ENERGY LEGAL REFORM

The Mexican new energy model
PART I. Background and legislative process

- México: a precarious situation.
- Energy Industry on the edge of collapsing.
- 2013 Context: ¿Why now?
- From Constitutional amendment to secondary laws.

PART II. The new energy model

- A glance to the new energy model
- Institutional planning
- Hydrocarbon
- Electricity
- New productive corporations.
- Mexican State Income.
- Transparency and balance statements.
- Sustainability and Environment.

PART III. ¿What is next?

- Green initiative package.
- From legislating to executing.
Background And Legislative Process
México: a precarious situation.

México had the challenge to find a model to boost the Economic Growth, and at the same time foresee mechanisms to face unequal opportunities.

53 millions of Mexicans in poverty.

25 Per cent of GDP comes from informal economy.

.46 Gini Index, Second country of OECD with most inequality.

2.0 growth GDP, Last decades, low growth.

The change in the economy model was indispensable.

The Mexican new energy model
Energy Industry at the edge of collapsing

Our energy sector was declining...

Low Natural Reserves.
Decreased production.
Shortage of gas.
50% of gasoline is imported.
Electricity based in fuel oil, expensive and polluting.
Technology remainder of PEMEX and CFE.
Clean Energies without growth

This was a short term, inefficient and non sustainable energy model.
After decades of debates, with legal initiatives that did not succeed, and others like in 2008 that were not enough; in 2013 different conditions are generated:

- President Enrique Peña Nieto
  - 11 structural reforms

Efficient Legislative Branch

Political Parties
  - In synergy

The Mexican new energy model
In July 2013, President Enrique Peña Nieto, PAN, and the PRD introduce their initiatives to the Energy Reform starting the debates at the Congress.

**JUL/AUG 2013**
The Executive branch, PAN and the PRD present initiatives to the Energy Reform.

**AUG 2014**
August 11, the President enacts secondary laws related to energy.

**AUG 2014**
The Congress approves to issue 9 secondary laws and 12 amendments in force.

**DEC 2013**
Approval of the Constitutional Energy Reform

**APR 2014**
The Executive Branch presents initiatives of secondary laws

**APR-JUL 2014**
Senate regional meetings

**SEPT – DEC 2013**
Open discussion at the Senate and debate

On December 20 the legal reform is enacted. 21 regulations to outline the model.
During the analysis and discussion of the initiatives, in its various phases, the Energy Legal Reform had feedback from different sectors as well as political parties. This was achieved with:

- **201 hours** of discussion at both houses.
- **113 hours** of Commission’s discussions.
- **376 days** took place from the initiatives to enactment.
- **1,350 speeches** of representatives of all political parties at Congress.

The Mexican new energy model
PART II

The new energy model
A glance at the new Energy Model

**AN ENERGY MODEL OF MEXICANS, FOR MEXICANS**

**HIYDROCARBONS**
- Keeps the State original property.
- Allows sector competition.
- Strenghtens the national content.
- Broad options for consumers

- More competition to increase production.

**ELECTRICITY**
- Promotes competition to reduce rates.
- Guarantees supply and energy safety.
- Encourages whole country services.
- Stimulates production with renewable sources.

- Free competition under State rules.

**3 AXES**
- AUTONOMOUS AND RIGID RULES
- TRANSPARENCY AND ACCOUNTABILITY
- SUSTAINABLE AND FUTURE PLANNING

The Mexican new energy model
Institutional Design of the Mexican Energy Sector

**Mexican State**

- **SENER**: Conducts and coordinates energy policies. Awards allocations (including Round Zero).
- **SHCP**: Establishes economical conditions for purchases and contracts.
- **SE**: National Content
- **SEMARNAT**: Environmental protection for the sector through new policies.

**Part State Companies**

- **CNH**: Gathers geological information. Executes and opens purchases. Supervises extractions plans.
- **CRE**: Hydrocarbons: regulates and authorizes storage, transportation, distribution, access to ducts and sale. Electricity: regulates and authorizes production, as well as rates.
- **PEMEX**: Manage of the National Duct System of Storage and transportation.
- **CFE**: Manage the National Electricity System, access to the national network of transmission and distribution.

