112TH CONGRESS
2d Session

COMMITTEE PRINT

S. PRT.
112–43

OIL, MEXICO, AND THE TRANSBOUNDARY AGREEMENT

A MINORITY STAFF REPORT

PREPARED FOR THE USE OF THE

COMMITTEE ON FOREIGN RELATIONS
UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS
SECOND SESSION

DECEMBER 21, 2012

Printed for the use of the Committee on Foreign Relations

Available via World Wide Web:
http://www.gpo.gov/fdsys/

U.S. GOVERNMENT PRINTING OFFICE
77–567 PDF WASHINGTON : 2012

For sale by the Superintendent of Documents, U.S. Government Printing Office
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LETTER OF TRANSMITTAL

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC, December 21, 2012.

DEAR COLLEAGUES: Energy security is a vital issue for United States foreign policy and economic growth. Increases in U.S. domestic oil production are helping relieve our import dependence, yet our nation will rely on oil imports for decades to come. Strengthening trade with reliable, friendly neighbors Canada and Mexico would make a valuable contribution to our future.

I directed Senate Foreign Relations Committee Senior Staff Members Neil Brown and Carl Meacham to assess opportunities for enhancing the U.S.-Mexico oil and natural gas relationship. Mexico is a reliable trading partner. Yet it continues to struggle to maintain and increase its domestic oil production. Falling quantities of Mexican heavy oil available for U.S. Gulf Coast refineries have actually helped lead to increases in Middle Eastern imports to the U.S. even as our total imports have fallen.

Congress needs to understand the obstacles—and opportunities—ahead in Mexico's oil production. Put bluntly, we know that we can rely on Mexico as a trading partner, but we do not know the quantity or the quality of oil to expect it to be able to export in the years ahead.

Given domestic political sensitivities about oil within Mexico, the bilateral relationship on this topic has struggled. Yet, the newly elected President of Mexico has signaled a desire to work together on energy issues, and the largest opposition political party joins in that call.

I urge my colleagues, and the Obama administration, to seize today's opportunity. My staff identified specific areas in shale gas, safety enhancement, transparency, and security that represent near-term opportunities for bilateral gain.

I strongly encourage the Obama administration to send the U.S.-Mexico Transboundary Agreement, signed in February of this year, to Congress and urge my colleagues to pass the agreement. The Transboundary Agreement is good for energy security, good for the environment, good for U.S. commercial interests, and, most critically, can open the door to bilateral engagement on shared energy interests.

This report provides useful insight on the need and prospects for domestic oil sector reforms in Mexico and important recommendations for the U.S. government to take in order to strengthen U.S.-Mexico energy cooperation. I hope that you find this report by Mr. Brown and Mr. Meacham helpful and look forward to working with you on these issues.

Sincerely,

RICHARD G. LUGAR,
Ranking Member.

OIL, MEXICO, AND THE TRANSBOUNDARY AGREEMENT

Oversight Study

Senator Richard G. Lugar, Ranking Member of the Senate Foreign Relations Committee, requested senior professional staff members to review opportunities for enhanced U.S.-Mexico engagement on oil and gas issues including the U.S.-Mexico Transboundary Agreement, which requires Congressional action to take effect. As part of that review, members of Senator Lugar's staff traveled to Mexico City in October 2012 to meet with then President-elect Enrique Peña Nieto's transition team and leaders from the Mexican Congress, PEMEX, the Mexican energy regulator Comisión Nacional de Hidrocarburos, U.S. industry, academic specialists, and U.S. officials at Embassy Mexico City.[1] This report contains their public findings and recommendations.

Congressional attention to the Mexican energy situation is critical for understanding bilateral issues between our countries and for consideration of U.S. energy security. The United States has a profound interest in economic prosperity and political stability in Mexico, and energy is foundational to both interests. Oil is vital for the Mexican federal budget, underwriting both social programs and law and order, and the oil industry is an important aspect of broader economic activity. Stability and growth, or lack thereof, in Mexico's oil and gas sector can directly impact issues of bilateral concern.

Mexico is also important for U.S. energy security, providing a nearby and politically reliable source for oil imports. Recently overtaken by Saudi Arabia, Mexico has been the second largest source of oil imports to the United States, with Canada being the largest. However, falling Mexican oil production and rising demand led to increases in U.S. imports from the Middle East, and maintaining the current levels of Mexican oil production, let alone achieving rapid growth in production, have a dubious future without reforms.[2] Thorough energy security policy in Washington requires constant assessment of the Mexican oil industry. If Mexico does not reform its domestic energy production situation, the U.S. cannot rely on current levels of imports.

The SFRC staff's examination was timely because of recent Mexican elections for President and Congress. The newly elected Mexican President, Enrique Peña Nieto, campaigned promising to institute energy reforms and has continued that theme since taking office. Reform, or lack thereof, negotiated between the Mexican President and Congress will have consequences for the U.S. energy portfolio and commercial interests. The examination is also timely because the United States Congress is expected to review and act on the U.S.-Mexico Transboundary Agreement signed in February 2012, which was ratified in Mexico with a great deal of fanfare and also has support of major international oil companies operating in the United States.

MEXICAN OIL AND GAS: CRITICAL FOR MEXICO'S PROSPERITY, IN CRITICAL NEED OF REFORM

Mexican hydrocarbon resources belong to the Mexican people. Popular enthusiasm and national pride is attached to those resources, and many Mexicans directly depend on the existing oil industry for their livelihood and business interests. Crossing into the territory of energy sector reform requires political courage on behalf of Mexican politicians. The United States government emphatically recognizes the privileged position of oil in Mexico's politics.

Nonetheless, the United States has direct interests in the future of oil and natural gas in Mexico. Most important among U.S. interests is enhancing the prosperity of the Mexican people. With strong cultural ties and a shared border, the U.S. benefits when Mexico grows. Petroleos Mexicanos (PEMEX) has successfully staved off years of decreasing oil production and discovered deep water resources, but it has not been able to meaningfully increase production beyond its zone of comfort in shallow water. Without reform, Mexico's oil resources will not be developed in a way that translates into a higher quality of life for Mexicans.

Mexico is a reliable supplier of oil to the United States. The question for U.S. policymakers is what volumes Mexico will be able to export in the future. Mexican production dropped by more than a quarter in the last decade, leaving U.S. refiners on the Gulf Coast geared for heavy oil having to look elsewhere. Venezuelan heavy oil production has also collapsed. Canadian heavy crude production is increasing in the oil sands region, but pipeline infrastructure is insufficient. Therefore, in effect, the U.S. has had to increase imports of Middle East crudes in order to make up for shortfalls in Mexico.

Understanding the likely trajectory of reform in Mexico is necessary to appropriately plan for future volumes and types of crude oil traded with the United States, which also will have broader implications for U.S. security and economic growth. Mexican energy reforms will determine to what extent Mexico will be part of future U.S., and North American, energy security.

Progress, but can it last? A snapshot of Mexico's oil sector

Mexico has a long history of oil production and has prospects for a bright future as an oil power, but such an outcome is not guaranteed. Mexico sits atop significant amounts of oil estimated at 10.4 billion barrels of proven reserves, but that number could more than double when unconventional and deep offshore reserves are fully proven. The large unconventional Chicontopec area alone is estimated to hold up to 17.7 billion barrels.

Turning Mexico's oil resources into prosperity for the Mexican people is a tremendous challenge for PEMEX, its 100% state-owned national oil company established in 1938 after international oil companies were expelled.[3]

Mexican oil production relies primarily on a few major fields, the largest of which (Cantarell) is in steep decline. Oil production in Mexico peaked in 2003 at about 3.4 million barrels per day (mbd), falling to 2.6 mbd in 2010. That precipitous fall is due primarily to the estimated 75% decline in production from the massive Cantarell field from its peak. In recent years, Cantarell's decline has been compensated for by the Ku-Maloob-Zaap (KMZ) fields; however, many analysts doubt the longevity of current production in those fields.

Large increases in direct and third-party investment in recent years has enabled PEMEX to halt net decreases in production, at least temporarily. Importantly, PEMEX also now reports achieving a 100% replacement rate for reserves, improving prospects for continued production. Increased investment also has led to discoveries of large new deep water resources at Trion, Supremos, and Maximino, achievements of which PEMEX officials are justifiably proud. Several interlocutors credited energy reforms passed in 2008 for enabling those finds by giving PEMEX more flexibility to partner with international companies on a service contract basis, building on the shift to reliance on contracting services to enable investments stretching from the late 1990s.

PEMEX leaders plan to raise production to 2.7 mbd in 2013 and 3 mbd by 2017, requiring up to $38 billion annually in investment. Near term growth is expected to come primarily from Chicontopec, a highly complex unconventional onshore project that is subject of great hope and scorn. Despite years of development and reportedly $5 billion in investment, the project is well behind expectations and currently only 70,000 barrels per day are produced, which puts claims of near-term growth in serious doubt. Over the longer-term PEMEX has set a goal to increase production to 3.3 mbd by 2024. Achieving that goal will require significantly more new production than the difference between the 3.3 mbd goal and today's 2.6 mbd given expected large declines in KMZ.

