The Role of Local Governments in the Energy Sector and Implications of the Energy Reform for Local Governments

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This study is dedicated to Stephen P. Zamora, our friend and colleague and one of the driving forces behind this project, who passed away before the completion of this study.
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About the Study: The Rule of Law and Mexico’s Energy Reform/Estado de Derecho y Reforma Energética en México

The 2013 changes to the constitutional framework and the summer 2014 enabling legislation in Mexico’s energy industry represent a thorough break with the prevailing national narrative as well as the political and legal traditions of twentieth century Mexico. Mexico is about to embark on an unprecedented opening of its energy sector in the midst of important unknown factors, as well as a fiercely competitive and expanding international energy market. Mexico is one of the last developing countries to open its energy sector to foreign investment, and although there are important lessons that can be learned from other countries’ experiences, this does not imply that the opening will be necessarily as successful as the government promises or that the implementation of the new laws will go smoothly. Almost certainly, after the enabling legislation goes into effect, important questions of law will emerge during the implementation, and unavoidably, refinements to the legislation will have to take place.

The book “Estado de Derecho y Reforma Energética en México,” published in México by Tirant lo Blanch and written in Spanish, is the culmination of a major research effort to examine rule of law issues arising under the energy reform in Mexico by drawing on scholars and experts from American and Mexican institutions in order to bring attention to the different component parts of the new Mexican energy sector from a legal standpoint.

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Introduction

In light of the existing problems in the Mexican energy sector, reform that would allow Mexico to transition from a monopolistic and closed energy model to an open one was urgently needed. In December 2013, the constitutional reform in energy matters was approved by the Mexican Congress. This reform was completed on August 11, 2014 with the promulgation of the secondary legislation. Currently, the reform is at the implementation stage, a period in which local governments perform a very relevant role. The purpose of this essay is to discuss the role of local governments in Northeast Mexico in the new energy sector, as well as the implications each faces as a result of the reform. This role is discussed based on a governance model for the implementation of the reform that describes the critical roles performed at this stage by the different strategic players in the northeast region (politicians, private, and civilian players), as well as the relationships of cooperation between local governments and such players.

This essay comprises six sections. The first presents a brief overview of the entities that make up the northeastern region of Mexico: Coahuila, Nuevo León, and Tamaulipas. The second section briefly reviews some central aspects in the literature regarding the implementation of public policy, based on the classic hierarchical model and the focus of governance. The third section presents and explains the governance model for the implementation of the energy reform in the northeastern region of Mexico. The fourth section discusses four implications of the energy reform on the local governments of Northeast Mexico, which will allow them to face the important challenges arising out of the reform: 1) a new tax for hydrocarbons exploration and extraction activities; 2) an ambitious package of investment projects by the federal government; 3) the requirement for companies to submit social impact evaluations for projects in the hydrocarbons and electrical industries; and 4) a national content policy within the scope of hydrocarbon assignments and contracts. This essay ends with a discussion of the role local governments in the northeastern region may assume in the energy sector based on the governance model that is proposed and an examination of the public policy implications.

Brief Overview of the Entities of Northeastern Mexico

This present text focuses on the states of Coahuila, Nuevo León, and Tamaulipas. These entities each have a score higher than the nationwide average on the United Nations Development Program’s Human Development Index. The state of Nuevo León deserves to be especially mentioned, ranked second nationwide, while Coahuila ranks sixth among Mexican states (Centro de Información de las Naciones Unidas 2015). These states also have highly developed manufacturing sectors as well as industries with a high concentration of energy consumption—among them steel, cement, glass, and chemicals. Another important characteristic is that they share a border with the state of Texas.

On the one hand, these entities have vast resources of nonconventional hydrocarbons—coal—and great potential in terms of renewable energies—mainly wind and solar power. For example, the northeastern region features geological provinces that have been
recognized in terms of the highest quantity of nonconventional hydrocarbons, including in the Burgos, Sabinas, Burro-Picachos, and Tampico-Misantla basins (U.S. Energy Information Administration 2011). On the other hand, the *Activo Integral* Burgos is currently the largest non-associated gas project in the country. In 2014, Burgos reached a production level of 1.153 billion cubic feet per day (Secretaría de Energía de México 2015), equivalent to 17.7 percent of natural gas production nationwide.

