

# International Environmental Law Committee Newsletter

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## MESSAGE FROM THE CO-CHAIRS

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For this issue, the newsletter travels to Latin America for a review of that region's energy, climate change, and related environmental legal developments. From the energy and climate perspective, Latin America is a region of contrasts. It produces only 12 percent of global greenhouse gas (GHG) emissions and is home to the world's largest carbon sink, the Amazon rainforest. But it is also the site of one of the most significant oil reserve discoveries of recent years. The region has extraordinary hydroelectric and biofuel potential, but developing these resources raises many additional environmental issues. The region is also beginning to take concrete steps to address climate change. For example, Mexican President Felipe Calderón has suggested that Mexico would be willing to undertake GHG reductions, one of the first among large developing countries, and Costa Rica has committed itself to developing a carbon neutral economy by 2021.

Fittingly, this issue includes six articles from five countries, covering a broad and exciting array of topics. Together, they demonstrate that Latin American governments are fully engaged in debates about how to deal with energy development and climate change at home and abroad, without losing sight of more local

issues, such as the impacts of energy production and pollution mitigation and the development of institutions to address these and other impacts.

The first two articles focus on climate change. First, Marcus Freitas discusses Brazil's outlook as the world approaches the U.N. climate talks in Copenhagen. Mr. Freitas points out that Brazil is focusing on reducing deforestation, which accounts for 75 percent of the country's emissions. He observes that a recent bill would stimulate the development of cleaner technologies by promoting efficiency, environmental awareness, preservation and conservation of natural resources, and the development of a Brazilian Market for Emission Reduction. Luis Carlos Rodrigo and Ursula Zavala Carlin summarize the principle elements of Peru's newly-enacted regulatory framework governing Clean Development Mechanism (CDM) projects such as those involving bio-fuel and renewable energy production. The authors conclude that in so doing, the Peruvian government has demonstrated its commitment to encouraging investors to include CDM as a key variable in their investment projects.

The next two articles cover environmental issues in Chile. Gonzalo Biggs provides a fascinating update of his 2001 newsletter article, touching on topics such as the contribution of the U.S.-Chile Free Trade Agreement and the Organization of Economic Cooperation and Development to Chilean environmental law development. Mr. Biggs also offers a thorough assessment of recent developments concerning climate change, glacier protection, and energy policy, among others. Covering some of the

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same institutional issues but in slightly more depth, Iván Poklepovic provides insight on a bill that the Chilean Congress is expected to approve that would redesign Chile's institutional environmental law framework. Not only would the bill create the Ministry of the Environment and the Superintendency of the Environment, but also modify the environmental impact assessment system in Chile.

Moving north, Leopoldo Burguete Stanek provides an informative look at two key reforms in Mexico's energy sector: the Renewable Energy and Financing of the Energy Transition Law and Sustainable Energy Use Law. Mr. Burguete notes that these new statutes should be considered significant advances in relation to the promotion of renewable energies and energy efficiency.

Finally, Elisabeth Eljuri and Wendy Quintero bring us up to date on developments in Venezuela's rapidly changing environmental law landscape. The authors draw attention especially to the local focus of these changes, such as Venezuela's proposed Organic Environmental Code, which would allow the public to bring class actions for environmental damage, and the Community Councils. The Councils are organized groups that have been given supervisory as well as participatory roles in the planning, execution, and control of public environmental policies and programs implemented by public entities. The authors also usefully highlight fishing and aquaculture legislation that bans trawling within the nation's Exclusive Economic Zone.

We hope you enjoy this wide-ranging and informative exploration into these new developments and critical matters. Please contact Brett Grosko at [brett.grosko@usdoj.gov](mailto:brett.grosko@usdoj.gov), if you would like to contribute to future issues of our newsletters.

## BRAZIL AND COP-15

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**Marcus V. Freitas**  
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The United Nations Climate Conference (COP-15), to be held in Copenhagen, Denmark this December, should represent a decisive moment to take action in order to reduce greenhouse gas (GHG) emissions. These actions will be coordinated and organized to establish an international framework to address the global nature of climate change by engaging both the developed and developing world more deeply.

The expiration of the Kyoto Protocol, to which Brazil is a party, will require improved efforts to mitigate climate change. COP-15 will seek the endorsement of four basic goals to serve as building blocks: mitigation, adaptation, technology, and financing. These four building blocks in turn will lead to a more concerted effort and shared vision for long term cooperation.

The mitigation aspect should secure the stabilization of GHG emissions at acceptable, yet negotiable levels, considering past experience and future GDP growth expectations. This is the most controversial aspect of the negotiations, particularly as to whether a developing country should have the right to emit GHGs as part of its economic growth. The real challenge is to ensure greater compensation and technology transfer from the developed to the developing world in order to reduce emissions.

The reduction of deforestation, illegal logging, and forest degradation is one of the most important aspects of the agenda in regard to Brazil, which basically has a clean energy matrix. The deforestation levels in the Amazon region certainly constitute Brazil's most relevant environmental challenge for GHG emissions. Deforestation is responsible for approximately 75 percent of Brazilian emissions. This deforestation, due mainly to the expansion of its agricultural and cattle raising frontiers, certainly is an area of high priority where international support for permanent reduction in emissions is required. Brazil has the world's largest rainforest and, therefore, an essential part of the international legal framework for GHG reduction.

Since deforestation of the Amazon basin is a key element in this equation, Brazil needs to be more committed to reducing illegal logging and burning areas in the Amazon region, particularly for the growing of sugarcane. This is where COP-15 should establish goals for economic incentives for local populations to discontinue deforestation with greater commitment to sustainable development and securing better compliance with the new levels. Local populations should be entitled to some sort of revenue transfer mechanisms to support environmental preservation.

Another point to be considered is that even though a large part of the Amazon forest is located in the Brazilian territory, a concerted effort with Peru, Colombia, and Ecuador is essential to preserve the biodiversity of the region, especially with greater emphasis on the revival of the 1978 Amazon Cooperation Treaty. These countries must work more intensively and effectively to coordinate measures directly affecting the rainforest.

Historically, Brazil has been committed to environmental protection. The Brazilian Federal Constitution dedicates an entire chapter to environmental issues by affirming the need for an ecologically balanced environment, with a clear commitment to defend it for current and future generations to come. Many legal mechanisms have been established to address environmental protection, such as environmental quality standards, environmental impact analysis of industrial projects, zoning for soil use, special protection areas, licensing and permit requirements to minimize degradation of the environment, plus the imposition of heavy penalties and disciplinary action for non-compliance resulting in environmental degradation.

Several legal instruments have imposed penalties and regulation of environmental issues has been at the core of laws such as: the Forest Code and the Fishing Code, among others, where civil and criminal liability penalties have been set out for individuals and entities responsible for environmental degradation. At the same time, the current administration has been more lenient with environmental standards, particularly in regard to projects associated with its Accelerated Development

Program, which seeks to increase the development of the country through certain investments, particularly in infrastructure and energy generation. This historically has led to clashes between governmental authorities—which have pushed for the implementation of major development projects—and those defending the environment.

The business community has been supportive of programs providing incentives for preserving the rainforest by seeking to reward those who have never engaged in deforestation or those who have reduced deforestation levels. Carbon credits should be used to generate revenues for actions pursued to reduce and sequester greenhouse gas emissions and address the issue of climate change, which is something that has not happened as of yet.

In regard to climate change in particular, the current administration is seeking to approve a bill, H.R. 261/2007, for the establishment of a National Policy for Climate Change. This bill is unlikely to be approved by Congress by the time of COP-15. Nevertheless, the proposed bill basically seeks to establish a national policy to address the negative impact of climate change by adopting six basic principles: (a) Precaution, (b) Prevention, (c) Participation, (d) Sustainable Development, (e) Common, yet Differentiated Responsibilities, and (f) International Cooperation. Its purpose is to provide the necessary stimulus for the development of cleaner technologies by promoting efficiency, environmental awareness, preservation and conservation of natural resources, and, most importantly, the development of a Brazilian Market for Emission Reduction (MBRE). By providing tax compensation, tax incentives, credit lines for financing, and the creation of a National Fund for Climate Change (FNMC), the government should be able to provide the necessary incentives to secure the enforcement of its efforts for sustainable growth and preservation of environmental standards.

