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Keywords

Dams, Sustainable Development, Environmental Impact Statements, Foreign Investment, Investment, Comparative Law, Human Rights Law, Rule of Law

CHILE'S ENVIRONMENTAL LAWS AND THE HIDROAYSÉN NORTHERN PATAGONIA DAMS MEGAPROJECT: HOW IS THIS PROJECT SUSTAINABLE DEVELOPMENT?

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Abstract: Chile has taken important steps toward creating a more comprehensive environmental regulatory system. Beginning in the early 1990s, Chile's aggressive approach in creating Latin America's strongest free market economy and negotiating free trade agreements stimulated national legislators to improve the country's environmental laws and regulations, as well as its enforcement capabilities. Chile's most recent development achievement—accession to full member status in the Organization of Economic Co-operation and Development (“OECD”)—culminated in the formation of both a cabinet-level Ministry of the Environment with a potentially robust enforcement and oversight branch within that Ministry. This Article assesses *Ley* 20.417, and Chile's legal precedent regarding environmental decisions, through the lens of the proposed HidroAysén project to construct a series of hydroelectric dams in Chile's northern Patagonia Aysén region. This project, easily the country's most controversial environmentally-related project to date, has generated both national and global attention. This Article concludes that the HidroAysén project does not qualify as sustainable development under *Ley* 20.417, despite the Chilean Supreme Court's decision approving the power-generating portion of the project; no legal action has occurred to date on the transmission part of the project. However, even if the project ultimately is considered sustainable development from a technical standpoint, the court of public opinion has resoundingly rejected it.

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I. INTRODUCTION

“The problem isn’t that HidroAysén doesn’t have the right to ask the government for a dam permit. The problem is that the government has failed to protect my family, protect our region, uphold its promises, and meaningfully challenge HidroAysén’s project.”

- Elizabeth “Lilli” Shindele, Estancia Los Ñadis, January 14, 2011.¹

Here, on a remote *estancia* (ranch) in the region of Aysén, 1,000 miles south of Santiago in a glacial valley tucked between two of the world’s largest ice fields, lies the epicenter of a struggle that has captured national and international attention. Lilli and her husband Rozendo, have refused to accept a buyout from HidroAysén, the local subsidiary of a multinational joint energy venture composed of ENDESA, a Spanish-Italian company, and Colbún, S.A., its Chilean counterpart.² They are one of two families in the area who will not move to make way for a large-scale hydroelectric project that would provide power to the population centers and the mining sector in central and northern Chile by damming the Baker and Pascua Rivers and flooding almost 15,000 acres of private and national park lands in Chilean Patagonia, an area known for its rugged beauty.³ The project’s associated transmission line, which is integral to the project, would create a 1,500 mile clear-cut area from Aysén to Santiago, passing through three national parks, numerous national reserves, and thousands of private landholdings in a seismic landscape dotted with volcanoes and punctuated by the world’s largest earthquakes.⁴

Public opinion remains fiercely divided, although opinion polls indicate seventy-four percent of the Chilean population opposes the project.⁵ Environmental organizations unsuccessfully challenged the approval of the project in court, and on April 4, 2012, the Chilean Supreme Court affirmed a lower court ruling that approved the generation portion of the project.⁶ Interestingly, a Chilean congressional committee found, in January 2012, that various government agencies

1. Interview with Elizabeth Shindele and Rozendo Sanchez, Estancia Los Ñadis, in Aysén, Chile (Jan. 14, 2011).

2. *Id.* See also Michael Warren & Eva Vergara, *Chile Approves HidroAysen Dam Project in Wild Patagonia Despite Major Opposition*, HUFFINGTON POST (May 9, 2011, 8:57 PM), http://www.huffingtonpost.com/2011/05/10/chile-hidroaysen-dam-project-approved-patagonia_n_859833.html.

3. *Chile Court Rules in Favour of Patagonia HidroAysen Dam*, BBC NEWS (Apr. 4, 2012, 5:55 PM), <http://www.bbc.co.uk/news/world-latin-america-17620307> [hereinafter *Chile Court Rules in Favour*].