Figure 1. Geological provinces in Northeast Mexico

![Figure 1](image)


Regarding energy infrastructure, two of the six refineries in the country are located in this region: the Cadereyta refinery, situated in the municipality of Cadereyta de Jiménez in the state of Nuevo León, and the Madero refinery, located in the municipality of Ciudad Madero in the state of Tamaulipas. The first one is the fourth largest in the country and accounts for 15.2 percent of domestic production, whereas the second one is the sixth largest in the country and represents 9.9 percent of domestic production (Tunstall *et al.* 2015, 30-31).

Finally, in terms of training human capital, the northeastern region has educational institutions of national and international prestige that offer bachelor’s, master’s, and doctoral programs in specialties related to the energy sector. América Economía’s 2015 ranking of the best universities in Mexico ranks the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM: Technological and Higher Studies Institute of Monterrey) second and the Autonomous University of Nuevo León (UANL) sixth. The latter is headquartered in the municipality of San Nicolás de los Garza in the state of Nuevo León.
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The Implementation of Public Policy Based on the Classic Hierarchical Model and Governance Focus

To discuss the role of local governments in the energy sector based on a governance model for implementation of the energy reform, we will briefly review some central aspects in the literature regarding the implementation of public policy, based on the classical hierarchical model and governance focus.

The first studies regarding public administration were published prior to World War II and were grouped under the classic hierarchical model. This group of studies features the work by one particular author with great influence: Woodrow Wilson (Carrillo 2004). Wilson, the former U.S. president, published his article “Study of Public Administration” in 1887. In this study, the author defines the subject matter of the study of what he calls the “science of administration”:

“Discover, first, what government can do legitimately and well, and second, how it can do these appropriate things with the highest possible efficiency and with the least possible cost in terms of money or energy” (Wilson [1887], as cited by Shafritz and Hyde (eds.) 1993, 73).

For Wilson ([1887] as cited by Shafritz and Hyde (eds.)1993, 76), government must be efficient and cost less. Effectiveness implies governing with more care and with better administrative knowledge, although also with more responsibility so that it is trustworthy. One of the core contributions by Wilson is the model of the politics/administration dichotomy. Wilson ([1887] as cited by Shafritz and Hyde (eds.),1993, 85) believed that public administration could not operate effectively without first being isolated as much as possible from political interference. To the contrary, politics could not do anything without the assistance of the administration. Insofar as the formulation and implementation of public policies are concerned, Thomas (1995, 16-17) points out that, as soon as an administration was formed, under Wilson’s model, the chain of command was organized in a vertical structure, going down from politicians to public officials and from there to the public, and there was no manner to revert this chain.

For Guy Peters (2004, 77), under the classic hierarchical model, the role of the implementation of policy had little importance because it was based on a command and control structure from the top toward the bottom (top-down approach), vertical, and authoritarian, which provided for very little discretionary decision-making capacity for subordinated officials:

“Under this (Wilson/Weber) model, the idea that bureaucrats did not have to perform any role insofar as public policies were concerned, which was the task of politicians, was shining through … The scarce participation of bureaucracy and its consequent exemption from the duty of rendering accounts in a direct and public manner for decisions taken in matters of public policies was some kind of
‘agreement’ which was stipulated implicitly or explicitly between the public function and politicians in respect of the role to be performed by bureaucracy.”

In the mid-1990s, Peter DeLeon (1999) proposed a method of citizen participation in public policy (bottom-up approach). DeLeon (1999, 323) argued that this method of participation is contrary to the perspective of top-down implementation and that it could have a direct effect on the renewal of the study of policy implementation. He concluded that the perspective of top-down implementation showed its ineffectiveness to obtain results and became one of the reasons for the failure of the implementation of public policies.

So far, we have discussed the implementation of public policies based on the classic hierarchical model, and now, we will continue with the focus on governance. This concept first arises in the November 1989 World Bank Report “Sub-Saharan Africa: From Crisis to Sustainable Development. A Long-Term Perspective.” Aguilar (2006, 82) explains that the concept was then used and developed by the theoreticians of public administration, experts in public policies, and Anglo-American politologists in response to the crises of the social state and the socialist state.

