doc CA1 EA89 94E42 ENG



Electrical Equipment and Services

THE DRIVE TO MODERNIZE

Mexico's public electrical system is operated by the Comisión Federal de Electricidad (CFE), Federal Electricity Commission. A 1960 constitutional amendment gave the CFE a monopoly over all electricity generation and distribution in Mexico. Recently, the law has been liberalized to allow the private generation of electricity far industrial purposes, but the CFE continues to supply about 90 percent of the nation's electricity.

Traditionally, electricity has not been supplied on a cost-recovery basis. Until recently, government subsidies provided two-thirds of the CFE's revenue. This policy has led to the inefficient use of energy, with considerable losses within the distribution system itself. The electrical industry is also a major cause of Mexico's serious environmental problems.

The present electrical power reserve is only about six percent, and the system will have to expand and modernize to meet Mexico's rapidly increasing needs. Many rural areas remain unserved, and the govern-

SUMMARY REPORT

The Department of Foreign Affairs and International Trade has prepared this summary report on the Electrical Equipment and Services sector. It has been published by Prospectus Inc. under the Access North America Program, along with other sector profiles and summaries on business opportunities in Mexico. It is available from:

InfoCentre

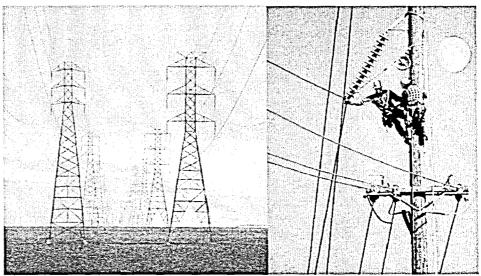
Tel.: 1-800-267-8376 or (613) 944-4000 Fax: (613) 996-9709

FaxLink: (613) 944-4500

© Minister of Supply and Services Canada

1994

Cat. No. E73-9/25-1994-1E ISBN 0-662-22519-8



ment's objective is to extend service to two-thirds of the rural population over the next 20 years. Electricity consumption is expected to increase at an average of six percent per year until the turn of the century, with more than 700,000 new users added annually. The utility is also under pressure to clean up its

operations, and to reduce transmission losses.

The government has acted to bring about the needed expansion and modernization. It has announced that subsidies will be eliminated by the year 2000 and that market prices will prevail. It has enacted the Ley de

HIGHLIGHTS

The electrical generation and distribution sector in Mexico offers substantial opportunities for manufacturers of electrical equipment as well as for consulting engineers:

- in order to keep up with demand, the industry will have to expand by an average of more than five percent annually until the turn of the century;
- Mexican manufacturers currently supply 70 percent of domestic requirements but will be hard pressed to keep up with growing demand, particularly for specialized equipment;
- electricity producers are under intense pressure to reduce their environmental impact;
- the electricity commission is attempting to reduce substantial transmission losses caused by inefficiencies in its distribution system; and
- the Mexican government has privatized the construction and operation of electrical generation projects, putting procurement in private hands for the first time.

Canadian participation in this growing market has so far been minimal, but customers are interested in Canadian products. There are many opportunities for companies willing to make a commitment to establishing a local presence in Mexico.



<u></u>

Servico Eléctrico, Electric Service Law, which privatizes the construction and operation of larger electrical projects. New projects will be contracted to the private sector on a turnkey basis, and will no longer be managed by the CFE staff. The CFE plans to build nearly 14,000 megawatts of new generating capacity, at a cost of US \$34 billion, between 1993 and 2000.

THE ELECTRICITY GENERATION SECTOR

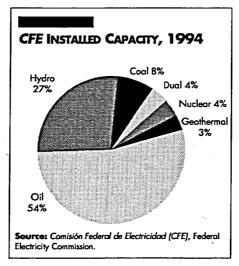
The Comisión Federal de Electricidad (CFE), Federal Electricity Commission, is the state-owned company responsible for the generation and public distribution of electrical power throughout Mexico. The CFE, which was created in 1937, reports to the Secretaría de Energía, Minas e Industria Paraestatal (SEMIP), Secretariat of Energy, Mining and State-owned Industry. A 1960 amendment to Article 27 of Mexico's constitution gave it exclusive authority for all planning, development and operation of electrical generation systems. New regulations were introduced in 1993 to expand the opportunities for small-scale private power generation, but the CFE maintains its monopoly over power sold to the public. With an installed capacity of 33,000 megawatts, it is among the world's 20 largest electricity suppliers. The Commission employs 85,000 people and had sales of US \$3 billion in 1990. In 1992, it also received some US \$6 billion in government subsidies.