**State owned Companies**

- **MEXICAN OIL FUND**: Transfers
- **CENAGAS**: National Agency Contratos
- **CENACE**: Transfers

**The Mexican new energy model**
### 5 contracts

<table>
<thead>
<tr>
<th>Shared profit contracts</th>
<th>Services contracts</th>
<th>Shared production contracts</th>
<th>Licencee Contracts</th>
<th>Contract Including all specifications mentioned before</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Contract Icon]</td>
<td>![Contract Icon]</td>
<td>![Contract Icon]</td>
<td>![Contract Icon]</td>
<td>![Contract Icon]</td>
</tr>
</tbody>
</table>

**The Mexican new energy model**
Hydrocarbons: the contracts process

**STEP 1: CONTRACT DESIGN**
- Selection of areas to tender
  - SENER
  - CNH
- Technical guidelines
  - SENER
- Fiscal Conditions
  - SHCP

**STEP 2: Tendering Process**
- Process guidelines
  - SENER
- Tendering and allocation of contracts
  - CNH
- Signing contracts
  - PEMEX

**STEP 3: OPERATION**
- Approval of exploration and development plan
  - CNH
- Authorization for surface exploration and wells
  - CNH
- Technical Management
  - CNH
- Regulation and security supervision
  - AGENCY

**STEP 4: Income Management**
- MEXICAN OIL FUND
  - Will pay the contracts and manage the State oil income.

The Mexican new energy model
In the new law gradual release process for imports and prices is considered:

**2014**
- Control increases are kept:
  - **+ 9 cents**
    - Gasoline Magna
  - **+ 11 cents**
    - Gasoline Premium and Diesel

**2015**
- Maximum prices are kept and are adjusted according inflation.

**2016**
- From 2016, sale to public by different brands.

**2017**
- From 2017 free import.

**2018**
- Free price, set by the market conditions.

**2020**

---

**Until December 31, 2016, only PEMEX can import fuels.**

The Mexican new energy model
Electricity: competition under the State rules

**STATE CONTROL**

- **CONTROL AND PLANNING OF THE NATIONAL ELECTRICITY SYSTEM**
  - CFE builds and runs networks, with possible third companies.
  - Qualified consumers can agree costs with the producers through contracts. SHCP sets the rates for basic consumers and CFE providers the service.

**COMMERCIAL TRANSACTIONS**

- **INTERNAL TRANSACTIONS**
  - Independent operator of the Electrical National System and regulates the spot market.

**STATE CONTROL**

- **GENERATION**
  - Permits for over 0.5 MV
  - Entrance barriers are eliminated.
  - They are able to trade.
  - In case of emergency, the State can request energy.

- **TRANSMISSION**

- **DISTRIBUTION**

- **COMMERCE**
  - Minimal consumers
  - Qualified consumers
  - Greater Electrical Market

The Mexican new energy model
Electricity: three public entities leading the sector

**SENER**
- Establishes, conducts and coordinates national energy policy.
- Establishes requirements to acquire Clean energy certificates.
- Promotes competition.
- Prepares and coordinates infrastructure projects.
- Reaches rural communities and deprived areas.

**CRE**
- Establishes conditions for transmission, distribution and supply.
- Rate regulations.
- Issues foundations for the Electricity market and monitors operation.
- Issues model contracts for interconnecting.
- Grants clean energy certificates.
- Records qualified consumers.

**CENACE**
- Operational control of the National Electricity System.
- Safe supply, and continuity of the electricity system.
- Auctions for national electricity contracts.
- Expansion and modernization of the national transmission network.
- Demand guarantees to fulfill contracts.
Our Productive companies: ready to compete with the world

MORE FLEXIBLE
Flexible legal framework. Its Law will be the main rule, with civil and commercial law as supplementary.

MORE CORPORATE
They are created according to the best International practices.

MORE INDEPENDENT
Both companies will have full budget autonomy.

MORE TRANSPARENCY
Monitoring scheme and auditing results, management and accountability to prevent corruption.

