ENERGY REFORM AND THE FUTURE OF MEXICO'S OIL INDUSTRY: THE PEMEX BIDDING ROUNDS AND INTEGRATED SERVICE CONTRACTS

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I. INTRODUCTION

In recent years, Latin America has seen an uptick in interest as a destination for companies seeking new opportunities in the exploration and production of oil and gas.[1] From the discovery of massive pre-salt oil fields off the coast of Brazil to unconventional plays in Argentina and Colombia, the region is generating renewed interest for the international energy industry. Four countries in particular—Brazil, Colombia, Mexico, and Peru—are moving forward with bidding rounds for significant exploration and production contracts with hopes of attracting technology, expertise, and capital from the private sector.

The case of Petróleos Mexicanos (Pemex) and Mexico is especially compelling. As a state-controlled monopoly, Pemex is the sole producer of crude oil, natural gas, and refined products in Mexico.[2] Pemex, the most important company in Mexico, is simultaneously referred to as the "cash cow" and a "sacred cow" of Mexico.[3] As Mexico's cash cow, Pemex provides over a third of the federal government's revenues.[4] As Mexico's sacred cow, Pemex has immense and symbolic national importance, which is deeply rooted in Mexico's sense of sovereignty and independence.[5] Increasingly, these two roles are in tension as Pemex struggles to remain a cash cow while subject to the legal and political constraints of a sacred national treasure.[6]

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1. PIETRO DONATELLO PITTS, BUS. NEWS AMERICAS, OIL AND GAS SECTOR OUTLOOK FOR 2011, http://member.bnamericas.com/webstore/en/intelligence-series/oil-and-gas-sector-outlook-for-2011.

2. *Pemex Fact Sheet*, PEMEX (2011), http://www.ri.pemex.com/files/content/PEMEX_Fact_Sheet_i_2011.pdf.

3. *See, e.g.*, Geri Smith, *Pemex May Be Turning From Gusher to Black Hole*, BLOOMBERG (Dec. 13, 2004), http://www.businessweek.com/magazine/content/04_50/b3912084_mz058.htm (describing Pemex as a "cash cow"); Dave Graham & Miguel Angel Gutierrez, *Mexican Candidate Sees Possible Pemex Listing*, REUTERS (Dec. 29, 2011), http://af.reuters.com/article/commoditiesNews/idAFN1E7BS0AB20111229 (describing Pemex as a "sacred cow")

4. *See* Jaime Ros, *The Macroeconomic Consequences of Falling Oil Revenues in Mexico* 10 (James A. Baker III Inst. for Pub. Pol'y, Working Paper, 2011), *available at* http://bakerinstitute.org/publications/EF-pub-RosMacroeconomic-04292011.pdf (projecting macroeconomic consequences of alternative oil production scenarios in Mexico for 2010-2020).

5. *See* Duncan Wood, *The Administration of Decline: Mexico's Looming Oil Crisis*, 16 LAW & BUS. REV. AM. 855, 857 (2010).

6. *See* Graham & Gutierrez, *supra* note 3 (noting the tension between the need for private

For most of the 20th century, Mexico figured among the world's largest oil producers and has been a major exporter for much of that time.[7] Currently, however, Mexico is facing the prospect of becoming a net importer of petroleum within a decade.[8] Pemex has recently undergone transformations in response to declining production, but reversing the tide will require a dramatic departure from the norm.[9] Politically sensitive reforms to the energy sector and a major shift in the traditional Pemex paradigm are needed.[10] Together, Mexico and Pemex are entering unfamiliar territory.[11]

While a restrictive legal framework has barred competition within Mexico's borders, Pemex is subject to rigid constraints under Mexican law with respect to finance and budgeting, contracting, procurement, and corporate governance.[12] The collective weight of these restrictions has limited Pemex's ability to address lagging production.[13] In response, under the administration of President Felipe Calderón, legislation designed to modernize Pemex and allow greater private participation in the Mexican oil industry was passed in November 2008 (the Energy Reforms).[14]

Among other things, the Energy Reforms authorized Pemex to carry out bidding rounds and enter into contracts with the private sector for exploration and production activities through its subsidiary, Pemex Exploration and Production (PEP).[15] Pursuant to the new contracting authorities, Pemex developed a model integrated services contract (the

investment in Pemex and the company's status as a "sacred cow" in Mexico).

7. *See* Amy Myers Jaffe & Laurence Whitehead, *Baker Institute Policy Report 48: The Future of Oil in Mexico,* JAMES A. BAKER III INST. FOR PUB. POL'Y 3 (2011), http://www.bakerinstitute.org/files/pubs/EF-pub-PolicyReport48-English.pdf.

8. *See* Ros, *supra* note 4, at 11.

9. SECRETARÍA DE ENERGÍA DE MÉXICO, DIAGNOSTICO: SITUACIÓN PEMEX 7 (2008), *available at* http://pemex.com/files/content/situacionpemex.pdf.

10. *Id*.; *see also* Jaffe & Whitehead, *supra* note 7, at 9.

11. Pemex does not have a long history of international operations and—other than a joint venture with Shell Oil on a refining facility in Deer Park, Texas—is not experienced in large-scale joint ventures.

12. *See* Jaffe & Whitehead, *supra* note 7, at 5.

13. *Id*.

14. Ley Reglamentaria del Artículo 27 Constitucional en el Ramo del Petróleo [Petroleum Law of 1958], *as amended*, Diario Oficial de la Federación [DO], 29 de Noviembre de 1958 (Mex.); Ley de Petróleos Mexicanos [Pemex Law], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008 (Mex.); Ley de Obras Públicas y Servicios Relacionados con las Mismas [Public Works Law], *as amended*, Diario Oficial de la Federación [DO], 4 de Enero de 2000 (Mex.); Ley de Adquisiciones Arrendamientos y Servicios del Sector Público [Procurement Law], *as amended*, Diario Oficial de la Federación [DO], 4 de Enero de 2000 (Mex.); Ley de la Comisión Reguladora de Energía [Energy Regulatory Commission Law], *as amended*, Diario Oficial de la Federación [DO], 31 de Octubre de 1995 (Mex.); Ley de la Comisión Nacional de Hidrocarburos [National Hydrocarbons Commission Law], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008 (Mex.); Ley para el Aprovechamiento Sustentable de la Energía [Law on Sustainable Energy Use], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008 (Mex.).

15. *See* Pemex Law, ch. IV, art. 55 (Mex.).

PEP Model Contract) for the PEP bidding rounds.[16] So far, Pemex has successfully carried out one bidding round[17] and issued bidding terms for a second round in January of 2012.[18] Both rounds involve marginally productive mature fields. Eventually, Mexico plans to hold rounds for fields in the Chicontepec Basin and deep-sea reserves in the Gulf of Mexico.[19]

The scope and substance of the Energy Reforms disappointed some observers hoping for more substantial reforms, yet the reform process was contentious and provoked intense political opposition led by Andrés Manuel López Obrador, the former mayor of Mexico City and de facto leader of the Democratic Revolution Party.[20] At one point, thousands of riot police prevented protesters from invading the offices of the Mexican Senate during a key vote on the reform legislation.[21] Legal challenges to the Energy Reforms culminated in a ruling by the Supreme Court of Mexico that found the laws constitutional.[22] Future reforms involving Mexico's oil reserves or Pemex—both considered *tesoros de la nación* or national treasures—will not be taken lightly.[23]

This article will address key legal issues underlying the new Pemex contracting regime and the PEP Model Contract. In doing so, the authors will give context to the fundamental political and legal issues involved in the Energy Reforms and the PEP bidding rounds. Part I of this article will introduce the current situation facing Pemex and Mexico's energy future. Part II will explain the extent and implications of declining petroleum production. Part III will provide an overview of petroleum laws in Mexico, while Part IV will examine the impact of the

16. *Modelo de Contrato de Servicios para la Exploración, Desarrollo y Producción de Hidrocarburos* [*Model Contract for the Evaluation, Development, and Production of Hydrocarbons*], PEMEX (2012) [hereinafter the *PEP Model Contract*], *available at* http://www.pep.pemex.com/LeyPEMEX/Licitacion/R410103951/JuntaAclaraciones/20120328_Modelo_de_contrato_Altamira.

17. Phaedra Friend Troy, *Pemex Launches First Licensing Round in Mexico in 70 Years*, PENNENERGY (Mar. 3, 2011), http://www.pennenergy.com/index/petroleum/display/0877581002/articles/pennenergy/petroleum/exploration/2011/03/pemex-launches_first.html.