Field decline emphasizes the urgent need for Mexico to have several new projects in the pipeline in order to maintain and boost production. Skepticism of PEMEX's ability to compensate for declining fields has led to some dire forecasts. The U.S. Energy Information Administration has estimated that Mexico will be a net importer of oil by 2020,[4] thus also raising concerns about impacts on its balance of trade. While not investigated on this StaffDel, that situation highlights the need for more attention to demand management policies and continued reform of fuel subsidies.[5]

Mexico needs a diverse portfolio of future oil projects with staggered capacities over time. PEMEX leaders have identified such a set of oil development projects, including deep offshore and the Chicontopec unconventional area, each of which are complex undertakings with high potential, forming a growth strategy to complement conventional shallow offshore projects and investment in enhanced recovery at previous wells. Some observers point out that privatization of the sector would bring competition and private investment; however, that prospect is so remote as to be non-existent and not under even speculative consideration. Therefore, the question is what PEMEX can achieve on its own or in partnership with international companies.

Most interlocutors are skeptical of PEMEX having the capital or expertise necessary to develop deep offshore fields, and, probably, the unconventional reserves at Chicontopec. Analysts point out that PEMEX took over 15 years and more than 20 wells to discover the most recent deep water finds. Moreover, deep water requires massive investments over many years, and even the world's largest international oil companies (IOCs) partner with one another to generate capital and spread the risk of such investments. PEMEX's capital limitations are further complicated by the company's large debt burden. On the other side, proponents of PEMEX's ability argue that they have gained expertise and dramatically lessened the risks implicit in development.

PEMEX likely could develop a deep offshore project by buying technology and expertise through very generous service contracts with many of the same companies with which the IOCs contract. However, under current capital and management constraints,[6] PEMEX alone is extremely unlikely to have the resources necessary to undertake multiple massive deep offshore developments while also investing in conventional oil production. Moreover, while some technology can be purchased through service contracts, project management expertise to run that type of project is not easily acquired.

Therefore, the decision on whether IOCs should be granted access individually or in partnership with PEMEX to develop oil in Mexico depends on how much oil the Mexican Government wants produced and over what span of time. Interlocutors did not indicate that the expectations of either of the largest political parties or the Mexican public are conducive to the long time horizons it would take for PEMEX under current conditions to fully develop Mexico's oil.

Dealing with this challenge is complicated by the fact that PEMEX is as much a bureau of the government as it is a company. In defiance of conventional business sense (of both private companies and state oil companies), multiple Ministries and a politically-appointed Board of Directors make key decisions, including deciding the amount and direction of investment in exploration and development of future production. It is not clear that all board members put the interests of the company, and hence future finances for the Mexican state, at the forefront of decision making. Having politicians with multiple constituencies (including the petroleum worker's union and companies that thrive off the oil supply chain) and short-term political considerations often make essential decisions is incompatible with the long-term planning needed in the oil sector. However, precisely because PEMEX can be a useful tool for political goals, achieving fundamental structural change is very difficult.

In sum, the authors agree that reform must happen to sustain and robustly grow Mexican oil production. The stakes of doing so are high for the Mexican Government. PEMEX directly provides 40% of government revenues, including significant resources transferred to the individual Mexican states. Decreased oil production has, thus far, been offset by higher than average global oil prices, but no government budget should rely so heavily on volatile commodity markets. While some commentators have argued that the budgetary pain of falling production would be useful to wean the budget from PEMEX, such a prospect could have wide repercussions on all programs funded in the Mexican budget, from poverty alleviation to the rule of law, let alone broader economic growth.

Natural Gas: An Emerging Priority

While oil provides vital government revenue, lack of natural gas development threatens to stunt Mexican industry. It is reported that parts of Mexico could face natural gas shortages in the coming year. Meanwhile, Mexico sits on a sea of unconventional natural gas reserves.

The current natural gas situation—which several interlocutors identified as a "crisis"—results from Mexican natural gas being priced artificially low because it is linked to the U.S. price, which has fallen with the rapid expansion of shale gas supplies. Yet the impact of U.S. supply on Mexican prices exists despite the limited physical integration of the two countries' physical gas markets. When combined with gas shortages in Mexico, this indicates the need both for more pipeline connections to the United States and for building out Mexico's domestic gas infrastructure. Doing so is made difficult, however, by confusion in the Mexican market where the downstream natural gas sector has been relatively liberalized while the upstream remains under the monopoly control of PEMEX. The lack of an appropriate price signal drives up demand while, reportedly, causing PEMEX to "shut-in" some conventional production due to lack of profitability.

Several interlocutors pointed specifically to the need for expedited pipeline construction to connect with Texas. Quick U.S. federal and state actions to permit pipelines could helpfully reduce short-term supply pressures in Mexico and help open new market opportunities for U.S. gas. Long-term economic growth in Mexico, however, is believed to be better served by development of its abundant domestic resources. As an analyst said, "You cannot build a future in Mexico based on cheap gas imports from the U.S."

The United States government estimates that Mexico has one of the largest shale gas reserves in the world at more than 680 trillion cubic feet (tcf) of technically recoverable reserves, although Mexico itself uses estimates as low as 140 tcf. Much of that shale gas is thought to be contained in an extension of the Eagle Ford formation that is already producing in Texas. PEMEX reportedly has drilled just a handful of exploratory wells, and with prices being held down by the United States gas boom, it has little economic incentive to invest heavily in shale in its own right, let alone the opportunity cost of that capital compared to much more lucrative oil. Absent natural gas pricing reform, it is unlikely that PEMEX will choose to invest heavily into shale gas.

Awareness of shale gas potential is growing in Mexico; at the time of the authors' visit, for example, the Mexican government was hosting a meeting of shale gas experts. Many interlocutors were carefully watching shale developments in the United States both in terms of direct job creation and in wider economic opportunities for power generation, chemicals, and manufacturing. Development of shale could be particularly helpful for economic growth in Mexico's northern border region.

The authors found that developing Mexico's shale gas reserves, as with technologically challenging new oil frontiers, will require energy reform to galvanize private investment, technology, and expertise. At the same time, an additional level of government capacity building will be useful to aid official understanding in the geology, economics, and environmental protections necessary for shale production. The U.S. State Department's Unconventional Gas Technical Engagement Program is well positioned to enable access to needed information, if the Mexican Government chooses to participate.

Most interlocutors were optimistic that gas reforms to allow private investment would come to fruition because natural gas is generally regarded to be less politically sensitive than oil. The most common fear of such a reform expressed by interlocutors was that if gas reform passed separately than oil reform, it could stunt momentum for the latter. Moreover, it is highly unlikely that a successful natural gas reform could be completely delinked from oil. Based on the U.S. experience, much of the profitability of shale gas comes from associated high-value liquids co-produced with the gas, so it seems unlikely that significant private capital will flow if liquids are not dealt with in reform.

Considerations in Oil Reform Policy and Politics [7]

There is no shortage of ideas for possible reforms both within PEMEX, the Mexican Government, and outside. As U.S. Senate staff who have themselves been part of an unpredictable legislative process, the authors will not speculate on the exact nature of reforms. Rather, U.S. interest lies primarily in assessing whether reforms will be meaningful and whether U.S. companies will continue to have access to provide goods, services, and investments to the Mexican sector regardless of the nature of reform.

The key marker for any reform capable of significantly improving Mexico's oil production horizon is whether that reform will produce IOC willingness to invest their capital and expertise. Interlocutors disagreed on the extent to which PEMEX acting alone or through service contracts can marginally increase production, but virtually none disagreed that multiple large-scale investments, particularly in deep water and Chicontopec onshore, will require external sources of capital and expertise.

PEMEX itself had recently embraced reform under the leadership of Juan José Suárez Coppel, PEMEX's former head. The stance of Emilio Lozoya Austin, Suárez Coppel's recently announced successor as sitting head of PEMEX, will be vital to understanding what kind of reform the Peña Nieto government is considering.

Under Suárez Coppel, PEMEX advocated a three step process by which PEMEX would gain financial autonomy, enable risk-sharing with IOCs and recapitalize PEMEX (which suffers under heavy debt burden, including large unfunded employee benefits), and, eventually, open the sector to concessions putting PEMEX in direct competition with IOCs. In other words, to undertake reforms that would move PEMEX to “run like a business” rather than an “economic development agency,” as described by a senior official.

President Peña Nieto has several times echoed the call for internal PEMEX reform by indicating it might be more like Brazil’s PETROBRAS. While no specifics have been offered, presumably that refers to the ability of PETROBRAS to directly raise capital and ceding a portion of government ownership. However, the PETROBRAS example is a tricky one. On the one hand, the company has global reach and laudable expertise. On the other hand, large discoveries of domestic oil in Brazil have precipitated increased political influence on the company’s affairs.

Given the entrenched interests in keeping PEMEX itself viable, its key supply contracts in place, its union workers employed, and its funding for the government budget in place, it is unlikely that any reform option would significantly challenge PEMEX’s dominance in its current areas of production onshore and shallow offshore. However, PEMEX is not currently producing deep offshore and only marginally producing in Chicontopec. A frequently discussed legislative option would be to institute reforms for those two high growth potential areas, along with unconventional natural gas, so that PEMEX could concentrate in its zones of expertise.