STRONGER FINANCES
Option to release them from liability with fewer burdens that impede their growth

LOOKING TO THE FUTURE
Greater freedom to decide how to invest in productive projects to generate more value.
The Constitutional Reform established a **ZERO ROUND**, that allowed PEMEX to keep the fields that would not be tendered. On August 13, 2014, SENER announced the **results of round zero** and awarded PEMEX with:

- **All** Reserves of 2P requested (20 thousand 589 mob).
- **67%** of perspective resources requested (22 thousand 126 mob).
- PEMEX remains as **5th world leader** in proven reserves.
- This guarantees that will produce **2.5 millions of barrels per day** at least **20.5 more years**.

**IMPORTANT:** Round Zero does not exclude PEMEX of future rounds, so it will may continue participating, independently or associated. Furthermore, the law provides for possible additions allocations to PEMEX as a productive enterprise.
10 PEMEX associations in the short term

The fields have equivalent reserves of 2P and 3P

Average investments per year are estimated at 4 billion dollars

### Round 0 to Round 0.5

- **Allocations**
  - PEMEX

- **Contracts**
  - PEMEX

### Migration

- **Fields with technical complexity and high capital investment**
  - Consolidated matured land zones
  - Consolidated matured sea zones
  - Extra thick oil fields
  - Large Oil and Gas deep ocean fields
  - Findings in unknown ocean zones

### Findings

- The fields have equivalent reserves of 2P and 3P
- Average investments per year are estimated at 4 billion dollars

### Private Fields

- Fields with technical complexity and high capital investment
- PEMEX associations in the short term
State Revenues: secured in the short term and enhanced future

The new tax regime is oil rents

Utility shared right (65% rate)
Income Tax (ISR)
Signature Bonuses
Contractual rate of Hydrocarbons
Adjustment mechanisms
Dues in exploratory phases
Royalties
Percentage of operating income
Costs recovery (Optional)

With productive companies (PEMEX):
Allocations to productive State companies

With privates or EPEs:
License Contract
Profit sharing contract
Production sharing contract

Service contract
Contractors will deliver all production to the State Will be paid in cash according to the market value.

Income

Mexican Oil Fund

The Mexican new energy model
Our oil revenues will be invested, administered and distributed by the Mexican Oil Fund, a State public trust, with the Bank of México as trustee.

**OIL MEXICAN FUND FOR STABILIZATION AND DEVELOPMENT**

**Expenses on first phase:**
- Contract payments and allocations
- Stabilization Fund of budgetary income
- Stabilization Fund of the States budgetary income
- Hydrocarbon Extraction Fund
- Sector Fund CONACYT-SENER-Hydrocarbons
- Sector Fund CONACYT-SENER-Energy Sustainability
- Federal treasury for expenditure control (ASF)
- Federal Treasury to provide the, PEF up to 4.7% del GNP

**TECHNICAL COMITTEE OF THE MEXICAN OIL FUND:**
- Governor BANXICO
- Ministers of SENER Y SHCP
- Independent members (Executive proposal, Senate approval)

**TRANSPARENCY**
- Controlled by the Higher Audit
- Will publish monthly balances.
- Will have an external auditor.

The Mexican new energy model
El nuevo modelo energético de todos los mexicanos

Reserves destination of the Mexican Oil Fund (Phase II)

After the prior expenses, when the profits reach 3% of the GNP, the rest of the money may be invested in the following manner:

- **Science, Technology and Renewable Energies**: 10%
- **Universal Pension System**: 10%
- **Oil related projects**: 30%
- **Grants, connectivity and regional development**: 40%
- **Long term savings**: 10%
Transparency and accountability to protect our resources

TENDER AND CONTRACTS
Checks and balances between SFNFR/CNH/SHCP
Contracts, contributions, remunerations and payments will be public.
Results of tender in open session.
External audits of cost recovery.

PRODUCTIVE COMPANIES
Publish information required by the Securities market law (company situation; subsidiaries and affiliates; projects).

REGULATORY BOARDS
Sessions, agreements and public resolutions
Ethical Code
Prevents conflicts of interests

The Mexican new energy model
Sustainability and environment: a reform looking to the future.