18. *Mexico's Pemex Invites Bids for Service Contracts*, LATIN AM. HERALD TRIB. (Jan. 20, 2012), http://www.laht.com/article.asp?ArticleId=464279&CategoryId=14091

19. *See* Carlos Manuel Rodriguez, *Pemex Seeks Foreign Partners to Develop Offshore Oil Fields for the First Time*, BLOOMBERG (Aug. 20, 2010), http://www.bloomberg.com/news/2010-08-20/pemex-seeks-foreign-producers-to-develop-offshore-fields-for-first-time.html (suggesting that the First Bidding Round and PEP Model Contract are a "prelude to more attractive deepwater contracts").

20. *See* Ioan Grillo, *Opening Up Mexico's Oil to Foreigners: A First Step*, TIME, Oct. 31, 2008, http://www.time.com/time/world/article/0,8599,1855621,00.html (describing opposition to the Energy Reforms and citing an expert opinion that the reforms did not adequately address the problems behind declining production).

21. *Id*.

22. *See* Cyrus Sanati, *Mexican Oil May Not Be Worth It*, CNN MONEY (Dec. 9, 2010), http://money.cnn.com/2010/12/09/news/international/Mexico_oil.fortune/index.htm (reporting on the Supreme Court decision affirming the constitutionality of the Energy Reforms).

23. *Id*. (characterizing state ownership of oil industry as a "sacrosanct" principle).

Energy Reforms on the legal framework under which Pemex functions. Part V will assess the PEP bidding rounds carried out under the new bidding regime as well as the PEP Model Contract, highlighting some of the most important legal issues for interested bidders. Part VI will discuss the possibilities for future bidding rounds and the potential for further reform to the legal framework.

II. STATE OF DECLINE: OIL PRODUCTION IN MEXICO SINCE 2004

A. Declining Production in Mexico Presents a Looming Crisis

Mexico is the sixth largest producer of crude oil in the world—ahead of Brazil, Iraq, Norway, and Venezuela—but is a major consumer of petroleum as well, ranking eleventh in the world in 2009.[24] Current projections for production and consumption suggest that Mexico could become a net importer of oil within a decade.[25] In recent years, Mexico has lost almost a quarter of its production capacity, dropping from 3.9 million barrels per day in 2004 to 2.98 million in 2010.[26] Production at most of Mexico's most important fields is falling.[27]

Current declines in productivity will have major consequences for the Mexican government. Pemex is Mexico's largest taxpayer and has typically accounted for 30%–40% percent of federal government revenues.[28] As one of the three largest suppliers of foreign oil to the United States, Mexico's declining production carries consequences north of the border as well.[29]

24. *See* Jaffe & Whitehead, *supra* note 7, at 3.

25. U.S. ENERGY INFO. ADMIN., COUNTRY ANALYSIS BRIEFS: MEXICO 6 (2011), *available at* http://www.eia.gov/EMEU/cabs/Mexico/pdf.pdf; *see also* Peter Hartley & Kenneth B. Medlock III, *The Revenue Efficiency of Pemex: A Comparative Approach* 5 (James A. Baker III Inst. for Pub. Pol'y, Working Paper, 2011), *available at* http://bakerinstitute.org/publications/EF-pub-HartleyMedlockRevenue-04292011.pdf.

26. *See* Jaffe & Whitehead, *supra* note 7, at 1.

27. *Mexico's Troubled Oil Industry*, ECONOMIST, Oct. 1, 2009, *available at* http://www.economist.com/node/14548839 ("twenty-three of [Mexico's] thirty-two biggest fields are in decline").

28. *Id.* (noting that taxes from Pemex compensate for a weak tax regime, which collects just 11% of GDP); *see* Ros, *supra* note 4, at 10 (illustrating the importance of oil as a source of the Mexican government's revenues).

29. *See U.S.-Mexico Transboundary Hydrocarbons Agreement*, U.S. DEP'T OF STATE (Feb. 20, 2012), http://www.state.gov/r/pa/prs/ps/2012/02/184235.htm (Along with Canada and Saudi Arabia, Mexico is one of the three largest suppliers of foreign oil to the U.S. In 2010, Mexico was second behind Canada with exports to the U.S. of 1.3 million barrels per day); Isidro Morales, *The Energy Factor in Mexico-U.S. Relations* (James A. Baker III Inst. for Pub. Pol'y, Working Paper, 2011), *available at* http://www.bakerinstitute.org/publications/EF-pub-Morales Factor-04292011.pdf (for a review of energy issues in U.S.-Mexico relations).

B. Pemex Is Burdened by Heavy Tax Obligations to the Mexican Government

Pemex does not perform well in comparison with peer companies in economic efficiency and other key indicators.[30] The most difficult issue facing Pemex is its heavy tax burden.[31] Historically, this tax burden routinely amounts to well over half of the company's revenues.[32] Pemex recently recorded a quarterly loss of 81 billion Mexican pesos—one of its worst quarterly results in recent years—with tax payments representing 55% of income.[33] Though recent reforms have eased Pemex's tax burden slightly, disturbing the status quo remains politically daunting.[34] Additionally, Pemex employs roughly 140,000 people, a payroll which some have suggested is far too large.[35]

Pemex is under immense pressure to finance the Mexican government, sponsor social programs, and provide for Mexico's energy needs—all while remaining a major employer of the Mexican people.[36] In many ways, Pemex has succeeded in accomplishing these goals.[37] However, the sustainability of the current model has been brought into question.[38]

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30. *See* SECRETARÍA DE ENERGÍA DE MÉXICO, *supra* note 9, at 5 (explaining Pemex's lackluster performance compared to peer companies); Ognen Stojanovski, *The Void of Governance: An Assessment of Pemex's Performance and Strategy* 5 (Program on Energy and Sustainable Dev., Working Paper No. 73, 2008), *available at* http://iis-db.stanford.edu/pubs/22156/WP_73%2C_Stojanovski%2C_Pemex%2C_12_Apr_08.pdf ("[Pemex's] economic efficiency does not compare favorably to other [national oil companies]").

31. Liam Denning, *The Unsteady State of Global Oil*, WALL. ST. J., Dec. 12, 2011, at C8 (reporting that Pemex's effective tax rate over the past three years has been 115%); *see also* Wood, *supra* note 5, at 858 (noting that the heavy tax burden is "the single biggest problem facing Pemex today").

32. *See Symposium: Energy and International Law: Development, Litigation, and Regulation*, 36 TEX. INT'L L.J. 1, 58 (2001) ("The government has a formula in which about sixty-three percent of the gross revenue of [Pemex] goes to the Mexican treasury."); JOHN R. MORONEY & FLORY DIECK-ASSAD, ENERGY AND SUSTAINABLE DEVELOPMENT IN MEXICO 34 (2005) (describing Pemex's substantial tax burden).

33. *See* Mica Rosenberg, *Mexico State Oil Firm Pemex Posts 81 Billion Peso Q3 Loss*, REUTERS (Oct. 27, 2011), http://www.reuters.com/article/2011/10/28/pemex-idUSN1E79Q2C420111028 (reporting that steep losses were in part due to the payment of taxes, which amounted to 55% of Pemex's income).

34. *See* SECRETARÍA DE ENERGÍA DE MÉXICO, *supra* note 9, at 4 (noting that Pemex's tax burden has been reduced slightly in recent years).

35. *Mexico's Troubled Oil Industry*, *supra* note 27 (suggesting that the Pemex payroll is "at least 30,000 too big"); Carlos Elizondo Mayer-Serra, *Stuck in the Mud: The Politics of Constitutional Reform in the Oil Sector in Mexico* 35 (James A. Baker III Inst. for Pub. Pol'y, Working Paper, 2011), *available at* http://bakerinstitute.org/publications/stuck-in-the-mud-the-politics-of-constitutional-reform-in-the-oil-sector-in-mexico ("Pemex is paying an estimated 11,000 workers for, literally, doing nothing. Some have estimated that this costs Pemex around 4 billion pesos per year.").

36. *See* Wood, *supra* note 5, at 858 (discussing the Mexican government's dependence on Pemex).

37. *See* Martin Miranda, *The Legal Obstacles to Foreign Direct Investment in Mexico's Oil Sector*, 33 FORDHAM INT'L L.J. 206, 208 (2009).

38. *See* MORONEY & DIECK-ASSAD, *supra* note 32, at 34; SILVANA TORDO ET AL., WORLD BANK, NATIONAL OIL COMPANIES AND VALUE CREATION 47 (2011), http://siteresources.worldbank.org/INTOGMC/Resources/336099-1300396479288/NOC_Vol_II.pdf.

