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ELECTRIC ENERGY LEGAL AND REGULATORY STRUCTURE IN MEXICO AND OPPORTUNITIES AFTER NAFTA

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I. NEW MEXICAN ENERGY LAW AND REGULATIONS

The negotiation of the Energy Chapter, Chapter 6, of the North American Free Trade Agreement (NAFTA),¹ and Mexico's resulting Law for Public Service of Electric Power² and its implementing regulations³ create a whole new set of opportunities for electric power projects in Mexico.

A. *Electric Energy Provisions of NAFTA*

NAFTA does not create significant new opportunities for private investment in oil, gas, refining, or basic petrochemicals such as creosote, ethane, butane and petroleum jelly. These private investment activities remain controlled by the government, as required by Article 27 of the Mexican Constitution.⁴

However, NAFTA and its implementing Mexican legislation provide substantial new opportunities for companies in the electric power industry. Under NAFTA, foreign companies can own and operate electric generation facilities in Mexico.⁵ Accordingly, electricity generated at these facilities can be used by an industrial or other high-volume consumer, with all of the excess being sold to the *Comisión Federal de Electricidad* (Federal Electricity Commission, CFE). In addition, the opening of the Mexican government procurement market will create opportunities for U.S. and Canadian companies to compete with Mexican entities for supply and service contracts with *Petróleos Mexicanos* (PEMEX) and CFE.

To implement provisions for electric power in NAFTA, the Mexican legislature amended its *Law for the Public Service of Electric Power*

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1. North American Free Trade Agreement, Dec. 17, 1992, U.S.-Can.-Mex., ch. 6, H.R. Doc. No. 103-159 (effective Jan. 1, 1994) [hereinafter NAFTA].

2. *Ley del Servicio Público de Energía Eléctrica [Law for the Public Service of Electric Power]*, DIARIO OFICIAL DE LA FEDERACIÓN [OFFICIAL GAZETTE OF THE FEDERATION—hereinafter D.O.] (Dec. 23, 1992) (Mex.) [hereinafter *Law*].

3. *Reglamento de la Ley del Servicio Público de Energía Eléctrica [Regulations of the Law for the Public Service of Electric Power]*, D.O. (May 31, 1993) (Mex.) [hereinafter *Regs.*].

4. NAFTA, *supra* note 1, arts. 601, 602 and annex 602.3; see also CONSTITUCIÓN POLÍTICA DE LOS ESTADOS UNIDOS MEXICANOS [CONST.—POLITICAL CONSTITUTION OF THE UNITED MEXICAN STATES], art. 27 (10th ed. Delma Edition) (Mex.).

5. NAFTA, *supra* note 1, ch. 6, annex 602.3.

(Law) on December 23, 1992,⁶ and issued regulations (Regulations) to implement these new amendments in May 1993.⁷ As the *Secretario de Energía, Minas y Industria Paraestatal Para México* (Secretary of Energy, Mines and Paraestatal Industries for Mexico, SEMIP) has recently noted, the purpose of these Laws and Regulations is to “satisfy demand for electricity at the lowest possible cost.”⁸

B. What NAFTA Provides

NAFTA reserves to Mexico goods, activities, and investments in the oil, gas, refining, basic petrochemicals, nuclear and electricity sectors.⁹ Consistent with Mexico’s recent move to greater privatization of industries and resources, NAFTA opens many ancillary, energy-related activities towards greater private investment, both foreign and domestic. Among these liberalizations are:

Private investment. NAFTA permits private companies, or their Mexican subsidiaries, of all three NAFTA signatories to own, invest or operate:

- a. self-generation, electric facilities for their “own use”;
- b. small power generation facilities of less than thirty megawatts (MW);
- c. co-generation facilities that produce both electric power and useful thermal energy; and
- d. independent power production (IPP) facilities that produce electricity for sale of more than 30 MW, all of which would be sold to CFE.¹⁰