The CFE's installed generating capacity is expected to more than double by the year 2010, as the utility extends service to previously unserved communities and keeps pace with rising demand stemming from sustained economic growth. Consumption is forecast at about 160,000 Gwh for 1995.

The Comisión Federal de Electricidad (CFE), Federal Electricity Commission, signed a major agreement to sell

electricity to customers in California in 1987. Since then, annual exports to the U.S. have averaged two billion kilowatt hours, about two percent of the CFE's capacity.

The government is now demanding that the CFE bring revenues into line with costs. Subsidies are expected to be completely eliminated by the year 2000. Considering that the CFE presently covers only about one-third of its costs from revenue, this is putting enormous pressure on the utility to rationalize and modernize its operations. Prices will also have to rise, stimulating demand for more efficient equipment by electricity users.



More than two-thirds of all electricity is generated by thermal plants which byrn coal, oil and gas. The Comisión Federal de Electricidad (CFE), Federal Electricity Commission maintains two nuclear units at its Laguna Verde plant in the state of Veracruz, supplying about four percent of Mexico's electricity. Most of the nation's power comes from hydro and geothermal generation plants. Small-scale private generation plants tend to use gas turbine and combined cycle technologies. By 1999, the CFE expects to increase its installed capacity to about 44,000 megawatts, with a large part of the increase coming from dual fuel systems.

Like other public enterprises, the CFE is under government pressure to reduce emissions, particularly from its thermal power plants, many of which

burn the high-sulphur fuel oil produced by *Petróleos Mexicanos (PEMEX)*, the state-owned oil company.

PEMEX also generates electricity and is an important customer for power generation equipment. It has an installed generation capacity of roughly 2,000 megawatts, which is about two-thirds of its requirements. Some large industrial plants also generate electricity for their own use.

Luz y Fuerza del Centro, the Central Light and Power Company, is responsible for all distribution of electricity in Mexico City. This utility, which has 36,000 employees, is administered independently of the CFE and makes its own procurement decisions.

TECHNICAL SPECIFICATIONS

Mexico's electrical system includes more than 33,000 megawatts of capacity. It operates at 60 cycles with normal voltages of 110, 200 and 400. Three-phase and single-phase 230 volt power is available. Generation is at a voltage of 4-22KV, with transmission at 69, 114, 230 or 400 KV. The Comisión Federal de Electricidad (CFE), Federal Electricity Commission, operates about 350,000 kilometres of transmission and distribution lines, with about 1,300 substations.

OPPORTUNITIES FOR CANADIAN COMPANIES

The Mexican market for electric power generation, transmission and distribution systems totalled about US \$1.2 billion in 1993. The market has expanded at an average rate of more than five percent per year over the past ten years and this growth is projected to continue until the turn of the century.

Foreign participation in this market was about 30 percent in 1993. Import penetration is expected to increase over the next several years as the Comisión Federal de Electricidad (CFE), Federal Electricity Commission, attempts to increase its efficiency in the face of sharp cuts in



government subsidies. Petróleos Mexicanos (PEMEX), the state owned oil company, is under similar pressure to achieve better efficiency from its steam and gas turbine generators. Emission reduction is also a major priority for both companies.

The recent liberalization of the regulations governing private power generation will lead to a significant demand for small generating systems to provide electricity to plants or groups of plants.

The U.S. accounts for more than 60 percent of imports of electric power generation and distribution systems. Japan and Germany have been strong competitors for large turbines, generators and transformers.

According to interviews recently conducted with industry representatives in Mexico, products with strong potential include the SCADA system, turbine parts, advanced control and protection systems, and energy-saving products.