Under the governance focus, it remains clear that, in the event that governments do not take the ultimate recipients of their policies into account, these recipients will not be willing to accept or be subjected to the policies, precisely because of their independence, self-sufficiency, and connections to other players or organizations outside of government (Aguilar 2006). Thus, communication between governments and social organizations increases pressure on the decision-making process and the manner in which policies will be implemented. As Aguilar states (2006, 82-83):

“As a matter of fact, in the discipline of public policies and public administration, the government has been permanently considered to be the subject of political direction, and citizens had only been considered as the recipients of the policy, as objects of political control. Based on the vicissitudes of implementation, it was discovered that citizens, private sectors, and social organizations were key players who needed to be taken into consideration and integrated in some way as players participating in the policy decision, in its design and destination, if the government was even interested in its policy to be successful and not only a statement of good will.”

For Uvalle (2009), a focus on governance does not offer, at first sight, anything relevant for analyzing the manner in which the government directs society, considering that it could be argued that throughout history, there are numerous examples of governments that, in order to be able to govern, have taken into consideration and integrated the aspirations and opinions of different social groups interested in some special issues. Therefore, Uvalle (2009, 135) clarifies that the original issue of the concept of governance does not lie in recognizing the need for government to produce—and obtain—basic social consensus for its laws and directive policies to be accepted, but rather in recognizing that the government needs the resources and the actions of extra-governmental players who have the capacity to resolve problems that are of interest to society:
“From this point of view, the regulation, planning, public policy, provision of public services [...] by the government must not only integrate the point of view of independent extra-governmental players, but rather, in particular, must integrate their capacities, their resources, and their actions” (Uvalle 2009, 135).

In summary, through the integration of the capacities, resources, and actions of extra-governmental players, the participation, communication, and coordination with the government is more effective because cooperative relationships need to be developed.

The Governance Model for the Implementation of the Energy Reform in Northeast Mexico

Now that we have discussed the importance of the bottom-up perspective and a governance focus for the implementation of public policies, in this section, we propose a governance model for the implementation of the energy reform in the entities of Northeast Mexico. The main reason for the use of this explanatory proposal is that the implementation of the energy reform is a complex process that requires regional energy planning that incorporates the capacities, resources, and actions of all private, civic, and political strategic players.

In this respect, it is sought to prioritize cooperative relationships between local governments in Northeast Mexico, and between those governments and companies, higher education and research institutions, the federal government, and citizen organizations to open channels of close communication and exchange information and feedback regarding the implementation of the energy reform (see Figure 2).
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**Figure 2.** Governance model for the implementation of the energy reform in the northeastern region of Mexico

The governance model is aspirational and focuses on the cooperative relationship between the local governments of Coahuila, Nuevo León, and Tamaulipas, and between those governments and the domestic and foreign companies that seek to make investments in the region in response to the new legal framework provided by the legislative branch, which allows increased participation of third parties in the energy sector. Under this model, local governments engage in energy planning by prioritizing cooperation amongst themselves and with the companies, higher education and research institutions, and citizen organizations in the region, based on their respective attributes and those of the federal government and the municipalities in the region, in order to implement the energy reform.

In terms of cooperating with companies, local governments will establish fiscal incentives and financing options for the construction of urban and energy infrastructure and, together with the municipalities, engage in comprehensive work to promote and attract investments, utilizing the competitive advantages they possess due to the availability of natural resources in the area so that the region becomes a major energy hub in the country. Regarding cooperation with the federal government—mainly through the Ministry of Energy (SENER)—local governments will help identify the potential social and
environmental impacts that may result from energy projects in their territories. Likewise, local governments will identify the energy needs in their respective territories and provide feedback to the Ministry of Energy so that these needs are taken into account within the design of energy policy in the country.

Insofar as technological innovation and the formation of human capital are concerned, local governments will support and cooperate with higher education and research institutions, aided by the corporate sector, regarding the development of domestic technology and the formation of the human capital required by the energy sector. In turn, such institutions will provide local governments with feedback regarding the implementation of the reform and cooperate with them to prepare the environmental and social baseline studies required to identify, characterize, estimate, and appraise the environmental and social impact of the energy projects.

Companies will partner with educational and research institutions, which will provide trained human resources and counsel on the sustainable use of the energy resources available in the region. Likewise, companies will establish cooperation agreements and contracts with local governments and provide them with feedback, including proposals on how to improve the implementation of the reform.