Excess Power. Excess electric power not used by a privately owned facility must be sold to CFE under terms agreed upon by the facility owner and CFE.¹¹ In addition, under certain circumstances electric power can be exported from or imported to facilities in Mexico. While electric generation is open to private investment, transmission and distribution of electric power to end-users will still be CFE’s exclusive responsibility in most cases.¹²

Mexican Government Procurement. Both CFE and PEMEX will open up fifty percent of their Mexican government procurement contracts to immediate competition from U.S. and Canadian companies, subject to certain “floor level” exclusions.¹³ These contracts will principally be for equipment and related supplies, but could include service contracts as well. After eight years, United States and Canadian firms will be able

6. See *supra* note 2 and accompanying text.

7. See *supra* note 3 and accompanying text.

8. *Mexico Issues Private Power Rules Calling for Bidding, Public Planning*, INDEPENDENT POWER REP., June 18, 1993, at 9.

9. NAFTA, *supra* note 1, ch. 6, annex 602.3.

10. *Id.* annex 602.3(5).

11. See *Law*, *supra* note 2, art. 3; *Regs.*, *supra* note 3, arts. 7, 101-123.

12. *Regs.*, *supra* note 3, arts. 148-162.

13. NAFTA, *supra* note 1, ch. 10 and annex 1001.2a.

to compete for seventy percent of CFE and PEMEX contracts.¹⁴ By the tenth year, all Mexican government procurement restrictions will be eliminated.¹⁵

Opportunities. United States utilities and Independent Power Producers (IPPs), both facing competition for power plant projects in the United States, will now have an additional large, nearby market for their equipment, investment capital and operational expertise. Mexico's demand for electricity is increasing by about eight to nine percent annually, and it will need 26,000 MW of additional capacity by the year 2005.¹⁶ Of this amount, 18,000 MW will likely be satisfied by new electric power plants with the remaining capacity need met through reductions from demand-side conservation programs.¹⁷

These new electric power plants will require an investment of over \$18 billion.¹⁸ Mexico needs to attract this capital to build the needed generation facilities. As a result, Mexico's new energy Laws and Regulations are in part designed to meet this need by providing enhanced private investment opportunities in the Mexican electric energy sector.

These new opportunities under NAFTA expand on Mexico's current Build-Lease-Transfer (BLT) program.¹⁹ The Laws and Regulations which Mexico enacted to implement the energy provisions of NAFTA make it clear that foreign investors will be able to own the Mexican electric power plants and earn profits on sales of electric power back to CFE for the life of the facility.

Relevant Mexican Agencies. CFE will be the planner and supplier of electricity.²⁰ SEMIP, in turn, will be the principal energy regulator and the issuer of any required permits.²¹ CFE will prepare a yearly plan for the next five years outlining the equipment, plants and raw materials it will need for the power sector.²² CFE must also prepare a ten-year forecast of Mexico's electric power needs and indicate whether such needs could be satisfied by refurbishing existing units or by adding new units.²³

Permit Requirements. Permits must be acquired from SEMIP for self-supply, co-generation, independent power production, small power production, and the exportation and importation of electricity for self-use.²⁴ If foreign participation exceeds forty-nine percent, permits must also be

14. *Id.* See also *USTR Hills Says NAFTA will Create Opportunities for U.S. Energy Firms*, INT'L TRADE REP. 1436 (1992).

15. *USTR Hills Says NAFTA Will Create Opportunities for U.S. Energy Firms*, INT'L TRADE REP. 1436 (1992).

16. See *supra* note 8.

17. *Id.*

18. *Mexico's CFE to Solicit Proposals for 300 MW Private Power Project*, ELECTRIC UTIL. WKLY., Aug. 30, 1993, at 14.

19. *Details of Mexican Electric Law Show Broad Possibilities for Developers*, INDEPENDENT POWER REP., Feb. 12, 1993, at 17.

20. *Regs.*, *supra* note 3, arts. 6-13.

21. *Id.*

22. *Id.* art. 10.

23. *Law*, *supra* note 2, art. 36 (¶ 1).