There are also important opportunities for transmission projects, for which Comisión Federal de Electricidad (CFE), Federal Electricity Commission, funding is already in place. There is potential for transmission poles and towers, poleline hardware and insulators. Luz y Fuerza del Centro, the Central Light and Power Company, reportedly also has needs for transformers, especially interior and underground types.

Professional services related to electricity products are also in demand. Grupo Bufete Industrial S.A. de C.V., Mexico's largest consulting firm, has been approached by several Mexican firms for engineering assistance. Bufete Industrial is interested in Canadian design and service capabilities in this area.

PROCUREMENT PROCESSES

The Comisión Federal de Electricidad (CFE), Federal Electricity Commission, and Petróleos Mexicanos (PEMEX), the state-owned oil company, are paraestatales (state-owned entities)

Project Name	MVA	KM
Rio Escondido — Hércules	300	353
Zona Mérida	240	319
Zona Veracruz	150	32
Zona Sureste	359	391
Zona Chetumal	339	391
Zona Oriente	1704	690
Zona Noroeste	461	340
Zona Sur	829	404
Zona Centro	680	448
Tuxpan-Texcoco	1055	474

Project Name	Location	Capacity
La Parota	Guerrero	765 mw — 3 units
Cajón	Nayarit	765 mw — 3 units
Atexcaco	Puebla	120 mw — 2 units
San Rafael		21 mw — 2 units

Project Name	Туре	Capacity
Mérida III	combined cycle gas turbine	2 x 220 mw
Topolobampo	oil	2 x 160 mw
Carbón II	coal	4×350 mw
Tuxpan	oil and coal	6 x 350 mw
Rosarito (conversion)	gas turbines	4 x 75 mw
Altamira	coal	4 x 650 mw

and conduct their procurement through formal tendering processes. Canadian companies wishing to supply products or services directly to these companies should register in

advance in order to be elligible to participate in tenders.

A new electricity law, the Ley de Servicio Eléctrico, Electric Service



IMPORTS OF ELECTRICAL EQUIPMENT TO MEXICO, 1990 AND 1993 US \$000s

	1990	1993	Percentage change
Nuclear reactors and parts	59	1,894	3099
Vapour generating boilers	9,570	78,192	717
Central heating boilers	191	201	5
Condensers	9,020	<i>57</i> ,111	533
Turbines	28,738	91,124	217
Electric motors	62, 7 68	131,250	109
Generating sets	11,808	82,649	600
Parts for motors and generators	27,868	19,688	-29
Transformers and ballasts	95,719	204,091	113
Battery cells and parts	32,110	40,933	27
Accumulators and parts	19,058	32,944	73
Power capacitors	14,060	16,484	1 <i>7</i>
Circuit breakers and protectors greater than 1000 volts	21,797	<i>77,</i> 519	256
Circuit breakers and protectors less than 1000 volts	139,447	232,361	67
Boards and panels less than 1000 volts	<i>5</i> 3,881	1 <i>4</i> 0, <i>757</i>	161
Parts for circuit breakers, boards and panels	27,608	39,118	42
Wire and conductors	59,402	169,356	185
Insulators	9,951	1 <i>7</i> ,149	72
Insulating fittings	13,068	26,059	99
Total	648,704	1,471,640	127

Note: 1993 data are for first 11 months.

Source: Industry Canada.

Law, has recently been enacted and regulations were published in late 1993. Private companies are now permitted to generate electricity for their own use, as long as any surplus power is sold to the CFE.

The construction of all generation and transmission projects of more than 230 KV will now be contracted to private campanies. Contracts will now be awarded to "constructors" who will build and operate the projects. This means that private companies will be responsible for a large proportion of electrical praduct

procurement. About 10,000 MW of capacity will be added by independent power producers over the next decade. The Comisión Federal de Electricidad (CFE), Federal Electricity Commission, will continue to directly construct projects of less than 230 KV.

The first private project will be MERIDA III, which will be a combined cycle gas turbine project with two 220 MW units, to be built at a cost of about US \$500 million. The CFE will buy all of the output of this project under a 25 year contract.

Major transmission projects will continue to be publicly financed but will be built by private sector contractors.

