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/ EL FUTURO DEL SECTOR PETROLERO EN MÉXICO

Taming the Beast Within: The Mexican Energy Regulatory Commission

Cristopher Ballinas Valdés, D.Phil.

JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY
RICE UNIVERSITY

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James A. Baker III Institute for Public Policy
Rice University

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By

Cristopher Ballinas Valdés, D.Phil.
Collegiate Associate Professor in Public Policy
Instituto Tecnológico Autónomo de México (ITAM)

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The Future of Oil in Mexico/
El futuro del sector petrolero en México

The energy industry plays an important role in the Mexican economy, and energy trade is a major component to the U.S.-Mexico relationship. The Mexican government relies on the oil industry for 35 percent of total government revenues, including taxes and direct payments from Petróleos Mexicanos (Pemex), the state oil company. Mexico is the third-largest foreign crude oil supplier to the United States. However, with declining production and rising demand, Mexico could become a net oil importer in the coming decade. President Calderón pushed for energy sector reform in Mexico, but more reforms will be needed for Mexico to reverse its current path toward importer status. This study identifies the dynamics of the political trends in Mexico that will impact future energy policy. The aim of this study is to promote a better understanding of the challenges facing Mexico's oil sector and to enhance the debate among policymakers, the media and industry on these important issues.

Study Authors

Cristopher Ballinas Valdés
Joe Barnes
Carlos Domínguez
Carlos Elizondo Mayer-Serra
Peter R. Hartley
Amy Myers Jaffe
David R. Mares
Kenneth B. Medlock III
Isidro Morales
Jaime Ros
Paul Segal
Ronald Soligo
Manik Talwani
Laurence Whitehead

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James A. Baker III Institute for Public Policy
Rice University - MS 40
P.O. Box 1892
Houston, TX 77251-1892 USA

http://www.bakerinstitute.org
bipp@rice.edu

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Nuffield College
Oxford University
Nuffield College New Road
Oxford OX1 1NF, United Kingdom

http://www.nuffield.ox.ac.uk/

About the Author

Cristopher Ballinas Valdés, D.Phil.
Collegiate Associate Professor in Public Policy
Instituto Tecnológico Autónomo de México (ITAM)

Cristopher Ballinas Valdés, D.Phil., is a collegiate associate assistant professor in public policy at the Instituto Tecnológico Autónomo de México (ITAM). Prior to that, he was a tutor in comparative government at the University of Oxford. Ballinas Valdés specializes in the study of executive government, regulation, and public sector reform and explores the effects of politics and institutions on policy outcomes. His new book *Political Struggles and the Forging of Autonomous Government Agencies* (Palgrave, 2011) investigates the ways in which actors and institutions matter for regulation. He also possesses extensive experience in policy instrumentation gained from his years of work as a high-level official in the Mexican central government. Ballinas Valdés received his D.Phil. in politics from the University of Oxford.

> As I became more aware, I realized that there was indeed a beast within me that needed to be restrained and tamed. Sometimes when this beast takes over, I feel that I lose control, my actions become somewhat irrational and instinctual.
>
> *Taming the Beast*
> Diana Autumn

I. Introduction

Oil has played an essential role in Mexico's development, economy, and recent political history.[1] *Petróleos Mexicanos* (Pemex), the public oil and gas company, considered to be one of the 10 most important oil companies in the world,[2] has literally fueled both public finance and the development of the country.[3] Pemex is not only one of the most important public companies in Mexico, but is also one of the most politically sensitive, as it is usually viewed as a symbol of "Mexican sovereignty" (Hernández Chávez 1979; Meyer and Morales 1990; Rubio 1993; Tello 2005). State ownership of energy assets is a historically significant characteristic of Mexico's energy sector.[4]

Oil is also a source of political power in Mexico. It is not strange, then, that the energy sector has been at the center of many political struggles and the subject of decisions of varied quality and consistency. As a consequence, energy production has, in many cases, been put at risk (Morales 1992). At other times, the energy sector has been used for political or even populist purposes

[1] For many, the Mexican energy sector has played an important role both in the country's development in the further evolution of contemporary Mexican nationalism (González 2004; Meyer and Morales 1990; Rubio 1993). In 1938, President Lázaro Cárdenas, after a long and intense dispute with foreign companies, expropriated both the petroleum and light industries. Since then, the relationship between the energy sector and Mexico's modern political nationalism has been strong, and the two evolved almost in tandem (Hernández Chávez 1979; Meyer and Rowan 1977). Ever since, oil has historically been a politically sensitive issue in Mexico. Also, Mexico's constitution establishes the nation's exclusive right to exploit hydrocarbons, provide public electric power service, manage nuclear fuels, as well as some other related activities.

[2] According to Energy Intelligence Group, Inc., "Ranking the World's Oil Companies" *Petroleum Intelligence Weekly* (2007).

[3] Mexico's government is highly dependent on oil revenues, as oil and oil related taxes account for more than a third of government proceeds. This number has been more or less constant throughout the last few decades (Pemex 2008; Tello 2005).

[4] The most important national entities in energy are the state-owned oil company, Pemex, and the national electricity utility, Federal Electricity Commission.

(Boué 2004; Meyer and Morales 1990).[5] Hence, several authors have highlighted the political importance of Pemex (Hernández Chávez 1979; Meyer and Morales 1990; Rubio 1993; Tello 2005).

Mexico's presidents have found it difficult to privatize and liberalize the energy sector. Their regulation efforts have been hampered by opposition from bureaucrats at the state-owned company, highly political labor unions, and by political, economic, and constitutional restrictions. The history of the Energy Regulatory Commission (*Comisión Reguladora de Energía*, or CRE) is an example of how the Mexican political system has created ill-designed and ineffective institutions in the energy sector. The CRE illustrates the role that political opposition plays in undermining efforts to create an effective regulatory body for the energy sector.