- Protects the environment and guarantees the industrial security.
- Encourages the use of clean and renewable energies.
- Creates a law to promote geothermal energy.
The National Agency of Environment and Industrial Protection of the hydrocarbon Sector

<table>
<thead>
<tr>
<th>Has 2 roles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Industrial and administrative security</strong></td>
</tr>
<tr>
<td>✓ National and International technical Standards</td>
</tr>
<tr>
<td>✓ Prevention and containment of spills and leaks.</td>
</tr>
<tr>
<td>✓ Emergency Financial coverage.</td>
</tr>
<tr>
<td>✓ Physical and operational integrity of facilities.</td>
</tr>
<tr>
<td>✓ Design and planning to prevent and cope emergencies.</td>
</tr>
<tr>
<td><strong>2. Environmental Care</strong></td>
</tr>
<tr>
<td>✓ Protects, preserve and restore ecosystems</td>
</tr>
<tr>
<td>✓ Establish conditions for management of industrial waste.</td>
</tr>
<tr>
<td>✓ Control pollution emissions.</td>
</tr>
<tr>
<td>✓ Issue the technical components for environmental and energy policy.</td>
</tr>
</tbody>
</table>

The executive branch will publish the law before November 10, 2014
Four measures to promote the use and creation of clean energies.

1. Creates a market for Certificates of Clean Energies
2. Loans for large companies for reducing their consumption at peak hours.
3. Micro renewable generators will be able to sell their energy.
4. Expansion of networks of high potential of renewable energies.

The Mexican new energy model
Certificates of Clean Energies (CELS): how they work.

The SENER will issue criteria for the CELs

Establish requirements to get the CELs by

Grants CELs to

Generators produces electrical energy from renewable and clean sources

Get CELS from

- Providers
- Qualified consumers
- Final consumers*
  *that receive energy by different supplier.

The Mexican new energy model
Geothermal: a new law to promote and create clean electricity

With this new law, the Energy Reform will promote clean energy for Mexico’s benefit.

**WHAT IS GEOTHERMAL ENERGY:**

Geothermal energy is obtained from the use of the earth’s internal heat.

**Geothermal energy has two benefits:**

- It is **cleaner** than renewable energies.
- It is **more reliable** than other clean energies.

---

**Solar**

- **Eólic**
  - More reliable since is continuos

**geothermal energy**

**Cleaner since does not create greenhouse gases**

**Fuel Gas**
Accomplishments:

Objectives:

- Provide greater legal certainty to investors
- Reach 10GW (now 840MW)
- Fulfill international agreements regarding the climate change.
- Reach the target for 2024 which means 35% of the energy obtained of renewable resources.

**IN FINDINGS:**

- Easy procedure to obtain registration, up to 8 months.

**IN EXPLORATION:**

- Authorization granted for up to three years (renewable for three more) in areas of 150km².

**IN EXPLOTATION:**

- Licensee can obtain authorization up to 30 years.

**ROUND ZERO:** CFE has 120 days to determine the geothermal areas for development.
¿What is next? Implementation
On August 11, 2014, President Enrique Peña Nieto enacted the secondary laws, outlining 10 actions for the Federal Government to be done in the coming months:

<table>
<thead>
<tr>
<th>ROUND 0</th>
<th>ROUND 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td>Decrees CENAGAS CENACE</td>
<td>Mexican Oil Fund</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>3</strong></th>
<th><strong>4</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominations CNH y CRE</td>
<td>Boards Candidates PEMEX/CFE Independent Members Fondo Mex. Petróleo</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>5</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation of 3 funds:</td>
</tr>
<tr>
<td>Suppliers and National contractors</td>
</tr>
<tr>
<td>Fund SENEX-NAFIN</td>
</tr>
<tr>
<td>Universal Electrical Service</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>7</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Laws Statutes</td>
</tr>
<tr>
<td>Restructure Decree</td>
</tr>
<tr>
<td>Mexican Oil Institute</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>8</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Energy Certificates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>9</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Mexican new energy model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>10</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The National Agency for industrial security and environmental protection Statute will be enacted.</td>
</tr>
</tbody>
</table>

No later than November 11
2014 will be remembered as the year that México overthrew past myths and dare to believe that we can build a better future.

We must ensure that these new rules and instruments will really contribute to promote the talent and success of every Mexican.

Foundations are placed, we need to take advantage of this new and historical platform to build together, a new Mexico.

President Enrique Peña Nieto, August 11, 2014