The CFE has some 3,500 electrical power projects, worth about US \$20 billion, in the planning or construction process. Foreign companies can bid on these projects on an equal basis with Mexican firms. The best opportunities for Canadian firms would be through joint ventures with large turnkey constructors (box).

MAJOR TURNKEY CONSTRUCTORS FOR MEXICAN ELECTRICAL PROJECTS				
Bufete Industrial	Siemens			
Asea Brown Bovari	Apycsa			
Schneider	AEG			
Elecnor	lsolux			
Abengoa	GEC-Alstom			
Source: Industry Canada.				

COMPETITION

The electrical manufacturing industry in Mexico consists of about 2,000 firms, employing some 150,000 people. Most Mexican companies are small, family-owned firms, but multinational companies have been establishing facilities in Mexico as well.

In order to remain competitive in the newly privatized and deregulated environment, Mexican manufacturers have been rationalising their product lines. This will create opportunities for joint ventures with foreign firms. Mexican-owned companies are most competitive in lower voltage equipment and some of them would like to round out their product lines through exclusive arrangements with foreign producers.

Canadian and U.S. firms have a market advantage because of lower tariff rates under the NAFTA and because of the similarity of electrical standards. The NAFTA is also considered an advantage for challenging procurement decisions by government bodies.

FINANCING

The Comisión Federal de Electricidad (CFE), Federal Electricity Commission, plans to finance most of its upcoming expansion either directly through loans granted by international development banks or indirectly through developer financing of turnkey projects. Other purchasers of electrical generation and distribution equipment normally pay for international purchases using irrevocable letters of credit or bank drafts.

The Export Development Corporation (EDC) of Canada finances about half of all merchandise exports to Mexico through a US \$30 million line of credit. The EDC lends directly to Mexican banks, which re-lend to Mexican buyers including the CFE. The favourable credit terms involved make Canadian firms more competitive in Mexican markets.

The World Bank is also a major lender in Mexico, and in the past several years it has financed some US \$100 million worth of transmission and distribution projects.

Another US \$450 million is expected to be allocated to electrical distribution projects in the first two years following the 1994 election.

THE REGULATORY ENVIRONMENT

Electrical equipment imported into Mexico must comply with the relevant technical standards, known as Normas Oficiales Mexicanas (NOMs). Before exporting to Mexico, the producer of the product must obtain a certificate of compliance from the Secretaria de Comercio y Fomento Industrial (SECOFI), Dirección General de Normas, Secretariat of Commerce and Industrial Development, Bureau of Standards. Many Mexican standards are identical to those in the U.S. but some resemble European standards.

Under the NAFTA, the standards of each country will remain in force, but they cannot be used to impede trade. Canadian firms can propose new standards, or comment on standards under consideration, on the same basis as Mexican firms.

At present, samples must be sent to a Mexican laboratory for testing, but within four years, Mexico must conform with the system now in use in the U.S. and Canada which provides for a single lab to certify a product for sale in all three countries.

MARKET ENTRY STRATEGIES

One of the distinguishing features of the Mexican business environment is that Mexicans prefer to do business with people that they know. It takes time and resources to demonstrate a commitment to the Mexican market and to get to know potential clients and partners.

A local presence is essential, especially because of the need to track weekly announcements of bids from the Comisión Federal de Electricidad (CFE), Federal Electricity Commission. Mexican buyers also look for "staying power" on the part of foreign suppliers. They want to buy from companies that will be around to back up their product with after-sales service.

Canadian companies seeking to enter the Mexican market should arrange for representation by a local agent, or enter into a joint venture with a Mexican company. The Canadian Embassy in Mexico City and the Cámara Nacional de Manufacturas Eléctricas (CANAME), National Chamber of Electrical Manufacturers, can both be helpful in making the necessary contacts.

WHERE TO GET HELP

KEY CONTACTS IN CANADA

The Department of Foreign
Affairs and International Trade
(DFAIT) is the Canadian federal

government department most directly responsible for trade development. The **InfoCentre** is the first contact point for advice on how to start exporting; it provides information on export-related programs and services; helps find fast answers to export problems; acts as the entry point to DFAIT's trade information network; and can provide companies with copies of specialized export publications.

