected to put Canadians working abroad in a tax position comparable to that provided by other countries. Current tax law provides a deduction of 50 per cent of net overseas employment income, up to a maximum deduction of \$50 000, to an employee working abroad for six consecutive months or longer on construction, installation, engineering, agriculture, and other resource exploration and development projects. Effective from the 1984 taxation year, this deduction will be replaced with the new 80 per cent credit. The credit will apply to the Canadian tax otherwise payable on up to \$100 000, of qualifying overseas employment income.

#### **RECOMMENDATION 21**

That programs for the enhancement of the Canadian consulting engineering industry's capability in R&D be initiated with reference to the special needs of, and opportunities provided by, the export of engineering services.

#### **Action**

The government agrees with the principle that research and development programs should take into consideration opportunities for the export of engineering services. As stated under Recommendation 34, the study of the National Research Council's Associate Committee on Consulting Engineering and Technology Transfer (ACCETT) will address the needs of the consulting engineering industry in this regard.

## RECOMMENDATION 22

It is recommended that:

- a) PEMD be amended by increasing per diem rates to reflect current costs, and also allow the costs of drafting personnel and similar technical staff to be included as eligible expenses;
- b) CIDA support Recommendation 16, if this program is to achieve its full potential;
- c) EDC issue clear guidelines on "credit mixte" resources and the financing of feasibility studies to achieve a better understanding with the Canadian consulting engineering industry.

### Action

- a) The per diem rate was increased by 50 per cent only two years ago. While periodic reviews are conducted of features of PEMD, the time is not considered appropriate to introduce increases in financial assistance at the same time as restraint measures are being implemented.
- b) As noted under Recommendation 16.
- c) The guidelines determining eligibility for "credit mixte" financing have been reviewed with the intention of making the facility more responsive to exporters' needs when they are confronted with "credit mixte" competition. As a result of this review, certain guidelines, restricting the use of this facility in CIDA-core countries and documented evidence of concessional competition offers, have been relaxed. The Department of External Affairs will assume the responsibility for informing the export community of the new guidelines as they are defined. As regards guidance on the financing of feasibility studies, EDC has recently prepared a brochure to explain present practices.

## MAJOR PROJECT CAPABILITY

### RECOMMENDATION 23

That governments reconsider their policies relating to industry taxation and the National Energy Program in the light of the changing economic environment in Canada and throughout the world.

### Action

The budget of April 19, 1983, contained two provisions with respect to the taxes on oil and gas revenues. First, the provisions that

suspended the Incremental Oil Revenue Tax (IORT) on conventional oil from June 1, 1982, to May 31, 1983, were extended a further year to May 31, 1984.

Second, the budget proposed tax relief to encourage the recovery of conventional light and heavy crude oil through tertiary recovery projects. The Petroleum and Gas Revenue Tax (PGRT) on production revenue from the project's reservoir will not become payable until the eligible capital costs of the project have been recovered by the participants.

Effectively tax relief will be achieved by a deduction of eligible capital costs from the production revenue from the reservoir. Only tertiary recovery projects receiving reasonable levels of governmental royalty relief will be eligible for this treatment. Eligible capital costs will be prescribed by regulation and will include expenses normally eligible for earned depletion that are related to the drilling of wells required for the project, and oil and gas well equipment used in the project. Rules for recapturing the deduction will be introduced with respect to the disposition of project equipment or the recovery of drilling expenditures. The tax deduction will apply to eligible expenditures made after December 31, 1982, and will be available to reduce production revenue earned after that date. The resource allowance and the small producers' PGRT exemption will be determined on the basis of the petroleum and gas revenues as reduced by these capital investments.

#### **RECOMMENDATION 24**

That Canadian consulting engineering firms be engaged wherever possible in the execution of major projects, particularly major energy projects.

#### **Action**

The government supports this recommendation through its policy on industrial benefits from major projects. This policy, which was announced in August 1981, calls for the increased participation by Canadian firms from all sectors in major projects. To ensure that this policy is carried out, the government has created an Office of Industrial and Regional Benefits within DRIE.

#### **RECOMMENDATION 25**

That the long-term benefits of employing Canadian firms to undertake major project work be a main consideration of owners/sponsors.



Action

The government, in implementing its Industrial and Regional Benefits Objectives and Guidelines for Owners and Sponsors of Major Projects, asks all owner/sponsors to make the long term benefits of employing Canadian firms a consideration in their project planning and execution.

RECOMMENDATION 26

That Canadian-owned companies participate in major projects on a competitive basis and not on the basis of any premium.

Action

The basic need for competitiveness is recognized by the government and is explicitly set out in the guidelines for owner/sponsors of major projects.