The MBRE will operate like a commodities and securities exchange under the supervision of the Brazilian Securities and Exchange Commission. The creation of the FNMC will be supported by contributions from the Federal, State, and Municipal

governments, the National Environmental Fund, the Fund for Diffuse Rights, and even private donations.

Most importantly, H.R. 261/2007 seeks to establish the Interministerial Commission for Climate Change as the national authority assigned especially to address the United Nations Framework Convention on Climate Change, with responsibilities such as:

- (a) Issuing opinions on legal instruments and rules dealing with climate change and necessary adaptations to its impact;
- (b) Providing subsidies for governmental proposals and positioning within the U.N. Framework Convention on Climate Change;
- (c) Applying eligibility criteria for the use of the Clean Development Mechanism (CDM) and issue opinions favoring projects for reducing emissions that may be eligible for CDM, in accordance with the national strategy for sustainable development;
- (d) Promoting civil and governmental engagement to implement the commitments made by Brazil internationally.

During COP-15, Brazil will be pressured to take a leadership role in the negotiations. The country still needs to define the goals and timeframes that it will present, but its basic position is that emerging economies should not have the same responsibilities as developed countries, particularly with regard to setting out goals for GHG reduction. This is basically the same position that it held during the Kyoto negotiations.

The Brazilian government takes the position that developed countries should implement mandatory goals set out in the Kyoto Protocol for reducing emissions while the developing world should only make flexible commitments. This still remains a controversial issue within the government, where the environmentalists have lost a partial battle after Environment Minister Marina Silva left the government to pursue her own candidacy for the presidency of the country, as a result of a dual policy approach the Lula administration has adopted: domestically, to expand growth, and internationally to preach a “green discourse.”

## Conclusion

COP-15 should represent an improvement over the commitments made in the Kyoto Protocol. However, in order to set an effective international climate policy framework, the reduction of deforestation, which has the highest potential to contribute to low cost mitigation, is essential. This is a sectoral approach that could significantly contribute to climate change mitigation, greatly contributing to GHG reductions. The trade off related to the diminution of deforestation levels for the financing of programs, particularly those dealing with local populations, should serve as an incentive for developing countries to preserve their forests and allow them to be financially rewarded for their commitment to cut emissions. Brazil can spearhead such a strategy to protect its most valuable asset: the Amazon rainforest.

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The International Environmental Law Committee welcomes the participation of members interested in preparing this newsletter.

If you would like to lend a hand by writing, editing, or identifying authors or issues, please contact the editor, Brett Grosko, at (202) 305-0342 or [brett.grosko@usdoj.gov](mailto:brett.grosko@usdoj.gov).

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## ENERGY EFFICIENCY AND THE CLEAN DEVELOPMENT MECHANISM IN PERU: A NEW CHALLENGE FOR THE GOVERNMENT AND A NEW WAY OF DOING BUSINESS

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**Luis Carlos Rodrigo  
Ursula Zavala Carlin**

**Rodrigo, Elías & Medrano Abogados**

### Introduction

The carbon market giant has awoken and Peru is taking part in the new day. By enacting regulations for the promotion of the biofuel market and for the investment in electric power generation using renewable energy, the Peruvian government has shown its strong political will to create a legal framework that will encourage investors to include the Clean Development Mechanism (CDM) variable in their investment projects. For its part, the business sector has taken its first steps by choosing projects that facilitate more sustainable operations. This is because the carbon market has decisively swung the pendulum toward the perception of business opportunities as inherently related to realizing higher earnings by committing to improving environmental practices.

The warm reception of the CDM in Peru can be said to prove that locally there is a clearly favorable view of the growing carbon market and its positive environmental and economic effects. Today in Peru, the idea that investing in clean technologies and/or environmentally sustainable projects is an *excess cost* is obsolete. The emerging global market had a total traded value of US\$126 billion in 2008, double that of 2007. The Peruvian government and companies seem to have understood the importance of this potential. This article describes the existing regulatory framework for (a) the promotion of biofuels and (b) investment in electric power generation using renewable energy in Peru. It also discusses which sectors have the most potential for projects that qualify for the CDM. We will begin by generally describing the incentives approved by the Peruvian government for companies using biofuels and for companies who use renewable

sources to generate energy, and will conclude by recounting the development of the carbon market in Peru as part of the assessment of its prospects and possibilities for future investment projects.

## **Regulatory Framework for Promoting the Use of Biofuels and Power Generation with Renewable Energy**

### **Definitions**

Peruvian law defines biofuels as the chemical products obtained from agricultural or agro-industrial raw materials or other forms of biomass, that comply with established quality standards. According to usage, they can be classified as:

- (i) Solid biofuels such as straw, logs, chips, briquettes, and pellets;
- (ii) Liquid biofuels such as alcohols, vegetable oils and esters (biodiesel), pyrolysis oils, and biohydrocarbons;
- (iii) Gas biofuels such as biogas, hydrogen, and gasogene gas.

### **Law for the Promotion of the Biofuel Market (LPBM)**

The LPBM establishes the general framework for supporting the development of the biofuel market. It is part of a larger national energy policy which seeks to diversify the fuel market and avoid dependence on volatile diesel prices, while reducing greenhouse gas emissions. The LPBM states that the biofuel market should be promoted on the basis of free market competition and unrestricted access to economic activity, with the objective of diversifying the fuel market, promoting agricultural and agro-industrial development, generating employment, and reducing pollution. To achieve these goals, the LPBM sets forth general policies that include the promotion of scientific investigation, the development of experimental projects and technology transfer, along with incentives for fostering private investment in biofuel production and biofuel consumption by every economic activity, in its pure condition or combined with other fuels.

### **Law to Promote Electric Power Generation using Renewable Energy Sources (LPEP)**

The renewable energy resources governed by the LPEP are biomass, solar, wind, geothermal, and hydroelectric energy (up to 20 MW).

Solid, liquid, and gas organic matters resulting from biological processes (i.e., products with vegetable and animal origins) and those resulting from their natural or artificial transformation, qualify as biomass. Biomass sources used to obtain heat and energy can also be classified by origin:

- (i) Natural biomass, which is spontaneously produced in non-cultivated land and has traditionally been used by humans to satisfy their caloric needs. The best example of this is firewood;
- (ii) Residual biomass, which is produced by the agriculture, forestry, and livestock industries, as well as industrial and urban organic residue;
- (iii) Energy crops, which are grown for the specific purpose of being transformed into liquid and solid biofuels.

The main features of the legal framework applicable to the use of renewable energy for electric power generation and distribution are the following:

- (i) The development of a new type of electric power generation using renewable energy resources is declared a matter of national interest and public necessity.
- (ii) An accelerated depreciation system for income tax purposes will be applicable to electric power generation using biomass or other renewable energy resources. The accelerated depreciation will apply to equipment, machinery, and the facilities needed to install and operate the power station.
- (iii) A requirement for the Ministry of Energy and Mines to implement a number of support systems to promote the development of renewable power generation projects, and responsibility for the Ministry to develop a National Renewable Energy Plan that contains

strategies, programs, and projects to be executed using renewable energy. It states that the Ministry may use public funds in order to promote the development and investigation of this type of project. They need to reduce the risks associated with new development in Peru and will have priority access to such public funds.

It is important to note that the aforementioned provisions are applicable to renewable energy sourced electric power generation, both when it is intended for distribution to the public or solely for supplying the generating company's own power needs.

In order to generate and/or distribute power from renewable sources, the generator must obtain the authorizations and/or concessions that are required by law for any other electric power generator/distributor. However, the generator will also be entitled to the following incentives and benefits:

- (i) Priority status in the daily load dispatch operated by the National Electrical System's Economic Operating Committee. For this purpose, its assigned variable production cost will be zero.
- (ii) Subject to transmission and distribution network capacity, the renewable-sourced power generators will be granted preference to sell their electricity.
- (iii) A rate bonus will be granted and will consist of a final rate increase to be paid by consumers, in order to cover the gap between the established rate for each power generation project and the marginal cost at which the renewable energy is sold in the short-term market.
- (iv) The government has an obligation to guarantee the distribution of the electrical power generated with renewable energy. To that end, it sets forth that OSINERGMIN (the Peruvian regulatory agency for energy and mining investments) will be responsible for calling for bids to supply energy needs with renewable resources (500 MW at the first tender).