InfoCentre

Tel.: 1-800-267-8376 or

(613) 944-4000

Fax: (613) 996-9709 FaxLink: (613) 944-4500

The Commercial Division of the **Embassy of Canada** in Mexico City promotes trade with Mexico. There are several trade commissioners at the Embassy, and there is a satellite office in Monterrey. Trade Commissioners can provide a range of services including introducing Canadian companies to potential customers in Mexico, advising on marketing channels, assisting those wishing to participate in trade fairs, helping identify suitable Mexican firms to act as agents, and compiling credit and business information on potential foreign customers.

Note: to telephone Mexico City, dial: 011-52-5 before the number shown below. For contacts in other cities in Mexico, consult the international code listing at the front of your local telephone directory for the appropriate regional codes or contact the international operator.

Commercial Division
The Embassy of Canada in Mexico
Schiller No. 529
Col. Polanco
Apartado Postal 105-05
11560 México, D.F.
México

Tel.: 724-7900 Fax: 724-7982









Canadian Business Centre Centro Canadiense de Negcios Av. Ejército Nacional No. 926 Col. Polanco 11540 México, D.F. México

Tel.: 580-1176 Fax: 580-4494

Canadian Consulate
Edificio Kalos, Piso C-1
Local 108 A
Zaragoza y Constitución
64000 Monterrey, Nuevo León

Tel.: 344 3200 Fax: 344-3048

International Trade Centres

have been established across the country as a convenient point of contact to support the exporting efforts of Canadian firms. Co-located with the regional offices of Industry Canada (IC), the centres operate under the guidance of DFAIT and all have resident Trade Commissioners. They help companies determine whether or not they are ready to export; assist firms with marketing research and market planning; provide access to government programs designed to promote exports; and arrange for assistance from the Trade Development Division in Ottawa and trade officers abroad. Contact the International Trade Centre nearest you.

The World Information
Network for Exports (WIN

Exports) is a computer-based information system designed by DFAIT to help Canada's trade development officers abroad match foreign needs to the capabilities, experience and interests of more than 30,000 Canadian exporters. To register on WIN Exports, call: (613) 996-5701.

The Market Intelligence Service provides Canadian business with detailed market information on a product-specific basis. The service assists Canadian companies in the exploitation of domestic, export, technology transfer, and new manufacturing investment opportunities. The intelligence is used by Canadian

business in decisions regarding manufacturing, product development, marketing, and market expansion. The information includes values, volume and unit price of imports, characteristics of specific imports (e.g. material, grade, price, range, etc.), names of importers, major countries of export, identification of foreign exporters to Canada, Canadian production, Canadian exports, and U.S. imports. Two-thirds of the clientele for this service are small businesses. Call: (613) 954-4970.

Canadian International Development Agency

An important possible source of financing for Canadian ventures in Mexico is the special fund available through the Canadian International Development Agency (CIDA) under the Industrial Cooperation Program or CIDA/INC. CIDA's Industrial Cooperation Program provides financial contributions to stimulate Canadian private-sector involvement in developing countries by supporting long-term business relationships such as joint ventures and licensing arrangements. INC supports the development of linkages with the private sector in Mexico encouraging Canadian enterprises to share their skills and experiences with partners in Mexico, and other countries. A series of INC mechanisms help enterprises to establish mutually beneficial collaborative arrangements for the transfer of technology and the creation of employment.

Industrial Cooperation Division Canadian International Development Agency

200, Promenade du Portage Hull, PQ K1A 0G4

Tel.: (819) 997-7905/7906 Fax: (819) 953-5024

Export Development Corporation (EDC)

EDC is a unique financial institution that helps Canadian business compete internationally. EDC facilitates export trade and foreign investment by providing risk management services, including insurance and financing, to Canadian companies and their global customers.

EDC's programs fall into four major categories:

- export credit insurance, covering short and medium-sized credits;
- performance-related guarantees and insurance, providing coverage for exporters and financial institutions against calls on various performance bonds and obligations normally issued either by banks or surety companies;
- foreign investment insurance, providing political risk protection for new Canadian investments abroad; and
- export financing, providing medium and long-term export financing to foreign buyers of Canadian goods and services.