Any number of management, regulatory, and financial reforms could be beneficial to Mexico’s energy future, but putting oil production on a sustainable growth path will require IOC investment and expertise. Many interlocutors expressed that another incremental reform would not be worth the political effort; as one observer stated, “If there’s anything we’ve learned on energy reforms in Mexico, it is that if reforms are incremental, they don’t work.” The 2008 reforms, for example, have received mixed reviews with some proponents pointing to subsequent deep offshore oil discoveries and opponents bemoaning politically-appointed but nominally independent board members lacking in accountability. Politically, however, most interlocutors credit the 2008 reform with helping to pave the path of public acceptance for bolder reforms now.

Large-scale IOC investment is likely to come to Mexico if those companies are able to “book” reserves with the U.S. Securities and Exchange Commission, a financial accounting that increases the value of the company, which does not exclude joint ventures with PEMEX. In some jurisdictions, that means taking ownership and marketing the physical barrels of oil, but other options may be viable, such as selling the IOC share of oil to PEMEX at the wellhead so that IOCs never physically take possession of the oil.

Mexico’s need for oil and natural gas reform is widely acknowledged amongst leaders in Mexico. The primary question remains whether domestic political conditions will allow reform to advance. Oil has a privileged status in Mexican identity and politics akin to the third rail of Social Security in the United States: it basically works for now, is widely acknowledged to not work in the future, and any attempts to reform it may jeopardize a politician’s future.

Newly sworn-in President Enrique Peña Nieto campaigned on reforming the Mexican energy sector and his new administration appears committed to follow-through on that promise. The political will to reform is evident; it is less clear whether President Peña Nieto will garner sufficient support within his Institutional Revolutionary Party (PRI), including overcoming possible union opposition, to pass meaningful reform.

Having achieved incremental energy reforms in 2008, the now opposition National Action Party (PAN) leadership appears poised to support broader oil and natural gas reform if offered by the PRI. Previously, some observers had raised concern that the PAN may hinder reform, as the PRI had done under the Calderón administration, to frustrate the new Presidential administration. In addition, some interlocutors indicated that the leftist Revolutionary Democratic Party (PRD) could attempt to undermine oil sector reform, including by staging public demonstrations against any initiative. While the general contours of political distinctions can be surmised even now, the exact lines of debate will be determined only when the government offers the actual scope of their proposed reform initiative.

It is evident that the current government budgetary reliance on PEMEX makes it extremely difficult to leave more capital within the company to make necessary investments. That will be all the more difficult since President Peña Nieto has made several campaign promises related to expansion of the social safety net in Mexico. Reportedly, for example, President Peña Nieto will reduce PEMEX's 2013 budget by over a billion dollars compared to expectation. If it is to come, financial autonomy for PEMEX will likely have to be tied with government fiscal reform measures.

It is extremely likely that President Peña Nieto will pursue oil sector reform. Enabling PEMEX to engage in joint, risking-sharing oil development operations is thought to be an essential goal of likely legislative proposals pursued by the Peña Nieto administration, and may be joined by liberalization in chemicals, refining, and related downstream activity. At the time of the authors' visit, opinion varied on whether the administration's reform goals could be accomplished legislatively or if constitutional amendment would be required, although the latter is conventional wisdom.[8] That choice may ultimately be resolved by vote counting. As a senior PRI leader said: "we have the will [for Constitutional amendment], but we are not sure if we have the votes."

Transboundary Agreement

The Transboundary Agreement (TBA) provides a bilateral basis upon which both countries can develop the legal framework necessary for joint production of oil and natural gas reserves that extend across our national maritime borders in the Gulf of Mexico.

Secretary of State Hillary Clinton and Mexican Minister of Foreign Affairs Patricia Espinosa Cantellano signed the Transboundary Agreement (TBA), officially called the Agreement between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico, on February 20, 2012, at Los Cabos, Mexico (see Appendix I for the text of the agreement). The Mexican Senate ratified the agreement on April 12, 2012, but the Obama administration has not formally submitted the agreement for passage in the U.S. Congress.

The TBA was negotiated pursuant to the 2000 Treaty on the Continental Shelf, which called for the U.S. and Mexico to establish a mechanism that transboundary oil and gas reserves would be shared equitably. At the time, concern that companies would drain Mexican reserves from the U.S. side of the border was, reportedly, a hot button political issue in Mexico. Upon conclusion of the 2000 Treaty, the U.S. put a moratorium on oil and gas exploration on the U.S. side of the maritime border.

It is widely acknowledged in both capitals that the TBA negotiations moved quickly in order to be completed in time for the ratification in Mexico prior to 2012 Congressional elections. Both PAN and PRI political leaders used their influence to gain support for the TBA, which the Mexican Senate ratified.

In the United States, the TBA stalled within the Obama administration despite support by key officials in the Departments of State and Interior. Prior to completing the agreement, the Departments of State and Interior participated in Senate Foreign Relations Committee briefings to discuss status of the negotiations; however, there was no consultation on specific text. The SFRC Minority Staff appreciated candid assessments offered by lead U.S. negotiator Ambassador Richard Morningstar.

The Obama administration has not taken a position on the key question of whether the TBA is a treaty or an executive agreement, although the latter seems the administration's more likely preference. A treaty would be reviewed by the Senate Foreign Relations Committee and require the advice and consent of the Senate, demanding a two-thirds vote, for approval. As part of the treaty process, the resolution of ratification would be reviewed and amended in order to provide Congressional understandings on issues left unclear by the text of the TBA itself. Additional implementing legislation affecting the Department of Interior would also be required and need review by its committees of oversight.

An executive agreement would not require the two-thirds vote necessitated by a treaty, but instead it would be approved in the same form as a statute, requiring passage by majority in both the Senate and the House of Representatives. Legislation approving the agreement, necessary implementing authorities, and clarifications regarding certain provisions of the TBA could be subject to amendment, including by items unrelated to the TBA itself, thus possibly miring the TBA in other political fights.

Regardless of whether Congress considers the TBA as a treaty or executive agreement, Congressional hearings and thorough examination of the TBA and its implementing legislative proposals are needed. So far the Obama administration has declined to officially submit its proposed implementing legislation to the committees of jurisdiction for action through regular order.

Congress has a duty and interest in overseeing international agreements. That holds for the TBA since several provisions of the TBA invite scrutiny and clarification, even as the overall agreement is in the interests of the United States.[9] For example, TBA Article 16 establishes an "expert determination" that is binding whereas Article 17 establishes an arbitration mechanism without specifying whether the arbitration is binding. Both provisions could impact U.S. federal revenues, among other issues. In another example, the TBA is intended to improve environmental and safety protections, but the plain language makes no such guarantee. Article 19, for example, instructs adoption of common standards, but that could mean effectively lowering U.S. standards in the border region if the Interior Secretary is given unrestricted authority to implement that section.

Why the TBA Matters

The centerpiece of the TBA is the mandate to establish so-called "unitization" agreements by which companies licensed by the United States and Mexico's state oil company PEMEX would jointly develop oil and gas reservoirs that have been discovered to extend across the maritime boundary. In effect, unitization agreements would work similarly to more well-known production sharing agreements (PSAs), whereby companies involved will jointly develop a project in order to spread risk given that deep water developments will cost billions of dollars each.

Given PEMEX's lack of experience in deep water, the most likely outcome is that IOCs licensed by the United States would operate the developments and utilize infrastructure based on the United States side of the border, which is more extensive than that of Mexico near to the area of operation. However, the United States does have an interest in PEMEX gaining expertise in operation in deep water in order to improve the integrity of potential PEMEX operated developments exclusively in Mexican territory.

A key difference between the unitization agreements envisioned under the TBA and traditional PSAs is that physical barrels produced will be allocated to the legal jurisdictions of the United States and Mexico, presumably in proportion to the amount of reserves found on their respective sides of the border. The Mexican barrels, presumably, will be property of PEMEX as a state entity and the U.S. barrels will be treated under standard terms of U.S. licensing in the Gulf of Mexico.

It is unlikely that, from the U.S. perspective, the TBA will meaningfully increase U.S. domestic oil production in the near term. The maritime border area is deep water and would require massive investments. Such investments are possible and should be encouraged by the U.S. government, however, it will take years to get through regulatory hurdles and normal project development needs. However, the TBA would unlock the maritime border region from moratoria, thereby offering long-term opportunities to increase U.S. domestic production. The TBA should be seen as a net positive to helping reduce U.S. dependence on imports from troublesome regions and boosting domestic economic activity, and therefore the TBA should be viewed as a benefit for U.S. energy security.

Benefits of physical barrels of oil produced are potentially much greater in relative importance on the Mexican side of the border, which is experiencing decline in key fields, and that would be substantially beneficial to U.S. interests in Mexican economic growth. As discussed above, Mexico needs new oil production. Developing deep offshore production would help diversify the Mexican oil portfolio, providing economic benefit to the Mexican state whether that oil is sold for export markets or used domestically. Moreover, having IOCs working with PEMEX to boost domestic Mexican production will provide useful commercial opportunities and, importantly, boost confidence that Mexico will have significant oil available to export to the United States. As a reliable, proximate, and friendly neighbor, Mexican oil imports support U.S. energy security.

The TBA contains numerous provisions in anticipation of disputes on allocation of resources under a unitization agreement and implementation of those agreements. Legal analysis of these provisions is beyond the scope of this report. However, it is apparent that lack of clarity on the legal status of the dispute resolution mechanisms should be of concern to the U.S. Congress. The Obama administration contends that the agreement's arbitration mechanism is not intended to produce binding decisions, however, that is not specifically provided for in the text of the agreement and would be different from arbitration mechanisms in many other international agreements.