24. *Id.* art. 36; *Regs.*, *supra* note 3, art. 77.

acquired from the Foreign Investment Commission and from Mexico's Secretary of Commerce (SECOFI).²⁵

The SEMIP permit may be granted for indefinite time periods, although the permit term for independent power production cannot exceed thirty years.²⁶ Where a power plant has multiple owners, the SEMIP permit will be issued to all such owners. The co-owners, however, must designate a "common representative" that will "have sufficient powers to act on their behalf"²⁷ to serve as a liaison to SEMIP. In addition, the co-owners will all be responsible for complying with energy laws and regulations.²⁸

The Regulations require SEMIP to review an application for a permit within ten working days of filing, with a decision due within an additional thirty days.²⁹ For projects of 30 MW or smaller, decisions will take only ten days.³⁰ Permits will not be required for certain small projects, which include self-generation units that are: (1) of 0.5 MW or less; (2) of 1 MW or less to be used in rural areas; or (3) if used exclusively in emergency situations.³¹ Lastly, a SEMIP permit can be canceled if construction is not commenced within six months of the day indicated in the permit, except where such delay has been caused by *force majeure*.³²

Rate Provisions. CFE can propose rates, with final rates set through the collaboration of the Treasury Ministry and SECOFI.³³ Additionally, modifications and rate adjustments can be made consistent with the public interest.³⁴

Rates must reflect "the economic cost" of the generation, transmission and distribution of the electric power in question such that these rates can be adjusted over time to account for changes in underlying cost factors.³⁵ Rate proposals must be approved by the CFE Governing Board before submission to the Ministry of Finance and Public Credit (*Itacienda y Crédito Público*), which may request additional information.³⁶

The ability to recoup an adequate return on investment from a project through appropriating electrical rates is obviously one of the most important considerations of developers and lenders. Specifically, lenders and developers want an assured revenue stream from sales of power from a project to cover financing and operating costs of the plant. If a project is chosen as the most economical resource to satisfy a capacity need through the competitive bidding process, the Regulations make clear that

25. *Ley de Inversion Extranjera [Foreign Investment Law]*, art. 9, D.O. (Dec. 27, 1993) (Mex.).

26. *Regs.*, *supra* note 3, art. 78.

27. *Id.* art. 79.

28. *Id.*

29. *Id.* art. 84.

30. *Id.* arts. 84, 111.

31. *Id.* art. 89.

32. *Id.* art. 99(IV).

33. *Id.* arts. 47-48.

34. *Law*, *supra* note 2, art. 31; *Regs.*, *supra* note 3, art. 47.

35. *Regs.*, *supra* note 3, art. 48.

36. *Id.* art. 51.

the agencies discussed above must approve the rates applicable to the proposed project.³⁷ Again, as noted above, rates can be adjusted if there are changes to the underlying cost of the project.

The Regulations state that licensees who are awarded a bid will have the right to receive payments that will recover fixed costs, including return on investment and variable costs incurred in operating a plant.³⁸ The capacity payments can be adjusted based on the availability of power from the plant.³⁹

To reduce the risk of having unacceptable rate changes, the specific circumstances which merit changes in rates should be agreed upon by CFE and developers as part of the agreement negotiated in the competitive bidding process.

Competitive Bidding. The Regulations provide for CFE to issue requests for increased output capacity in its power generation expansion plans.⁴⁰ A contract will be awarded by CFE after taking into account total cost as well as stability, quality and security of electric power service.⁴¹ The bidding process would apply to projects designed to sell over 20 MW to CFE.⁴²

Requiring competitive bidding for sales to CFE of over 20 MW means that developers will be placed in competitive situations for new projects similar to those in the United States, where competitive bidding has been widely used to identify the most economical alternative for increased output in capacity. The bidding requirements will not apply to co-generation, small power or self-generation projects which would use most of the power of the facility on-site and would sell to CFE any excess of less than 20 MW.⁴³

Similar to competitive bidding situations in the United States, most of the important power supply contractual provisions and arrangements will have to be negotiated on a case-by-case basis. The Regulations, however, afford CFE the flexibility to short-list several bidders in the competitive range based on their responses to the published bid.⁴⁴

C. Other Implications Contained in the Laws and Regulations

Importing Natural Gas for Electric Power Plants. Other provisions requiring a case-by-case determination involve procedures for importing natural gas for gas-fired electric power facilities.⁴⁵ PEMEX obviously will have to play a role, and the developer will need to bargain for an

37. *Id.* art. 47.