On the one hand, society needs the energy resources and also benefits from economic development and jobs that are created by the energy sector. On the other hand, society is also harmed by the impact of negative externalities that occur in the absence of the sustainable utilization of energy resources, as well as whenever the social context within which an energy project operates is not understood. Therefore, local governments and companies are subject to evaluation by society—made up of citizens and consumers—which, through citizen organizations, monitors the actions of local governments and companies with respect to energy sustainability. Society also benefits from the educational and research institutions in terms of access to information and education.

Finally, the federal government will cooperate with the local governments in Northeast Mexico to address the challenges of implementing the energy reform, energy planning, and the development of energy infrastructure projects in the state entities through the transfer of resources, technical assistance, support programs for training, research, and certification, as well as financing funds, such as Fonadin.

Implications of the energy reform for local governments in Northeast Mexico

The description of the governance model for implementation of the energy reform reveals the important challenges local governments in the northeastern region of the country face. Some include the following: lack of solid urban and energy infrastructure, environmental and social impact resulting from the development of energy projects in the region, and the need to empower the specialized human capital in the energy sector and strengthen technological capacity. Based on these premises, we can distinguish four implications of
the reform for local governments in Northeast Mexico that can help pave the road to overcome these challenges:

1. A new tax levied on hydrocarbons exploration and extraction activities;
2. An ambitious package of investment projects by the federal government as part of the National Infrastructure Program 2014-2018;
3. A mandate requiring operating companies to conduct social impact evaluations for the energy projects in the hydrocarbons and electrical industries; and
4. A national content policy within the scope of hydrocarbons assignments and contracts.

Regarding the first implication, a new tax levied on hydrocarbons exploration and extraction activities is a mechanism for the fiscal decentralization of federal resources for the benefit of the states and municipalities producing hydrocarbons and is used for compensatory purposes. Article 54 of the Hydrocarbon Income Tax Act indicates that contractors and assignees are required to pay such a tax based on a monthly fee for each and every km$^2$ of the contractual or assignment area. During the exploration stage, the amount will be 1,500 pesos per km$^2$, and during the extraction stage, the amount will be 6,000 pesos per km$^2$. This tax will be paid to the Fund for the States and Municipalities Producing Hydrocarbons.

The law establishes that this fund will not be a part of the Shared Federal Tax Collection established by Article 2 of the Fiscal Coordination Act. Likewise, Article 57 Section IV establishes, as a condition, that the entire resources of the fund, which are to be distributed among the states and municipalities, must be used for infrastructure investment to compensate these entities for the impact of the projects on the region’s social and ecological environment. Furthermore, Section IV allows the states and municipalities to use up to 3 percent of the fund’s resources for project studies and evaluations.

In this respect, on June 4, 2015, the Ministry of the Treasury and Public Credit issued the operating rules for the distribution and application of the resources of the fund. These rules establish that the states must turn over to the municipalities the resources to which they are entitled within a period of five business days following their receipt. They then must send a receipt of such transfer to the Unit of Coordination with States of the Ministry within a period of no more than 15 business days from the date that the funds are transferred to the municipalities. This measure guarantees, insofar as the municipalities are concerned, that the transfer of resources from this fund will be carried out in an expedient manner and will be kept outside of any political or party-related issues.

It should be pointed out that the states and municipalities will be able to use the resources from this fund for infrastructure projects such as sanitary landfills; water treatment plants; nature preservation projects; efforts that positively affect mobility such as urban train systems, pavement repairs, and maintenance of local streets and roads; public wiring; civil protection works; and reconstruction of infrastructure damaged through natural disasters, among others.
In practice, the Fund for the States and Municipalities Producing Hydrocarbons directly depends on the contracts and assignments that are carried out. Therefore, the states and municipalities of Northeast Mexico, which are located in the hydrocarbons contractual or assignment areas and which benefit from the resources of the fund, have a significant economic incentive for fostering and promoting the conditions that permit and facilitate investment in their territories. In this respect, the northeastern region of the country will be favored in terms of the collection of this tax, since the third public international bidding process led by the National Hydrocarbons Commission will offer 26 onshore fields, eight of which are located in the state of Nuevo León and two in the state of Tamaulipas.