Pemex is suffering the consequences of a prolonged strategy focused on maximizing immediate revenues for the government at the expense of research and development, new exploration, technical innovation, infrastructure spending, and capital reinvestment.[39] In other words, Pemex has been focused on sustaining immediate production rather than exploration and future development.

During the most bountiful years of the supergiant Cantarell field, significant investments in exploration and new development were not necessary to sustain high levels of production.[40] However, sharp declines at Cantarell have exposed weaknesses in the Pemex business model.[41] Pemex is hobbled by factors beyond its tax burden, such as high debt and pension liabilities, cumbersome internal governance, complicated administrative and political relationships with the federal government, the Petroleum Workers Union of Mexico (the Pemex Union), and deficiencies in capital and technology. Reversing the tide of declining production will require changes within Pemex as well as a deeper overhaul of the existing regulatory framework constraining Pemex.

C. Continued Declines Will Have Far-Reaching Consequences for Mexico

As the most important company in Mexico, a source of national pride, and a symbol of sovereignty, Pemex's troubles are Mexico's troubles. Though it is clear that declining production must be reversed, questions remain as to how Mexico will approach its production conundrum. The most immediate question facing Pemex is whether existing fields can be effectively managed to extend production and slow decline through various recovery strategies.[42] In order to boost long-term production, Mexico will likely need to look to the Chicontepec Basin and to deep-sea reserves in the Gulf of Mexico.[43] All of the above scenarios—and

39. *See* Stojanovski, *supra* note 30, at 5; *Mexico's Troubled Oil Industry*, *supra* note 27 ("From 1983 to 2000 Pemex's annual investment budget was a paltry $3 billion. Until recently Cantarell's bounty disguised this.").

40. *See* Manik Talwani, *Oil and Gas in Mexico: Geology, Production Rates and Reserves* 20 (James A. Baker III Inst. for Pub. Pol'y, Working Paper, 2011), *available at* http://bakerinstitute.org/publications/EF-pub-TalwaniGeology-04292011.pdf (Discovered by a fisherman in 1976, the Cantarell field is the largest in Mexican history and one of the largest in the world, having generated nearly a half trillion U.S. dollars in revenue since production began in 1978. However, production at Cantarell has declined rapidly since 2004.).

41. Jaffe & Whitehead, *supra* note 7, at 1.

42. *Id.* at 4.

43. Exploiting deep-sea reserves in the transboundary areas of the Gulf of Mexico presents additional legal challenges. *Compare* Karla Urdaneta, *Transboundary Petroleum Reservoirs: A Recommended Approach for the United States and Mexico in the Deepwaters of the Gulf of Mexico*, 32 HOUS. J. INT'L L. 333 (2010) (discussing possible solutions and possibilities for cooperation on transboundary petroleum reservoirs), *with* Miriam Grunstein, *Unitized We Stand, Divided We Fall: A Mexican Response to Karla Urdaneta's Analysis of Transboundary Petroleum Reservoirs in the Deepwaters of the Gulf of Mexico*, 33 HOUS. J. INT'L L. 345 (2011) (articulating the challenges involved in cooperation between the U.S. and Mexico in addressing

particularly the long-term solutions—require advanced technology and capital investments beyond what Pemex is currently capable of providing.[44]

III. PEMEX AND PETROLEUM LAWS IN MEXICO

A. Constitutional Constraints on the Oil Industry

Under President Porfirio Díaz, who controlled Mexico from 1876 to 1911, foreign investment in the oil sector was generally welcomed and encouraged.[45] The Díaz administration reversed laws restricting the ownership of subsurface resources to the state, opening the Mexican oil industry to private investment by pioneers such as Henry Clay Pierce and Edward Laurence Doheny.[46] Under the Mining Law of 1884, petroleum and gas resources were the "exclusive property of the owner of the soil."[47] The Mining Law of 1892 added that ownership interests in mining property "shall be irrevocable and perpetual."[48] However, beginning with the overthrow of Díaz in 1911 and culminating in strict constitutional controls enacted in 1917, natural resource policies took a decidedly nationalist turn with the Mexican Revolution.[49]

The Mexican Constitution provides the foundation for Mexico's energy law framework. Article 27 of the Mexican Constitution granted direct ownership and exclusive rights of exploitation and development of all solid, liquid, and gaseous hydrocarbons exclusively to the Mexican state.[50] While state ownership of hydrocarbon resources is common in other jurisdictions around the world, the Mexican Constitution takes the regulation a step further by restricting "petroleum industry activities" to the Mexican government.[51] Over the years, these constitutional

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transboundary petroleum reservoirs).

44. *See* SECRETARÍA DE ENERGÍA DE MÉXICO, *supra* note 9, at 64.

45. Jonathan C. Brown, *The Structure of the Foreign-Owned Petroleum Industry in Mexico, 1880-1938*, *in* THE MEXICAN PETROLEUM INDUSTRY IN THE TWENTIETH CENTURY 1, 5 (Jonathan C. Brown & Alan Knight eds., 1992) ("Operating in Mexico was supposed to have been like operating in the United States.").

46. *See id*. (noting reforms that allowed landowners to own fee-simple rights to the subsurface wealth); Ernest E. Smith & John S. Dzienkowski, *A Fifty-Year Perspective on World Petroleum Arrangements*, 24 TEX. INT'L L.J. 13, 23 (1989) (noting that rights asserted by oil companies in Mexico were similar to the common law concept of fee simple ownership).

47. Smith & Dzienkowski, *supra* note 46, at 23 n.67.

48. *Id*. at 23 n.68.

49. *See* JONATHAN C. BROWN, OIL AND REVOLUTION IN MEXICO 172 (1993) (proposing that the Mexican Revolution of 1911 enhanced economic nationalism in Mexico).

50. Constitución Política de los Estados Unidos Mexicanos [C.P.] [Political Constitution of the United Mexican States] *as amended*, Diario Oficial de la Federación [DO], 5 de Febrero de 1917, art. 27 (Mex.).

51. *See* Kenneth S. Culotta, *Recipe for a Tex-Mex Pipeline Project: Considerations in Permitting a Cross-Border Gas Transportation Project*, 39 TEX. INT'L L.J. 287, 306–307 (2004); *see also* Mayer-Serra, *supra* note 35, at 9 ("Mexico remains one of–if not *the*–most restrictive oil regimes in the world.").

restrictions have provided a legal foundation for Pemex's monopoly over almost every phase of the oil and gas industry.[52]

B. Expropriation and the Creation of Pemex in 1938

During the revolutionary period, oil companies operated much as they had under the Díaz regime because new restrictions were only loosely enforced.[53] In fact, investment in the petroleum industry continued to rise even after the Mexican Revolution.[54] The impact of Article 27 was not felt until 1938 when tensions between foreign investors and the Mexican government reached a tipping point.[55] Deteriorating relations between oil operators and state-controlled labor unions led the Mexican government to intervene and force negotiations.[56] As attempts to resolve the disputes broke down, President Lázaro Cárdenas expropriated foreign-owned oil and gas companies on March 18, 1938.[57] Soon thereafter, the Mexican Congress created Pemex by decree.[58]

C. The Petroleum Law of 1958

After the expropriation, Mexico continued to rely on private contractors and even made use of risk-service contracts, under which percentages of production formed part of compensation for contractors.[59] Though not without controversy, risk-service contracts were deemed permissible under the Petroleum Laws of 1940 and 1941.[60] These incentivized contracts were particularly important during the late 1940s and early 1950s at a time when Pemex needed an infusion of capital and technology—a scenario reminiscent of the situation facing Pemex today.[61]

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52. *See* Ewell E. Murphy, Jr., *The Prospect For Further Energy Privatization In Mexico*, 36 TEX. INT'L L.J. 75, 83–96 (2001) (timeline of Mexican energy policy from 1884 to 2000).

53. *See* Smith & Dzienkowski, *supra* note 46, at 24 nn.94, 97 (citing both GOVERNMENT OF MEXICO, THE TRUE FACTS ABOUT THE EXPROPRIATION OF THE OIL COMPANIES' PROPERTIES OF MEXICO 17–24 (1940); WENDELL GORDON, THE EXPROPRIATION OF FOREIGN-OWNED PROPERTY IN MEXICO 58–59 (1941).

54. *See id.* at 27 n.95 (citing GUSTAVO ORTEGA, EARLY HISTORY AND DEVELOPMENT OF THE OIL INDUSTRY IN MEXICO 26–29, 40 (1927)).