In this article, I analyze the creation and evolution of Mexico's Energy Regulatory Commission. The creation of the CRE is an example of the problems that the energy sector has faced as a whole. It represents the struggles between different forces, at many levels and in many arenas, for political control of oil and electricity companies owned by the state. The following paper will show that regulatory principles have been sacrificed for political considerations, and that the CRE has ended up as a mere advisory body. This case also emphasizes that when central governments fail to exercise sufficient control over state-owned companies, and when opposing forces are strong, the result may be rather useless institutions that largely exist for the sake of appearance.

The paper unfolds as follows: First, I review the complex matrix of political institutions that comprise Mexico's energy sector. In Section III, I review the Energy Regulatory Commission's basic features. In Section IV, I analyze the genesis and development of the CRE to date, and how

[5] After the "desarrollo estabilizador" development model implemented during the 60's wore out, there was a change in Mexican energy policy due to a firm belief that economic growth was financed by petroleum exports (Levy and Székely 1983; Meyer and Morales 1990). The cynicism of Mexican politicians in declaring that, with the oil boom, Mexico had only to "administrar la riqueza" (administer the wealth) is well known. Both the Mexican government and international analysts were expecting a longer-lasting boom (Székely 1983). But the plunge in oil prices revealed deficiencies in decision-making in part because great powers were granted access to the oil sector, Pemex specifically. In fact, in this context, a large part of the 1980s was devoted to crisis management. Ever since, oil revenue has been used for subsidies rather than to promote productive investment (Székely 1983; Zenteno 1997).

struggles inside the bureaucracy have shaped its organizational structure. In Section V, I review recent plans for reform and examine how institutions in the energy sector with regulatory functions, such as the National Hydrocarbons Commission, compare to the CRE. The final section contains concluding thoughts about energy regulation in Mexico.

II. The Politics of the Mexican Energy Sector's Governance Structures

The institutional design of the Mexican energy sector reflects, in many ways, an amalgamation of the consequences of the political decisions and its historical process (Székely, 1983). Consequently, the involvement of the government in the Mexican energy sector is by no means single-tiered.[6] Theoretically, *Petróleos Mexicanos* (Pemex), the *Comisión Federal de Electricidad* (CFE), and the *Luz y Fuerza del Centro* (LyFC)[7] are entities responsible to the Ministry of Energy (Secretaría de Energía, SENER). According to the *Ley Orgánica de la Administración Pública Federal*, the legal act that regulates the shape and responsibilities of Mexican central public administration, the minister of energy has the legal mandate to appoint the heads of these companies. The minister of energy also plays an essential role as the chairman of the governing bodies of each of these companies and performs important planning and strategic decision-making functions. The minister of energy officially has appointment duties. However, Mexico's president uses his constitutional power to appoint the director of each of these entities, sometimes in consultation with other ministers (such as those from the ministries of finance and energy) and the sector's unions, which are among the most powerful and oldest in Mexico (Teichman 1995).

The minister of energy is the formal head of the energy sector.[8] Nevertheless, there are institutional and informal constraints on his authority. Besides the president himself, the finance minister (Secretaría de Hacienda y Crédito Público, or SHCP) also exercises control over the

[6] The energy sector alone includes around 10 different organizations, namely: *Petróleos Mexicanos*, *Comisión Federal de Electricidad*, *Luz y Fuerza del Centro*, *Comisión Reguladora de Energía*, *Comisión Nacional para el Ahorro de Energía*, *Comisión Nacional de Seguridad Nuclear y Salvaguardias*, *Instituto Mexicano del Petróleo*, *Instituto de Investigaciones Eléctricas*, and *Instituto Nacional de Investigaciones Nucleares*.
[7] *Luz y Fuerza del Centro* was abolished by the government in 2009.
[8] Aside from that carried out by Pemex, electric power generation, transformation, transmission, supply, distribution, and marketing activities intended to serve the public are carried out and coordinated by the Federal Electricity Commission and, to a lesser degree, before it was shut down in 2010, by the electric company, Light and Power.

energy industry. As oil is the primary source of government revenues, the Finance Ministry organizes fuels and other oil by-products prices according to budget criteria (SENER official, June 2004). Legally, the direction and the design of energy strategies are assigned to relevant boards of directors. The boards of CFE, LyFC, and Pemex are in charge of determining the course of action needed to accomplish the objectives established by the ministry (Haas 2001). Seats on the boards are reserved for the ministers of Energy, Finance, and Corruption Control. The ministers of environment, communications and transportation, foreign affairs, and economy take the remaining seats.

The Ministry of Finance has direct legal authority over the state companies' budgets, investments, debt collection efforts, and employee compensation plans. In these respects, the Ministry of Finance keeps a watchful eye on expenditures and revenues. The Ministry of Energy's ability to plan is significantly hindered by an item-by-item negotiation of its budget with the Finance Ministry, which also needs to negotiate the line item budget with the Congress. Moreover, the cash flow generated by Pemex operations is largely controlled by the Ministry of Finance (McPherson 2003), as are its expenditures. Put simply, there is a tax regime for Pemex that takes most, if not all, of the cash flow of the company. As a result of limited access to liquid money, Pemex, CFE, and LyFC have usually resorted to alternative sources of financing, such as bank loans and debt issuance.

Pemex is forced to follow strategies that will meet the Ministry of Finance's financial plans. The Ministry of Finance has the power to regulate tariffs, which is, in effect, an extension of the development strategy that the government pursues at any given time. The Ministry of Finance's priorities caused the ministry to struggle to gather sufficient funding to bridge the capital and technological gap of both CFE and Pemex (Boué 2004; Castañeda and Kessel 2002).[9]

The Finance Ministry's agenda is often incompatible with the needs of a financially self-sustaining energy sector (former SENER official, August 2005). The Finance Ministry consistently sets tariffs that violate the autonomy of state-owned companies, especially in the

[9] Budget procedures require Pemex to surrender revenues to the government and rely on annual allocations. Currently, Pemex pays out over 60% of its revenue in royalties and taxes, and those funds account for two-fifths of the federal government's budget (Pemex 2008).

case of Pemex (Castañeda and Kessel 2002). In this regard, public policy in the energy industry does not respond to the problems on the public's agenda; instead, it is a vehicle through which the political elite addresses threats to financial stability and, consequently, the regime's stability.[10]

Currently, the directors of Pemex and CFE often have direct access to the president, thus bypassing the minister of energy (Teichman 1995). They have what is called, in Mexican political jargon, *derecho de picaporte* (or door-knocking privileges); that is, they have the right to ask for a direct audience with the president, or to directly access the upper echelons of the government in order to lobby for their preferred policies. Pemex and CFE are powerful actors that can also bypass the authority of other ministries. As a result, the minister of energy is a mere administrator who carries out policies set by others. Bureaucrats, rather than politicians, control which aspects of energy policy are accepted and which are not.