The TBA further contains requirements of data sharing and notification of likely reserves between the United States and Mexico, opening the opportunity for increased government-to-government collaboration on strategic energy policy choices. Mexico and the United States are relatively less advanced in effective communication and linkages of our energy systems than we are in less politically-controversial economic areas. Improved ties can improve understanding and galvanize cooperation in often unexpected ways. In the immediate term, closer oil sector communication will be beneficial in case of accidents in the Gulf of Mexico or in case of significant disruptions to global oil supplies.

On issues of environmental protection and safety, the TBA envisions that the U.S. and Mexico in the geographic area under the agreement will have common standards and that regulators from both countries will have access to oil and gas development facilities with the ability to order shutdowns in both jurisdictions if necessary. The Obama administration contends that means that Mexican environmental and safety standards, and enforcement, will have to rise to U.S. levels. There is no guarantee that passage of the TBA will precipitate systemic improvement in Mexican environmental and safety enforcement, but any improvement is welcome by the Mexican safety regulator and should be welcomed in the United States given possible impacts of a spill on U.S. economic interests and quality of life.

Perhaps the most important U.S.-specific benefits of the TBA are three-fold.

First, the TBA will, for the first time, allow U.S.-listed IOCs to work in partnership with PEMEX, not including service contracts. Many observers are optimistic that the TBA is the metaphorical camel's nose under the tent, paving the way to broader reform in Mexico. There is no guarantee of such an outcome, however, failure for the U.S. to approve the TBA may put a drag on Mexican domestic energy reform momentum. The TBA helps demonstrate that Mexico's oil patrimony can be protected in a joint production regime with U.S. companies. It was suggested by some senior officials that passage of the TBA could help prompt broader domestic energy reform in Mexico.

Second, it is unlikely that the U.S. maritime border areas would be developed without the TBA, whereas a PEMEX official indicated desire to begin exploration on the Mexican side of the border. Potential U.S. opponents of the TBA may argue that given PEMEX's limited ability to explore in deep water, the real effect of the TBA will be to reduce IOCs' competitive advantages. In other words, the opposition argument could state, the U.S. should simply move forward with exploration since our companies have the capital and technology to move more quickly than PEMEX. That criticism neglects the reality that, over the long-term, the IOCs have a greater interest in investing throughout Mexican territory than they do in a sliver of U.S. area along the maritime border. Therefore, those IOCs would not risk enraging the Mexican government by, potentially, draining Mexican resources from U.S. territory. Thus, U.S. interests in increased safe and secure domestic oil production along the border will be best met with the TBA.

Finally, passage of the TBA would boost U.S.-Mexico relations on energy issues, which have traditionally lagged. Mexican officials roundly expressed support for the TBA and expectation for U.S. ratification in conversation with the authors. The political impact of not approving and implementing the TBA would set back U.S.-Mexican relations on energy specifically and more broadly. Each of our countries has hot button domestic political issues that take courage for political leaders to address. In Mexico, oil is one such issue, and members of both the PAN and PRI put their political weight behind ratification in Mexico. The U.S. not fulfilling its side of the agreement would, therefore, be seen as a violation of trust and could erode confidence. In the extreme, although unlikely, if Mexico proceeds with domestic energy reforms, U.S. companies could be shut out of certain opportunities until the TBA is ratified. However, bilateral benefits of approving the agreement do not require immediate passage; U.S. commitment can be demonstrated by the Obama administration formally submitting the TBA for Congressional approval and commencement of Congressional hearings.

There is reason to believe that the TBA can receive broad bipartisan backing in Congress. It would benefit bilateral relations, promote domestic oil production, and improve environmental protections in the Gulf of Mexico. Following normal Congressional procedure to ensure the agreement is vetted and implementing legislation is reasoned will benefit each of those goals. External proponents of the TBA will need to increase communication and advocacy to improve the likelihood of Congressional leaders acting on the agreement in the 113th U.S. Congress.

North American Energy Security

The United States and Canada are radically transforming global energy markets. Unconventional oil and natural gas has led to a renaissance in North American energy production. Alongside continued growth in renewable fuel and power sources and energy efficiency, the continent is poised to be functionally self-sufficient in energy. Mexico should be invited to join in the U.S.-Canada driven resurgence.

The impacts of the North American oil and gas powerhouse reach beyond energy markets. Low-priced American natural gas is encouraging job creation, industrial growth, and new trade opportunities. Increasing U.S. domestic oil production and trade with Canada will keep more American dollars at home. Regimes that use their oil and natural gas riches for intimidation and coercion, such as Venezuela and Russia, are seeing their petro-fueled power eroded.

Affordable and reliable energy supplies are critical to job creation and quality of life for citizens of the United States and for our allies Canada and Mexico. North America has long been a global leader in energy innovation, production, and market promotion. The geographical proximity of our industrial and population centers with our resource basins, integrated supply and transport chains across borders, and cultural closeness of our peoples has encouraged steadily increasing coordination and integration of North American energy, transport, and related infrastructure.

Maximizing the potential for oil and natural gas to promote economic growth and security across the continent will require continual improvement in policy communication, infrastructure rationalization, and regulatory harmonization between the U.S., Canada, and Mexico. Canada and the U.S. have largely integrated energy systems, but fissures over the Keystone XL pipeline approval process is an example of the need for even greater regulatory coordination. Comparatively, U.S.-Mexico energy coordination and integration is well behind.

Power sector reforms prompted by NAFTA demonstrate that a trilateral effort can have major results. Most importantly, key leaders from both the PRI and PAN in Mexico City are interested in making progress. Recently, President Peña Nieto wrote: "Together with the United States and Canada, [energy shifts] may well contribute to guaranteeing North American energy independence—something from which we would all greatly benefit." [10]

RECOMMENDATIONS FOR ENHANCING U.S.-MEXICO BILATERAL COOPERATION

U.S.-Mexico bilateral cooperation has improved dramatically in the last 5 years. Mexican sensitivities regarding their sovereignty are still present in government dealings. But today they don't prevent bilateral cooperation, as they did in the recent past. As evidence in this regard, we have seen a significant increase in Mexico's efforts to institutionalize and even expand cooperation among both civilian and military officials.

The willingness to improve Mexican cooperation with the United States is partly due to the trust developed through the successful partnership the U.S. and Mexican governments have built while working against drug trafficking organizations. The $1.9 billion Mérida Initiative through which the United States provides equipment, training, and technical assistance to support the Mexican government's battle against the narcotics trade and transnational crime has created a platform for greater bilateral cooperation.

Today, our two nations work closer than ever before. Yet, there are still new areas in which the bilateral relationship should improve. Interlocutors both from the then-existing Calderón administration and senior advisers to then-incoming Peña Nieto administration expressed a similar desire to expand cooperation in the bilateral relationship. One senior member of the then-incoming Peña Nieto administration expressed that it is time to move beyond tourism and drugs, issues which are so prominent in the bilateral agenda today.[11] Of course, the development of a contemporary, comprehensive immigration policy ranks high when broadening the agenda is discussed.

The U.S. is well positioned to increase dialogue and cooperation on energy security with Mexico (included in renewable power and efficiency, which were not part of this review, but which are areas where cooperation can move forward without significant political obstacles from the Mexican side). Key recommendations include:

1. *The U.S. should approve the Transboundary Agreement.* The Obama administration should formally submit to Congress proposed implementing legislation and/or resolution of ratification for the Transboundary Agreement and request Congressional review through regular order. Congress should then quickly establish a timetable for consideration of that proposal and approval of the TBA.
2. *The State Department should integrate oil and natural gas development into the bilateral agenda.* U.S. Embassy officials are well-versed in energy concerns. The commercial service is already active in promoting business relationships, and some agencies are building technical relationships. The newly established Energy and Natural Resources Bureau at the State Department is ably led by a former Ambassador to Mexico, Carlos Pascual, and the bureau is well-equipped to lead broad U.S.G. cooperation in areas such as shale gas, transparency, trade, supply emergency coordination, demand management, and infrastructure integration should the Government of Mexico wish to work with the United States.
3. *The State Department should encourage Mexico to partner in unconventional natural gas issues.* Mexico's tremendous shale gas potential offers it opportunity for local job creation, economic growth, and gains in its balance of trade. For the U.S., Mexican development of its shale could offer valuable commercial opportunities, produce additional valuable liquids, and strengthen North America's position in global markets. The State Department's Unconventional Gas Technical Engagement Program is a ready vehicle for improved cooperation.
4. *The administration should encourage Mexican adoption of international revenue transparency norms.* The Pẽna Nieto administration has identified the need for increased government transparency and anti-corruption as a priority issue area across the government. The energy sector is not immune from public suspicion, but it is perhaps more complicated because any reform meant to bring international oil company investment must also overcome suspicion of the companies themselves, ingrained since nationalization of the industry decades ago.

   An opportunity to directly build confidence in both the government and potential IOC investors would be for the Mexican Government to institute strong oil and natural gas revenue transparency measures. Public disclosure of revenues received by the government from IOCs and PEMEX allow citizens to better understand budgetary pressures on the government and demonstrate the value that Mexicans receive from IOC investment. Some countries have also found that revenue disclosure also presents useful checks and balances between ministries and can help improve tax collection.