4. See MAURICIO FIERRO, *REPRESAS Y TERREMOTOS: EFECTOS EN LAS CUENCAS PATAGÓNICAS* 6 (2009), available at <http://patagoniasenzadighe.org/wp-content/uploads/2010/09/Represas-y-Terremoto-en-la-Patagonia.pdf>.

5. Maureen Cosgrove, *Chile Court Orders Temporary Suspension of Hydroelectric Dam Project*, JURIST (June 21, 2011, 2:05 PM), <http://jurist.org/paperchase/2011/06/chile-court-orders-temporary-suspension-of-hydroelectric-dam-project.php>.

6. *Chile Court Rules in Favour*, *supra* note 3.

might have contributed to “serious irregularities” in the approval process for HidroAysén’s permit.⁷ Factual errors and questionable science were purportedly included in the project’s initial Environmental Impact Assessment, approved in May 2011.⁸ Despite these alleged irregularities, the Chilean Supreme Court’s approval cleared the final hurdle in the way of the generation portion of the project. Whether Chilean judicial approval would have resulted under Chile’s recently enacted environmental laws and regulations is addressed in detail below.

This project exposed weaknesses in Chile’s 1994 Environmental Framework Law (*Ley Sobre Bases Generales del Medio Ambiente*, or “LSBMA”). The Organization of Economic Co-operation and Development (“OECD”) criticized Chile’s environmental laws and regulatory institutions as falling below the standard required for OECD membership and advised Chile to improve those laws and institutions before seeking full membership.⁹ To increase the country’s chances of gaining such membership, Chile redesigned LSBMA to ensure that the country’s environmental institutions meet OECD’s high standards.¹⁰

This article seeks to assess relevant portions of Chile’s revamped environmental law—known as *Ley 20.417*¹¹—the agencies it creates and empowers, and its scope of power. The proposed HidroAysén project provides a reference point to compare *Ley 20.417* to LSBMA. Specifically, the article explores whether Chile’s revamped environmental regulatory framework significantly alters the status quo by improving the prior law. Ultimately, this article argues that *Ley 20.417* represents a step forward for Chile. Combined with the benefits and requirements that accompany OECD membership, *Ley 20.417* strongly incentivizes Chile to make a more searching review of future large-scale projects similar to HidroAysén. Because Chile updated its environmental framework law in 2010 (after the project was proposed), courts reviewed legal challenges to HidroAysén’s permit under the less stringent measures of the LSBMA;¹² thus, the project provides a solid reference point to compare *Ley 20.417*

7. Comisión concluye que hubo “serias irregularidades” en evaluación de HidroAysén, EMOL (Chile) (Jan. 18, 2012, 7:01 PM), <http://www.emol.com/noticias/economia/2012/01/18/522253/comision-concluye-que-hubo-serias-irregularidades-en-evaluacion-de-hidroaysen.html>.

8. Amanda Maxwell, *Appeals Court Rules in Favor of HidroAysén—And Sends Our Case to Chile’s Supreme Court*, NAT. RESOURCES DEF. COUNCIL (Oct. 12, 2011), http://switchboard.nrdc.org/blogs/amaxwell/appeals_court_rules_in_favor_o.html.

9. ORG. FOR ECON. CO-OPERATION & DEV., ENVIRONMENTAL PERFORMANCE REVIEWS: CHILE 15-16 (2005) [hereinafter OECD, 2005 CHILE REVIEW].

10. See Raul F. Campusano, *La OCDE, Chile y el Medio Ambiente*, UNIVERSIDAD DEL DESARROLLO (Chile), <http://www.udd.cl/wp-content/uploads/2010/04/Microsoft-PowerPoint-UDD-OECD-RCD-v3-Modo-de-compatibilidad.pdf> (last visited Sept. 16, 2012) (notes on file with author).

11. This Comment will refer to *Ley 20.417* as alternately the *Ley* or *Ley 20.417*. This is not to be confused with Chile’s pre-existing Environmental Framework Law, discussed *infra* and identified as LSBMA, which is the Spanish-language acronym for the law’s title.