Ottawa (Head Office) 151 O'Connor Street Ottawa, ON K1A 1K3 Tel.: (613) 598-2500 Fax: (613) 237-2690

Public Information Tel.: (613) 598-2739

International Financing
Institutions, including the World
Bank and the Inter-American
Development Bank, provide funds to
Mexico for a wide variety of specific
projects. These banks can provide
details of upcoming projects and identify the Mexican executing agencies.

The **Embassy of Mexico**, Mexican Trade Commissioners in Canada, and Mexican consulates can provide assistance and guidance to Canadian companies in need of information about doing business in Mexico.

Embassy of Mexico 45 O'Connor Street, Suite 1500 Ottawa ON K1P 1A4 Tel.: (613) 233-8988

Fax: (613) 235-9123

Business and Professional Associations

The Canadian Council for the Americas (CCA) is a non-profit orga-



<u></u>

nization formed in 1987 to promote business interests in Latin American and Caribbean countries. The CCA promotes events and programs targeted at expanding business and building networking contacts between Canada and the countries of the region. It also publishes a bimonthly newsletter.

The Canadian Council for the Americas (CCA)

Executive Offices
145 Richmond Street West,
Third Floor
Toronto, ON M5H 2L2
Tel.: (416) 367-4313
Fax: (416) 367-5460

Canadian Electrical Association

66 Slater Street, Suite 1210 Ottawa, ON K1P 5H1 Tel.: (613) 230-9263 Fax: (613) 230-9326

Electric and Electronic Manufacturers Association of Canada (EMAC)

10 Carlson Court, Suite 210 Rexdale, ON M9W 6L2 Tel.: (416) 674-7410 Fax: (416) 674-7412

Canadian Exporters' Association (CEA)

99 Bank Street, Suite 250 Ottawa, ON K1P 6B9 Tel.: (613) 238-8888 Fax: (613) 563-9218

Canadian Manufacturers' Association (CMA)

75 International Boulevard, Fourth Floor Etobicoke, ON M9W 6L9 Tel.: (416) 798-8000 Fax: (416) 798-8050

The Canadian Chamber of Commerce (CCC)

55 Metcalfe Street, Suite 1160 Ottawa, ON K1P 6N4 Tel.: (613) 238-4000 Fax: (613) 238-7643

Forum for International Trade and Training (FITT)

155 Queen Street, Suite 608 Ottawa, ON K1P 6L1 Tel.: (613) 230-3553 Fax: (613) 230-6808

Language Information Centre 240 Sparks Street, RPO Box 55011

Ottawa, ON K1P 1A1
Tel.: (613) 523-3510

Canadian Freight Forwarders Association (CFFA)

Box 929 Streetsville, ON L5M 2C5 Tel.: (905) 567-4633 Fax: (905) 542-2716

Open Bidding Service (OBS)

P.O. Box 22011 Ottawa, ON K1V 0W2 Tel.: 1-800-361-4637 or (613) 737-3374

Canadian Construction Association (CCA)

85 Albert Street Ottawa, ON K1P 6A4 Tel.: (613) 236-9455 Fax: (613) 239-9526

Association of Consulting Engineers of Canada (ACEC)

130 Albert Street, Suite 616 Ottawa, ON K1P 5G4 Tel.: (613) 236-0569 Fax: (613) 236-6193

Canadian Standards Association (CSA)

178 Rexdale Blvd. Rexdale, ON M9W 1R3 Tel.: (416) 747-4000 Fax: (416) 747-4149

Standards Council of Canada

45 O'Connor Street, Suite 1200 Ottawa, ON K1P 6N7 Tel.: (613) 238-3222 Fax: (613) 995-4564



Mexican Foreign Trade Commission in Canada

Trade Commission of Mexico
Banco Nacional de Comercio Exterior
(Bancomext)
TD Bank Tawer
66 Wellington Street
Suite 2712
P.O. Box 32
Toronto, ON M5K 1A1
Tel.: (416) 867-9292
Fax: (416) 867-1847

Trade Commission of Mexico
Banco Nacional de Comercio Exterior
(Bancomext)
200 Granville Street
Suite 1365
Vancouver, BC V6C 1S4
Tel.: (604) 682-3648
Fax: (604) 682-1355