Under the Cardin-Lugar Amendment, Section 1504 of the 2010 Dodd-Frank Act, IOCs would already have to disclose payments with the U.S. SEC if they invest in Mexico (PEMEX itself is not covered since it is 100% state-owned and operating only within Mexico). Internalizing that process domestically within Mexico would compound benefits with essentially no additional cost to IOCs. Additionally, Mexico could work with the voluntary Extractive Industries Transparency Initiative (of which PEMEX is a supporting company) to build capacity and confidence with civil society and industry.

5. *Further enhancing U.S.-Mexico offshore safety coordination should be a priority for the Obama administration.* An oil spill in the Gulf of Mexico is not contained by international boundaries, and the U.S. coast is particularly at risk given circulation patterns.

   Mexico is poorly prepared to enforce offshore safety, which would be of particular concern for U.S. coastal communities if large scale oil operations are developed in areas of Mexico close to the maritime border (as have been recent deep water discoveries). Comisión Nacional de Hidrocarburos (CNH), a Mexican safety regulator created in 2008, has only 60 employees and, at the time of authors' visit, had not received scheduled budget increases from the Finance Ministry. Most troublingly, CNH has not conducted a single offshore platform inspection. As a senior official stated, "We are running safety risks because of under investment in this agency [CNH]."

   Mexico's CNH and the U.S. Department of Interior's Bureau of Safety and Environmental Enforcement should enhance cooperation, including U.S. technical and logistical support for CNH-led inspections of Mexican offshore facilities, with reciprocal visits to U.S. facilities. Reciprocal visits will be particularly beneficial to build relationships between CNH and IOCs. The TBA offers one avenue to pursue such an arrangement, but this could directly be accomplished on an accelerated timeline given eagerness of CNH leadership.

6. *The State Department should offer technical assistance in pipeline security.* Theft of oil is a growing concern and can form a dangerous intersection with widespread security concerns related to criminal networks. In 2011, PEMEX detected 1,324 illegal taps. Approximately 3.35 million barrels were stolen that year, up a third from 2010, and costing PEMEX over a billion dollars.

7. *With Canada, invite Mexico to join a standing process for North American energy security planning.* Inevitable changes in Mexico's oil portfolio are significant for North American infrastructure planning. The most obvious change is in volume of oil. Yet, the type of oil is also likely to change. Large new deep offshore discoveries contain lighter oil than Mexico's conventional heavy Mayan product, whereas U.S. Gulf Coast refinery capacity is equipped with coking capacity for the heavier oil. If future Mexican exports are likely to be lighter than they have

been previously, then investments in Gulf Coast refineries and infrastructure to connect U.S. and Canadian refineries will likely reflect that reality.

Numerous trilateral initiatives have been focused on energy or included energy as a component part. With shifts already underway in U.S. and Canadian oil and natural gas production, and the high potential of Mexico, communication on energy security planning should be enhanced and formalized in frequent consultations. Consistent with each of their domestic planning, the U.S., Canada, and Mexico could jointly analyze resource availability, infrastructure needs, and regulatory needs to pursue mutually-beneficial strategic planning for North American energy.

To conclude, the potential benefits of the United States and Mexico working more closely on their respective national energy goals has never been higher. For the United States, thoroughly understanding Mexico's oil prospects is also vital for our energy security outlook. Mexico's energy future is in the hands of Mexicans. The United States can and should talk plainly, as a friend, and offer our robust partnership.

NOTES:

[1] The authors thank Clare Seelke, Curry Hagerty, Marc Humphries, and Angeles Villarreal of the Congressional Research Service for their background research. The authors also thank R. Chris Davy at the U.S. Embassy in Mexico City for his support of the staff delegation.

[2] Total U.S. imports have been trending downward since 2005, but imports from some countries are rising. In 2011, the U.S. consumed on average 18.8 million barrels of oil each day, down 2 million barrels from 2005. Despite that positive trend, the U.S. oil trade balance continues to worsen given increased global prices. U.S. Oil Imports and Exports, Neelesh Nerurkar, Congressional Research Service, April 2012.

[3] Mexico's oil and natural gas challenges are the subject of extensive commentary and scholarship. The authors recommend, for example, work by Lourdes Melgar of the EGADE Business School, Duncan Wood of ITAM, Miriam Grunstein of CIDE, and the Oil in Mexico series led by Amy Myers Jaffe of Rice University in partnership with the University of Oxford.

[4] Mexico Country Analysis Brief, United States Energy Information Administration, July 2011.

[5] Gasoline subsidies were reduced during the Calderón administration, but the overall cost of subsidy has risen given increased global oil prices.

[6] U.S. energy service contract companies are already active in Mexico.

[7] Given the political sensitivities of energy reform in Mexico, this SFRC report is only characterizing prospects for reform, not details. SFRC Members and staff wanting more detail should consult with Neil Brown or Carl Meacham.

[8] Article 27 of Mexico's constitution limits upstream ownership of hydrocarbons.

[9] The authors recommend that Committee Members and staff consult with SFRC Minority Staff Chief Counsel Michael Mattler.

[10] "U.S., Mexico should build on their economic ties," President Enrique Peña Nieto The Washington Post, November 23, 2012.

[11] Often underappreciated is that Mexico is the second largest trading partner of the United States with bilateral trade totaling $460 billion in 2011, up 16% over the previous year.

Appendix I.— Text of the Agreement between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico

The United States of America and the United Mexican States (hereinafter, "the Parties");

Considering that the maritime boundaries between the Parties were delimited by the Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and Colorado River as the International Boundary signed on November 23rd, 1970 (hereinafter, "the 1970 Treaty") and the Treaty on Maritime Boundaries between the United Mexican States and the United States of America signed on May 4th, 1978 (hereinafter," the 1978 Treaty on Maritime Boundaries");

Recalling that the continental shelf in the Western Gulf of Mexico beyond 200 nautical miles was delimited by the Treaty between the Government of the United Mexican States and the Government of the United States of America signed on June 9th, 2000 (hereinafter, "the 2000 Treaty on the Continental Shelf");

Bearing In mind that the 2000 Treaty on the Continental Shelf recognizes the possible existence of hydrocarbon reservoirs that may extend across the continental shelf boundary established in that Treaty;

Recalling also that Article 5, paragraph 1, subparagraph (b) of the 2000 Treaty on the Continental Shelf provides that the Parties shall seek to reach agreement for the efficient and equitable exploitation of such transboundary reservoirs;

Desiring to establish a legal framework to achieve safe, efficient, equitable and environmentally responsible exploitation of transboundary hydrocarbon reservoirs that may exist along the maritime boundaries established between the United Mexican States and the United States of America in the Gulf of Mexico;

Recognizing principles that promote equitable and reasonable utilization of transboundary resources, and desiring to maximize the long term benefits from their exploitation, as well as to protect the resources of both Parties; and

Recognizing that this framework is intended to encourage the establishment of cooperative arrangements based primarily on principles of unitization, and further recognizing that additional cooperative arrangements may be developed outside of the framework of this Agreement and that such arrangements may also promote efficient, equitable, and environmentally responsible exploitation of transboundary reservoirs,

Have agreed as follows:

CHAPTER 1

GENERAL PRINCIPLES

Article 1

Scope

This Agreement shall apply to cooperation between the Parties with regard to the joint Exploration and Exploitation of geological Hydrocarbon structures and Reservoirs that extend across the Delimitation Line, the entirety of which are located beyond 9 nautical miles from the coastline.

If any provision in this Agreement would require a Party to alter the terms of any License existing as of the date of the last notification provided under Article 22, such provision shall not apply in such case. Notwithstanding the foregoing, the Parties recognize that It Is in their interest that such Licenses be subject to all terms of this Agreement, and shall undertake good faith efforts to bring those Licenses under this Agreement.

Article 2

Definitions

For the purposes of this Agreement:

"Confidential Data" means any information or data, including Geological Information, of any type, kind or character, whether written or oral, disclosed by one Party to the other that Is not publicly available and which Information or data has been identified by the disclosing Party as confidentlaI;

"Construction and Operation" means the fabrication, Installation, laying, use, modification, maintenance, repair and decommissioning of Facilities and/or Pipelines;

"Delimitation Line" means the maritime boundaries In the Gulf of Mexico delimited in the 1970 Treaty, the 1978 Treaty on Maritime Boundaries and the 2000 Treaty on the Continental Shelf, and any future maritime boundary in the Gulf of Mexico delimited between the Parties, as agreed;

"Development" means those activities that take place following discovery and delineation of commercial quantities of Hydrocarbons, including, but not limited to, geophysical activities, drilling, platform design, fabrication and transportation, and installation of all Facilities, whether onshore or offshore, surface or subsea, and which are for the purpose of producing the discovered Hydrocarbons, whether on or off the Unit Area, excluding any activity related to Exploration or Production;

"Executive Agency" means the Agency of the Party designated to carry out the functions specified in this Agreement, as each Party may designate from time to time;

"Expert Determination" means the resolution of a dispute by an expert in accordance with Article 16 of this Agreement;

"Exploitation" means Development, Production, and all associated activities, including, but not limited to, workover, servicing, completion, maintenance, and decommissioning of wells in a Transboundary Unit, including treatment and processing of gas or liquids from and/or the injection, reinjection or storage of any substance used for or derived from the aforementioned processes;