Mexico's energy sector is distinguished by a complex matrix of authorities; no single actor can assert political control or maintain strategic oversight of Pemex and CFE. This institutional structure has led to tension between the main actors of the energy sector. The minister of energy is legally, financially, and politically in charge of all the state-owned energy companies, but his powers are weak. This makes evident a problem of governance, specifically in the allocation of responsibilities, in the Mexican oil sector.

Although the energy minister is officially endowed with power, he frequently plays the role of a consultant when, *stricto sensu*, he should be the conduit of policy imperatives. While the Ministry of Energy should be responsible for central planning and strategic decision-making, the reality is that Pemex performs both duties (Rousseau 2006). Bureaucrats at the ministry, Pemex, and CFE—and usually over-politicized unions—are powerful agents and skillful bargainers that have learned how to use their strategic position in the complex matrix of institutions in the Mexican energy sector.

[10] Proof of this can be seen in the Treasury's response to the oil crisis in the early 1980s. The immediate response to the crisis was to adjust prices upward, with the twin (often incompatible) goals of reducing financial losses caused by low tariffs while, at the same time, taming hyper-inflation (Barbosa 1992; Castañeda and Kessel 2002).

Representatives of workers' unions hold five out of 11 seats on the boards of Pemex and CFE.[11] These seats are permanent, and were granted to the unions at a time when the Institutional Revolutionary Party (PRI), during the post-revolutionary period, needed some control over workers and unions (Hernández Chávez 1979; Teichman 1995). The ruling party gave unions seats on the boards of directors of both oil and electric power companies, a 2 percent commission on all contracts, and the right to assign half of all contracts to third parties.[12]

Legal control of Pemex, CFE, and LyFC is not limited to the executive branch. Frequently, Congress tightly monitors and has approval power over Pemex's annual budget.[13] Legally, the legislative branch can also exert control through the federal auditor's office. Moreover, the legislative branch exerts control through the issuance of laws and regulations, and most importantly, through the budgeting process. This is part of the government's checks-and-balances structure. The comptroller-general is responsible for evaluating the oil sector, mostly through expenditure controls; the comptroller-general also appoints Pemex's external auditors and oversees its organizational charts and salaries. Infrastructure matters and environmental regulations are delegated to a different set of ministries that include environment, health, communications and the Navy.

The Mexican oil industry is also subject to legislation and a variety of operational regulations that are, in many ways, incompatible with its role as an economic entity (Alvide 1998; Zenteno 1997). This situation has created multiple public-sector organizations that are wholly or partly responsible for executing key institutional functions.[14]

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[11] Pemex is legally controlled by Mexico's president. The CEO is directly appointed by the president. Six of these directors have been government ministers. The president can appoint these board members at his will and does not even need congressional approval. The remaining five directors are representatives of the Petroleum Workers Union.

[12] The funds were supposed to provide social benefits for workers (Teichman 1995). In reality, union leaders enriched themselves in exchange for acquiescing to the political leadership and quelling dissidence among the workers (Alonzo and López 1986). Meanwhile, the politicians benefited from the revenues obtained from the royalties of these companies (Meyer and Morales 1990).

[13] According to Mexico's constitution, government spending requires the approval of the Congress, a bicameral institution divided into two chambers, the Chamber of Senators and the Chamber of Deputies. Consequently, Pemex is not free to develop in the long-term but on a year-to-year basis according to the government's annual budget approval process.

[14] Stakeholders are an important element in the governance arrangement, since they can affect the position of the institution. They are the potential beneficiaries or risk-bearers of the operation of the Mexican oil industry (Boué 2002, 2004).

Bureaucrats have also been important in shaping the governing structure of the energy sector. Actually, by using their specialized knowledge and experience, bureaucrats have shaped both political institutions and policy outcomes in Mexico. The centralized character of decision-making engendered an asymmetry among bureaucratic agencies and, in many ways, resulted in a specialization by policy area or ministry. This helped keep the energy sector from collapsing while the bureaucrats were rewarded with high political rents (Ballinas 1998, 2001, 2003; Hernández Rodríguez 1984, 1993, 1997; Lindau 1992; Luna López 1997). These arrangements helped to define career paths within the administration as well as create niches of political power inside the bureaucracy.[15]

The Mexican bureaucracy was, and is, a peculiar beast. High-level bureaucrats had access not only to resources and information, but also to key parts of the decision-making process that were supposed to remain the exclusive domain of politicians. Bureaucrats developed a degree of specialization that gave them the power of independent decision-making. As a result, presidents lost some control over the internal decision-making process. The increase in technical know-how with regard to policymaking for matters of public finance permitted the accumulation of enormous political power by bureaucrats.

Bureaucrats in the oil and electric power sectors, during the PRI regime, took advantage of two main factors. First, they used the strong lobbying power gained during the institutional development of the Mexican energy sector. Second, they used their superior technical knowledge to limit the information available, making it difficult to monitor their activities. As will be shown next, repeated conflicts and highly negative interaction between various actors have made the privatization process of the energy sector very difficult and, consequently, the creation of an effective energy regulatory authority an almost impossible task.

[15] For instance, the Ministry of the Interior dealt mostly with political matters while the Treasury focused on economic issues. The Ministry of the Interior played the most important political role, since the intelligence agencies that kept supporters and opponents under surveillance were located within its ranks.