Trade Commission of Mexico
Banco Nacional de Comercio Exterior
(Bancomext)
1501 McGill College
Suite 1540
Montreal, PQ H3A 3M8
Tel.: (514) 287-1669
Fax: (514) 287-1844

Mexican Banks with Offices in Canada

Banco Nacional de México (Banamex) 1 First Canadian Place Suite 3430 P.O. Box 299 Toronto, ON M5X 1C9 Tel.: (416) 368-1399 Fax: (416) 367-2543

Banco de Comercio (Bancomer) The Royal Bank Plaza South Tower, Suite 2915 P.O. Box 96

Toronto, ON M5J 2J2 Tel.: (416) 956-4911 Fax: (416) 956-4914



Banca Serfin
BCE Place
Canada Trust Tower
161 Bay Street, Suite 4360
P.O. Box 606
Toronto, ON M5J 2S1

Tel.: (416) 360-8900 Fax: (416) 360-1760

KEY CONTACTS IN MEXICO

Government Departments

Federal Electricity Commission Comisión Federal de Electricidad ICFEI

Río Ródano No. 14 Col. Cuauhtémoc 06598 México, D.F.

México Mexico, D.F.

Tel.: 207-3962/3704, 553-7133

Fax: 553-6424

National Oil Company

Petróleos Mexicanos (PEMEX) Av. Marina Nacional No. 329 Col. Huasteca

Col. Huasteca 11311 México, D.F. México

Tel.: 250-2611 Fax: 625-4385

Houston Purchasing Offices 3600 South Gessner, Suite 100 Houston, TX 77065 U.S.A.

Tel.: (713) 978-6269 Fax: (713) 978-6298

Secretariat of Energy, Mining and State-owned Industry

Secretaría de Energía, Minas e Industria-Paraestatal (SEMIP) Insurgentes Sur No. 552 Col. Roma Sur 06769 México, D.F.

México Tel.: 564-9789/9790

Fax: 564-9769

Secretariat of Commerce and Industrial Development Bureau of Standards

Secretaría de Comercio y Fomento Industrial (SECOFI) Dirección General de Normas Av. Puente de Tecamachalco No. 6 Col. Lomas de Tecamachalco 53950 Tecamachalco Estado de México México

Tel.: 729-9300 Fax: 729-9477

Central Light and Power Company

Luz y Fuerza del Centro Av. Melchor Ocampo No. 171 Col. Tlaxpana 11379 México, D.F. México

Tel.: 592-0655 Fax: 546-8409

Industry Associations

National Chamber of Electrical Manufacturers

Cámara Nacional de Manufacturas Eléctricas (CANAME) Ibsen 13 Col. Chapultepec Polanco Apartado Postal 10527

11560 México, D.F. México Tel:: 280-6658/6042

Fax: 280-1966

National Chamber of the Electronic Industry and Electronic Communications

Cámara Nacional de la Industria Electrónica y de Comunicaciones Eléctricas (CANIECE) Culiacán 71

Col. Hipodrómo Condesa 06170 México, D.F.

México Tel.: 264-0808

Fax: 264-0808 ext. 250

National Chamber of the Radio and Television Industry

Cámara Nacional de la Industria de Radio y Televisión Horacio No. 1013 Col. Chapultepec Polanco 11560 México, D.F. México

Tel.: 726-9909, 254-1833

Fax: 545-6767

Mexican Association of Engineers in Electric and Electronic Communications

Asociación Mexicana de Ingenieros en Comunicación Eléctrica y Electrónica (AMICEE) Balderas No. 94 Col. Centro 06070 México, D.F. México

Tel.: 510-3142 Fax: 512-5300

National Chamber of Commerce of Mexico City

Cámara National de Comercio de la Cuidad de México (CANACO) Paseo de la Reforma No. 42 Col. Centro 06030 México, D.F.

06030 México México

Tel.: 592-2677/2665 Fax: 705-7412, 592-3571

Mexican Companies

Grupo Bufete Industrial S.A. de C.V. Moras No. 850 Col. del Valle 03100 México, D.F. México

Tel.: 659-3555, 726-9066 Fax: 658-5941/3477