"Exploration" means the search for Hydrocarbons Including, but not limited to, activities such as: (1) geological and geophysical marine and airborne surveys where magnetic, gravity, seismic reflection, seismic refraction, gas sniffers, coring, or other systems are used to detect or Imply the presence of Hydrocarbons; and (2) any drilling conducted for the purpose of searching for commercial quantities of Hydrocarbons or needed to delineate any Reservoir to decide whether to proceed with Development and Production;

"Facility" means any equipment, infrastructure or installation used for Exploration or Exploitation including, but not limited to, drilling vessels, fixed or floating platforms, platform installed drilling rigs, floating production systems, storage units, flotels, surface or seafloor well heads, Intra-field gathering Pipelines, Intra-field cables, and all the accessories necessary for well drilling, well logging, well intervention, well repair and well testing and includes any vessel used to transfer production from an offshore facility while it Is physically attached to the Facility;

"Facilities near the Delimitation Line" means any Facility under the jurisdiction of either Party within a distance of 15 statute miles from the Delimitation . Line or further for transboundary Pipelines, but excluding supply and support vessels;

"Geological Information" means geological, geophysical or geochemical Information and data resulting from Exploration or Exploitation, including, but not limited to, Information from drilled wells and interpretations derived from such data, and which, subject to its national law, may be disclosed by a Party.

"Hydrocarbon" means all oil and natural gas, regardless of form, including any mixture thereof, existing in or derived from natural strata;

"Hydrocarbon Occurrence near the Delimitation Line" means a detection of Hydrocarbons during drilling operations within 3 statute miles on either side of the Delimitation Line;

"Inspector" means any person authorized by the competent authority of either Party to carry out inspection activities relating to:

(a) the Construction and Operation of Facilities related to a Transboundary Unit;

(b) any metering system relating to production associated with a Transboundary Unit;

(c) health and safety; or

(d) protection of the environment.

"License" means the authorization issued by an Executive Agency to carry out Exploitation or Exploration In a given area, and for the Construction and Operation of a Facility. The term License Includes a "lease" issued by the U.S. Executive Agency;

"Licensee" means any person or entity holding a License;

"Permit" means any permit, authorization, consent or approval issued under the law of either Party, relating to the Exploration or Exploitation of Hydrocarbons and/or the Construction and Operation of Facilities and/or Pipelines;

"Pipeline" means a continuous conduit, complete with such equipment as valves for flow control, transmission platforms, compressor stations, and communications systems, for transporting Hydrocarbons, produced waters or other fluids and gases from one point to another, usually from a point in the producing field or processing plant to another Pipeline or to points of utilization or storage;

"Production" means those activities, excluding Exploration and Development activities, for the removal of Hydrocarbons from a Transboundary Reservoir, including, but not limited to, treatment and processing of Hydrocarbons or other substances, the injection, reinjection or storage of any substance used for or derived from such activities, enhanced Hydrocarbon recovery activities, transfer and export of Hydrocarbons to shore, and all operations associated with well intervention, repair, maintenance, servicing, re-completion, and workovers;

"Reservoir" means a single continuous deposit of Hydrocarbons in a porous and permeable medium, trapped by a structural or stratigraphic feature;

"Transboundary Reservoir" means any Reservoir which extends across the Delimitation Line and the entirety of which is located beyond 9 nautical miles from the coastline, exploitable in whole or in part from both sides of the Delimitation Line;

"Transboundary Unit" means a single geological Hydrocarbon structure or Reservoir which extends across the Delimitation Line the entirety of which is located beyond 9 nautical miles from the coastline, approved by the Executive Agencies for joint Exploration and/or Exploitation pursuant to the terms of a unitization agreement;

"Unit Area" means the geographical area described in a Transboundary Unit, as set out in the unitization agreement; and

"Unit Operating Agreement" means an agreement made between the Licensees and the unit operator that, among other things, establishes the rights and obligations of the Licensees and the unit operator including, but not limited to, the allocation of costs and liabilities incurred in and benefits derived from operations in the Unit Area.

Article 3

Jurisdiction

Nothing in this Agreement shall be interpreted as affecting the sovereign rights and the jurisdiction which each Party has under international law over the continental shelf which appertains to it.

Article 4

Activity Near the Delimitation Line

1. Within 90 days following the entry into force of this Agreement and annually thereafter, the Parties shall consult on Exploration and Exploitation activities carried out within 3 statute miles of the Delimitation Line. Such consultation shall include the exchange of all relevant and available Geological Information associated with and derived from such activities.

2. Notwithstanding the consultation set forth in paragraph 1 of this Article, and subject to its national law:

a. if either Party is aware of the likely existence of a Transboundary Reservoir, that Party shall provide written notice to the other Party within 60 days of the date on which such Party became aware of such likely existence;

b. if either Party has approved or its Licensee has submitted for approval a plan for the collection of seismic data in an area within 3 statute miles of the Delimitation Line, that Party shall provide written notice of such plan to the other Party within 30 days of the submission and, as applicable, approval of such plan;

c. if either Party has approved or its Licensee has submitted an exploration plan applicable to an area within 3 statute miles of the Delimitation Line, that Party shall provide written notice to the other Party within 60 days of the submission and, as applicable, approval of such plan;

d. if either Party is aware of a Hydrocarbon Occurrence near the Delimitation Line, that Party shall provide written notice to the other Party within 60 days of the date such Party becomes aware of such Hydrocarbon Occurrence;

e. if either' Party's Licensee has submitted a plan to drill a well, the wellhead or borehole any portion of which will be within 3 statute miles of the Delimitation Line, that Party shall provide written notice of such fact to the other Party within 30 days of the date such Party becomes aware of such plan; and

f. if any Licensee has submitted a plan for the Development or Production of an area within 3 statute miles of the Delimitation Line, the receiving Party shall provide such plan to the other Party within 30 days of the acceptance of the submission by the receiving Party of such plan.

Article 5

Determination of Transboundary Reservoirs

1. Within 30 days following receipt of a communication under paragraph 2 subparagraphs a or d of Article 4, the Parties, through their Executive Agencies, shall initiate consultations with a view to determine whether a Transboundary Reservoir exists. ThExecutive Agencies shall request their Licensees to provide all Geological Information relevant to such de-

termination and shall submit to each other all available Geological Information in their possession.

2. If the Parties have not reached a determination on the existence of a Transboundary Reservoir within 60 days of the deadline for initiating consultations in paragraph 1 of this Article, either Executive Agency may submit the issue to the Joint Commission.

3. During the consultations referred to in paragraph 1 of this Article and the pendency of further proceedings under Articles 14 through 17 of this Agreement, the relevant Executive Agency shall, subject to its national law, deliver quarterly reports to the other Executive Agency on Exploration and Exploitation activities or operations carried out by Licensees within its jurisdiction in relation to the potential Transboundary Reservoir.

CHAPTER 2

EXPLORATION. AND EXPLOITATION OF A TRANSBOUNDARY RESERVOIR OR UNIT

Article 6

Unitization Agreement

1. Any joint Exploration and/or Exploitation of a Transboundary Reservoir or Unit Area pursuant to the terms of a unitization agreement must be approved by the Parties. Such joint Exploration and/or Exploitation shall be conducted pursuant to the terms of a unitization agreement negotiated and proposed by the Licensees and approved by the Executive Agencies. The Executive Agencies should develop one or more model unitization agreements for use under this Agreement.

2. The unitization agreement shall include, Inter alia:

a. The identification of the limits of the Unit Area and that of any Transboundary Reservoir;

b. The Identity of the Licensees and their respective participating interests;

c. The methodology used to calculate the allocation of production;

d. A development plan for the Exploration or Exploitation of the Unit Area, including the estimated number and timing of wells, and a mechanism for delivery and approval of subsequent changes to such plan;

e. The effective date and term of the unitization agreement;

f. The Identity and appointment of the unit operator, the process for resignation and removal of the unit operator, and the process for appointment of a successor unit operator;

g. Provisions regarding the transfer of interests;

h. Provisions for an accurate measurement of production;

i. Procedures for ensuring accurate payments of royalties and other proceeds;

j. Safety and environmental measures to be taken under the national laws of each Party;

k. Provisions for appropriate information sharing between the unit operator and each Party;

l. Procedures for the redetermination of the allocation of production, including a. timetable or the events that trigger such redetermination.

3. Each Party shall require that, together with the submission of a proposed unitization agreement, its Licensee or the Licensees acting together through the unit operator, shall provide all available data required by a Party in order for it to review the proposed unitization agreement, and each Party shall ensure that such files and data are available to the other Party.

4. Each Executive Agency shall approve, approve with modifications or reject the proposed unitization agreement within 120 days of its receipt. Either Executive Agency may extend this period, provided that the total additional period for consideration shall not exceed 120 days. If after the end of the latest period applicable for consideration by an Executive Agency either Executive Agency has not approved, approved with modifications, or rejected the proposal, the unitization agreement shall be deemed to be rejected. At any point during the period contemplated under this paragraph either Executive Agency may refer the issue to the Joint Commission for its consideration within the remaining portion of the period.