The second implication of the energy reform for local governments in the northeastern region of Mexico concerns the comprehensive portfolio of investment projects in the energy sector established in the National Infrastructure Program (PNI) 2014-2018, which will contribute to the creation of jobs and economic development in the region. One of the main investment projects in terms of hydrocarbons exploration and extraction activities in the states covered by this essay is the Burgos project. This project focuses exclusively on the states of Coahuila, Nuevo León, and Tamaulipas and covers an exploration plan aimed at increasing gas production. For this project, the federal government estimates that 50.870 billion Mexican pesos will be invested between 2013 and 2018.

Other investment projects of great importance are those related to hydrocarbons processing and transformation activities in the Madero and Cadereyta refineries, located in Tamaulipas and Nuevo León, respectively. Among these activities, which involve the transportation of natural gas via pipeline and natural gas storage, the following three projects are noteworthy: South of Texas-Tuxpan (subsea), Colombia-Escobedo, and Los Ramones-Cempoala. These projects will benefit the states of Nuevo León and Tamaulipas, with an estimated investment of 69.609 billion pesos over the period 2014-2018 (see Table 1).
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Table 1. Planned gas pipelines in the states in Northeast Mexico

<table>
<thead>
<tr>
<th>Project</th>
<th>Benefiting States</th>
<th>Length (km)</th>
<th>Estimated Investment (Million Pesos)</th>
<th>Estimated Bidding</th>
<th>Estimated Start of Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Texas-Tuxpan</td>
<td>Tamaulipas, and Veracruz</td>
<td>525</td>
<td>38,700</td>
<td>Second half of 2014</td>
<td>Second quarter of 2018</td>
</tr>
<tr>
<td>Colombia-</td>
<td>Nuevo León</td>
<td>739</td>
<td>4,82 $</td>
<td>First half of 2015</td>
<td>Second quarter of 2017</td>
</tr>
<tr>
<td>Escobedo</td>
<td>Nuevo León, Tamaulipas, and Veracruz</td>
<td>811</td>
<td>29,03 $</td>
<td>First half of 2015</td>
<td>Fourth quarter of 2017</td>
</tr>
</tbody>
</table>

Source: Author’s own elaboration using data from the National Infrastructure Plan, 2014-2018.

However, it is pertinent to note that on February 13, 2015, PEMEX’s board of directors approved a Budget Adjustment Plan in the amount 62 billion pesos, which represents a 11.5 percent decrease in the budget authorized for PEMEX by the Mexican Congress for the 2015 fiscal year. This adjustment will affect the pace of investment in the refining projects in the country, mainly reconfigurations of refineries and fuel quality, which will impact the projects being considered in the states of Tamaulipas and Nuevo León (see Table 2).

Table 2. Resources assigned under the PEF 2015-Investment Projects of PEMEX

<table>
<thead>
<tr>
<th>Chihuahua</th>
<th>Coahuila</th>
<th>Nuevo León</th>
<th>Tamaulipas</th>
<th>Including Northeastern Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEMEX Exploración y Producción</td>
<td>Burgos Project Shale Oil and Gas Project</td>
<td>Burgos Project Shale Oil and Gas Project</td>
<td>Burgos Project Shale Oil and Gas Project</td>
<td>Burgos Project $7,008,305,205 Shale Oil and Gas Project $1,735,000.00</td>
</tr>
<tr>
<td>PEMEX Refinación</td>
<td>18 Immersion Projects $5,735,347,657</td>
<td>18 Immersion Projects $9,671,361,698</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEMEX Gas y Petroquímica Básica</td>
<td>7 Immersion Projects $3,950,687,235</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEMEX Petroquímica</td>
<td>1 Immersion Project $78,080,149</td>
<td>$5,735,347,657</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$78,080,149</td>
<td>$5,735,347,657</td>
<td>$14,129,512,335</td>
<td>$8,743,305,205</td>
</tr>
</tbody>
</table>

Source: Author’s own elaboration using data from “Volume V: Directly Controlled Entities and Productive State Companies of the Budget of Expenditures of the Federation for the Tax Year 2015,” Ministry of the Treasury and Public Credit.
A third implication of the reform for local governments of the northeastern region is related to operating companies’ requirement to carry out social impact evaluations for projects in the hydrocarbons and electrical industries, considering that over the past few years, the communities, governments, and energy companies in Mexico have paid increased attention and scrutiny to the performance of energy projects. These impacts may be positive or negative and lead to social, environmental, and economic changes for the communities (Franks 2012). Therefore, these projects must be carried out in compliance with international standards of sustainability and with respect for human rights to achieve greater social acceptance and minimize the possibility of projects being suspended or even cancelled.