## CDM in Peru

To date, thirty-three projects have been submitted to the CDM Executive Board (EB) for execution in Peru. Eighteen of these projects have been registered by the EB and twelve are currently in the validation phase. One project has been approved for methodology and two Peruvian methodologies have been presented. Based on the number of projects submitted, Peru is the country with the fifth highest number of submissions in South America.

The great majority of the Peruvian portfolio of projects submitted to the EB is made up of hydroelectric power generation projects. Indeed, nineteen of the thirty-three submitted projects come from this sector, while only four are fuel switch projects, and two are biomass power generation projects. The energy distribution, methane recovery, and energy efficiency sectors are the source of one project each. Thus, it is clear that there is a need to diversify the investment projects benefiting from the CDM. Surely this, and the urgent need to satisfy the growing national energy demand, has motivated the Peruvian government to take the initiative in fostering activities to expand the national energy matrix, as well as the carbon market.

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# CHILE'S ENVIRONMENTAL LAW AND JURISPRUDENCE

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**Gonzalo Biggs**  
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## **Introduction**

In my newsletter article of May 2001, entitled “Chile’s Environmental Law and Jurisprudence” (the “2001 Article”), I referred to the relevance of the environment in the negotiations that concluded with the adoption of the free trade agreement (the “FTA”) between Chile and the United States (each, a “Party” and together, the “Parties”). The FTA entered into force on January 2004. I also mentioned the environmental provisions of Chile’s 1980 Political Constitution, Chile’s environmental statute (Law No. 19.300), and the roles and functions of both the National Environment Commission (CONAMA) and the Environmental Impact Assessment System (EIAS). I also discussed the most recent jurisprudence.

In January 2004, several sections of the American Bar Association, including the Section of Environment, Energy, and Resources, sponsored a conference in Santiago, Chile (the “Santiago Conference”). Participants at the Santiago Conference included the FTA’s chief negotiators, as well as leading international trade and legal experts from both the United States and Chile. An initial assessment of the FTA’s environmental impact, followed by a lively debate, took place during that occasion.

Now that over five years have passed since the Santiago Conference, and over eight since the publication of my 2001 Article, it is relevant to highlight the FTA’s contributions to the development of Chile’s environmental policies. Accordingly, this article will discuss the FTA’s contributions, the importance of international cooperation in achieving targeted objectives, Chile’s institutional and legal developments, and some of this country’s outstanding environmental issues, and relevant jurisprudence thereof.

## **I. International Cooperation**

### **A. The FTA’s Contribution**

The two main environmental agreements between the United States and Chile are (i) the Agreement on Environmental Cooperation, signed on June 2003; and (ii) the FTA’s Chapter 19, which states the substantive environmental commitments made by both Parties. Pursuant to the latter agreement, two bi-national entities have been charged with the execution and implementation of those commitments. The first is the Environmental Affairs Council (EAC) which meets every year, and the second is the Joint Commission on Environmental Cooperation (Joint Commission) which meets every two years.

The members of the EAC and the Joint Commission are representatives of the relevant ministries or agencies of both Parties. These members’ general objective is to execute the following cooperation projects: (i) Developing a Pollutant Release and Transfer Register, (ii) Reducing Mining Pollution, (iii) Improving Environmental Enforcement and Compliance Assurance, (iv) Sharing Private Sector Experience, (v) Improving Agricultural Practices, (vi) Reducing Methyl Bromide Emissions, (vii) Improving Wildlife Protection and Management, and (viii) Increasing the Use of Cleaner Fuels.

According to the Joint Committee’s 2007-2008 Work Program report, the members’ objective is now being achieved through the implementation of an overwhelming list of specific projects covering most of Chile’s environmental priorities. Among these projects are: (i) training workshops for judges and prosecutors, (ii) promoting renewable energies, (iii) reducing pollution in the transportation sector, (iv) implementing community-level education, (v) offering fellowships in the United States for Chilean officials, and in Chile for United States officials, (vi) restoring park resources through the Patagonia volunteer program, and (vii) facilitating ecotourism.

## **B. The Organization for Economic Cooperation and Development (OECD)**

In response to Chile's request for admission to the OECD, in 2005, the OECD issued a comprehensive report entitled Chile's Environmental Performance Review (the "OECD Report"). The OECD Report includes fifty-two recommendations, grouped into the following three areas which, as noted above, have been, or are in the process of being, adopted or executed by the Chilean government: (i) management and implementation of environmental policies on air pollution, water management, nature preservation, and biological diversity; (ii) sustainable development through (a) the integration of environmental considerations in economic sector decisions, (b) the integration of society to the environment, and (c) the relation of water and air pollution to health; and (iii) fulfillment of environmental commitments established in international agreements, including the FTA.

## **II. Institutional Developments**

One main institutional development since my 2001 Article is the expected enactment of a comprehensive environmental statute prior to the presidential elections of December 2009. This statute will reflect, to a large degree, the OECD recommendations mentioned above; among other matters, it also will establish: (i) the Ministry for the Environment, (ii) the Service of Environmental Assessment, (iii) an Environmental Superintendence, and (iv) regulatory innovations.

### **A. Ministry of the Environment**

The establishment of the Ministry of the Environment (the "Ministry") will not constitute a substantive change in the existing functions of the environmental public sector. This is because both the Ministry and the Service of Environmental Assessment, respectively, will legally succeed CONAMA's previous functions and competence on environmental matters. In broad terms, the Ministry's functional responsibilities will include: (i) the design and execution of environmental policies, plans, and programs, (ii) the protection and preservation of Chile's biological diversity and

renewable natural resources, and (iii) the integration of environmental policies and regulations.

### **B. Service of Environmental Assessment (SEA)**

Law No. 19.300 identifies those activities or projects subject to CONAMA's Environmental Impact Assessment (EIA) review, which—in accordance with the new statute—the SEA will be undertaking in the future. The latter will be established as a decentralized public service, separate from the Ministry, and be administered by a staff appointed by open contest. As CONAMA's legal successor, the SEA will improve and replicate CONAMA's functions. Among other measures, the SEA will help simplify the processing of environmental permits, and improve the supply of environmental information to interested parties and the community at large.

### **C. The Environmental Superintendence**

The Environmental Superintendence (the "Superintendence") will be established as a functionally-decentralized public service. This entity will be governed by a board appointed by open contest, and headed by a Superintendent appointed by the President of the Republic. The launching of the Superintendence represents a major innovation in the Chilean environmental system and should have a positive impact on its development.

The Superintendence will have the power to supervise environmental management plans, including environmental regulations, pollution prevention or decontamination plans, and quality emission norms. This entity's functional responsibilities will include, among other things, the annual approval of (i) programs that identify environmental regulations, and (ii) pollution prevention plans subject to its supervision, as well as specific subprograms on either of the foregoing subjects.

In addition, the statute confers to any person the right to denounce an entity to the Superintendence, the breach by any entity of the corresponding environmental regulations, or an entity's non-fulfillment

of environmental management requirements. In such cases, an administrative process will be initiated that can result in the imposition of fines or a recovery program, with the denouncer as an interested party. A registry open to the general public will include information on such administrative processes, the fines or penalties imposed, and the identity of the offender(s).

#### **D. Regulatory Innovations**

Included among the regulatory innovations are: (i) the incorporation of a Strategic Environmental Assessment procedure which will integrate sustainable development into the various general plans and policies of ministries, (ii) the improvement of the rules governing citizen participation in the processing of Environmental Impact Studies, and (iii) the adoption of an integrated plan for the preservation of biological diversity and wildlife, and the establishment of environmentally protected areas.

### **III. Policies**

The two most significant environmental policies currently being executed are those relating to climate change and glacier protection. The following is a brief description of each of these policies.

#### **A. Climate Change**

The OECD Report cited above states that concerns about greenhouse gases and carbon dioxide emissions were not yet fully integrated into Chile's recent energy plans. Prodded by this statement, the Chilean government, through CONAMA, adopted a National Action Plan on Climate Change for 2008-2012 (the "Action Plan"). The Action Plan consists of: (i) a diagnosis of Chile's liabilities, (ii) a listing of the strategic considerations for addressing climate change, and (iii) the priorities for action. Its recommendations address issues that affect Chilean coastal areas, hydrological impact, the methodology for quantifying the impact of global warming gases and emissions in the industrial and energy sectors, and the operation of carbon credits. Notably, under the Kyoto Protocol's Clean Development Mechanism (CDM), during the 2003–September 2008 period, CONAMA, as the

Designated Authority, had approved forty-eight and registered twenty-five emission reduction projects with an average annual reduction of 3,949,929 tons of carbon dioxide emissions, the equivalent of 5 percent of Chile's 2001 carbon dioxide emissions.