5. Any amendment to an approved unitization agreement shall be subject to approval by the Executive Agencies. Each Executive Agency shall approve, approve with modifications or reject any proposed amendment within 30 days of its receipt. Either Executive Agency may extend this period provided that the total additional period for consideration shall not exceed 30 days. If after the end of the latest period applicable for consideration by an Executive Agency either Executive Agency has not approved, approved with modifications, or rejected the proposal, the unitization agreement shall be deemed to be rejected. At any point during the period contemplated under this paragraph either Executive Agency may refer the issue to the Joint Commission for its consideration within the remaining portion of the period.

Article 7

Management of a Transboundary Reservoir Prior to the Formation of a Transboundary Unit

1. If it is determined as a result of consultations pursuant to paragraph 1 of Article 5 or following further proceedings under Articles 14 to 17 of this Agreement that a Transboundary Reservoir exists, and a unitization agreement has not been approved by the Parties, each Party shall take steps to facilitate Exploitation of the Transboundary Reservoir as a Transboundary Unit. Such facilitation shall include a prohibition by each Party on the commencement of production of such Transboundary Reservoir for a period from the date of de-

termination of the Transboundary Reservoir to the end of the final period for consideration contemplated in paragraphs 2 through 5 of this Article, as applicable. If production of a Transboundary Reservoir has already commenced, the relevant Party shall take steps it deems appropriate under national law to provide that ongoing production does not unduly prejudice implementation of this Agreement.

2. If, six months following the date of determination of a Transboundary Reservoir or, alternatively, an earlier date on which the relevant Licensees have each notified the Executive Agencies that they have decided not to enter into a unitization agreement or a subsequent date agreed by the Executive Agencies in order to provide additional time for the Licensees to pursue a unitization agreement, a unitization agreement has not been approved:

a. each Party shall require its Licensee, within 60 days, to submit a proposed unitization agreement and associated Unit Operating Agreement to each Executive Agency; and

b. the Executive Agencies shall, within 30 days, jointly determine an estimate of the recoverable Hydrocarbons in the Transboundary Reservoir, under the original conditions of such Reservoir, on each side of the Delimitation Line, and jointly determine the associated allocation of production.

3. If the Executive Agencies are unable to reach the determination set out in paragraph 2 subparagraph b of this Article, such determination shall be referred to Expert Determination.

4. Following the receipt of both unitization agreements and associated Unit Operating Agreements under paragraph 2 subparagraph a of this Article, or the expiration of such period without the receipt by the Parties of both unitization agreements, and determination of the allocation of production under paragraph 2 subparagraph b or paragraph 3 of this Article, the Executive Agencies shall have 90 days to approve one of the submitted unitization agreements and associated Unit Operating Agreement, or an alternative unitization agreement and Unit Operating Agreement developed by the Parties. If no unitization agreement and associated Unit Operating Agreement has been approved at the end of this 90-day period, the Issue shall be referred to the Joint Commission for consideration. If no unitization agreement and associated Unit Operating Agreement has been approved within 90 days of submission of the issue to the Joint Commission, Exploitation of the Transboundary Reservoir may proceed pursuant to paragraph 5 of this Article.

5. Should any Party or Licensee fail to sign a unitization agreement or Unit Operating Agreement, as applicable, approved by the Executive Agencies or the Joint Commission within 60 days of its approval, or should the Executive Agencies or the Joint Commission fail to approve a unitization agreement and an associated Unit Operating Agreement, each Party may authorize its Licensee to proceed with Exploitation of the relevant Transboundary Reservoir subject to the determination of the recoverable Hydrocarbons pursuant to para-

graph 2 subparagraph b or paragraph 3 of this Article and any plan for joint management of the Transboundary Reservoir,Including any provisions agreed governing redetermination and metering, as may be agreed between the Parties. Such plan may contain provisions for the resolution of disputes pursuant to Article 16. In the event ofsuch Exploitation, Parties will exchange production data on a monthly basis.

6. The Joint Commission shall endeavor to resolve issues related to the allocation of production of a Transboundary Reservoir not otherwise addressed in this Article.

Article 8

Allocation of Production

1. The Executive Agencies shall require the unit operator, on behalf of the Licensees and 60 days prior to the commencement of production from a Transboundary Reservoir, to initiate consultations on the allocation of production to each side of the Delimitation Line by submitting a proposal for the allocation of production for approval by the Executive Agencies to be applied from first production. The Executive Agencies shall, prior to any decision not in agreement with the proposal, jointly consult with the unit operator.

2. Each Executive Agency shall ensure that all relevant and available information from the Unit Area related to the proposal Is made available in a timely manner to the other Executive Agency.

3. If the Executive Agencies are unable to reach agreement on this initial allocation of production within 30 days from the date of the initiation of consultations In accordance with paragraph 1 of this Article, the matter shall be addressed by the Joint Commission.

Article 9

Redetermination of the Allocation of Production

1. Any redetermination of the allocation of production of a Transboundary Reservoir shall be conducted pursuant to the unitization agreement or as agreed pursuant to Article 7 paragraph 5. The Parties shall endeavor to ensure that provisions for redetermination shall provide for fair and equitable allocation of production of each Transboundary Reservoir. Such terms shall be contained in the unitization agreement and shall be applicable over its full term.

2. Each Executive Agency shall ensure that, subject to national law, all relevant and available Information related to a redetermination of allocation of a Transboundary Reservoir is made available in a timely manner to the other Executive Agency. The Executive Agencies shall, prior to any decision not in agreement with a redetermination proposal from a unit operator, jointly consult with the unit operator.

3. If the Executive Agencies are unable to reach agreement on any redetermination of the allocation of production within 60 days following the initiation of a process for redetermina-

tion as contemplated under paragraph 1 of this Article, the matter shall be addressed by the Joint Commission.

CHAPTER 3

OPERATING AGREEMENT

Article 10

Unit Operator

1. The Executive Agencies shall ensure that a unit operator for a Transboundary Unit Is designated by agreement between the Licensees. The designation or change of the unit operator shall be subject to the approval of the Executive Agencies.
2. The unit operator will act on behalf of the Licensees.

Article 11

Unit Operating Agreement

1. Each Executive Agency shall require its Licensees to enter into a Unit Operating Agreement for the Exploration or Exploitation of a Transboundary Unit In accordance with this Agreement.
2. The Executive Agencies shall require that the Licensees submit an executed Unit Operating Agreement prior to the approval of the unitization agreement.
3. In case of a conflict between the Unit Operating Agreement and the unitization agreement, the unitization agreement shall prevail, or between the unitization agreement and this Agreement, the provisions of this Agreement shall prevail.

Article 12

Facilities near the Delimitation Line

1. The Parties shall use their best efforts to facilitate cooperation between Licensees In activities related to the Exploration and Exploitation of a Transboundary Unit, including the facilitation of access to and use of Facilities near the Delimitation Line, and shall not prevent or impede such cooperation by unreasonably withholding necessary Permits.
2. The use of Facilities near the Delimitation Line may include, inter alia, access to and interconnection with a Pipeline and physical access to Pipeline capacity and, where appropriate, to Facilities supplying technical services incidental to such access.
3. The Parties shall facilitate, subject to their respective national law, access to Facilities for workers engaged in any activities related to a Transboundary Unit.

Article 13

Fiscal Terms

Income arising from the Exploitation of Transboundary Reservoirs shall be taxed in accordance with the legislation of the

United Mexican States and the United States of America respectively, as well as the Convention between the Government of the United States of America and the Government of the United Mexican States for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital, signed on September 18th, 1992, as amended (and as may be amended in the future), or any Convention superseding that Convention as the Parties may enter into in the future.

CHAPTER 4

INSTITUTIONAL ARRANGEMENTS

Article 14

Joint Commission

1. A Joint Commission shall be established no later than 90 days after entry into force of this Agreement to assist the Executive Agencies in administering this Agreement.

2. Each Party, through Its Executive Agency, shall appoint one representative and one alternate representative to the Joint Commission. Each Party may provide assistance,Including experts, to its representative as it deems necessary.

3. In exercising Its functions, the Joint Commission may establish working groups or expert groups, seek the advice of non-governmental groups or Individuals, and take such other actions as the Parties may agree.

4. The Joint Commission should endeavour to adopt its rules of procedure no later than 90 days after it Is established.

5. The Joint Commission shall be the competent body to examine any dispute or other matter referred to it by either Executive Agency relating to the interpretation and Implementation of this Agreement, or any unforeseen issues arising under this Agreement.

6. If the Joint Commission is unable within 60 days to resolve all differences concerning the allocation of production pursuant to Article 8, or the reallocation of production pursuant to Article 9,either Party may submit the dispute for Expert Determination. If the Joint Commission Is unable within 60 days to resolve all differences related to the determination of a Transboundary Reservoir pursuant to paragraph 2 of Article 5, and relevant data Is available from a well in the prospective Transboundary Reservoir on each side of the Delimitation Line, either Party may submit the dispute for Expert Determination.

7. If the Joint Commission Is unable within 60 days to resolve all differences concerning any dispute referred to It by the Executive Agencies relating to the interpretation and implementation of this Agreement that is not addressed in paragraph 6 of this Article or referred to It under paragraphs 4 or 5 of Article 6 or paragraph 4 of Article 7,either Party may resort to the dispute settlement provisions In Articles 15 or 17. The Joint Commission will have 30 days in which to consider

the final recommendation in any arbitration Instituted pursuant to Article 17. If the Joint Commission is unable to resolve any remaining differences within that time, the dispute will be returned to the Parties.