In Article 118, the Hydrocarbons Act establishes that the Ministry of Energy, upon coordination with the Ministry of the Interior and other competent agencies and entities, must conduct social impact studies in the areas covered by assignment or contract, which will be made available to the assignees or contractors. It should be pointed out that legislators could have agreed in the wording of the law to the necessity of coordination between the Ministry of Energy and local and municipal governments regarding this issue, considering that both the information provided by these governments to SENER as well as their cooperation are important in order to conduct the social impact and baseline studies that are required for the social impact evaluations. This is evident once we accept that local and municipal governments are closer to the needs and realities of the populations and communities in the areas impacted by energy projects. In this respect, neither the federal government nor Congress consulted with the local governments on this issue, which is critical based on the perspective of the development of a large number of energy projects planned in the states’ territories and which may bottleneck the energy reform.

In this respect, SENER presented the Five-Year Plan of Biddings for the Exploration and Extraction of Hydrocarbons 2015-2019. Based on a technical proposal presented by the National Hydrocarbons Commission to this Ministry, this plan indicates the areas throughout the country where the government plans to hold public bids during the remainder of the current administration’s six-year term. In Coahuila alone, bids are being considered for three areas covering a surface area of 256 km², mainly for the exploration of nonconventional resources. In Nuevo León, bids are being considered for 93 areas covering a surface area of 9,458 km², of which 7,714 km² pertain to the exploration of nonconventional resources. Likewise, in Tamaulipas, bids are planned for 204 areas covering a surface area of 20,385 km², of which 12,061 km² concern exploration of nonconventional resources (SENER 2015).

For the local governments of northeastern Mexico, it is critical that the social impact evaluations submitted by the companies that will carry out hydrocarbons exploration and extraction activities comply with the minimum and essential elements to be observed for the performance of this type of evaluations. In the event that no adequate prevention and mitigation measures or correct social management plans are established, there is a risk not only of the suspension or cancellation of projects, but also of social conflicts and serious impacts on ecosystems. The suspension or cancellation of projects would discourage investment and adversely impact the climate of social tranquility, and social conflicts and
impacts on ecosystems would affect the quality of life of the communities, with direct consequences for local governments.

Therefore, local governments in Northeast Mexico must act as facilitators for companies by providing them with trustworthy and reliable information for the baseline studies, which may be carried out with the participation and cooperation of higher education institutions in the region. Local governments also must be sufficiently solid institutionally so that, whenever necessary and within the scope of their authorities, they can provide supervision with respect to the activities carried out by the companies, upholding the constitutional state and applying the law in a fair and equitable manner without any arbitrary action, in case such activities go beyond the limits of the law. In this respect, the constitutional state is crucial to provide guaranties to the communities that their rights will be protected and respected.

Finally, a fourth implication of the reform for local governments in Northeast Mexico is the creation of a national content policy in the hydrocarbons industry for all exploration and extraction activities performed in the national territory, on the basis of assignments and contracts. This will allow the governments to promote and strengthen both their technological capacity and training programs for human capital required for the energy reform.

The Hydrocarbons Act establishes an average minimum percentage of national content in exploration and extraction matters, which must be gradually increased from 25 percent in 2015 to at least 35 percent by 2025, except for deep and ultra-deep waters. Unlike in the case of invitations for exploration and production activities in shallow waters, which will focus more on the experience and track record of the operating company, the third invitation for the international public bidding for onshore fields will focus more on the technical capacities and performance experience of the operating company’s personnel. This criterion is creating a large field of opportunities for the states of Nuevo León and Tamaulipas, where 10 onshore fields that will be the focus of bids during the so-called “Round 1” are located.