#### **B. Glacier Protection**

In April 2009, the Chilean government approved a specific glacier preservation and protection policy (the "Glacier Policy"), closely related to that on global warming. Glaciers are fragile ecosystems whose preservation is significant to the country's climate and water supply. They also attract tourism, scientific research, and sports. The existing registry indicates that there are approximately 3,100 glaciers with an approximate surface area of 20,188 square kilometers. This registry also indicates that a reduction of the glacial mass has been occurring over the last 30 years, with accelerated reduction during the last 10 years. The Glacier Policy emphasizes research and increased knowledge, public information, and education; the adoption of an official registry to be updated periodically and the inclusion; and special treatment of this subject in the EIA. The Glacier Policy is to be implemented through a future action plan presently under consideration.

### **IV. Outstanding Environmental Issues**

#### **A. Energy**

Imported hydrocarbons represent 70 percent of Chile's total energy consumption. The supply of natural gas from Argentina was expected to significantly reduce this dependency. Regrettably, Argentina discontinued this supply. As a consequence, there has been a reactivation of hydroelectric and coal projects, both of which have environmental consequences. Consideration is also being given to the installation of nuclear energy. Also, according to the Ministry of Energy (MoE), carbon dioxide (CO<sub>2</sub>) emissions are expected to quadruple by 2030, resulting from the growth of coal-based thermal plants.

The MoE estimates that a rise in CO<sub>2</sub> emissions will occur over the next number of years, raising the

present 70 million tons emitted to around 300 million tons by 2030. Based on these projections, Chile's per capita emissions would increase to 17.6 tons from its current level of 3.7 tons.

In terms of Chile's potential energy generation capacity, the cumulative output from proposed coal-fire projects alone, approved or pending approval, would total approximately 7,200 MW. It is further estimated that Chile has the hydroelectric potential to produce an estimated 24,000 MW of electricity. Currently, only approximately 5,000 MW of this energy is being exploited. At this time, the three largest owners of hydroelectric rights in Chile use only a fraction of their registered water rights. The property structure of Chile's water resources and their use and exploitation by the hydroelectric industry remains a controversial subject. During the time of Chile's military government, these resources were privatized. Up until now, proposals to amend this structure have not been successful. However, the Ministry of Public Works recently announced the submission of a bill that would amend this structure. It is still too early to anticipate what the final outcome of this bill will be.

## **B. Indigenous People**

According to the 2002 Chilean census, Chile's population was approximately 15 million people. An estimated 600,000 of these people were indigenous peoples, or "mapuches." For geographic purposes, about one third of these mapuches were located in the Santiago Metropolitan area, and the rest in the Southern provinces, or the Arauco region (from where they originate). The census, however, made no mention of the country's mestizos, which likely represent more than one half of the total population.

Between 2006 and 2008, the Chilean government had delivered to the mapuches 37,713 hectares of land, benefitting approximately 4,260 families. The International Labor Organization's (ILO's) Convention No. 169 (the "ILO Convention"), which establishes a comprehensive statute for the protection of indigenous people, came into force in September 2009.

In spite of the above, during the past 10 years, violence has gradually increased in the Arauco region.

The probable motivating factors for this upheaval include the reduction of the mapuches' ancestral territories, forced migration caused by the expansion of industrial forestry, the operation of huge hydroelectric plants, flooding, and the purchase of the mapuches' land for intensive agricultural development for Chile's booming export economy.

Until now, society's understandable rejection of the mapuches' criminal acts, the government's unpreparedness, and the absence of an integrated long-term program that addresses their human, social, cultural, and economic living conditions, has prevented an effective solution of this major social and environmental problem. On the other hand, corruption charges against the government agency administering the land program, the upcoming Chilean presidential elections, and the constant requests for applying counterterrorist legislation have certainly not been helpful. However, the entry into force and implementation of the aforementioned ILO Convention and the assignment by future governments of the required priority and resources to this major problem should lead to a harmonious integration of the mapuches into Chilean society.

## **C. The Salmon Industry**

The 15-year old Chilean salmon industry reached an export peak of US\$2.3 billion in 2007. This industry, however, is now bankrupt and is negotiating with its many creditors. Among the causes of this disaster is the infectious salmon anemia (ISA) virus, which apparently originated in Norway. Chile's absence of appropriate regulations, as well as the Chilean salmon industry's lack of foresight, collectively wrought havoc in this previously booming industry.

Throughout the salmon industry's development, concerns were raised about the industry's impact on the existing ecosystems. Equally serious were the reports from Canada, the United States, and other markets regarding the presence of excess amounts of antibiotics in Chilean salmon. These reports started in 2006 in the United States and, in spite of formal Chilean government denials, continued without interruption. As recently as February 2009, the Canadian Food Inspection Agency denounced the

presence of the antibiotic “Amphenicol” in Chilean salmon. The initial reaction of the Chilean government was to reject these and other accusations. Finally, on July 23, 2009, the Ministry of Economy issued a statement, recognizing that the “volumes of antibiotics used confirm the existence of a form of production which is not environmentally sustainable or healthy,” and added that “the antibiotics used pertain to two substances of the antimicrobial quinolone which have not been approved for animal use by the FDA of the US.” In this statement, the Ministry of Economy also recognized the need for regulating an industry that has been acting irresponsibly for many years.

#### **D. HidroAysen**

HidroAysen is a hydroelectric mega project wherein five hydroelectric power plants will be built in the Aysen Region of Chile (Patagonia)—two on the Baker River and three on the Pascua River. HidroAysen has provoked controversy, resulting in the mobilization of domestic and international non-governmental organizations and others against its construction. Members of this opposition include, among others, Patagonia without Dams (*Patagonia sin Represas*), International Rivers, led by Aaron Sanger, and the Natural Resources Defense Council, including the organization’s senior environmental attorney, Robert Kennedy, Jr. The HidroAysen project, which will have an installed capacity of 2,750 MW, will seek to flood approximately 6,000 hectares. To transport the energy generated, this project will need to build a transmission line 2,300 kilometers in length, which, according to Patagonia without Dams, would entail the clearing of a 70-meter strip. Opponents of this project claim, among other things, that it will adversely affect an immensely extended area, contaminate pristine rivers, reduce CO<sub>2</sub> capture, endanger nearby glaciers, extirpate endangered species, and absorb the nutrients which feed marine productivity. At this time, the latest information about the project indicates that those responsible for the project’s advancement and approval have suspended all actions until after the Chilean presidential elections of December 2009, when a new administration takes office.

#### **E. Easter Island**

On Sept. 9, 1888, Chile took possession of Easter Island and has exercised its sovereignty over this exotic island ever since. In the middle of the Pacific Ocean and thousands of miles away from the rest of the world (approximately 3,800 kilometers or 2,400 miles from Valparaiso), this island’s many mysteries have not yet been revealed. Easter Island itself has a surface area of 164 square kilometers and, according to the 2002 Chilean census data, a population of 3,791 inhabitants (of which 1,500 were ethnic natives supposedly of Polynesian origin, and the rest were of other nationalities, mainly from Chile). However, there is no certainty as to the origin of its population or its Moai. The latter are giant monolithic rock statues, thirteen of which were carved from basalt. Approximately 900 Moai are known to date. The average Moai is 13 feet high and weighs 14 tons. Today, after a major archaeological project, there are fifteen erected Moai that look enigmatically at the horizon, constituting one of the island’s major attractions. On March 22, 1996, UNESCO declared Easter Island, or Rapa Nui National Park (which is divided into seven sections and currently encompasses the entirety of Easter Island), a World Heritage Site due to its cultural and natural importance to the common heritage of humanity. The park’s boundaries have changed on several occasions, as a result of efforts to return land to its island inhabitants.