55. *See* Alan Knight, *The Politics of the Expropriation*, *in* THE MEXICAN PETROLEUM INDUSTRY IN THE TWENTIETH CENTURY, *supra* note 45, at 90, 90–120 (discussing the events leading to the expropriation of 1938 and an analysis of the forces at play).

56. *Id*. at 91.

57. *Id.* at 92.

58. *See* Decreto que Crea la Institución de Petróleos Mexicanos [Decree that Creates the Institution of Petróleos Mexicanos], Diario Oficial de la Federación [DO], 7 de Junio de 1938, art. 3 (Mex.).

59. Murphy, *supra* note 52, at 76, 85.

60. *See* Laurence Whitehead, *Coping with Adversity in the Mexican Oil Industry: Como Pemex No Hay Dos* 14 (James A. Baker III Inst. for Pub. Pol'y, Working Paper, 2011), *available at* http://bakerinstitute.org/publications/EF-pub-WhiteheadAdversity-04292011.pdf (noting that this practice was controversial and was perceived as unconstitutional by nationalists).

61. *See* David R. Mares, *Oil Policy Reform in Resource Nationalist States: Lessons for Mexico* 22 (James A. Baker III Inst. for Pub. Pol'y, Working Paper, 2011) (citing J. RICHARD

In 1958, under the administration of President Ruiz Cortinas, risk-service contracts were disallowed by law with the enactment of the Regulatory Law of Article 27 of the Constitution in the Petroleum Sector (the Petroleum Law of 1958).[62] The Petroleum Law of 1958 expressly prohibited compensation based on a percentage of production, participation, or the results of exploration.[63] Oil service contracts in Mexico were thus limited in scope to payment of fixed sums of money, to be paid only in cash, for the performance of specified services.[64]

In addition to banning risk-service contracts, the Petroleum Law of 1958 broadly interpreted the scope of the petroleum industry as a "strategic area" under Article 28 of the Mexican Constitution.[65] With expansive language, the Petroleum Law of 1958 extended Pemex's exclusive rights over petroleum activities further downstream to include the manufacture, transportation, storage, distribution, and initial sales of petroleum products.[66] Since then, Pemex has retained a monopoly over virtually all phases of the petroleum industry in Mexico.

IV. THE ENERGY SECTOR REFORMS OF 2008

A. The Energy Reforms Under the Calderón Administration

Facing the increasingly urgent problems of declining oil production, the Mexican government, under the administration of President Felipe Calderón, attempted to reform key aspects of the legal framework constraining Pemex.[67] Though sparking controversy and political unrest—both of which caused delays in implementation—the changes were muted in effect.[68] Nonetheless, the resulting legislation constitutes a step towards greater autonomy for Pemex and the liberalization of the Mexican petroleum economy as a whole. Three laws emerging from the Energy Reforms define the new contracting regime: (i) the Pemex Law,[69]

POWELL, THE MEXICAN PETROLEUM INDUSTRY 1938-1950, at 66, 194 (1956)), *available at* http://bakerinstitute.org/publications/EF-pub-MaresLessons-04292011.pdf.

62. Ley Reglamentaria del Artículo 27 Constitucional en el Ramo del Petróleo [Petroleum Law of 1958], *as amended*, Diario Oficial de la Federación [DO], 29 de Noviembre de 1958 (Mex.).

63. Murphy, *supra* note 52, at 85.

64. Petroleum Law of 1958, art. 6 (Mex.).

65. *See* Constitución Política de los Estados Unidos Mexicanos [C.P.] [Political Constitution of the United Mexican States] *as amended*, Diario Oficial de la Federación [DO], 5 de Febrero de 1917, art. 28 (Mex.).

66. *See* Petroleum Law of 1958, art. 3 (Mex.).

67. *See* Mayer-Serra, *supra* note 35, at 32 (detailed description of the events surrounding the Energy Reforms).

68. *See* Grillo, *supra* note 20 (describing political unrest fueled by the Energy Reforms); Mayer-Serra *supra* note 35, at 35 (discussing delays in the implementation of reform legislation).

69. Ley de Petróleos Mexicanos [Pemex Law], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008 (Mex.).

(ii) the Regulations to the Pemex Law,[70] and (iii) the Pemex Contracting Rules.[71]

The Energy Reforms aimed to strengthen Pemex by improving governance and allowing greater flexibility in operations, budgeting, and contracting. In doing so, the Energy Reforms reshaped the framework under which Pemex operates in three key areas: (i) applicable administrative and procurement regimes, (ii) fiscal and operational autonomy, and (iii) corporate governance. The Energy Reforms also mandated the creation of a new regulatory entity, the National Hydrocarbon Commission (the CNH),[72] and led to new legislation on renewables and energy sustainability.[73]

1. Special Regulatory Regime for Pemex

The Pemex Law allowed Pemex to operate under a customized regulatory regime—as opposed to the frameworks generally applicable to public entities—so long as such regulations abide by existing laws and constitutional principles.[74] Increased flexibility in contracting and procurement is an important aspect of the new regime. Prior to the Energy Reforms, the Procurement Law and the Public Works Law, which apply to all entities of the Mexican federal government, regulated Pemex's procurement activities.[75]

The Pemex Law authorized Pemex and its subsidiaries to establish the basis, criteria, and model contracts for a bidding process for certain production-related activities.[76] This new procurement framework paved the way for the initial bidding round launched in March 2011 (the First Bidding Round) and the second round, which was announced in January 2012 (the Second Bidding Round). With this customized procurement

70. Reglamento de la Ley de Petróleos Mexicanos [Regulations to the Pemex Law] Diario Oficial de la Federación [DO], 4 de Septiembre de 2009 (Mex.).

71. Disposiciones Administrativas de Contratación en Materia de Adquisiciones, Arrendamientos, Obras y Servicios de las Actividades Sustantivas de Carácter Productivo de Petróleos Mexicanos y Organismos Subsidiarios [Administrative Guidelines for the Contracting of Services, Leases, Works and Acquisitions of Pemex's Production Activities] Diario Oficial de la Federación [DO], 4 de Septiembre de 2009 (Mex.).

72. Ley de la Comisión Nacional de Hidrocarburos [National Hydrocarbons Commission Law], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008 (Mex.).

73. *See* Ley para el Aprovechamiento de Energías Renovables y el Financiamiento de la Transición Energética [Renewable Energy and Energy Transition Financing Law], Diario Oficial de la Federación [DO], 6 de Junio de 2011 (Mex.); Ley para el Aprovechamiento Sustentable de la Energía [Law on Sustainable Energy Use], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008 (Mex.).

74. *See* Pemex Law, arts. 51–52 (Mex.).

75. Ley de Adquisiciones Arrendamientos y Servicios del Sector Público [Procurement Law], Diario Oficial de la Federación [DO], 4 de Enero de 2000 (Mex.); Ley de Obras Públicas y Servicios Relacionados con las Mismas [Public Works Law], *as amended*, Diario Oficial de la Federación [DO], 4 de Enero de 2000 (Mex.).

76. Pemex Law, arts. 51–52 (Mex.).

process, Pemex is inching toward a bidding system that more closely resembles bidding systems in other Latin American countries.

2. Greater Fiscal and Operational Autonomy for Pemex

Pemex is now free to prepare its own budget without direct supervision from the Ministry of the Treasury, though financial plans remain subject to caps by the Mexican Congress.[77] Pemex also gained greater discretionary authority to acquire debt and reinvest funds.[78] Though Pemex was not permitted to issue equity interests, so-called "citizen bonds" were authorized to allow for domestic fundraising without any transfer of control over Pemex away from the state.[79] In practice, however, the citizen bonds have not yet gained traction.[80]

3. Reforms to the Corporate Governance of Pemex

Among the most important corporate governance reforms were changes to the board of directors of Pemex. Four new independent, professional positions were added to the Pemex board of directors.[81] Private sector experience was introduced as a requirement for the new positions to increase the overall technical qualification of the board.[82] Prior to the reform, five of eleven board seats were reserved to the Pemex Union. With five of fifteen total seats, the Pemex Union's weight on the board is now lighter, yet remains a feature particular to Pemex.[83] Board seats not reserved to the Pemex Union are appointed by the President.[84] Additionally, Senate ratification is required for the four newly created professional seats.[85]

B. Creation of the National Hydrocarbon Commission

Formally established in May of 2009, the CNH is responsible for supervising exploration and production of hydrocarbons in Mexico as well as the processing activities, transportation and storage related to