Likewise, Article 125 of the Hydrocarbons Act establishes that the Ministry of Economic Affairs will craft public policy to design strategies aimed at industrial development of local production chains and attracting investment, with special attention paid to small and mid-sized companies. Furthermore, a register of domestic providers must be created, which will list the domestic companies that are interested in participating in the hydrocarbons industry. Additionally, Article 127 of the aforementioned law indicates that the Ministry of Economic Affairs will be supported by a Public Trust for Promoting the Development of Domestic Providers and Contractors of the Energy Industry in order to close the gaps in terms of technical capacity and quality and to promote the development and competitiveness of local and national providers and contractors through financing and training programs. In this respect, the entities of the northeastern region have great potential to form an epicenter for the provision of services for the value chain of the national hydrocarbon industry.
The Role of Local Governments in the Northeastern Region in the Energy Sector

Based on the governance model presented in this essay, we suggest in this section the role that local governments in Northeast Mexico may assume in the energy sector. This role may be proactive and based on cooperation with the political, private, and civilian players in the region, guided by the goal of opening channels of close communication and exchanging information and feedback regarding the implementation of the energy reform. Likewise, we suggest that this role respect legality and comply with the authorities specified in the laws. When doing so, it is important that local governments have clear knowledge of the new energy legislation and the institutional strength so that, whenever necessary and within the scope of their authority, they can provide supervision over the activities of the companies that are established in their territories and ensure that those companies comply with the laws.

It must be emphasized that the local governments in Nuevo León, Tamaulipas, and Coahuila have reacted in a timely manner to face the challenges that have arisen out of the reform and have taken important steps in terms of local energy planning and promoting investments in their regions. For example, the states of Nuevo León and Tamaulipas announced their energy plans during 2014. It should be mentioned that these energy plans were prepared with the participation of players from the corporate, academic, and government sector in these states. Likewise, the state of Coahuila created a mining-petroleum cluster in the form of a civil partnership, which includes entrepreneurs, universities, research centers, and state and municipal authorities. The chairman of the cluster is former Governor Rogelio Montemayor Seguy.

However, even though this progress is very relevant, governance in terms of energy planning was not achieved, since this requires participation from society—another important strategic player in each entity, and one that makes significant contributions to this planning process: its absence is therefore a serious issue. According to the governance model proposed in this essay, society benefits from economic growth and jobs that are created by the energy sector, yet it also suffers directly from negative externalities in the absence of sustainable use of the energy resources and when the social context in which a project operates is not understood. Therefore, it is specifically society, through citizen organizations, that fulfills the function of monitoring the actions of local governments and companies with respect to energy sustainability.

However, it must be recognized that the states in Northeast Mexico are progressing in terms of training the human capital required by the energy industry. For example, Coahuila produced 4,955 graduates in the field of engineering and manufacturing and 13,230 graduates in technical and service careers in 2012 (Secretaría de desarrollo económico de Coahuila 2014). In turn, Nuevo León has important institutions of higher education of national and international prestige that offer bachelor’s, master’s, and doctoral programs in the field of energy. For example, the Autonomous University of Nuevo León offers a degree in petroleum engineering and established the first master’s program in
energy law in the country. Likewise, Nuevo León has a technological research and innovation park based on the triple helix model, with strategic areas such as nanotechnology, mechatronics and advanced manufacturing, advanced materials, and clean energies.

Although the individual efforts of local governments—together with private and political strategic players in their areas—have contributed to positioning them as attractive locations for doing business in the energy sector, they could advance more as long as energy planning is executed according to a long-term regional vision. By sharing energy resources and important federal investment projects in infrastructure, like the one in the Burgos basin, the states in Northeast Mexico will be integrated under the same regional development plan.

To implement this vision and define strategies to attract capital and investments that will allow the northeastern region to become a hub of energy development in the country, we propose the creation of a regional council that will include the strategic players listed in the governance model. The regional council can be an ideal platform for, on one hand, promoting the connection between the strategic players of the region to exchange information, best practices, business opportunities, and partnerships between foreign and local companies; identifying common problems in terms of the implementation of the reform; and proposing adjustments to the energy plan and regulation; and, on the other, fostering regional energy development through the realization of the competitive advantages provided to the entities of the northeastern region by the availability of shared energy resources.