RECOMMENDATION 27

That every reasonable effort be made to ensure that Canadians have access to all managerial, professional, technical, skilled trades and general labour positions relevant to the planning, engineering, construction and eventual operation of major projects.

Action

The policy of the government is that Canadians will be given preference with respect to employment opportunities in the country. The recruitment of either temporary or permanent foreign workers is only allowed when the use of such workers will not adversely affect employment opportunities for Canadians. Companies which cannot satisfy their needs from Canadian sources may be required, as a condition of foreign recruitment, to implement human resource plans to reduce or eliminate future dependence on foreign workers. Further, in line with the government's policy on major projects as announced in August 1981, participation by Canadians is reviewed with major project sponsors to ensure that Canadians are employed to the maximum extent possible in all aspects of the projects on Canada lands. Where foreign workers are employed, training programs for Canadians and succession plans for the employment of Canadians are sought by government.

RECOMMENDATION 28

That when consideration is given to either adjustments to Canada's immigration policies and procedures or the redirection of latent engineering resources in Canada, reference be made to the particular requirements of the industry for the enhancement of its major projects capability.

Action

Foreign worker recruitment is designed to supplement Canada's labour force to achieve national economic, social and demographic objectives. Such recruitment may be allowed when it would bring significant benefits to Canada in its efforts to meet those objectives. The development and effective deployment of skills which would be necessary to enhance Canada's "major projects capability" are certainly considered in Canada Employment and Immigration Commission's (CEIC) immigration and labour market policies and procedures.

RECOMMENDATION 29

That programs be initiated to enhance the capability of the Canadian consulting engineering industry in R&D with full knowledge of the special needs of, and the opportunities provided by, major projects.

Action

In co-operation with major project sponsors, the government is continuously seeking ways of identifying special technological opportunities associated with major projects. For major projects on Canada lands, the government asks that the Office of Industrial and Regional Benefits (OIRB) be notified of all technical, R&D and feasibility studies which the project sponsor wishes to undertake. These are reviewed by OIRB to ensure that Canadian industry, including the engineering industry, is given the opportunity to participate in the studies and follow-on work. Information on these studies and technological requirements is available from OIRB to all interested sectors of Canadian industry, which can then assess the extent to which they will require and are eligible for government funding to develop new technological capabilities.

RECOMMENDATION 30

That the development of the regions of Canada be an important consideration when selecting engineering firms to participate in major project assignments. It is also recommended that major

project owner/sponsors be encouraged to give preference in their procurement policies, everything else being equal, to suppliers of goods and services in the following order of priority:

- regional Canadian-owned firms;
- other Canadian-owned firms;
- Canadian-based (good citizen) firms;
- others.

#### Action

Federal departments assign major as well as minor contracts on a regional basis. While there is no preferential treatment for Canadian firms, availability of parts and service can give an edge to domestic firms. In the context of offshore oil and gas development, the government has indicated, in agreements with provinces (for instance the Province of Nova Scotia) that provided they are competitive, first preference should be given to Canadian firms located in the area adjacent to the site of the project. The above recommendation has to be interpreted and implemented with caution, however, since it could be inconsistent with Canadian positions of Liberalization of Invisible Transactions and National Treatment in the OECD. If formally accepted, they could lead to possible retaliation by the U.S. and other countries and the achievement of improved export access abroad would be made far more difficult.

#### RECOMMENDATION 31

That major project work be packaged in ways that will maximize opportunities for Canadian firms to participate and avoid excessive peaking of demands.

#### Action

In implementing its policy on industrial benefits and major projects, the government has recognized that some major project work might have to be repackaged in order to increase the level of participation by Canadian suppliers and consultants. This is, therefore, one of the factors which owner/sponsors are asked to consider in planning projects.

#### RECOMMENDATION 32

That regulation as a means of enhancing the degree of participation by consulting engineers in major projects not be advocated. Rather, fiscal arrangements creating a climate hospitable to participation by Canadian firms is considered the appropriate route.

### Action

The government shares the view that regulation should not be used to ensure a particular level of participation in major projects by consulting engineers or any other firms. Rather, government policy is to work with both the owner/sponsors and the suppliers to identify opportunities for Canadians to participate in these projects and to ensure that bona fide Canadian suppliers/consultants have been given full and fair consideration by owner/sponsors. Also, the April 19, 1983, budget has provided for \$2.4 billion of support for private investment projects over the next four years through six Special Recovery Program elements:

- Liberalization of the rules governing the ability to claim the Investment Tax Credit is being proposed as a permanent change to assist private sector investment. These measures will provide more than \$1.1 billion of support.
- The scope of the Investment Tax Credit will also be permanently broadened to apply to heavy equipment used in the construction industry, providing about \$125 million of support.
- A Special Recovery Refundable Investment Tax Credit will refund a portion of the existing investment tax credit to companies who otherwise would not have been able to claim the credit. This will direct \$400 million to increasing business cash flow and lowering immediate investment costs.
- A Special Recovery Share-Purchase Tax Credit, valued at \$240 million, will reduce the cost of new equity issued before 1987 for firms undertaking investments after the budget.
- A Special Recovery Investment Fund of \$300 million will be established to provide additional support to private investment projects of national regional or sectoral significance.
- A Special Recovery Export Financing Fund of \$180 million will be established to support Canadian exports financed by the Export Development Corporation.