38. *Id.* art. 144.

39. *Id.* arts. 143-45.

40. *Id.* art. 125.

41. *Law, supra* note 2, art. 36-BIS(I); *Regs.* art. 124.

42. *See Regs., supra* note 3, arts. 125, 126, 135.

43. *Id.* arts. 125, 135.

44. *Id.* arts. 127, 131, 133.

45. NAFTA, *supra* note 1, art. 603. The regulations do not provide for procedures to address such gas importations.

unbundled transportation rate from PEMEX for such importation or, alternatively, purchase the gas supply from PEMEX.

Exportation of Power. The Regulations do allow for exportation of power from privately-owned generation facilities in Mexico.⁴⁶ Thus, local consumption must not be affected.

Importation of Power. The Regulations also permit importation of power into Mexico exclusively for use by the importer.⁴⁷ The imported power must, however, cost less than the cost of power available through CFE.⁴⁸ Also, all other agreements required under Mexican law and international treaties must be complied with.⁴⁹ It should be noted that under the Energy Policy Act of 1992,⁵⁰ energy produced in another country cannot be resold directly to retail end-users in the United States.⁵¹

II. CURRENT PROJECTS IN MEXICO

The power projects currently underway are all "pre-NAFTA" in that they were conceived and concessions were given before negotiation of NAFTA's Energy Chapter and Mexico's implementing legislation and regulations were in place.⁵² These current projects are generally BLT projects, whereby the developers on a full pay-out lease would build the power generation facility and, upon completion, the facility would be transferred to CFE.

A classic example of this type of project is the Samalayuca Project which is a \$600 million, 700 MW gas-fired and oil-fired power project for CFE located near Ciudad Juárez. This project is being developed by a consortium of General Electric Capital Corporation, Bechtel Enterprises, Inc., Coastal Pan American Company, El Paso Natural Gas Company and Empresas ICA, Sociedad Controladora, which is Mexico's largest construction company.⁵³

Another project, Carbon 2, is a 1,400 MW coal- and oil-fired power plant in Piedras Negras, Coahuila, which was being developed by Mission Energy, an independent power affiliate of Southern California Edison and CFE. This project became the subject of much criticism because discharges from the project would not meet United States environmental standards, yet much of the discharge is expected to flow across the border into Texas.⁵⁴ Mission Energy Company announced its pull-out from Carbon 2, and the project is currently in limbo. Nevertheless, construction

46. *Regs.*, *supra* note 3, arts. 116-119.

47. *Id.* art. 72.

48. *Id.* arts. 7, 72.

49. *Id.* art. 7.

50. Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2776 (codified at 15 U.S.C. § 79 (Supp. IV 1992), 16 U.S.C. § 824k(h) (Supp. IV 1992)).

51. *Id.* §§ 715, 722.

52. *Supra* note 19 at 17-18.

53. *Id.*

54. *Mission's 1,400 MW Mexican Project Imperiled by Environmental Concerns*, INDEPENDENT POWER REP., Aug. 27, 1993, at 14.

had already begun on this project. CFE is considering placing Carbon 2 out for bid pursuant to its new bidding rules, but no schedule has been set for release of the bidding documents.