III. The Creation of the Energy Regulatory Commission

The CRE was created during Carlos Salinas' presidential administration (1988–1994). At the same time, broad economic reforms and a comprehensive privatization program were planned. Mexico was then transforming not only its economic framework but also its regulatory approach. Market mechanisms were strengthened and new regulatory institutions were introduced.

The CRE was originally created in 1993 as an advisory body on gas and electricity issues. It operated under the umbrella of the Ministry of Energy after statutory amendments were approved by Congress in 1992. The amendments, called the Organic Law of Mexican Oil, mandated the creation of an autonomous consulting body.[16] Although formally part of the government, the CRE would have an arm's-length relationship with the government in order to preserve CRE's political control of electricity, as envisioned in Article 27 of the Mexican Constitution.

The Energy Regulatory Commission at a Glance

Currently, the CRE is an arm's-length agency with technical autonomy. The CRE possesses general regulatory powers, such as granting and revoking licenses and permits for the transportation and storage of natural gas. The CRE's responsibilities do not include: 1) oil (crude oil extraction and refining); 2) natural gas (extraction and distribution); 3) electricity (production, transmission and distribution). Laws govern all of these aspects of Mexico's energy sector. In fact, most of the regulatory provisions are defined in the Constitution itself.

The CRE has limited powers over prices and tariffs. The CRE participates in the Electricity Tariffs Setting Commission in conjunction with the Ministry of Energy and the Ministry of Finance. The CRE also establishes the methodology to calculate the prices of firsthand natural gas sales. In addition, the CRE is responsible for setting natural gas transportation tariffs and for enforcing standards issued by the Ministry of Energy.

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[16] The law focused on putting an end to the "pyramidal, centralized, organization of function and decision-making within Pemex." Hence, the government restructured Pemex into several sub-divisions, each with managerial autonomy. The resulting division created Pemex Corporativo, and four separate operating subsidiaries, including the following: 1) Pemex Exploration and Production; 2) Pemex Gas and Basic Petrochemicals; 3) Pemex Refining; and 4) Pemex Petrochemicals.

The CRE possesses key attributes that gas regulators have in other countries, such as Europe, although it has limited connection to the electricity market. The CRE does not have legal authority to regulate the oil market and key elements that would seem necessary to regulate electricity are missing. It is notorious how the Ministry of Finance is in charge of setting and regulating end-hand tariffs. Also, many of the powers typically held by regulators elsewhere in the world are, in Mexico, the responsibility of the producer (CFE, Pemex, and before its liquidation, LyFC). Examples include setting standards or granting access to the grid. In addition, CRE has difficulty monitoring the compliance of permit holders because it has no power to request or to obtain information from state-owned companies.

Given that regulators have extensive expertise and knowledge of the sector, it would be expected that the CRE would have rather large regulatory and enforcement responsibilities. However, the CRE often just relays information to the Ministry of Energy, as it lacks enforcement powers. Also, contradictory laws limit the effectiveness of the CRE. For instance, gas and electricity laws appear to have multiple conflicting goals, such as balancing service coverage with efficiency or competition with customer satisfaction.

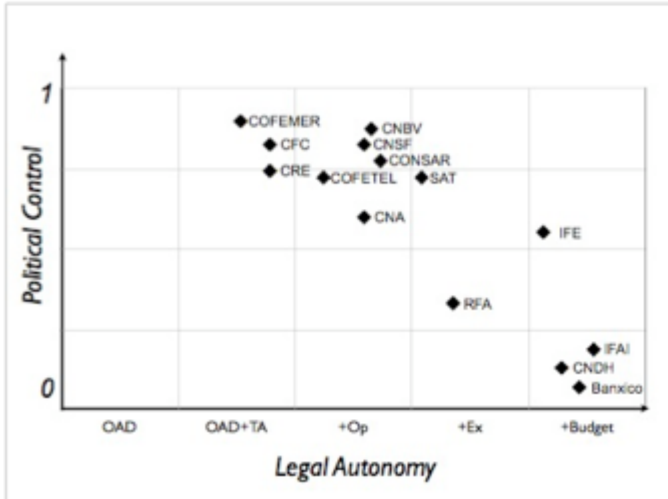
It is surprising that the CRE is supposed to regulate a dominant, state-owned company in charge of a vast network of transmission and distribution lines. The model adopted is mediocre with respect to its scope and ability to reap the benefits of competition. In sum, the energy regulatory commission seems to be fairly equipped to regulate the gas market, while poorly empowered to regulate the electricity and the oil markets.

This view is consistent with another study that evaluated the regulatory powers of the CRE in the natural gas sector. According to Alvide (1996), the role of the CRE has been less than ideal, as the CRE has limited power in terms of enforcement, and the controversies and differences with the Ministry of Energy have been innumerable. Although the only regulated part of the gas market is transportation and distribution, it has nevertheless resulted in problems, as gas production is still in government hands and is subject to revenue concerns. In sum, the CRE has discovered how difficult it is not only to regulate the energy sector, but also to regulate powerful public monopolies. Therefore, the participation of the government in the energy industry through public companies presents the most reasonable explanation for the weakness of the CRE.

The CRE only "participates" in setting the firsthand and transportation tariffs for gas and electricity (Secretaría de Energía Article 3-I). The CRE is responsible only for implementing what the Ministry of Energy considers the best course of action. At the same time, the CRE only "gives its opinion by invitation of the Ministry of Energy" on the formulation of energy policies and the government's energy plan (Secretaría de Energía Article 3-VI). The CRE has to request that the Ministry of Energy stores, distributes, and delivers electricity and gas (Secretaría de Energía Article 3-VIII, IX, XI). Cases involving conflict resolution and judicial review are the responsibility of the Ministry of Energy; the CRE only deals with the related administrative issues (Secretaría de Energía Article 3-XX). The CRE only "suggests to the Ministry" its ideas for energy disposition and regulations. These dramatic examples demonstrate how the functions of the CRE are constrained in favor of the Ministry of Energy.