Finally, the establishment of a regional council may also constitute a forum that strives to balance the relationship of cooperation and coordination between the federal government and local governments of Northeast Mexico so that the latter are taken into account to a greater degree in the federal government’s energy policy decisions, which will affect them. The council could likewise offer guarantees of compensation with a greater degree of certainty, considering that energy projects ultimately have a local character and, as commented within the scope of this essay, in the absence of adequate handling, may turn into the great bottleneck of the energy reform.

Implications for Public Policy

The proposal of a governance model for the implementation of the energy reform in the states of Coahuila, Nuevo León, and Tamaulipas has some implications for public policy in the northeastern region. Such a model describes the critical roles performed by the different strategic players in these entities: political, private, and civilian, both in terms of energy planning as well as implementation of the reform.

One public policy implication is that, for operation of the governance model, the creation of a supra-state entity—the regional council—is proposed, and would include the strategic players in the region. This council would operate as a forum for interaction and the
exchange of information and good practices as well as the identification of problems in terms of implementation of the reform. It also would serve as a platform with weights and counterweights with respect to a central government that does not consult with or take into account the perspectives of local governments insofar as energy policy decisions are concerned.

A second implication is that, under the governance model, strategic players have important and properly differentiated roles in the region, from energy planning to implementation and supervision. For example, the legislative branch provides the legal framework; local governments carry out energy planning and provide incentives for companies and educational and research institutions and also, together with the latter, work to raise companies' awareness of sustainable utilization practices for the region's energy resources and provide trustworthy and reliable information to the federal government for the baseline studies required for social impact evaluations. Society, formed by citizens and consumers, evaluates local governments and companies through citizen organizations.

One additional public policy implication is that, based on the model and the cooperative relationships between the local governments of the region and the other strategic players, other challenges for the implementation of the reform that are not considered by the governance model can be addressed, such as insecurity and the fight against corruption.

Moreover, the significance of the governance model goes beyond the northeastern region and can be applied to other regions of the country in which states share common energy resources, making them subject to the same development mechanism.
References


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Endnotes

1 Author’s own calculation using data from the Energy Information System, Secretaría de Energía de México.

2 Fernández Bolaños (2002, 63) explains that negative environmental externalities cause damage or social costs that are not taken into account at the time of performing the activity. To correct or internalize the externality, intervention by the public sector is usually necessary so that this internalization is carried out, which may take on very different forms, such as subsidies to convince a company to produce less or more, markets of negotiable permits, and ecological taxes. These actions help to make the company or the economic agent in general aware of the social damage that is caused by its activity.

3 Third Invitation Number CNH-R01-C03/2015, for the Public International Bidding process CNH-R01-L03/2015, in respect of Round 1. Official Gazette of the Federation, May 12, 2015.

4 Out of the 10 onshore fields that will be covered by bidding in the two states of the northeastern region, nine are located in the Activo Integral Burgos: the Anáhuac (29.5 km²), Benavides (16.1 km²), Calibrador (16.1 km²), Duna (36.7 km²), and Mareógrafo (29.8 km²) fields—which are dry gas deposits—and the Carretas (89.4 km²), Peña Blanca (26 km²), San Bernardo (28.3 km²), and Ricos (23.7 km²) fields—which are deposits of humid non-associated gas.

5 This document contains the identification of the communities and villages located in the area of impact for a project in the energy sector, as well as the identification, characterization, forecasting, and assessment of the impact on the population that may result from the project and the mitigation measures and respective social management plans (SENER 2015).

6 This is the first measurement of the socioeconomic and sociocultural indicators of the community in the area of impact of a project, which provides a point of reference for the identification, characterization, forecasting, and assessment of social impacts (SENER 2015).

7 Area of impact means the physical space that will probably be impacted through the performance of the energy sector project throughout all of its stages, including over the medium and long term. It includes the core area, the area of direct impact, and the area of indirect impact (SENER 2015).

8 On November 13, 2014, the Ministry of Economic Affairs issued a resolution establishing the Methodology for the Measurement of National Content under Assignments and Contracts for the Exploration and Extraction of Hydrocarbons, as well as for permits in the hydrocarbons industry. According to this methodology, the Ministry of Economic Affairs uses the following concepts: contracted goods and services, considering their origin, domestic labor, domestic material, investment in local and regional physical infrastructure, and transfer of technology.