III. UPCOMING PROJECTS IN MEXICO

A. Mérida Project

The first power project to be bid under Mexico's new Energy Law and Regulations is a new 440 MW combined cycle project in Mérida, Yucatán.⁵⁵ CFE is expected to award a twenty to twenty-five year contract to purchase all of the electricity from that facility.⁵⁶

PEMEX will supply natural gas to this project through a pipeline that will be developed as a separate project. This gas pipeline project is slated to cost as much as the power plant project itself.⁵⁷

B. Rosarito Project

CFE has terminated its agreement with Tri-National Power for the repowering of the 600 MW Rosarito Plant.⁵⁸ Tri-National is a consortium consisting of Community Energy Associates (CEA), Nova Corporation of Alberta and Pan Alberta Gas Ltd., and Grupo de Planeacion y Proyectos de México. Instead, CFE will put this project out to bid. There is no timetable yet for the issuance of this solicitation.⁵⁹

C. Self-generation, Co-generation and Industrial Projects

There are currently numerous self-generation or co-generation projects, so-called "inside the fence" projects, being considered.⁶⁰ The economics of these types of projects had been negatively impacted by the ten percent reduction in industrial rates announced by CFE.⁶¹ CFE announced the rate decrease within the Pacto, an agreement among the government and the labor and private sectors, which has been helping to coordinate the efforts to bring inflation under control the last three years.⁶² However, in March 1995, Mexico's Ministry of Finance and Public Credit announced an immediate 20% increase in electricity rates to end-users.⁶³ It is not clear at this point whether the increase will be implemented across the

55. *Supra* note 18 at 12-14.

56. *Id.*

57. *Id.*

58. *Mexico Cancels Tri-National Agreement to Repower 600 MW Rosarito Facility*, ELECTRIC UTIL. WKLY., May 23, 1994, at 17-18.

59. *Id.*

60. *Editor's Note*: This information is based on discussions with prominent U.S. electric power developers.

61. *Id.*

62. *Id.*

63. See *Secretaria de Hacienda y Crédito Público [Secretary of Finance and Public Credit]*, Press Release 1 (Mar. 9, 1995). The electricity rate increase was part of a package of measures designed to reinforce the government's economic program in response to adverse market conditions experienced by Mexico in early 1995.

board and whether large industrials will experience the full 20% increase. If industrial rates increase significantly, the economic attractiveness of the "inside the fence" industrial self-generation or cogeneration projects may be enhanced.

There is also a proposed 200 MW co-generation facility in Altamira, México under consideration. Cogentrix is to be one of the developers, and DuPont will be one of the major hosts for the steam.

A number of industrialists in Monterrey are studying a potential 300 MW and a 100 MW co-generation project and are considering involving third party developers.⁶⁴ The plan is to develop the project as a joint venture where each industrialist will be a power purchaser and a stockholder.⁶⁵ In addition, Electricité de France and Southern Electric International are studying a 300 MW co-generation plant near Ciudad Juárez.

D. CFE Power Supply Forecast

As noted above, CFE is annually required to circulate a forecast of its power supply needs.⁶⁶ A draft of this forecast was due the first quarter of 1994, but it has yet to be distributed. The CFE Power Supply Forecast is supposed to indicate the number of plants, their location and their desired fuel source.⁶⁷ When issued, this will be a very important document for planning purposes, and it will be distributed for comment. CFE will then incorporate these comments into its 1995 energy forecast report.⁶⁸ To meet its energy needs for the next twelve years, it is estimated Mexico will need forty new 350 MW power plants, consisting of coal- and gas-fired plants as well as alternative sources such as solar power.⁶⁹

CONCLUSION

Mexico's Energy Law and Regulations which implement NAFTA's Energy Chapter create exciting and significant opportunities for investment in Mexico's electric power sector. Developers, lenders and other participants interested in these projects must understand the risks associated with such projects and the ability to mitigate these risks under Mexican law and through the concession agreements they will negotiate.

64. *Mexican Industrialists Eyeing 400 MW of Co-generation Around Monterrey*, INDEPENDENT POWER REP. Feb. 25, 1994.

65. *Id.*

66. *Regs.*, *supra* note 3, art. 66.

67. *Id.* arts. 66-68.

68. *Id.* art. 69.

69. *Supra* note 18.