To the Chilean government’s surprise, in August 2009, a major upheaval rocked Easter Island. A group of islanders demanding tighter controls on tourism and immigration blocked the island’s Mataverí Airport with their cars and tents, causing the airport to suspend its operations. Easter Island Governor Carolina Hotu convinced these protestors to end their demonstration by promising talks. The islanders’ long-standing claims related to the preservation of their fragile ecosystems, traditional culture, and basic infrastructure all of which, allegedly, are being eroded, or even destroyed by the rampant increase of visitors and immigrants. Easter Island’s population has increased 35 percent over the last seven years and now totals 5,000 people, only 40 percent of which are locals. Moreover, there are 1,994 motor vehicles on the island, or one vehicle for

every two inhabitants. Among the protesters' requests—which the Chilean government is considering—are the issues of control over who may enter or reside in their territory, and/or the imposition of an entry tax similar to that currently applied in Ecuador vis-B-vis the Galápagos Archipelago.

## V. Jurisprudence

The circumstances of the following case exemplify the difficulties of balancing Chile's energy needs with the protection of its natural environment. (*See* [www.ecosistemas.cl](http://www.ecosistemas.cl); [www.revistaei.cl](http://www.revistaei.cl)). The Arlington, Virginia-based company Applied Energy Services (AES) submitted to the Chilean authorities for consideration a project for the installation and operation of a thermoelectric center (the "Thermal Power Plant" or "Project"). The Thermal Power Plant was to be equipped with a pulverized coal combustion technology. This technology would operate the location where ashes and solid wastes produced by a combustion and gas desulfurization process are deposited for their management and final disposal. The project itself was to generate 270 MW, require a US\$500 million investment, and be located within a flooded or irrigation area close to the Campiche estuary and the Ventanas copper foundry (the "Campiche Area").

However, the Campiche Area was declared by Presidential Decree No. 116 of 1987 (the "Decree") to be a risk for human settlements. This Decree restricted development in the Campiche Area to green parks, and to beaches or recreational activities qualified as such by the Housing and Urban Development Ministry. Despite the terms of the Decree, the local municipality in which the Thermal Power Plant was to be located approved this project's construction, with certain conditions. Thereafter, through Resolution 448 of 2008 ("Resolution 448"), the Regional Environmental Commission of Valparaiso (the "Valparaiso Commission") approved the Environmental Impact Study required by the regulations in force.

A local citizen's organization ("Citizen's Organization") submitted a claim against the Valparaiso Commission, requesting that Resolution 448 be declared null and

void for the following factual and legal reasons. First, the Citizen's Organization alleged that the volume and toxicity of the Thermal Power Plant's emissions and wastes would adversely affect the air, water, soil, renewable natural resources, and health of the human and animal population in an area already environmentally saturated, given that there was already a copper smelter close by and that such activities were prohibited by the Decree. Second, the Citizen's Organization alleged that the Thermal Power Plant's cooling system would suction millions of cubic liters of ocean water and species protected by Chile's Fisheries Act.

In brief, the main illegalities of Resolution 448 were, according to the claimants, that: (i) it breached the constitutional provision guaranteeing to all persons the right to live in an environment free of pollution, (ii) it breached the Decree which declared the area to be environmentally protected and prohibited activities such as those of the Thermal Power Plant, (iii) it ruled on matters beyond its jurisdiction, which are under the exclusive authority and responsibility the Ministry of Housing and Urban Development and the President of the Republic. The Court of Appeals of Valparaiso accepted these arguments and ruled that Resolution 448 was null and void.

Chile's Supreme Court affirmed the Court of Appeals of Valparaiso's decision. Specifically, the Supreme Court held, among other things, that: (i) if Resolution 448 remained in effect, other government agencies would be compelled to abide by its provisions and not be able to deny—as they should—the authorizations still required for the Project's execution, and (ii) the Valparaiso Commission's decision to change the use of the soil of an environmentally protected area and approve activities prohibited by a ministerial decree authorized by the President of the Republic in accordance with the applicable territorial regulations was a breach of the Decree. As a consequence of the foregoing Resolution 448 was declared null and void.

## VI. Final Comments

This brief outline of Chile's current environmental policies and challenges is but an incomplete synthesis of an on-going, very dynamic, and controversial

process. Compared with the 2001 Article referred to earlier, the current issues reflect the difficulties of balancing the imperatives of a thriving export economy with the protection of the country's natural resources and ecosystems. Major industrial, mining, and hydroelectric projects pose formidable challenges to the long-term preservation of these resources and ecosystems. An enlightened policy that can effectively accomplish this balance must, to be successful, have the unrestricted understanding and support of country's population.

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### **JOIN SECTION EFFORTS TO PLANT ONE MILLION TREES BY 2014**

The Section of Environment, Energy, and Resources announced at the Annual Conference on Environmental Law its ambitious nationwide public service project "One Million Trees Project." This project calls on ABA members to contribute to the goal of planting one million trees across the United States in the next five years. In addition to planting trees, the Section also intends, through public outreach and partnering efforts, to raise the nation's awareness of the multiple benefits of trees. A key component of the project is the Section's partnerships with tree-planting organizations, including Alliance for Community Trees (ACT), The Arbor Day Foundation, Tree Link/Tree Bank, American Forest, and the Institute for Environmental Solutions. Members are encouraged to get involved in hands-on tree planting activities in their communities, but the partnerships will allow participation by simply purchasing a tree or trees through a dedicated Web page. To participate in the One Million Trees Project, please visit any of the information pages at our partners' Web sites linked from: [http://www.abanet.org/enviro/projects/million\\_trees/home.shtml](http://www.abanet.org/enviro/projects/million_trees/home.shtml).

## **LEGAL CHANGES TO THE CHILEAN ENVIRONMENTAL INSTITUTIONAL FRAMEWORK**

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In June 2008, the Government of Chile sent a bill to the Congress that creates the Ministry of the Environment, the Superintendency of the Environment, and the Agency of Environmental Assessment. On Aug. 19, 2009, the draft law was approved in general by the Senate and it is close to being passed and adopted as applicable law in Chile. The bill involves a redesign of the institutional environmental framework currently in force in Chile and makes various amendments to Law Number 19.300, concerning the General Basis of the Environment.

### **I. Institutional Changes**

The main purpose of the bill is to establish a new environmental institutional framework through the creation of the following agencies:

First, it creates the Ministry of the Environment, which will be a secretariat of State responsible for collaborating with the President of the Republic on the design and implementation of policies, plans, and programs on environmental issues; the protection and conservation of biological diversity, renewable natural resources, and water; the promotion of sustainable development; and the integrity of environmental policy and its legal regulation.

The Ministry of the Environment shall be composed of the Minister, the Undersecretary, the Regional Ministerial Secretariats of the Environment, the National Advisory Council, and the Regional Advisory Councils.

In addition, the bill creates a Council of Ministers for sustainability, the main function of which is to propose to the President of the Republic policies for the management, use, and sustainable use of renewable natural resources, and to propose to the President the creation of state protected areas.

Second, it creates the Agency of Environmental Assessment, a decentralized public agency that will administer the Environmental Impact Assessment System (EIAS). It will be the legal successor to CONAMA. This agency will be subject to the oversight of the President of the Republic through the Ministry of the Environment.

Third, it creates the Superintendency of the Environment, a decentralized public agency that will have jurisdiction over enforcement of environmental management instruments, such as: (a) environmental qualification resolutions for projects subject to the environmental impact assessment requirement, (b) preventative measures and decontamination plans, (c) quality and emission standards, (d) management plans under Law No. 19.300, and (e) other standards and environmental instruments not under the control and oversight of other agencies of the State.

The Superintendency shall be subject to the supervision of the President of the Republic through the Ministry of the Environment.

The other administrative agencies carrying out tasks of environmental enforcement retain their powers in matters and instruments that do not fall within the competence of the Superintendency.

In addition, the bill regulates a system of “assessment and attestation of conformity,” subject to the regulation of the Superintendent and that can only be done by certified subjects. The Superintendent may require, by resolution and under penalty of sanction, that proponents of projects that should have been subject to the EIAS but were not, submit the Environmental Impact Study or the corresponding Environmental Impact Statement.

The bill also establishes a citizen complaint rule for the failure to comply with standards and environmental management instruments. The rule obliges the Superintendency to investigate and report the results of any such investigation. If a complaint is lodged and an administrative procedure is commenced, the complainant will be considered an interested party in that procedure.