The CRE's limited powers in many ways limit the independence of the CRE. According to Ballinas (2009), in keeping with a trend observed in other regulatory agencies in Mexico, the CRE has not been granted full autonomy. Although the CRE has its own budget, it is allocated via the Energy Ministry. Staffing, including the confirmation of the board, and major regulatory functions are severely constrained and subject to control, which, by legal provision, the CRE shares with the Ministry of Energy. As a direct result of the way it was created, the CRE is one of the less independent regulatory agencies in Mexico. This situation is summarized in Figure 1.

Figure 1. Level of Autonomy of the Mexican Regulatory Agencies



Source: Ballinas (2009, 2011)

Many recognized that the new trends for regulatory institutions were largely influenced by the OECD recommendations, so common at that time. The agencies are varied in scope and scale, since their development did not follow a common pattern. Autonomous agencies in Mexico are still under legal authority of the supervising ministry. And despite the "autonomous" status, regulatory agencies are subject to the same rules and procedures as the central public administration, which has led to a situation with blurred boundaries and conflicting authorities. At the same time, although regulatory agencies in Mexico have relatively clear functions, generally powers are exercised together with the supervising ministry. This has resulted in a lack of coordination and an overlapping of tasks.

The institutional design of the CRE is the predictable consequence of the complex matrix of institutional arrangements in the energy sector. The complex institutional setting in the energy sector has limited the CRE's regulatory powers in many ways. Actually, the dramatic examples outlined above reveal how much the functions of the CRE were constrained in favor of the Ministry of Energy. As has been illustrated in other studies, workers and bureaucrats—when trying to resist the liberalization plans for the energy sector promoted by the administrations of Carlos Salinas and Ernesto Zedillo—also affected the development of the regulatory body

(MacLeod 2004; Murillo 2001; Teichman 1995, 2001). Among the ministries, the strongest opponent of rapid divestiture, not surprisingly, was the Energy Ministry. It had the most to lose, since it was legally in charge of the largest block of public industrial companies (Teichman 1995). The sabotage of the government's objectives was apparently severe enough to force the government to withdraw a number of plans for the regulator.

It is important to bear in mind that many of the deficiencies and shortcomings presented here are due to the conflicting political structure of the energy sector rather than the fault of the designers. However, a technical and systematic assessment of the CRE does not provide all of the explanations. It is necessary, then, to study the genesis of the CRE.

IV. The CRE as an Advisory Body

The Energy Regulatory Commission was created amid a debate about the reform of the energy sector in Mexico. It has been said that at the beginning of the Carlos Salinas de Gortari administration (1988–1994), both Pemex and CFE were targeted for reform and a possible divestiture (former SENER official, September 2006). Salinas appointed Fernando Hiriart as minister of energy. Hiriart had a proven track record in the energy sector and proven loyalty to Salinas. He shared Salinas' vision of the necessity to change the political and financial character of Pemex and CFE (former SENER official, August 2005). Pemex needed a person familiar with the sector, but not necessarily an insider from the oil industry, who could act against the reform team's desires. Hiriart appeared to be the perfect candidate, although his experience was extensive in the electricity sector and not in the oil industry.

In a similar vein, Salinas de Gortari appointed Francisco Rojas as head of Pemex. Rojas was a civil servant from the Finance Ministry and was also comptroller-general during Miguel de la Madrid's presidency. During Miguel de la Madrid's administration, Rojas and Salinas were a team focused on the financial reform of Pemex. Rojas was Salinas' representative for this task. Thus, both Hiriart and Rojas were in charge of the reconfiguration of Pemex. Rojas was in charge of the operational restructure of Pemex, and Hiriart was in charge of the reform of

Pemex's financial plan, its accounting methods, and its labor contracts (former SENER official, September 2006).

The reform team's main concerns were about limiting the power of the oil workers' union and bringing Pemex's vertically integrated monopoly to an end (interview with a former SENER official, September 2006). Oil policy was adjusted to conform to this strategy. The main effort was concentrated on "easy-to-achieve" goals, rather than implementing a major privatization plan. They aimed to restructure and liberalize the energy sector, focusing on production processes. During this period, the challenges the oil sector faced were addressed by reforming secondary legislation that did not affect ownership of oil resources or alter the Constitution of Mexico. (Castañeda and Kessel 2002; Rousseau 2006).

The 1992 Organic Law of Mexican Oil amendments focused on putting to an end the "pyramidal centralized organization of function and decision-making within Pemex," Salinas' reform team believed that the abolition of Pemex's monopoly status would reduce its power and could leave the government bankrupt as a result of losing its main source of revenue. By reforming Pemex, Salinas saw a way to recover political control over energy policy. Pemex and its union were powerful actors who could lobby strongly against the government's desires.[17]

In 1993 the Energy Regulatory Commission (CRE) was created by presidential decree. This decree established the CRE as an autonomous body under the umbrella of the Ministry of Energy (Secretaría de Energía 1992, Art. 1). The CRE's central aim was to serve as an advisory body that would provide research and technical advice to help expand the market for electricity market (Secretaría de Energía 1992, Art. 3).

As originally designed, the functions granted to the CRE seemed limited. The CRE was further limited by a budget that was funded at the Ministry of Energy's discretion. After a careful analysis, the CRE looked like an "empty shell" advisory body, rather than the genuine regulatory

[17] In his memoirs, Salinas wrote: "We fought to keep oil under control of the Mexican government…[The rumors over privatizing Pemex] came from a faction that was trying to recover the privileges they had unlawfully held for years by controlling Pemex's investments program and the right to appoint most of its directors" (Salinas de Gortari 2001, 498-499).

body its name suggested. If Salinas' administration wanted to create a consulting advisory body, it could have created an institute (the common status for advisory technical bodies) or assigned more functions to the *Instituto Nacional del Petróleo*, the technical advisory body of the energy sector. Instead, he created the CRE. It is necessary to put the creation of the CRE into context.