12. Corte de Apelaciones [C. Apel.] [Courts of Appeals], 6 Octubre 2011, “Kiss, Antonio Horvath c. Comisión de Evaluación Ambiental de la Región de Aysén,” Rol de la causa: 153-2011, protección, p. 127 (Chile), available at <http://corte.poderjudicial.cl/SITCORTEPORWEB> (choose “C.A. de Puerto

with its predecessor. Questions to keep in mind regarding this comparison are: whether the newly overhauled system accounts for social and ecological costs, as well as economic benefits; and, more importantly, whether the new system will involve the necessary agencies and interest groups to ensure that proposed projects impacting the environment receive an objective, holistic, and searching review.

Because of Chile's unique legal and political history, Part II provides the reader with Chile's pertinent legal framework, particularly its unique free-market legal tools, before describing the HidroAysén project. Part III describes and critiques Chile's previous environmental institutions and explains how international trade considerations have strongly influenced Chile's environmental regulatory development. Part IV discusses *Ley 20.417*, analyzes what it accomplishes, and analyzes the Chilean Appellate Court and Supreme Court decisions upholding the HidroAysén project's approval under LSBMA. Part IV concludes that the Chilean Courts would have likely reached a different outcome had they applied *Ley 20.417*'s standards to the HidroAysén project.

II. CHILE'S ENVIRONMENT REGULATIONS: A PRODUCT OF ITS FREE MARKET DEVELOPMENT

Chile's unique free-market structure has shaped its legal development and fostered strong economic growth and trade relationships, but has often pitted economic development against environmental protection.¹³ This part of the article first provides a short legal history of the Augusto Pinochet dictatorship (1973-1990), primarily to show the way free market reform influenced how Chile developed its environmental, energy, and water laws. It then describes the proposed HidroAysén hydroelectric dam, explaining that the project has provoked strong sentiment because it pits the country's economic wellbeing and energy security against the socio-environmental health of Chilean Patagonia.

A. Pinochet's Free Market Reforms

Pinochet's free market reforms have permitted Chile to develop economically at the expense of Chile's environmental laws and regulatory institutions. The various ways this has occurred are discussed below.

1. The Dictatorship's Free-Market Reform Came at the Expense of Government Oversight

On September 11, 1973, Chile's armed forces stormed the Presidential Palace in Santiago and forcibly ousted the democratically elected President, Salvador

Montt" from the "Corte de Origen" box and choose "Protección" from the "Recurso" box; input "153-2011" into the text box and press "Consulta"; click on "Protección-153-2011" hyperlink to access docket) [hereinafter *Apelaciones, Kiss, Antonio Horvath c. Comisión de Evaluación Ambiental de la Región de Aysén*].

13. See James M. Cypher, *Is Chile a Neoliberal Success?*, DOLLARS & SENSE, <http://dollarsandsense.org/archives/2004/0904cypher.html> (last visited Apr. 14, 2013).

Allende.¹⁴ General Augusto Pinochet took power and ruled over Chile for seventeen years.¹⁵ Two stories emerged from the Pinochet era: one of human rights abuses that claimed more than 3,000 lives and quashed free speech; and one of spectacular economic growth through free-market policies designed to transform the country's economic and legal institutions.¹⁶ This subsection focuses on the second story of Pinochet's military dictatorship, as other authors have adequately chronicled Pinochet's human rights violations.¹⁷

Under Pinochet, Chile's legal system codified radical (at least for Latin America) free-market policies, first introduced to Chile by a cadre of economic scholars from the University of Chicago led by Milton Friedman.¹⁸ The so-called "Chicago Boys" promoted *laissez-faire* economics and scorned state intervention in economic development.¹⁹ The Chicago Boys' influence over Pinochet's policies culminated in 1980 with a new Chilean Constitution that institutionalized the free-market economic model.²⁰

Pinochet remains a highly polarizing figure in Chile, partly because of the uneasy truce that ended his seventeen-year rule.²¹ In 1988 he called for a plebiscite, as mandated by the Constitution that Pinochet's government had written in 1980, to submit his name as an official candidate for President.²² He lost, with fifty-five percent voting for him to step down.²³ The negotiations following the plebiscite ensured that Pinochet would avoid prosecution for his human rights violations and would receive a lifetime seat in the Chilean Senate.²⁴

14. *U.S. Relations with Chile*, DEP'T OF STATE (June 29, 2012), <http://www.state.gov/r/pa/ei/bgn/1981.htm>.