The bill envisages certain incentives for compliance with environmental rules. For example, it allows first time violators to lodge a complaint themselves. In such a case, the Superintendency may, depending on the entity, violation, and harm, exempt the violator from the penalty, provided that a compliance program is implemented. The second and third use of this mechanism will reduce the penalty imposed, provided that the violator carries out a compliance program. In addition, if a sanction procedure is commenced, and the violator submits within 5 days an approved compliance plan, the procedure shall be suspended until the plan is entirely implemented. If during the execution of the compliance plan, the violator does not comply with it at all—or does not do so within the required time limit—the violator can receive a penalty of up to twice the penalty for the original violation. The bill also would establish a public register of sanctions, with the aim of identifying the company, those responsible for its operation, and the nature of the violations and penalties.

According to the bill, violations are classified as mild, serious, and very serious, and the sanctions range from (a) a written reprimand to (b) a penalty of five to ten thousand *unidades tributarias anuales* (UTA) (one UTA=\$440.000=US\$800), (c) temporary or permanent closure, or (d) revocation of the environmental qualification resolution.

The bill provides for a single sanctioning procedure, with the Superintendency as the jurisdictional entity, establishing two rules of compatibility with other administrative agencies. First, no agency may commence a proceeding if one has already been started by the Superintendency, unless the Superintendency is declared to lack jurisdiction. Second, no one can be punished twice based on the same facts and legal bases. The Superintendent has non-delegable ability to impose sanctions.

The bill also empowers the Superintendent to order interim measures during the sanctioning procedure, such as: (a) corrective, safety, or control measures to prevent continuation of the risk or damage; (b) the sealing of devices or equipment; (c) the temporary closure of facilities; (d) temporary suspension of the

environmental qualification resolution; or (e) orders to perform monitoring programs and analyses. Finally, the bill establishes that at the time of imposing the sanction, if the violator has caused environmental damage, the Superintendent shall require a restoration plan, under penalty of holding it responsible for a very serious violation if the plan is not executed. The plan must be assessed by the Agency of Environmental Assessment and approved by the Superintendent. After a restoration plan is adopted and during its execution, any action taken due to environmental damage is suspended. If the violator who caused environmental damage successfully executes the restoration plan approved by the Superintendent, no legal action for environmental damage may be brought.

## **II. Other Amendments to Law No. 19.300**

Several other amendments bear mentioning.

First, the bill creates the Strategic Environmental Assessment, which is the procedure made by the respective ministry to incorporate environmental considerations into the process of formulating its policies and plans. The goal is to integrate these concerns into the ministries' policies and plans, and into their substantive changes. The policies and plans subject to Strategic Environmental Assessment shall be determined by the President of the Republic. They are mandatory in the case of territorial planning instruments that are currently subject to the EIAS.

Second, the bill modifies the EIAS.

### **(a) Approval of Projects**

Projects or activities will be evaluated by a Committee of Regional Ministerial Secretaries, chaired by the Regional Ministerial Secretary of the Environment. As a result, the regional institutions currently in charge of administering the EIAS (COREMAs, which were created under Law No. 19.300) would be eliminated. Under the current regime, there is a COREMA in each region of the country.

Claims regarding Environmental Impact Studies, until now handled by a Board of CONAMA, composed of fourteen Ministers, shall be resolved by a Committee

of Ministers, composed of the ministers of Environment, Health, Economy, Agriculture, Energy and Mining.

Additionally, in claims regarding both Environmental Impact Statements and Environmental Impact Studies, the decision maker can request expert reports to adequately illustrate the decision.

### **(b) Incorporation of Efficiency Standards**

The bill also incorporates efficiency standards. For instance, the electronic processing of the environmental impact assessment procedure is allowed. Second, the bill explicitly grants the power to reject Studies or Statements due to inadequate information. Third, a public record of environmental qualification resolutions administered by the Superintendent is created. Fourth, the bill prohibits the segmentation of projects or activities in order to avoid submitting or vary a submittal to the EIAS, unless the proponent certifies that a project is conducted in stages or corresponds to different projects or activities that can be developed or run independently. Fifth, state agencies are forced to communicate to the Superintendency any environmental permit that rests on a project that could require being subject to the EIAS. Sixth, expiration rules are set for environmental qualification resolutions, where the project proponent has not carried out initial work within 6 years from the issuance of the resolution. Seventh, the assessment period is reduced by half for projects that must be implemented as a matter of urgency to address urgent needs or services which cannot cease without serious damage to the country. Eighth, the bill prohibits the Directions of Municipal Works from granting final construction permits if projects or activities that should be subject to the EIAS cannot demonstrate the issuance of an environmental qualification resolution authorizing the project's construction.

### **(c) Citizen Participation**

The bill obliges the Environmental Impact Studies of projects that have been changed substantially due to clarifications, rectifications, or additions contained in an addendum, to be subject to a new public participation process. The time period for the environmental

assessment procedure is suspended for that purpose. The bill also regulates citizen participation in the Environmental Impact Statement process.

Third, there are some changes regarding the access to Environmental Information.

All environmental information held by the Administration is declared to be public, to be useful as a basis for the issuance of administrative rules, and related to:

- (i) The status of environmental components, as well as of the factors affecting the environment and the measures taken.
- (ii) The establishment and management of an environmental information system as a set of information comprehensible to all citizens.
- (iii) The obligation to issue periodically a report on the status of the environment and environmental quality at the national, regional, and local level.

The protection of this right shall be subject to the protection rules of Law No. 20.285, which concerns access to public information.

Fourth, regarding Biological Diversity and Protected Areas, the institutional redesign will address the risk of biodiversity loss in the following areas:

- (i) The Ministry of the Environment, together with the corresponding state agency, will approve the management plans of the Law No. 19.300.
- (ii) Once classified as a protected species, the Ministry of the Environment must adopt recovery, conservation, and management plans.
- (iii) The Ministry of the Environment will oversee the establishment of the inventory of species.

The Ministry of the Environment will have jurisdiction regarding policies and will oversee the private and the State Protected Areas System.

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## **RECENT REFORMS TO THE REGULATION OF THE MEXICAN ENERGY SECTOR**

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### **I. Introduction**

Due to its complex nature and highly political overtones, the reforms to energy sector regulations recently enacted in Mexico caused a great deal of heated debate between legislators and specialists alike. After many months—and multiple consultations and studies—agreement was finally reached in November 2008 and a package of legislative reforms was adopted. This article focuses on two of these reforms: (a) the Renewable Energy and Financing of the Energy Transition Law, and (b) the Sustainable Energy Use Law. It also discusses the regulations associated with these laws that were enacted in September 2009. Although the question of how many of these reforms will work in practice is still not entirely clear, this article attempts to provide the reader with a broad understanding of why they are considered significant advances for Mexico in relation to the promotion of renewable energies and energy efficiency.

The need for both sustainable development and the advancement of technology is unquestionable. Without making any definitive judgment regarding these reform efforts, real solutions addressing these issues must be found that equip the Mexican government with the tools necessary to provide its citizens with a better quality of life and private businesses with greater ease of operation in the Mexican market.

### **II. The Renewable Energy and Financing of the Energy Transition Law**

The Renewable Energy and Financing of the Energy Transition Law (REFET) was published in the Official Federal Gazette in November 2008, and came into force on Dec. 1, 2008. REFET's purpose is the promotion of renewable energy sources, owing to the need to embrace the concept of sustainable development. REFET states that it intends to regulate “the use of renewable sources of energy and clean

technologies for the generation of electricity not intended for the provision of electricity as a public service, establish a national strategy to finance the energy transition and identify and create instruments and mechanisms to do so.”