77. *Id*. art. 49.
78. *Id.* arts. 44–46.
79. *Id.* art. 47.
80. *See* David Biller, *Pemex's "Citizen Bonds" Appearing Less Likely to Ever Materialize*, BUS. NEWS AMERICAS (June 13, 2011), http://www.bnamericas.com/news/privatization/pemexs-citizen-bonds-appearing-less-likely-to-ever-materialize1.
81. Pemex Law, art. 8 (Mex.).
82. *Id.*
83. *See* Alejandro López-Velarde, *The New Foreign Participation Rules in Each Sector of the Mexican Oil and Gas Industry: Are the Modifications Enough for Foreign Capitals?*, 3 J. WORLD ENERGY LAW & BUS. 71, 76 (2010) ("One thing is true: no place in the world considers having and reserving 5 places out of 11 or today 15 for Union representation in the most important company of a country.").
84. Pemex Law, art. 8 (Mex.).
85. *Id.*

hydrocarbon products.[86] As a federal entity independent of the Energy Ministry, the CNH has oversight authorities over Pemex.[87] Five commissioners, appointed by the President, head the agency and serve five-year terms.[88]

C. Fundamental Legal Constraints Remain

The Energy Reforms represent a step towards a more flexible and efficient Pemex. However, observers hoping for a more comprehensive reform were disappointed by the outcome, which was more an internal reform of Pemex than it was a sweeping overhaul of Mexican energy law.[89] The major legal constraints—found in the Mexican Constitution and the Petroleum Law of 1958—remain intact.[90] Any kind of association that implicates a contractor's rights to reserves is prohibited. No percentage of production, sales, or profits may be agreed upon as the basis for compensation. Payments must still be made in cash. Agreements that are standard to the international petroleum industry such as concessions, production sharing agreements, and risk-service contracts are still out of reach.

V. THE PEMEX BIDDING ROUNDS AND THE PEP MODEL CONTRACT

A. The Pemex Bidding Rounds

In March of 2011, Pemex officially opened the First Bidding Round with the publication of an inaugural call for bids.[91] At stake were service contracts for the mature oil fields of Carrizo, Santuario, and Magallanes in the southern region of Mexico.[92] Winning bids for the First Bidding Round were announced in August of 2011.[93] More recently, in January of 2012, Pemex released the bidding terms for the Second Bidding Round for fields in the northern region of Mexico.[94] Pemex has expressed intentions to hold rounds in the near future for the Chicontepec Basin and for deep-sea exploration and production in the Gulf of Mexico.[95]

Pemex initiated the Second Bidding Round on January 19, 2012 for twenty-two fields, grouped into six blocks within Mexico's northern

86. *Comisión Nacional de Hidrocarburos – English Version*, CNH, http://www.cnh.gob.mx/portal/Default.aspx?id=836&lang=1 (last updated May 21, 2012).
87. *Id.*
88. *Id.*
89. *See* Urdaneta, *supra* note 43, at 356–58.
90. See *supra* notes 47–52 and accompanying text.
91. *See* Troy, *supra* note 17.
92. *Id.*
93. *Mexico's Pemex Invites Bids for Service Contracts*, *supra* note 18.
94. *Id.*
95. *See* Rodriguez, *supra* note 19.

production zone: Altamira, Pánuco, San Andrés, Tierra Blanca, Arenque, and Atún.[96] Initial work obligations for the blocks in the Second Bidding Round range from $25 million to $50 million.[97] Two of the blocks—Arenque and Atún—are offshore and, consequently, require the largest initial work obligations of the six.

One key difference between the first and second rounds is that recoverable costs for exploration will be 100% instead of 75%.[98] Among other adjustments, changes to the prequalification procedure and credit rating requirements have been implemented. Revisions to certain provisions in the PEP Model Contract offer key improvements since the First Bidding Round. Also, with fields in northern Mexico, security considerations for the Second Bidding Round are more significant than in the First Bidding Round, which was exclusively located in southern Mexico.[99]

Prior to the new contracting framework created by the Energy Reforms in 2008, Pemex attempted to attract private companies to invest in the natural gas industry with multiple service contracts (MSCs) almost a decade ago.[100] As fixed-fee service contracts, the MSCs offered limited upsides to contractors due to prohibitions on ownership and participation in production.[101] Ultimately, the MSC model failed to generate widespread interest among international energy companies.[102]

B. The PEP Model Contract

The PEP Model Contract was approved by the board of directors of Pemex on November 24, 2010.[103] During a series of roadshow events and conferences, Pemex received input on a draft contract from industry players, potential bidders, and legal experts.[104] As part of the First

96. *Mexico's Pemex Invites Bids for Service Contracts*, *supra* note 18.

97. *Bases de Licitacion Pública Internacional Abierta Número 18575008-625-11* [Bidding Rules for Open International Public Tender Number 18575008-625-11], PEMEX, 11–12 (Mar. 28, 2012) [hereinafter *Bidding Rules*], http://www.pep.pemex.com/LeyPEMEX/Licitacion/R410103951/JuntaAclaraciones/120328_Reglas_licitacion.pdf.

98. *See PEP Model Contract*, *supra* note 16, at annex 3 (specifying the formula for recoverable costs to include 100% of registered exploration costs).

99. Dudley Althaus, *Pipeline Pilfering Takes Toll in Mexico*, HOUSTON CHRON., Feb. 19, 2012, http://www.chron.com/news/houston-texas/article/Pipeline-pilfering-takes-toll-in-Mexico-3343190.php (reporting on hydrocarbons theft and organized crime in Mexico).

100. *See* Peter Millard, *Repsol Cuts Back at Mexico Gas Field, Contracts Disappoint*, DOW JONES, Oct. 9, 2007, *available at* http://www.rigzone.com/news/article.asp?a_id=51227.

101. *Id*.

102. *See 2011 Investment Climate Statement – Mexico*, U.S. DEP'T OF STATE (Mar. 2011), http://www.state.gov/e/eb/rls/othr/ics/2011/157324.htm; *see also* TORDO ET AL., *supra* note 38, at 45.

103. Santiago Sepulveda & Vanessa Gimenez, *Mexico: Contracts and Black Gold*, INT'L FIN. L. REV. (Jun. 1, 2011), http://www.iflr.com/Article/2855511/Mexico-Contracts-and-black-gold.html.

104. *See, e.g.*, David Biller, *Pemex Launches Tender for Three E&P Contracts with Incentives*, BUS. NEWS AMERICAS (Mar. 2, 2011), http://www.bnamericas.com/news/oilandgas/

Bidding Round, the PEP Model Contract was again revised on May 31, 2011 after bidder comments were received and evaluated. Leading up to and during the Second Bidding Round, additional revisions have been implemented.

Fundamentally, the PEP Model Contract is a service contract with the possibility of performance-related bonus payments. Compensation to the contractor is paid according to a volume-based fee for delivered production with certain bonus rewards available for volumes above base production.[105] Under the Pemex Law, such bonus payments are permitted only in certain situations.[106]

Mexican law prevents the PEP Model Contract from using compensation structures standard to the industry, such as concessions and production sharing arrangements.[107] Pemex is thus prohibited from entering into agreements with third parties that are horizontal in nature.[108] Constraints imposed by Mexican law result in service agreements that offer limited upsides for contractors.[109] Thus, the PEP Model Contract was handcuffed with certain unattractive terms before it was ever drafted.[110]

At the same time, some aspects of the PEP Model Contract can be improved upon without running afoul of domestic law. Since the First Bidding Round, Pemex has taken advantage of some of these opportunities to make key provisions of the PEP Model Contract more approximate to industry standards. Unlike the ownership restrictions mandated by Mexican law, revisions to the early termination and environmental liabilities provisions of the PEP Model Contract represent improvements available to Pemex under Mexican law.

Pemex has incentives to offer a contract that is appealing to potential bidders. A contract that is unduly adverse may discourage competitive bids from the most qualified potential bidders.[111] Bidders must be convinced that the upsides are attractive enough to justify the risks.[112]

pemex-launches-tender-for-three-e-p-contracts-with-incentives.

105. *See PEP Model Contract*, *supra* note 16, at cl. 16 and annex 3.

106. *See* Ley de Petróleos Mexicanos [Pemex Law], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008, art. 61 (Mex.).

107. See *id*.

108. *See* Urdaneta, *supra* note 43, at 355 (citing generally Ley Reglamentaria del Artículo 27 Constitucional en el Ramo del Petróleo [Petroleum Law of 1958], *as amended*, Diario Oficial de la Federación [DO], 29 de Noviembre de 1958 (Mex.)).

109. *Id*. at 355, 361.