### RECOMMENDATION 33

That maximization of industrial and regional benefits must be a leading criterion in the selection of consulting engineering firms for major project assignments.

Action

The government supports this recommendation through its policy on industrial benefits and major projects. For projects on Canada lands, major project sponsors are asked to ensure that industrial and regional benefits have been taken into account by their suppliers and consultants and that the performance of suppliers and consultants in this regard will be one of the selection criteria of owner/sponsors.

RESEARCH AND DEVELOPMENT

RECOMMENDATION 34

That a suitable interpretation of what constitutes R&D be agreed upon between government and the Canadian consulting engineering industry.

Action

The government agrees that a better understanding is required of the consulting engineers' interaction in the R&D process in Canada. It is in this context that the National Research Council (NRC) established an Associate Committee on Consulting Engineering and Technology Transfer (ACCETT). The purpose of the committee, which consists of some 20 representatives from concerned private and public sector groups, is to assist NRC become better acquainted with the mechanisms associated with the development of the technology base by consulting engineers and the needs of consulting engineers in R&D. As a first step, a major study has been commissioned by NRC to address these questions and provide recommendations for government and industry. Key questions for the study are: How consulting engineers acquire technology and sustain their knowledge base? What is the present level of R&D activity of the consulting engineering industry? Whether greater involvement in R&D is required to meet foreign competition? What improvements in present efforts are needed? What steps should be taken in these areas by both government and the private sector?

It is recognized that, for the purposes of the Income Tax Act, research and development is defined in Part XXIX, Section 2900. However, given the complex nature of R&D, the government is prepared to discuss particular problem areas with the consulting engineering industry.

RECOMMENDATION 35

That the provisions of the Income Tax Act aimed at encouraging R&D in the manufacturing sector be extended in full to the Canadian consulting engineering industry for "own account" R&D.

### Action

The provisions of the Income Tax Act aimed at encouraging R&D do not discriminate against and are not specifically targeted to any particular sector of the economy undertaking R&D. Furthermore, they do not differentiate between "own account" R&D and contract R&D. Indeed, the federal government put forward proposals, in the April 19 budget, in the form of a paper for consultation, to enhance the ability of firms to benefit from R&D tax incentives, to make the incentives simpler and to improve their effectiveness. The discussion paper concluded that Canada's tax incentives for R&D compare favourably with those in other countries, but that measures are desirable to increase the ability of firms to make use of the incentives, and to provide avenues for R&D performers to use the incentives to attract outside financing. The paper contains two proposals which respond to these issues. The discussion paper, which contains specific details of the proposals, was commented on by the private sector. The reaction to the proposals has been favourable, and the Minister of Finance has incorporated them in Bill C-2, which amends the Income Tax Act. This Bill passed second reading in December 1983.

### RECOMMENDATION 36

That a R&D grant program similar to that now in place for universities be instituted to encourage research and development in the Canadian consulting engineering industry.

### Action

As noted under Recommendation 34, the study of NRC's Associate Committee on Consulting Engineering and Technology Transfer will analyse the consulting engineering industry's interaction in the R&D process, and examine new approaches to improve this process. This examination will include the provision of grants from the Natural Sciences and Engineering Research Council (NSERC) to practitioners in the consulting engineering sector.

### RECOMMENDATION 37

That shared cost programs such as the Enterprise Development Program (EDP) be promoted and utilized by government as a means of accelerating the R&D effort of the Canadian consulting engineering industry.

### Action

A new core program - the Industrial and Regional Development Program (IRDP) - has been enacted by Bill C-165. This program of financial assistance is intended to make Canadian industry more competitive in order to maximize our potential in both domestic and foreign markets.

Assistance in the areas of new product and process development and productivity improvement through innovation is a major item in the new program mix, and will benefit consulting engineers in a manner similar to that prevailing under the EDP. Consulting firms will also stand to gain from the assistance available to all forms of research and development in other sectors through sub-contracts. It is expected that the IRDP will provide additional assistance to consulting engineers as a result of the higher contributions available for establishment, modernization and expansion projects which are likely to lead to new contracts from business in the implementation stage.

#### RECOMMENDATION 38

That licensing regulations be simplified to reduce the cost of protecting patents and copyrights resulting from R&D activities by Canadian consulting engineers.