REFET interprets “renewable energies”—the sources of energy subject to REFET—as *“those . . . sourced from natural phenomena, processes or materials, able to be transformed into energy for the benefit of humanity, that regenerate naturally, that may be available either continuously or periodically and are generated from: (a) wind, (b) solar radiation, (c) the movement of water whether in natural or artificial channels or bodies, (d) oceanic energy, (e) geothermal heat, (f) those bioenergies as determined by the Promotion and Development of Bioenergies Law, and (g) those others that may be determined by the Ministry of the Economy (“MoE”) and whose source complies with the first part of this paragraph.”* For purposes of clarification, “bioenergies” are defined in REFET as *“Fuels obtained from biomass, in turn obtained from organic materials sourced from agricultural, livestock, forestry, aquacultural, domestic, commercial or industrial activities, microorganisms and enzymes and their derivatives produced from sustainable technological processes that comply with the specifications and standards of quality established by the competent Authority under the terms of this Law, attending to that provided in Article 1(I) of this Law.”* Consequently, nuclear power, hydrological power with capacity greater than 30 megawatts, industrial or any other waste that has been incinerated or that has received any type of thermal treatment, and landfills that do not comply with environmental requirements, are not considered renewable energy sources for the purposes of REFET.

REFET is comprised of thirty-one Articles, distributed throughout four chapters. Chapter Two concerns the authorities empowered to intervene in the regulation of renewable energies. The Ministry of Energy (MINER) is the authority tasked with directing this effort and with creating and coordinating the most important and overarching instruments for the law’s application. Accordingly, MINER is responsible for promoting the

utilization and implementation of renewable energies, which it will principally achieve through the newly created Special Program for the Use of Renewable Energies (the “Special Program”), which outlines the goals and actions of the government in the field. To assist MINER, the Renewable Energies Consultation Council will coordinate activities identified in the Special Program, with the objective of aggregating and assessing the opinions of the various sectors and stakeholders involved. MINER will also establish and update the National Renewable Energies Inventory with short-, medium-, and long-term objectives and related information and statistics.

Chapter Two also establishes that Energy Regulatory Commission (ERC), which is empowered to issue administrative guidelines and standards regarding the generation and distribution of electricity from renewable energies. The ERC will also issue methodologies to determine the share of generation capacity to which renewable energies will be entitled in the National Electricity Network, as well as the rules for their interconnection. Additional information about the ERC’s objectives and powers can be found in Article 7. REFET empowers other relevant Federal Ministries, such as the Ministry of Economy and the Ministry of Environment and Natural Resources (SEMARNAT), to coordinate activities with the MINER on issues in over which they have jurisdiction. In this sense, MINER, with cooperation from the Federal Treasury Department, SEMARNAT, and the Ministry of Health, will create a methodology to analyze externalities, i.e., the positive or negative impacts of a service that also affect third parties. Such impacts will be deemed to have occurred when the costs or benefits incurred by the producers or buyers of a good or service are different from the total social costs or benefits involved in the production or consumption of these goods and services. Further, this chapter also establishes that SEMARNAT is responsible for designing an environmental regulatory mechanism that optimizes the sustainable use of renewable energies.

Chapter Three describes the function and content of the Special Program and also details the mechanisms that the ERC shall employ to establish payments to

generators of electricity sourced from renewable energies. Considerations for determining these payments will include factors such as the technology employed and the geographical location of the projects from which the renewable energy is sourced. The regulation associated with REFET, published in September 2009, further states that projects included in the goals of the Special Program may receive an extra payment for related generation costs and capacity, as well as for the energy delivered to the National Electricity Network. Generators who handle transmission, transformation and distribution services will now be subject to these ERC-published conditions. For purposes of clarification, REFET defines “generators” as consisting of “natural person[s] of Mexican nationality or a legal person duly constituted in conformity with the laws of Mexico, with domicile within the national territory and which generates electricity from renewable sources of energy.” Under REFET, projects that generate electricity from renewable sources and which possess a capacity of greater than 2.5 Megawatts are required to do the following: (1) procure the participation of, and consult with, local and regional communities affected by the project, (2) pay the corresponding lease payments for use of the lands and properties the project occupies, and (3) promote the social development of the community in which a new project is scheduled to be developed. Under REFET, any electricity surplus generated from electrical self-service or cogeneration projects must be delivered to the National Electricity Network in return for a consideration established by ERC.

Finally, Chapter Four establishes that, through funding from the National Strategy for Energy Transition and Sustainable Energy Use (NASETSU), programs and action plans are to be implemented in an effort to obtain greater utilization and exploitation of renewable sources of energy and clean technology. Recognizing that 90 percent of Mexico’s energy is currently obtained from non-renewable sources, the purpose of the NASETSU is to reduce the nation’s dependence on oil and natural gas for energy. Further, as a part of this strategy, the NASETSU Fund (the “Fund”) was established to ensure the realization of Mexico’s transition to renewable energies. Consequently, financing mechanisms have been put in place that are

specifically designated for structured projects that have been presented, evaluated, and approved, based on guidelines issued by the Technical Committee under the supervision of MINER.

Background regarding the NASETSU Fund’s contemplated source of funds and anticipated funding amounts may be summarized as follows. Prior to June 30, 2008, the Federal Treasury Department consolidated available information regarding public sector resources into the 2009 fiscal year federal budget and sent this information to the Congress of the Union. As a result of this information, MXN\$3 billion (three billion Mexican pesos) were designated for the NASETSU Fund in the 2009 budget. This information also provided the basis and baseline threshold for establishing the minimum amount of resources to be allocated to the NASETSU Fund in federal budgets for subsequent fiscal years. Thus, for the 2010 and 2011 fiscal years, the amount of federal funds REFET suggests be set aside (as mentioned in the Federal Budget Bill in REFET, Article 27) is at least MXN\$2 billion (two billion Mexican pesos). REFET proposes that this amount be updated by the anticipated variation in the National Consumer Price Index between 2009 and the applicable budget year.

Finally, under REFET, the federal government, state governments, and federal district and municipal councils are each permitted to enter into agreements with suppliers for the joint implementation of projects whose purpose is the generation and utilization of renewable energies.

In conclusion, the institutions, projects, and programs REFET establishes will work together to develop and implement projects aimed at using renewable energy sources to reduce the damaging environmental impacts caused by unsustainable energy practices. Also, stimulation of the clean technology sector will allow Mexico’s citizens and companies to break free from dependence on oil.

Since the publication of the REFET late last year, there have been several developments. The Special Program was published on Aug. 6, 2009, highlighting the government’s challenges, goals, and strategies for action in relation to developing renewable energy

generation. Then, on Aug. 20, the ERC published guidelines for establishing model contracts between renewable energy generators and the state-owned distribution network; these model contracts must be published, in accordance with these guidelines, by January 2010. These model contracts will likely include details and conditions for payment to generators for delivering energy to the national distributors. Further, the Regulation to the REFET was published on Sept. 2, providing further detail as to the operation of the statute, in terms of generation projects both within and outside of tender contracts, the functions of the administrative entities involved in promoting and stimulating these projects, and other requirements in relation to the goals and strategies of the public administration.

### **III. The Sustainable Energy Use Law**

As with the REFET, the Sustainable Energy Use Law (SEUL) also came into force on Dec. 1, 2008. This law establishes the basis upon which the policies and actions needed to ensure a sustainable use of energy is to be achieved. SEUL's objective is to promote and optimize sustainable energy use in all processes and activities, from its initial generation to its ultimate consumption. SEUL will detail the optimal use of energy throughout all its processes and activities, including its sourcing, exploitation, production, transformation, distribution, consumption, and efficiency.

In order to achieve its objective of promoting sustainable energy use through the process of energy generation and consumption, SEUL requires a National Strategy for Sustainable Energy Use (the "National Strategy"), published July 13, 2009, which sets forth the objectives, goals, strategies, and actions aimed towards promoting the application and use of energy efficient technology, equipment, appliances, and vehicles. It will also ensure that the assets and services under the control of the Federal Public Administration and its related entities are managed in such a manner that they incorporate greater energy efficiency practices, including the incorporation of sustainable energy use criteria in contracts for acquisitions, leases, and public works and services.

To achieve these objectives, SEUL proposes the creation of a Consultation Council, comprised of the Minister of Energy, six professional academic researchers, and a Director General, directly designated by the President. The Consultation Council is to be a purely consultative body of the National Commission for Efficient Energy Use (NCEEU). The NCEEU is a decentralized organ of the MINER that was automatically constituted on the date the SEUL became enforceable. When laws, regulations, decrees, accords, or other legal orders make reference to the National Energy Saving Commission, that reference will be understood to include the NCEEU. The NCEEU has a number of objectives. These include: (1) investigating and stimulating methods for sustainable energy use; (2) providing technical advice and assessment to states, municipalities, and the Federal Public Administration; (3) promoting scientific and technological investigation; (4) formulating and issuing methodologies to quantify emissions of greenhouse gases (GHGs) and energy use; and (5) determining the economic value of energy consumption.