110. *See* Mayer-Serra*, supra* note 35, at 33 (explaining the political process that led to the watering down of the Energy Reforms).

111. *See* Carlos Manuel Rodriguez & Thomas Black, *Pemex Performance Contracts May Fail to Attract*, BLOOMBERG (Mar. 29, 2010), http://www.bloomberg.com/apps/news?pid=newsarchive&sid=awonzbzcWr18.

112. *See* Urdaneta, *supra* note 43, at 361 (explaining that service contracts are not as attractive to international oil companies because upsides are limited by lack of rights in

While some companies are willing to assume higher risks and nonstandard terms of contract, oil majors and leading independents may choose to invest elsewhere.[113] Providing investors with reasonable assurances and clarity on risks will only become more important in the event that Pemex hopes to take on the more complex and capital-intensive ventures in deep-water fields in the Gulf of Mexico.[114]

1. Major Legal Issues in the PEP Model Contract[115]

a. Interests in Production and Booking Reserves

While the inability of contractors to book reserves and take interests in production are issues of Mexican law[116] rather than the PEP Model Contract, these prohibitions are expressed and reiterated in Clauses 2.4 and 16.1 of the PEP Model Contract. Clauses 2.4 and 16.1 expressly prevent contractors from enjoying any ownership or participation in the production or sale of hydrocarbons. Additionally, Clause 16.3 provides that payments by PEP may only be in cash, which prevents contractors from enjoying rights in the produced hydrocarbons through alternative means.[117] Together, these restrictions preclude standard structures for association—such as concessions, production sharing, and risk-service arrangements—while also ruling out the booking of reserves.

Generally, to book reserves, a company must have a right to produced hydrocarbons other than through a purchase contract. For example, under U.S. Securities and Exchange Commission regulations, "there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production . . . [of] oil and gas" in order to book reserves.[118] The rights available to contractors under the PEP Model Contract do not meet this requirement.

This accounting issue presents far-reaching problems for most oil companies. Because booked reserves are crucial in the financial evaluation of public oil companies, the booking limitation has significant consequences for debt and equity financing, valuation in capital markets, and capital expenditures.[119] Thus, the prohibition on booking reserves

production).

113. *Id*.

114. *Id.*

115. *PEP Model Contract*, *supra* note 16.

116. *See* Ley de Petróleos Mexicanos [Pemex Law], Diario Oficial de la Federación [DO], 28 de Noviembre de 2008, art. 60 (Mex.).

117. *See id*.

118. 17 C.F.R. § 210.4-10(a)(26) (2011).

119. *See* Petter Osmundsen, *Chasing Reserves: Incentives and Ownership, in* ENERGY, NATURAL RESOURCES AND ENVIRONMENTAL ECONOMICS (Endre Bjørndal et al. eds., 2010) (critical perspective on booked reserves as an accounting tool in the energy industry).

will deter many potential bidders from offering competitive bids.[120] Additionally, oil majors with significant marketing and downstream operations might be further discouraged by the inability to obtain preferential purchase rights.[121]

b. Early Termination and Automatic Termination Issues

The termination rights under Clause 22 improved since the First Bidding Round. Early termination rights for PEP were unusually unilateral and broad in previous versions of the PEP Model Contract, which presented significant problems for the capital-intensive investments. But Pemex made a major improvement since the First Bidding Round by narrowing a previously open-ended right for PEP to terminate without liability in the event it became "inconvenient or unprofitable" to continue with the contract.

More recent versions of the PEP Model Contract specify that this termination right is only available to PEP when available cash flow under Annex 3 of the PEP Model Contract is equal to zero for twelve consecutive months. Potential for further improvement to Clause 22 remains. For example, the cure period available to the contractor under Clause 22.2 is only to be granted at PEP's discretion and, at sixty days, is shorter than customary.

c. The Operator and the Leading Company

Typically, the party with the greatest economic interest and fiduciary duties in the operations of an oil and gas contract is the operator. As such, the operator possesses rights and obligations to conduct operations according to its expertise and is responsible for the day-to-day activities. However, under Clause 2.3, PEP retains broad control and decision-making authority over the services provided under the PEP Model Contract.

In effect, the leading company—when such company is the contractor—is responsible for operations. Yet the contractor does not have ultimate control of the operations. Another significant and related issue exists under Clauses 2.1, 14.4(c), and 19.3: the contractor will have to use and direct existing employees of PEP to the extent they are already involved in the contract. However, despite being under the direction of the contractor, such employees would remain employees of PEP, paid and controlled by PEP.

120. *See* Rodriguez, *supra* note 19 (citing expert view that oil companies remain reluctant to partner with Pemex because of prohibitions on ownership and booking reserves).

121. *See* Pemex Law, art. 60 (Mex.).

d. Dispute Resolution Mechanisms: Independent Expert and Arbitration

Clause 25.3 of the PEP Model Contract provides for a three-stage dispute resolution process through an independent expert if the parties fail to agree on technical issues, operational matters, accounting, or calculations related to taxation and payments. This is a useful and efficient tool for dispute resolution that is widely used in similar agreements. The procedures in place under the PEP Model Contract are adequate but could be improved in certain key areas.

Pemex should consider the application of the Rules for Expertise of the International Chamber of Commerce (ICC) for the appointment of experts. Since arbitration under the PEP Model Contract is already subject to ICC Dispute Resolution Rules, using ICC rules for experts would create consistency by bringing both mechanisms under the ICC umbrella.[122] Finally, the independent expert process would be improved if broadened to capture disputes related to aspects of the PEP Model Contract beyond those mentioned above.

For the most part, the arbitration provision in Clause 25.4 of the PEP Model Contract approximates international standards. However, with *situs* in Mexico City and proceedings in Spanish, the provision becomes less neutral to a foreign investor.

e. Waiver of Rights to "Diplomatic Channels" and the Calvo Clause

One of the most unusual aspects of the PEP Model Contract is Clause 25.6, which requires a waiver of rights to file claims through "diplomatic channels" by the contractor and all its subsidiaries and affiliates. The penalty for breaching the vague language in Clause 25.6 is harsh: the contractor loses all rights under the agreement without the need for a judicial or arbitral hearing. Like the language in Clause 25.5 prohibiting embargoes, this provision reflects enduring memories of foreign intervention and the influence of the Calvo Doctrine in Mexico.

The Calvo Clause is a provision in Article 27 of the Mexican Constitution stating that all foreigners who acquire land and/or water or mining concessions must consider themselves as nationals with respect to such assets and must waive their right to invoke the protection of their home government (i.e., diplomatic channels) under penalty of forfeiture of such assets.[123] Although originally designed for land acquisitions and

122. *See* Int'l Chamber of Commerce [ICC], Rules for Expertise, ICC Publ'n No. 649 (2002), *available at* http://www.iccwbo.org/drs/english/expertise/pdf_documents/rules/rules_expert_english.pdf (the most recent versions of the International Chamber of Commerce Rules for Expertise).

123. Regarding the acquisition of land or water by foreigners in Mexico, the Mexican Constitution provides in Art. 27:

> Only Mexicans by birth or naturalization and Mexican companies have the right to

water and mining concessions, the Calvo Clause is commonly included in government contracts involving other types of assets and goods.[124] Clause 25.6 poses serious issues for bidders because even though a foreigner waives rights to diplomatic channels, a sovereign state cannot waive its obligation to protect its nationals abroad. Furthermore, a foreign contractor may have no control over its home state's decisions, particularly if the home state elects to carry diplomatic actions against PEP or the Mexican government.

f. Guarantees and Guarantors

The flexibility of a contractual scheme and the cost and burdens of bidding and operating in a jurisdiction are key factors in the foreign direct investment calculus. Clause 17 of the PEP Model Contract requires a guarantee from the parent company of the contractor, even when affiliates or other entities in the contractor's corporate structure meet other applicable requirements. In the First Bidding Round, the required term of the guarantee was also unreasonably long. This translated into a substantial burden for most companies and bidders raised this issue frequently throughout the clarification meetings.