Although never publicly admitted, it has been said that Salinas and his team had further plans for Pemex (former SENER official, September 2006). First, given the liberal character of Salinas' administration, many started to speculate about the likelihood of a divestiture in the energy sector. Two events confirm this statement. At the dawn of his administration, Salinas ordered the arrest of Joaquin "La Quina" Hernández Galicia, head of the oil workers' union, amid allegations of arms smuggling, tax evasion, and murder. The arrest of the oil workers' union leader, once considered untouchable by Mexican officials, immediately fueled the idea that Salinas wanted Pemex to be privatized.[18] Aware of the belligerent disposition of the oil workers' union, it was not unreasonable to speculate that Salinas planned to get rid of "La Quina" in order to minimize resistance for a possible privatization plan (Teichman 1995).

Second, the reform of Pemex in the context of NAFTA negotiations helped to further develop the idea of privatizing the oil sector. In the context of NAFTA talks, the United States wanted to include oil as one of the main elements of negotiation.[19] Salinas himself knew from the beginning that further reforms in the oil sector could be problematic, especially in the context of

[18] "La Quina" was considered, along with Fidel Velazquez, one of the most powerful union leaders in Mexico. As documented by Riding, "La Quina" had managed to blackmail previous administrations and conquer power spaces for himself and his allies (Riding 1999). "La Quina" obtained so much power that, in the moment, he was considered a threat to the regime. He knew that a threat to his empire would come from within the system, so he made sure to create not only a complex, extended network of personal and political contacts, but also to arm himself should he have to resist an attack from the establishment. It is also said that he gave under-the-table support to the 1988 campaign of the opposition presidential candidate Cuauhtémoc Cardenas in order to claim revenge (see also *Excelsior*, February 6, 1994).

[19] Salinas has openly admitted this. "We resisted the pressure to negotiate over Mexican oil during the NAFTA talks […] During the talks I had with the president of the United States, it was definitely agreed that Mexico would only sign the NAFTA if constitutional prerogatives were respected. These were synthesized in non-negotiable restrictions: no guarantee of oil supply; no free market for crude oil, oil derivatives, gasoline gas, and basic petrochemicals; no risk contracts; and no foreign investment in the oil industry or in gas stations" (Salinas de Gortari 2001, 498).

the NAFTA negotiations.[20] Salinas' reform team resolved that, if Mexico's oil sector were privatized, it would happen after the reform of Pemex. In this scenario, a regulatory authority would be needed. The Salinas team saw in the 1992 law the opportunity to create a basic structure for a regulatory body. This was why the entity was called the Regulatory Commission even though it lacked basic regulatory powers.

Salinas' reform team planned to put Pemex reforms in place before the possible privatization process. Once the reforms were instituted, the CRE's functions would be strengthened. However, bureaucrats in the oil sector and oil workers feared that after the reorganization, Pemex would be sold to private and foreign investors, which could lead to new labor contracts and layoffs (Teichman 1995). As a result, during Salinas' administration, resistance to privatization from both Pemex workers and Energy Ministry bureaucrats became fierce; yet bureaucrats did not take a directly opposing stance. Instead, they altered the flow and quality of information (Meyer and Rowan 1977; Rodríguez and Vargas 1996; Rousseau 2006; Rubio 1993). According to sources, bureaucrats couched their objections in considerably less self-interested terms. They claimed that in case Pemex was privatized, a slower divestiture process was necessary to allow more time to modernize and to improve the company's productivity and financial situation.

Even stiffer resistance came from the bureaucrats of the national companies and the Ministry of Energy. Senior- and middle-ranking officials in the Ministry of Finance supported the divestiture program advocated by Finance Ministry officials if, and only if, a slower pace was adopted (interview with former SENER and CRE officials, September and August 2005; MacLeod 2004; Murillo 2001; Teichman 1995, 2001). Their pressure was apparently severe enough to force the government to turn down a number of offers to purchase Pemex (Meyer and Rowan 1977; Rodríguez and Vargas 1996; Rousseau 2006; Rubio 1993).[21] By the end of Salinas'

[20] It has been said that starting further reforms in the oil sector could be considered once the negotiations for the NAFTA were over (interview with a former SENER official, August 2005). Salinas had control in Congress in case he wanted to start a reform. Nevertheless, during all these processes, opposition to this project solidified. Salinas's memoirs contain this claim: "In spite of tough internal fighting and powerful international pressure, my administration left a stronger Pemex, and one still in Mexican hands" (Salinas de Gortari, 2001, 502).
[21] Opposition was not necessarily new. During the de la Madrid administration, the minister of energy himself opposed pressure from the finance sector officials for a number of divestitures, especially in the mining sector (Meyer and Morales 1990; Teichman 1995).

administration, departmental confrontations did halt a possible privatization of Pemex and, consequently, the creation of a genuine regulator for the sector was postponed.

V. Electricity Reform and the 1995 Act: From Advisory Body to a Regulatory Commission

The first year of Ernesto Zedillo Ponce de Leon's administration (1994–2000) was completely dedicated to tackling the consequences of the previous year's political and financial crisis. Direct revenues from the sale of state-owned companies were a major source of government revenue. After Salinas' attempt to privatize Pemex encountered vehement opposition, Zedillo opted to put off oil privatization plans (Rousseau 2006). Still, reforms in the energy sector were needed to stimulate the economy. Zedillo's teams, headed by Luis Tellez, decided that the most convenient thing to do was to continue with the process of divestment. Yet after the previous administration's experience with Pemex, the electricity sector was now targeted (former CRE official, September 2005).[22]

Given the failure of the plan to possibly privatize the oil sector, the possibility of reforming the energy sector through secondary legislation was explored. However, the kind of reforms that would come from secondary legislation would not solve the sector's finance problems or bring desperately needed infrastructure investments to the sector. Zedillo attempted to put in place a comprehensive liberalization plan for the state-owned electrical companies, CFE and LyFC.[23] If Zedillo's administration succeeded in privatizing the electricity sector, a new governance plan would be necessary. Such an ambitious reform required constitutional amendments that, at the time, seemed impossible to enact in light of an adverse political environment in which the government lacked a congressional majority. It also appeared unlikely that this plan would be approved during the first half of the administration's term. Therefore, efforts were made to introduce the liberalization plan after the midterm elections (former CRE official, September 2005).