Further, the SEUL creates a National Subsystem for Information on Energy Use ("National Subsystem"). The purpose of the National Subsystem is to organize, update, and disseminate information regarding the following: (1) energy consumption, (2) factors affecting the final uses of energy consumed, and (3) indicators of energy efficiency in Mexico and in other countries. For this National Subsystem to function well, the Federal Public Administration, as well as private energy consumers, will be requested to annually submit certain information to the NCEEU related to (1) their production, exportation, and consumption of energy per source; (2) the efficiency of energy consumption; (3) energy conservation measures implemented; and (4) results derived from those energy conservation measures for the previous year.

Included among NCEEU's powers is the implementation and maintenance of information relating to existing funds and trusts (collectively, "funds") created by the federal government, aimed at supporting sustainable energy use. The purpose of this NCEEU function is to enable these funds to receive federal resources or to oversee funds in which the government has made certain guarantees.

Further, SEUL mandates that equipment and appliances that require energy to function and that comply with certain determined criteria must provide clear, visible information regarding their energy consumption. Under SEUL, the NCEEU will be responsible for publishing a catalog of such equipment and apparatus.

It bears mentioning that SEUL dedicates express provisions for public servants' administrative responsibility relating to non-compliance with SEUL obligations, tying such responsibility to the provisions of the Federal Law for the Administrative Liability of Public Servants. Sanctions imposed for non-compliance with the SEUL will be independent of those stated in general civil or criminal orders. Administrative fines for non-compliance with SEUL are established by the statute, which may range from 100 to 1,000 times the general minimum wage in force at the time. Consumers who fall into this category are those who fail to provide information upon request by the NCEEU, or who provides false, misleading, or incomplete information.

Finally, SEUL foresees the possibility that individuals may voluntarily obtain certification for their processes, products, or services with respect to each of these items' grades of energy efficiency. Consequently, SEUL sets forth preventative and corrective measures necessary to optimize the efficiency levels of these items. These measures and acts were established in the recognition that energy efficiency is a tool available to help (1) reduce energy consumption, (2) reduce GHG emissions and reverse deterioration of ecosystems, (3) conserve the natural energy resources of the country, and (4) boost economic and social productivity throughout Mexico.

#### **IV. Conclusion**

The reform efforts outlined above are well-intentioned. However, the road ahead is a long one. The daily operational activities to come will dictate whether the changes set forth in these reforms will truly benefit Mexico.

Undoubtedly, the creation of a statute to regulate the utilization of renewable energies is the first step toward

raising awareness about the utilization of new energy sources. Used appropriately, these renewable resources are capable of generating great economic and environmental savings, as well as creating an investment niche for Mexico's citizens.

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### **NEW TRENDS AND EVOLUTION OF ENVIRONMENTAL REGULATION IN VENEZUELA**

**Elisabeth Eljuri  
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Venezuela's efforts to continue its coordinated activities to protect the country's environment and its natural and cultural resources have been reinforced and extended to other elements of the ecosystem since 2001. The recognition of environmental rights as constitutional rights in the year 2000 has led to the creation and development of a contemporary environmental legal framework. Venezuela will not only address new global trends regarding a consciousness of global climate change, sea level rise, and other environmental issues that affect all regions, thus contributing to a more healthy environment, but will also look ahead towards measures for solving and preventing local environmental issues, bearing in mind the very particular characteristics of the country's natural surroundings, as well as its society.

Since 2001, the National Assembly has been working on a bill defining an Organic Environmental Code (the "Code"), which promises to be a compilation of environmental regulations and to incorporate other innovations such as public class actions for environmental lawsuits and other claims. The draft of the Code was subject to public consultation across the country and in September 2002 it was approved in

first discussion, which is only the first step of the promulgation process.

Meanwhile, a series of new pieces of legislation have been incorporated in recent years. The subject matters include: environmental quality; hazardous and non-hazardous waste and materials; natural resources, including biological diversity, forests, and parks; coastal zones, including fishing and aquaculture; land and land use; and indigenous people. Several treaties have also been signed by the Venezuelan Government concerning subjects such as the protection of the ozone layer, natural disasters, pollutants, biological diversity and biotechnology, nuclear energy, dolphin conservation, and hydro-biological resources exploitation and conservation. One of the policies incorporated by the Government into all recent environmental legislation has been community involvement. This is applied through the creation of Community Councils (*Consejos Comunales*), which are organized groups of people who work together and ensure social participation. These organizations have been given supervisory functions as well as a participatory role in the planning, execution and control of public environmental policies and programs being implemented by public entities.

One of the most polemic regulations at this moment in the environmental field has been the Fishing and Aquaculture Law (March 2008). The enactment and enforcement of this regulation demonstrates an important evolution in the country in this matter, due to the fact that it permanently prohibits the use of trawling in territorial waters and the Exclusive Economic Zone. The statute seeks to protect the sea floor, prevent the migration and extinction of unique fish species, and to protect corals and the marine ecosystem in general, all of which contribute to CO<sub>2</sub> capture. However, the enforcement of this law has raised a series of political and economic issues. Hundreds of fishermen have lost their jobs to large fishing companies that employ trawling methods. At the same time, the permitted catch of artisanal fishermen does not meet the demand for fish. As a result, there is a shortage of fish in the market and its price has increased by approximately 200 percent.

The following new regulations have been enacted on the matters mentioned above. They provide a snapshot of how active legislators have been regarding environmental matters:

- I. Environmental Quality:
  - A. National Assembly Accord Declaring the National Hydro-System in Need of Emergency Attention (May 2001).
  - B. Organic Law of the Drinking Water Service (December 2001).
  - C. Decree No. 4.335 on the Standards for the Regulation and Control of the Consumption, Production, Importing, Exporting and Use of Substances Capable of Depleting the Ozone Layer (March 2006).
  - D. Water Law (January 2007).
- II. Hazardous and Non-Hazardous Waste and Materials:
  - A. Resolution No. 40 of the Ministry for the Environment and Natural Resources on the Requirements for the Registration and Authorization for the Processing of Hazardous Substances, Materials and Waste (May 2003).
  - B. Solid Waste Law (November 2004).
- III. Natural Resources:
  - A. Biological Diversity
    - (i) Resolutions Nos. 216 and 217 on the Standards for the Protection of the Caoba, Mijao, Pardillo Negro, Cedro, Saquisaqui, Samán and Other Tree Species (May 2006);
    - (ii) Biological Diversity Management Law (December 2008) (expressly repealed the Biological Diversity Law).
  - B. Forests
    - (i) Resolution No. 094 on Authorizations and Licenses for the Rational Use of Deforestation in Urban Areas (December 2008);
    - (ii) Forest and Forest Management (Decree No. 6.070; May 2008).
  - C. Recreational Parks
    - (i) Resolution No. 00044 on the Prohibition of the Illegal Occupation of Spaces

Declared as National Parks, Natural Monuments or Recreational Parks (July 2009).

IV. Coastal and Insular Zones:

- A. Organic Law of Aquatic Spaces and Insular Zones (August 2001).
- B. General Law of Ports (December 2002).
- C. Marine and Related Activities Law (November 2002).

V. Land and Land Use:

- A. Land and Agrarian Development (November 2001; Repealed the Agrarian Reform Law).
- B. Law on Special Zones of Sustainable Development (2002).

VI. Indigenous:

- A. Demarcation and Guarantee of the Indigenous People's Land and Habitat (December 2001).
- B. Organic Law of Indigenous People and Communities (December 2005).

Treaties:

- A. International Program for Dolphin Conservation Convention (December 2000).
- B. Regional Cooperation related to Natural Disasters among Member and Associate States of the Association of Caribbean States (December 2001).
- C. Complete Prohibition of Nuclear Tests Treaty (December 2001).
- D. Cartagena Protocol on Biotechnology Security of the Convention on Biological Diversity (January 2002).
- E. Stockholm Convention on Persistent Organic Pollutants (July 2003).
- F. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemical and Pesticides in International Trade (May 2004).
- G. Amendment to the Montreal Protocol on Substances Capable of Depleting the Ozone Layer (June 2006).

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