8. The Parties will refrain from action with regard to any dispute referred to the Joint Commission or to Expert Determination or dispute resolution under this Agreement where it is reasonably foreseeable that such action would prejudice the Implementation of any decision related to the dispute until the dispute resolution procedures are complete.

CHAPTER 5

SETTLEMENT OF DISPUTES

Article 15

Consultations and Mediation

1. The Parties shall make every effort to resolve any disagreement relating to the Interpretation and Implementation of this Agreement through consultations as rapidly as possible. Either Party may initiate consultations through a written request to the other Party. Unless the Parties otherwise agree, the Parties shall consult within 20 days of delivery of the request.

2. If the Parties do not resolve a disagreement that is not subject to Expert Determination within 120 days of the delivery of the request for consultations, either Party may refer the disagreement to arbitration pursuant to Article 17 within 30 days.

3. The Parties may also agree to submit any disagreement relating to the Interpretation and Implementation of this Agreement to non-binding mediation by a neutral third party In addition to, or In lieu of, the procedures set out in this Article and In Article 17.

Article 16

Expert Determination

1. The Joint Commission shall, within 180 days of the adoption of its rules of procedure, establish arrangements for the appointment of the expert and terms of engagement, including, in particular, provisions governing compensation and the protection of confidentiality.

2. In the event a dispute is submitted to Expert Determination and the Joint Commission has not established the arrangements set out in paragraph 1 of this Article:

a. each Party shall, within 30 days of the date of submission of the dispute and at Its own expense, choose an appointing expert.

b. the appointing experts shall, within 30 days, appoint the expert and determine the terms of engagement of the expert, including compensation, according to prevailing standards and strict protections of Confidential Data.

c. In such circumstances the costs of Expert Determination shall be shared equally by the Parties.

3. Each Party shall promptly provide all information In its possession, or that it has the legal authority to obtain from Its Licensees, that exists and is required by the expert in order to reach a decision.

4. The Parties shall ensure that the expert will maintain the strictest Impartiality and transparency. All communications between a Party and the expert, in any form, other than Confidential Data, shall be provided to the other Party.

5. The Parties shall provide that, within 90 days of the expert's appointment, the expert will provide a preliminary decision to the Joint Commission together with a detailed explanation of how the decision was reached. Thereafter, there will be a period of 60 days, or such other period as the Joint Commission may agree, from the date that the preliminary decision is communicated to the Joint Commission during which either Party may seek clarification and/or make further submissions to the expert for his consideration. The final determination of the expert along with a detailed explanation shall be communicated in writing to the Joint Commission within 30 days of the end ofthis period.

6. Notwithstanding paragraph 5 of this Article, the Parties shall provide that referrals to the expert under Article 7 paragraph 3 shall be resolved within 30 days of their receipt by the expert and that the expert's determination shall be provided directly to the Executive Agencies.

7. Expert Determination proceedings will be confidential. Except as required by either Party's domestic law,the Parties shall treat, and shall ensure that the expert treats, any information provided for the determination, any written and oral communications related to the determination, and both the preliminary decision and final decision as confidential.

8. Notwithstanding paragraphs 4 and 7 of this Article, upon any preliminary determination by the expert that a Transboundary Reservoir exists, all information used by the expert in reaching such determination and all information provided to the expert after such date with respect to such Transboundary Reservoir shall be provided to both Parties. Such information shall be maintained as confidential by the Parties pursuant to the terms of this Agreement, subject to national law.

9. Determinations of the expert shall be final and binding on the Parties.

Article 17

Arbitration

If any dispute regarding the interpretation and Implementation of this Agreement that is not subject to Expert Determination cannot be resolved by the Joint Commission or through consultations, either Party may submit the dispute to arbitration.

The Joint Commission shall, within 180 days of the adoption of its rules of procedure, establish an arbitration mechanism for the implementation of this Article.

CHAPTER 6

INSPECTIONS, SAFETY, AND ENVIRONMENTAL PROTECTION

Article 18

Inspections

1. Subject to applicable national law, each Party shall, under procedures to be developed and agreed under this Agreement, have the right to inspect Facilities in a Unit Area approved pursuant to this Agreement.

2. To enable Inspectors of each Party to safeguard their respective interests with respect to safety, environmental and fiscal matters, the Executive Agencies shall develop specific procedures, subject to national law, for:

(a) consultation among Inspectors of each Party;

(b) timely access to Information relevant to Inspection activities; and

(c) physical access to Unit Areas for the purpose of inspecting activities therein under a joint inspection regime, including access to metering systems, wherever located.

3. The Inspectors of each Party shall act In cooperation and consult with Inspectors of the other Party to achieve compliance with applicable safety and environmental standards.

4. An Inspector of one Party may, with regard to Facilities located in the Unit Area, request an Inspector of the other Party to exercise his or her powers to ensure compliance with the applicable safety and environmental standards and requirements whenever It appears that circumstances so warrant. In the event of any disagreement between the Inspectors of the Parties, or the refusal of the Inspector of one Party to take action at the request of the Inspector of the other Party, the matter shall be referred to the Executive Agencies.

5. If it appears that it Is necessary for the purpose of averting risk to life or serious personal injury or significant damage to the environment, and that circumstances do not permit the Inspectors to consult with the Executive Agencies, the Inspector with jurisdiction over the activities giving rise to such risk shall, as authorized under national law, order the immediate cessation of any or all operations upon the request of the other Inspector. Immediately thereafter, but not more than 4 hours following the ordered cessation of activity, the Inspectors shall notify the Executive Agencies of such action and the reasons therefore, and the Executive Agencies shall Immediately consult regarding actions necessary to address the risk. Nothing in this paragraph shall prevent the right of each Party to authorize the resumption of operations of the relevant Facilities.

Article 19

Safety and Environmental Protection

1. The Parties shall adopt, where appropriate, common safety and environmental standards and requirements applicable to activity contemplated under this Agreement. In any event, the Parties shall strive to ensure that their respective standards and requirements are compatible where necessary for the safe, effective, and environmentally responsible Implementation of thisAgreement.

2. The Executive Agencies shall develop procedures for the implementation of this Article.

3. The Parties recognize the Importance of their existing international obligations with respect to oil pollution preparedness, response, and cooperation, and are to review their Implementation of such obligations in light of the activity contemplated under this Agreement In order to ensure an appropriate framework for ongoing cooperation.

CHAPTER 7

FINAL CLAUSES

Article 20

Confidentiality

To the extent consistent with their national laws, the Parties shall maintain confidential, and obligate their Licensees to maintain confidential, all Confidential Data and other Information obtained from the other Party or its Licensees in accordance with this Agreement.

Article 21

Amendments

1. This Agreement may be amended at any time by mutual written agreement of the Parties.

2. Amendments shall enter into force in accordance with the procedure established under Article 22 of this Agreement.

Article 22

Entry into force

The Parties shall so notify each other in writing when the necessary internal procedures have been completed to bring this Agreement into force. This Agreement shall enter into force 60 days after the date of the later notification.

Article 23

Termination

1. This Agreement may be terminated by mutual written agreement or by either Party at any time upon 180 days written notice to the other Party.

2. Notwithstanding termination of this Agreement, unless otherwise agreed by the Parties:

a. the provisions of this Agreement shall continue to apply to any unitization agreement, Unit Operating Agreement, or other agreement entered into under this Agreement and in effect at the time of termination, for the duration of such agreement, and to any such agreement submitted to or otherwise under review by the Parties pursuant to this Agreement at the time of termination, for the duration of such agreement;

b. the provisions of this Agreement shall continue to govern the relationship between the Parties with respect to any unitization agreement,Unit Operating Agreement, or other agreement entered into under this Agreement and in effect at the time of termination for the duration of suchagreements;

c. the provisions of this Agreement shall continue to apply to any License issued by a Party after entry into force and prior to termination of this Agreement;

d. the provisions of this Agreement shall continue to apply to the Exploitation of any Transboundary Reservoir undertaken pursuant to paragraph 5 of Article 7; and

e. the obligations of the Parties set forth in Article 20 concerning confidentiality shall continue to apply.

3. Upon any notice provided under paragraph 1 of this Article, the Parties shall initiate consultations for the development of a new agreement to address the joint exploration and exploitation of transboundary reservoirs.

Article 24

Termination of the Moratorium on Hydrocarbon Activity in the Boundary Area in the Western Gap of the Gulf of Mexico

Upon entry into force of this Agreement, the period of any moratorium on the authorization or permitting of petroleum or natural gas drilling or exploration of the continental shelf within the boundary "Area" as established by Article 4, paragraph 1, of the 2000 Treaty on the Continental Shelf and extended by any subsequent exchanges of notes shall be terminated.

Article 25

Relationship with other Agreements

With the exception of Article 24, nothing in this Agreement shall affect the rights and obligations of the Parties with respect to other international agreements to which they are both party.

Done at Los Cabos on the twentieth day of February of two thousand and twelve, in the English and Spanish languages, both texts being equally authentic.

For the United States of America:
HILLARY RODHAM CLINTON
Secretary of State

For the United Mexican States:
PATRICIA ESPINOSA CANTELLANO
Minister of Foreign Affairs

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