As many bidders suggested, a little bit of flexibility with respect to the acceptable form of security would go a long way on this issue. Another improvement would be to allow the guarantor to be an affiliate or related entity of the bidding entity that has (i) expertise in petroleum exploration, development, and production, and (ii) a net worth in excess of an adequate amount to cover the contractual obligations. Such requirements are commercially reasonable and would grant PEP adequate protections while avoiding unnecessary financial costs and operational restrictions. In the same spirit, the term of the guarantee should end no more than twelve months after the end of the evaluation period. Finally, any controversies, disputes, or claims related to the guarantee or the letter of credit should be subject to determination by an

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> acquire ownership of lands, waters, and their appurtenances, or to obtain concessions for the exploitation of mines or of waters. The State may grant the same right to foreigners, provided they agree before the Ministry of Foreign Relations to consider themselves as nationals in respect to such property, and bind themselves not to invoke the protection of their governments in matters relating thereto; under penalty, in case of noncompliance with this agreement, of forfeiture of the property acquired to the Nation. Under no circumstances may foreigners acquire direct ownership of lands or waters within a zone of one hundred kilometers along the frontiers and of fifty kilometers along the shores of the country.

See Constitución Política de los Estados Unidos Mexicanos [C.P.] [Political Constitution of the United Mexican States], *as amended*, Diario Oficial de la Federación [DO], 5 de Febrero de 1917, art. 27 (Mex.).

124. *See generally* Justine Daly, *Has Mexico Crossed the Border on State Responsibility for Economic Injury to Aliens? Foreign Investment and the Calvo Clause in Mexico after NAFTA*, 25 ST. MARY'S L.J. 1147 (1994) (discussing the Calvo Clause and foreign investment in Mexico).

independent expert pursuant to Clause 25.3.

g. The Contractor's Environmental Liabilities

The contractor's environmental, abandonment, and archeological liabilities under Clause 14.2 are far-reaching and, as previously drafted, could even include damages not caused by the contractor. During the First Bidding Round, Pemex improved Clause 14.3 by adding language that intended to clarify liability for preexisting damage.

Another significant improvement was implemented through revisions to the PEP Model Contracts during the Second Bidding Round. Clause 14.3 of the PEP Model Contract now provides a mechanism for an environmental study by a third party during the transition period to determine a baseline for liabilities. Although the three-month transition period might be a relatively short period in which to assess environmental conditions in a large area, these revisions represent a major improvement for bidders. At the same time, the environmental liability provisions remain a cause for concern and a source of uncertainty to many bidders. These provisions have been the subject of frequent questions and comments from bidders during the clarification periods of both bidding rounds.

h. National Content Requirements

Mexican law requires that a minimum percentage for national content be set in the PEP Model Contract.[125] The national content requirements are provided in Clause 19.7 and are calculated according to formulas provided under Annex 17. The required minimum for national content is 40% and is based on value added or created in Mexico. This requirement might pose practical problems for bidders at the beginning of the contract term, as suggested by some bidders during the commenting and clarification phase. The goal of value creation in Mexico might be better served with a graduated scale that starts with a lower degree of national content at the beginning of the term that increases gradually to a level higher than the 40% mark. This provision might also benefit from more specific language regarding the timing of the requirement and the consequences for noncompliance.

i. The Stabilization Provision

Stabilization provisions are common in international investment contracts and are typically designed to limit the ability of a host government to enact new laws adversely affecting an investment, thus

125. *See* Pemex Law, art. 53 (Mex.).

providing investors with some assurances against political risk.[126] In earlier drafts, Clause 27.2 of the PEP Model Contract had a stabilization provision allowing the contractor to benefit from more favorable laws but expressly excluded protection from adverse changes in law. In response to bidder comments, Pemex revised the provision to provide a more general provision for legal stability, which most bidders will consider significantly more important than the right to benefit from more favorable laws. Clause 27.2 thus provides an example of a key provision revised by Pemex to adopt a reasonable industry standard.[127]

j. Form 4: The PEP Joint Operating Agreement[128]

A joint operating agreement (JOA) governs the rights, obligations, and procedures that apply to the exploration and production of oil and gas in a given area when rights are joint or co-owned in some fashion. The industry standard model JOA for international operations is published and maintained by the Association of International Petroleum Negotiators (AIPN).[129] The AIPN model JOA is widely used by parties engaged in international petroleum operations. The AIPN model JOA is recognized as a fair and highly functional agreement.

The JOA under the PEP Model Contract is known as *Formato 4* (Form 4). Form 4 is entered into at the same time as the PEP Model Contract to provide a procedural framework for exploration and production operations in the contract area. The main issues in Form 4 revolved around the lack of clear control over operations for the operator. Typically, a JOA will give an operator responsibility and control over the operations contemplated by the agreement. For instance, the AIPN model JOA provides "exclusive charge" over the joint operations. Likewise, disproportionate powers of Pemex and the coordination committee provided under Form 4 had the potential to interfere with the operator's performance.

During the revision process of the First Bidding Round, Form 4 was substantially overhauled. Pemex thus created a document in Form 4 that was recognizable and functional as a joint operating agreement. Going forward, Pemex will be in a position to build on the bidding round

126. *See* Howard Mann, *Stabilization in Investment Contracts: Rethinking the Context, Reformulating the Result*, INVESTMENT TREATY NEWS, Oct. 2011, at 6, 6, *available at* http://www.iisd.org/itn/2011/10/07/stabilization-in-investment-contracts-rethinking-the-context-reformulating-the-result/.

127. *See generally* PETER D. CAMERON, ASS'N OF INT'L PETROLEUM NEGOTIATORS, STABILISATION IN INVESTMENT CONTRACTS AND CHANGES IN RULES OF HOST COUNTRIES: TOOLS FOR OIL & GAS INVESTORS (2006), *available at* http://lba.legis.state.ak.us/sga/doc_log/2006-07-05_aipn_stabilization-cameron_final.pdf.

128. *Bidding Rules*, *supra* note 97, at 32–43.

129. *See* Ass'n of Int'l Petroleum Negotiators Joint Operating Agreement (2002), *available at* http://www.aipn.org/mcvisitors.aspx.

experience to improve Form 4 even further. Potential bidders would react enthusiastically to a version of the AIPN model JOA—including the accounting procedures provided therein—adapted to fit within the dimensions Mexican law.

2. Structural and Practical Issues in the First Bidding Round

As the inaugural round under the new procurement and contracting framework created by the Energy Reforms, the First Bidding Round presented challenges—some novel and some familiar—for Pemex. Because the First Bidding Round was the first exposure for the PEP Model Contract and Form 4, Pemex may have received more comments than anticipated and struggled to provide substantive feedback to all the comments within the timeframes originally contemplated. The process will surely improve with experience as issues in the contracts are resolved and as bidders become more familiar with the Mexican bidding and contracting process.

As with comparable systems around the world, the Pemex rounds have a mechanism through which bidders submit comments and questions about the PEP Model Contract.[130] Pemex responds to bidder comments with public clarifications. The commenting and clarification process essentially serves as a negotiation stage in the bidding round. Through these feedback mechanisms—in addition to the roadshows and conferences that take place before bidding begins—Pemex has an opportunity to consider industry comments. Likewise, Pemex has an opportunity to explain certain terms and conditions that cause bidders concern. Ideally, these mechanisms improve the contracts while allowing bidders to become more comfortable with the terms and conditions of the document.

One measure—which is permitted in Brazil—that would improve the Pemex feedback process is fairly simple: bidders could be allowed to submit "redlines" of language in the contracts. Redlines are widely used in the legal industry and are one of the clearest and most concise ways for parties to propose changes to a given text. In the First Bidding Round, comments from bidders were limited to an online submission process that only accepted unformatted text. The Pemex feedback system functioned perfectly well for questions, minor revisions, and general comments. However, proposing redrafted language was difficult and resulted in confusing blocks of text. Redrafting more complex provisions was therefore time-consuming for bidders and for Pemex. Redlines could supplement the existing system, increasing clarity and efficiency, without

130. *Bidding Rules*, *supra* note 97, at 7–8.

diminishing transparency. Facilitating the transparent exchange of information is in the interest of all parties. Added flexibility for the submission of bidder comments and more conventional formatting wherever possible would improve the process.

The level of transparency of the First Bidding Round was robust. Bidder comments and Pemex responses were easily accessible and contained clear references to clauses in the PEP Model Contract. The process for selecting winning bids was also highly transparent. Pemex was generally prompt in releasing documents from clarification meetings and other events. Many of the proceedings were even accessible online for remote viewing. All of the above are remarkable considering that the First Bidding Round was an inaugural round for Pemex—a large state-controlled company with a complex administrative structure that has been asked to implement profound changes in a short period of time.