[22] The government argued that it had no money for the substantial investments needed to modernize the apparatus, especially the generating stations. According to the government, subsidies to the electric energy sector might counterbalance the demand in education and healthcare due to a relatively high population growth rate (Rodríguez and Vargas 1996; Rousseau 2006; Secretaría de Energía 1999).

[23] CFE is the dominant agency in generating, distributing, and delivering energy in almost the whole country, with the exception of the capital and the metropolitan area that was exclusively powered by LyFC until 2009, when the company was eliminated. CFE is a vertically integrated monopoly in the transmission and distribution networks.

Zedillo's team decided to start by fine-tuning the regulatory framework, including the Energy Regulatory Commission. In the past, the government had supervised the energy sector through multiple offices and managers. Now the administration wanted one entity to be responsible for supervision. In October 1995, the Energy Regulatory Commission Act (*Ley de la Comisión Reguladora de Energía*) was presented. This Act would transform the advisory body into an autonomous agency that regulated the natural gas and electricity markets.

The partisan views of the incumbent Institutional Revolutionary Party (PRI) and opposition National Action Party (PAN) legislators became apparent during the legislative debate. The former supported the creation of the regulator to monitor development in the sector. The latter expressed its distrust of state intervention by trying to limit regulatory discretion through proposals that would have increased the transparency of its procedures (Cámara de Diputados 1995).

A PRI-controlled Congress approved a bill to create the CRE, which was to be a decentralized agency with technical autonomy (Secretaría de Energía 1995, Art. 1).[24] The statute consolidated functions that had previously been scattered among several agencies (Secretaría de Energía 1995). The CRE was granted the ability to set tariffs in the gas sector.[25] It was also granted the power to regulate the transmission and delivery of electricity, as well as to oversee the energy imports and exports. See Table 1 for the primary elements of the statute.

[24] Although the PRI still had a majority in Congress for the purposes of reforming statutes and secondary laws, it did not have the requisite majority to pass constitutional amendments.

[25] As the gas sector was neither a strategic nor important asset to the energy market, it was a relatively easy industry to reform (Alba Vega 1993; Rosellón and Halpern 2001). Even though Mexico was rich in natural gas, Pemex, which was responsible for hydrocarbon production, did not consider gas part of its core business and thus could not guarantee a gas supply to the electric power sector (Galina and Romo 2002; International Energy Agency 1996). Even today, gas is considered a poor second cousin to oil extraction at Pemex (cfr. Alvide 1998).

Table 1. Reform to the CRE Decree

1993	1995
Art. 1. "The CRE is an administrative body under the umbrella of the Ministry of Energy."	Art. 1. "The CRE is an autonomous body with technical and operative independence …under the umbrella of the Ministry of Energy."
Art 3. "…its faculties include: to research, to advise, and to act as a technical consultant."	Art 3. "…its faculties include: to fix the tariff, to verify the services provision, to approve the methodologies, to publish the authorization [of concessions]…in the sector.

Source: Ballinas, 2011

According to one study (Carreón Rodríguez and Rosanvallón 2003), the CRE was given considerable powers, considering the small degree of private activity in the industry at the time. Nevertheless, according to Ballinas (2009, 2011), in keeping with a trend observed with other regulatory agencies in Mexico, the CRE was not granted full autonomy. One proof of this is that the CRE does not have its own budget. Instead, its budget is allocated by the Energy Ministry. Also, staffing, including the make up of the board, and major regulatory functions are severely constrained and subject to control, which, by legal provision, the CRE shares with the Ministry of Energy. In 1997, for the first time in its history, the PRI lost its majority in Congress. As a result, the PRI not only lost the ability to approve constitutional amendments, but also to single-handedly change secondary legislation without negotiating with the opposition. In spite of the loss, Zedillo decided to announce plans to continue the liberalization plans.[26] However, the proposal for liberalizing the electricity sector was met with a wave of popular resistance, led by

[26] For more details see the proposal, "Propuesta de Reforma del Sector Energético" (Secretaría de Energía 1999). An analysis of this can be found in Díaz-Bautista (2005) and Tovar Landa (2000).

the unions and the internal resistance of bureaucrats (Eaton and Reyes 2000; Teichman 1995).[27] This eventually resulted in the scrapping of the privatization plan.

Some analysts believed the government intended to strengthen and consolidate the CRE after approving reforms for the energy sector. But the reasons behind granting autonomy to the CRE while keeping core regulatory powers with the Ministry of Energy reveal how much the CRE's ability to function was constrained in favor of the ministry bureaucrats. Similarly, the Energy Regulatory Commission did not gain more powers after reforms were made to the electric power sector.

VI. The CRE under *Panista* Governments

In December 2006, Felipe Calderón, a member of the PAN party, succeeded Vicente Fox, also a member of the PAN party, who governed Mexico from 2000 to 2006. Prior to that, the PRI had been in power for 71 straight years, controlling the presidency and the Congress. Calderón, a lawyer who also earned a master's degree in public administration from Harvard University's Kennedy School of Government, had been President Fox's energy minister.

Just one year after taking office, President Calderón unveiled an oil reform plan. As with attempts by previous administrations, Calderón's reform plan did not specifically include a plan to change the regulatory framework of the sector or the independent status of the CRE. Calderón's comprehensive reform of Mexico's energy sector focused on giving Pemex greater freedom to contract work to private companies, manage its own revenues, and even issue bonds that only Mexican citizens could buy.

Nevertheless, a presidential summary of the proposal states that the CRE would contribute its technical expertise during the evaluation of possible exploration and production sites, help determine the level of oil reserves, and issue technical findings on projects put forward by Petróleos Mexicanos (Secretaría de Energía 2007). This proposal confirmed that the PAN government opted for a strategy similar to that of the PRI president. In other words, the oil sector

[27] See a summary of the debate in *El Financiero*, August 28, 1998.

would be reformed but the CRE's functions would remain the same. There would not be a specific strategy to strengthen the CRE's regulatory authority.