#### Action

Amendments to the Patent Act have been under consideration over the last several years. Legislation is to be introduced in parliament to effect changes which may reduce costs to users. With respect to copyrights, a draft statute has been prepared and is being studied by government.

#### RECOMMENDATION 39

That industry undertake, through its principal associations, educational programs aimed at developing an awareness of the advantages and scope of the R&D capability of Canadian consulting engineering firms.

#### Action

The government would welcome such initiatives by the industry.

### REGIONALIZATION AND LOCAL PREFERENCE

#### RECOMMENDATION 40

It is recommended that:

- a) Authorities developing policies dealing with regionalization or local preference consider benefits and disadvantages carefully prior to formulation. Under no circumstances should such policies be written into legislation;
- b) Policies of local preference not be restrictive in nature.

Action

The intent of government policies in the areas of regionalization and local preference is to provide firms with the opportunity of participating in government work, taking into account the competitive factors involved.

RECOMMENDATION 41

It is recommended that:

- a) The Canadian consulting engineer be selected on the basis of experience and capability;
- b) Where the local or regional firm has the technical ability to deliver the service within the time schedule and the budget required by the client, engagement of the local or regional firm be encouraged;
- c) Joint ventures and the use of sub-consultants be encouraged where such an arrangement will satisfy the client's requirements, in particular on major projects.

Action

As noted under Recommendation 40.

ENGINEERING PERSONNEL - SUPPLY AND DEMAND

RECOMMENDATION 42

That the Canadian consulting engineering industry give active support and assistance to the Canadian Engineering Manpower Council (CEMC) in the establishment of the Canadian Engineering Manpower Inventory (CEMI) and in carrying out its manpower planning role.

Action

In November 1981, the Canadian Council of Professional Engineers (CCPE) and the Canada Employment and Immigration Commission (CEIC) signed a Memorandum of Understanding on human resource planning. Support for the work of CCPE's Canadian Engineering Manpower Council and its Canadian Engineering Manpower Inventory is an important element in the memorandum.

RECOMMENDATION 43

That the current Major Projects Inventory and Manpower Forecast be updated by DRIE yearly and thereafter published.



Action

The frequency with which the inventory should be updated is still under consideration. The question remains of whether DRIE or some other organization should be responsible for this publication.

RECOMMENDATION 44

That Canada's facilities for graduating engineers from universities and engineering technicians from colleges be reviewed with reference to the foreseen requirements for these personnel and steps be taken to increase capacity.

Action

Work is proceeding to improve analysis and forecasts of engineering supply and demand. From this information, questions of educational planning, improved utilization, etc., can be addressed. CEIC is co-operating with the Canadian Council of Professional Engineers to design and implement appropriate measures to reduce supply/demand imbalances. It is recognized, of course, that the personnel requirements in the industry are now substantially at variance with the situation that existed at the time of the writing of the report.

RECOMMENDATION 45

It is recommended that:

- a) The Minister of Employment and Immigration (E & I) be urged to adopt the recommendation of the Task Force on Labour Market Development to make adjustments "in policy, procedures and resources related to both domestic and overseas elements of the immigration system to permit prompt and accurate identification of foreign skill requirements and to recruit and process ... immigrants to meet specific labour market needs".
- b) The Canadian consulting engineering industry arrange liaison with the Minister of E & I to identify the industry's requirements and the sources available.

Action

- a) The Canadian Council of Professional Engineers and CEIC currently co-operate in the assessment of the academic credentials of foreign engineers wishing to come to Canada as immigrants. At present, only foreign engineers subject to labour market criteria with Canada Employment Centre-validated offers of employment may enter the country. At the same time, CCPE is considering establishing a

registry of foreign engineers who meet the academic requirements for professional registration but who do not have validated offers of employment. The registry will greatly facilitate recruitment of immigrant engineers to meet specific labour market needs.

- b) The Canadian Occupational Projection System is currently considering undertaking a demand study of the business services sector which would include specific reference to the Canadian consulting engineering industry.

**RECOMMENDATION 46**

That the Canada Employment and Immigration Commission (CEIC) consider ways in which Canada might mobilize its latent engineering personnel resources as represented by qualified engineers and allied technical personnel who are employed in non-engineering occupations.

**Action**

The information to be generated by the Canadian Engineering Manpower Inventory will provide guidance on steps which might be taken to utilize qualified engineering personnel who are currently employed in non-engineering occupations.

ANNEX

MEMBERS OF THE CONSULTATIVE COMMITTEE  
ON THE  
CANADIAN CONSULTING ENGINEERING INDUSTRY

THE CONSULTATIVE COMMITTEE  
ON THE  
CANADIAN CONSULTING ENGINEERING INDUSTRY

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