VI. RESULTS OF THE FIRST BIDDING ROUND AND OUTLOOK FOR FUTURE ROUNDS

A. Mixed Results for the First Bidding Round

A formal announcement of winning bids for the First Bidding Round marked a historic milestone on 18 August 2011. Fifty companies purchased informational packets for the First Bidding Round.[131] Of those, twenty-seven expressed formal interest and seventeen met Pemex's technical and financial requirements.[132] At the Santuario block, for instance, of seventeen prequalified companies, only nine participants submitted final bids.[133]

The final field of bidders in the First Bidding Round did not include some leading oil majors and independents.[134] Furthermore, some of the most prominent companies that did submit final bids have long-term relationships with Pemex and substantial existing investments in Mexico.[135] Initially, Petrofac Facilities Management Limited was declared the winning bidder of the Santuario and Magallanes contracts and Administradora en Proyectos de Campos, S.A. de C.V. (APC) won

131. Mica Rosenberg & Luis Manuel Lopez, *Mexico's Pemex Awards Historic Private Oil Contracts*, REUTERS (Aug. 18, 2011), http://www.reuters.com/article/2011/08/18/mexico-oil-idUSN1E77H17R20110818.

132. *Id*.

133. *Id.*; David Biller, *Pemex Awards First Ever Incentive-Based Contracts to Petrofrac, APC*, BUS. NEWS AMERICAS (Aug. 18, 2011), http://www.bnamericas.com/news/oilandgas/pemex-awards-first-ever-incentive-based-contracts-to-petrofac-apc

134. *See* Joe Rowley, *Pemex Contracts to be Awarded Today, but to the Right Bidders?*, LATIN LAW. (Aug. 18, 2011), http://www.latinlawyer.com/lawfirms/article/42315/pemex-contracts-awarded-today-right-bidders/.

135. *Id*.

the Carrizo contract.[136] However, APC was unable to provide the required financial security for the project and was substituted by Schlumberger Limited, which offered the next lowest bid.[137]

Whether the First Bidding Round was successful depends to a large extent on expectations. Critics note a scarcity of competitive bids from industry leaders and recall that the major legal issues handcuffing Pemex remain unaddressed.[138] On the other hand, if the First Bidding Round were viewed as a test run for the bidding framework, a means of generating international interest in exploration and production in Mexico, and a springboard for future rounds, the conclusion would seem brighter. Also, judging by the revisions to key provisions in the PEP Model Contract—such as environmental liabilities and PEP's early termination rights—Pemex is already adapting to industry feedback.

B. Implications of the Presidential Elections in 2012

Presidential candidates for the 2012 elections are treating the topic of private investment in Pemex as a major issue.[139] Enrique Peña Nieto of the Institutional Revolutionary Party (PRI) is currently the front-runner in polls and a favorite to win the election.[140] In a departure from the PRI's historic opposition to private investment in Pemex, Peña Nieto has proposed a modernization of Pemex through private investment similar to the models established in Brazil and Colombia.[141] The leading candidate for the National Action Party, Josefina Vázquez Mota, has similarly proposed private involvement with Petróleo Brasileiro (Petrobras) as a reference point.[142] For his part, Andrés Manuel López Obrador remains opposed to private involvement with Pemex.[143] While the political feasibility of the ideas proposed by Peña Nieto and Vázquez

136. Biller, *supra* note 133.

137. *See* Carlos Manuel Rodriguez, *Schlumberger Wins Field-Production Contract from Pemex*, BLOOMBERG (Oct. 19, 2011), http://www.bloomberg.com/news/2011-10-19/schlumberger-gets-carrizo-field-production-contract-from-pemex.html.

138. *Id*.

139. *See* Graham & Gutierrez, *supra* note 3; Flavia Krause-Jackson & Nacha Cattan, *Mexican Presidential Candidate Seeks Private Investment in Oil Industry*, BLOOMBERG (Nov. 17, 2011), http://www.bloomberg.com/news/2011-11-17/pena-nieto-pledges-mexican-oil-opening-calderon-found-elusive.html.

140. *See* Nacha Cattan, *Pena Nieto Leads by 20 Percentage Points in Mexico Opinion Poll*, BLOOMBERG (May 14, 2012), http://www.bloomberg.com/news/2012-05-14/pena-nieto-leads-by-20-percentage-points-in-mexico-opinion-poll.html.

141. Duncan Wood, *Audio: The PRI and Pemex: A Chance at Reform or Staying the Course?*, CENTER FOR STRATEGIC AND INT'L STUD. (Nov. 16, 2011), http://csis.org/multimedia/pri-and-pemex-chance-reform-or-staying-course (discussing prospects for reform, the presidential candidates, and the relationship between the PRI and Pemex).

142. *See* Graham & Gutierrez, *supra* note 3.

143. *See* Nicholas Casey, *Mexican Candidate Sheds Leftist Rhetoric, Appeals to Business Community*, WALL ST. J., Jan. 23, 2012, http://online.wsj.com/article/SB10001424052970203436904577153420783417592.html (noting López Obrador's preference for government investment over foreign participation in Pemex).

Mota remains to be seen, the tone of the political discourse is shifting noticeably.[144]

C. Prospects for Further Reform of Mexico's Energy Laws

More significant bidding rounds are expected in the near future, including a round for blocks in the Chicontepec Basin, which at 17.7 billion barrels of oil amounts to almost 40% of Mexico's oil reserves.[145] Bidding terms for the Chicontepec blocks are expected later this year. Also highly anticipated is the possibility of future rounds for deep-sea reserves in the Gulf of Mexico, which are estimated to hold around 30 billion barrels of oil.[146] Further announcements with respect to the deep-sea rounds are expected later this year.

After years of negotiation, the U.S. and Mexico recently signed an agreement to establish a legal framework for the development of offshore drilling projects along their maritime border in a 1.5 million acre area of the Gulf of Mexico.[147] This trans-boundary area may contain as much as 172 million barrels of oil and 304 billion cubic feet of natural gas.[148] Developing the Chicontepec Basin and deep-sea fields in the Gulf of Mexico holds promise for long-term production but presents even greater challenges for Pemex. Bidding rounds for deep-sea blocks will test the boundaries of Pemex's legal constraints and the terms of the PEP Model Contract to a much greater extent because the projects will carry higher risk, are more technically challenging, and require huge capital investments.

More comprehensive legal reforms are still needed if Pemex intends to adopt a hybrid public-private model similar to approaches taken by Brazil's Petrobras or Colombia's Ecopetrol. Deeper reforms will be difficult, but not necessarily impossible. Many observers predict that a further exacerbation of current production scenarios will be needed to galvanize meaningful change to Pemex's legal framework.[149] Indeed, prior to the Energy Reforms, the oil and gas sector was modified just twice in nearly fifty years: once in 1995 to allow service contracts for

144. *See* Vanessa Buendia, *Mexican Oil: Creating Investor Opportunities*, INFRASTRUCTURE J. (Nov. 18, 2011), http://old.ijonline.com/genv2/Secured/DisplayArticle.aspx?articleid=73796 (recalling that at certain times in Mexican history "the mere mention of privatizing oil resources and revoking Article 27 of the Constitution equaled immediate political suicide").

145. *See Mexico Chicontepec Output Seen Rising 43 Pct in 2012*, REUTERS (Oct. 19, 2011), http://af.reuters.com/article/commoditiesNews/idAFN1E79I1VH20111019 ("Pemex estimates Chicontepec holds almost 40 percent of Mexico's oil reserves, or 17.7 billion barrels of crude equivalent").

146. *See* Rodriguez, *supra* note 19.

147. Tom Fowler, *U.S., Mexico Sign Deal on Oil Drilling in Gulf*, WALL. ST. J., Feb. 21, 2012, at A3.

148. *Id.*

149. *See* Jaffe & Whitehead, *supra* note 7, at 9.

private transportation, distribution, and storage of natural gas, and again in 1996 for the petrochemical industry.[150] On the other hand, Mexico does have a track record of constitutional reforms. The Mexican Constitution has been amended 473 times and sixteen of those amendments were related to Article 27.[151]

In key areas—particularly the restrictions on interests in reserves and requirements for cash payments—Pemex is beholden to Mexican law and, therefore, the political system. However, Pemex does possess the autonomy to effect improvements in the PEP Model Contract that do not run afoul of Mexican law. Thus, Pemex has the ability to offer bidders an agreement that approximates international industry standards in certain areas and that fairly and clearly allocates risks. Pemex has taken important steps in this direction with key revisions since the First Bidding Round, including the revisions to environmental liabilities and PEP's early termination rights. Looking ahead to potential rounds for deep-sea fields in the Gulf of Mexico, these issues will become even more important for bidders with the more demanding capital requirements and technical complexity of offshore operations.

150. *See* López-Velarde, *supra* note 83, at 90.
151. *Id*. at 78.