15. Jonathan Kandell, *Augusto Pinochet, Dictator Who Ruled by Terror in Chile, Dies at 91*, N.Y. TIMES (Dec. 11, 2006), <http://www.nytimes.com/2006/12/11/world/americas/11pinochet.html?pagewanted=all>.

16. *Id.*

17. Numerous human rights and legal scholars have opined on Pinochet's human rights abuses. See, e.g., NAOMI ROHT-ARRIAZA, *THE PINOCHET EFFECT: TRANSNATIONAL JUSTICE IN THE AGE OF HUMAN RIGHTS* (2005) (analyzing the impact of long-arm jurisdiction on international human rights laws exercised against Pinochet); LUIS RONIGER & MARIO SZNAJDER, *THE LEGACY OF HUMAN RIGHTS VIOLATIONS IN THE SOUTHERN CONE: ARGENTINA, CHILE, AND URUGUAY* (1999) (comparing how three countries responded to former dictators' human rights violations after redemocratization in the 1980s and 1990s); David Pion-Berlin, *To Prosecute or to Pardon? Human Rights Decisions in the Latin American Southern Cone*, 16 HUM. RTS. Q. 105 (1994) (discussing why Chile did not prosecute Pinochet and others for human rights abuses).

18. See generally JUAN GABRIEL VALDÉS, *PINOCHET'S ECONOMISTS: THE CHICAGO SCHOOL IN CHILE 127–200* (1995) (discussing University of Chicago economists' influence in Chile).

19. *Id.* See also CARL J. BAUER, *SIREN SONG: CHILEAN WATER LAW AS A MODEL FOR INTERNATIONAL REFORM 35–36* (2004) [hereinafter BAUER, SIREN SONG].

20. BAUER, SIREN SONG, *supra* note 19, at 36.

21. Ricardo Lagos et al., *The Pinochet Dilemma*, FOREIGN POL'Y, Spring 1999, at 26, 31–32.

22. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DE CHILE [C.P.] arts. 26–28.

23. Lagos et al., *supra* note 21, at 31. See also conversation with Professor Tomás Vial Solar, Program Director of Public Law, Universidad Andres Bello, Santiago, Chile (Jan. 4, 2011) (on file with Marcus Pearson).

24. Lagos et al., *supra* note 21, at 31.

Most importantly, however, Pinochet's legal legacy still impacts the everyday lives of Chileans, as the Constitution and numerous legal codes enacted during his regime remain in effect.²⁵ In addition, his free-market reforms encouraged substantial market diversification and attracted foreign investment during and after the dictatorship.²⁶ Throughout the 1980s and 1990s the country drew comparisons to South Asia's emerging economic powerhouses.²⁷ In particular, his free-market legal reforms greatly affected Chile's water and energy development regime and continue to impact the country's environmental regulatory system.²⁸

2. Chile's Free-Market Model Promotes Large-Scale Hydroelectric Development with Minimal Governmental Oversight

This subsection will analyze how Chile's 1981 Water Code, which privatized water rights, and the 1980 Constitution work in conjunction to give constitutional protection to water rights holders.²⁹ It suggests that the free-market legal model ultimately permitted large-scale hydroelectric development to occur without proper oversight from Chile's environmental institutions.

The 1980 Chilean Constitution declares that "[t]he rights of private citizens over waters, recognized or constituted in conformity with the law, shall grant proprietorship to the owners thereof."³⁰ Private citizens' proprietorship over water demonstrates that the dictatorship intended to insert free-market ideals into the realm of water rights.³¹ Much like other aspects of property ownership in Chile, water becomes subject to market forces as soon as the state transfers that right to an individual landowner.³² In practice, the Constitution subjects water rights to real estate law,³³ and has generally deferred to the court system instead of imposing an administrative legal framework on adjudication and user disputes.³⁴ Since 1980, because the Constitution grants such strong protections to water rights holders, the Chilean government has exercised very limited administrative control

25. *Id.* at 32.