After a passionate and long debate, the Mexican Congress approved amendments to three laws and the creation of four new laws.[28] On November 2008, the Official Gazette of the Federation published some amendments and additions to the Energy Regulatory Commission Act. In addition, a Law for Renewable Energies and for Financing Energetic Transition was enacted.

These new laws brought some new regulatory powers to the CRE that were previously the exclusive domain of the Ministry of Energy. Together, the new laws gave the CRE greater authority as well as technical, operational, managing, and decision-making independence. The commission was also granted the authority to promote the development of storage, transportation, and distribution through biofuels pipelines. In addition, it was granted the power to regulate the sales of petroleum, gas, and basic petrochemicals, as well as the distribution and transportation of gas, oil, and petrochemicals through pipelines. These new functions gave the commission the power to administer environmentally friendly regulations. In summary, the CRE obtained a new set of powers that it did not previously have.

The third generation of Energy Regulatory Commission reforms did not transform the CRE, as expected, into a "proper" regulator. New powers did not change the CRE's organizational structure or the scope of its regulatory powers. The CRE still possesses limited functions that make it, in many senses, more of a research and technical body rather than a regulator. Although granted more regulatory functions, its regulatory power over CFE and Pemex is still nonexistent. Calderón's reputation as a pragmatist did not help him strike a beneficial deal with the lawmakers. The PRI's long years of power in Congress proved a difficult challenge for Calderón.

In addition to the CRE reforms, a new institution called the National Hydrocarbons Commission (CNH) was also approved. This new agency is meant to be a decentralized entity of the Energy

[28] Laws amended: *Ley Reglamentaria del Artículo 21 Constitucional, Ley Orgánica de la Administración Pública Federal, and Ley de la Comisión Reguladora de Energía. New laws: Ley Orgánica de Pemex, Ley de la Comisión Nacional de Hidrocarburos, Ley para el Aprovechamiento de Energías Renovables y el Financiamiento de la Transición Energética,* and *Ley del Aprovechamiento Sustentable de la Energía*.

Ministry, and is in charge of regulating and supervising hydrocarbon exploration and extraction. Together with the Ministry of Energy, the CNH will determine policies to restore hydrocarbon reserves.[29]

In Calderón's original proposal, the CNH was supposed to strike a healthier balance between the state and the director of Pemex, who has traditionally been extremely powerful (interview with a SENER official, December 2010). Nevertheless, it is expected that the CNH will function as a regulator inside of Pemex. Considering the powers granted to it, the CNH is confirmation that no other body, inside or outside the government, can regulate Mexico's oil monopoly.

Although the CNH's powers are limited to making recommendations to the Energy Ministry, it could be unadvisable to consolidate CNH's regulatory powers with those of the CRE. There is no evidence that the CNH will effectively regulate Pemex or that the CNH will not be compelled to promote the interests of those they regulate. Based on Mexico's short regulatory history, it must be expected that the new institution will, at best, balance the interests of bureaucrats and regulators and bring Pemex and CFE under control.

VII. Conclusion

The history of the Energy Regulatory Commission represents the history of the energy sector in Mexico: It is a collection of struggles among different forces—at many levels and in many arenas—for the political control of the energy sector. This case also emphasizes that when central governments fail to exercise sufficient control over state-owned companies and when opposing forces are strong, the result may be a rather useless institution that exists for the sake of appearance.

Repeated attempts to privatize different areas of the energy sector resulted in the creation of an ineffective regulatory body. The failed attempts at privatization are related to the complex

[29] It is important to mention that this law does not include the refining, storage, transport, or distribution of petroleum or its by-products. Comparatively, the current Mexican legal system allows individuals and companies to take part in the storage, transportation, distribution, and operation of natural gas pipelines, as well as the transportation, distribution, storage, and sale of liquid petroleum gas.

institutional arrangements that define Mexico's energy sector. Since oil and electricity are key elements of Mexican nationalism, it is not difficult to understand that the energy sector has developed into a complex matrix of formal procedures and powerful unwritten practices inherited from decades of politically-motivated decisions.

Whether attempted reforms focused on privatization or strengthening regulatory powers made no difference; neither effort changed the political nature of the energy sector or limited the political power of the energy industry. Failed reforms uncovered defective top-down leadership, which made it difficult to deal with a powerful mid-level bureaucracy that saw in the reforms a threat to its power. The bureaucrats reacted in opposition to the reforms. Even if the reforms did not call for the privatization of the sector, both workers and bureaucrats perceived that they did. Reformist presidents Salinas, Zedillo, Fox, and Calderon all suffered the same fate at the hands of bureaucrats, labor unions, and legislators. The existence of the failed reforms plans across administrations suggests a systemic problem that has yet to be solved.

Although reformers tried to merge previously unrelated energy-sector functions under the umbrella of the CRE, opposing forces focused on keeping the functions separate. The scrapping of the plan to privatize the oil and the electricity industries meant that the set-up of the Energy Regulatory Commission grew from a foundation of uncertainty. More importantly, there was never a real intention to regulate Pemex. The obvious consequence was the creation of a regulatory commission that does not exercise real regulatory power; instead, it plays more of an advisory role.

The regulation of the gas sector, oil's poor second cousin, is the unintended result of a larger, failed attempt to reform Mexico's entire energy sector. The Hydrocarbons Commission, set up in 2008 as part of a slate of energy reforms, has gradually been asserting its position as a regulatory body. Still, the gradual and careful opening of Pemex activities to outside interests has been balanced with the reinforcement of the policy role of the Energy Ministry and by the creation of an upstream technical agency.

The history of the CRE shows how political struggles between opposing coalitions—in this case, politicians, bureaucrats and powerful worker unions—have a direct impact in the design of an independent regulatory agency. The struggles have been between different forces, at many levels, in many arenas, at different moments, and at varying intensities. These interactions have resulted in a CRE that has changed forms many times. The CRE's independence and regulatory scope have been severely impacted by politicians and bureaucrats who not only seek to gain influence over regulatory policy but also work to maintain some areas of influence within the state-owned companies. For the reasons outlined in this paper, regulatory authority over state-owned companies in Mexico is doomed to fail.

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