26. Sheila Amin Gutiérrez de Piñeres & Michael Ferrantino, *Export Diversification and Structural Dynamics in the Growth Process: The Case of Chile*, 52 J. DEV. ECON. 375, 389 (1997).

27. Mario Sznajder, *Dilemmas of Economic and Political Modernization in Chile: A Jaguar that Wants to Become a Puma*, 17 THIRD WORLD Q. 725, 725 (1996) (discussing the similarities between Chile, South Korea, Singapore, and Taiwan, the "East Asian Tigers," suggesting that Chile should democratize the remnants of Pinochet's military regime to complete its transformation).

28. See BAUER, SIREN SONG, *supra* note 19, at 35-36; Joe Mentor Jr., *Trading Water, Trading Places: Water Marketing in Chile and the Western United States* 3-4 (Aug. 6-8, 2001) (unpublished manuscript from AWRA/IWLRI-Univ. Dundee Int'l Specialty Conference), available at <http://www.awra.org/proceedings/dundee01/Documents/Mentor.pdf>.

29. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DE CHILE [C.P.] art. 19(24). See also Mentor Jr., *supra* note 28, at 3.

30. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DE CHILE [C.P.] art. 19(24).

31. See BAUER, SIREN SONG, *supra* note 19, at 35-36.

32. *Id.* at 47-50.

33. See Mentor Jr., *supra* note 28, at 3-4.

34. BAUER, SIREN SONG, *supra* note 19, at 35-36.

over disputes.³⁵ Additionally, the Constitution weaves tight restrictions around administrative agencies minimizing their impact and ability to regulate water issues.³⁶

In addition to the limitations imposed under the 1980 Constitution, the 1981 Water Code had long-term impacts on Chile's landscape because it: (1) transformed water into a private commodity; and (2) invented a new type of water right to take advantage of the country's potential hydroelectric resources.³⁷ First, the 1981 Water Code rebranded water as a private resource subject to market forces, and freed water rights from meaningful administrative oversight, in accordance with the Chilean Constitution's generous definition of private property.³⁸ The Water Code declares water rights a "public property . . . to which the national government may grant private parties exclusive rights to use."³⁹

In practice, water rights applicants have broad leverage to determine whether, and where to use those rights.⁴⁰ For example, water rights applicants "do not have to specify or justify their intended water uses to [the Government Water Agency], and the agency is required to grant new rights free of charge if there is water physically available" in a given basin.⁴¹ They also do not have to justify their intended use to the government.⁴² Even more importantly, once someone owns a water right, the government has virtually no authority to track or regulate these privately held rights.⁴³ In other words, the private market, rather than government oversight, drives water appropriation and use. As a result, a robust and controversial water speculation market exists in Chile because it permits wealthy landholders and water speculators to amass substantial water rights.⁴⁴

Chile's Water Code created a new type of water right from whole cloth—the non-consumptive right.⁴⁵ The government invented this concept in order to open up rivers to hydroelectric development, while attempting to sidestep a potential conflict with irrigators who had already appropriated most of the nation's water for consumptive use.⁴⁶ The non-consumptive right is typically allocated upstream, before being reintroduced to the watershed at a point further downstream.⁴⁷ Article 14 of the Water Code implies that it prioritizes consumptive use—agriculture and municipal use, for example—over non-consumptive use.⁴⁸ However, in practice,

35. *Id.*

36. *Id.*

37. Carl J. Bauer, *Dams and Markets: Rivers and Electric Power in Chile*, 49 NAT. RESOURCES J. 583, 596, 601 (2009) [hereinafter Bauer, *Dams and Markets*].

38. *Id.* at 599.

39. *Id.* at 598.

40. *Id.* at 598-99.

41. *Id.*

42. See Mentor Jr., *supra* note 28, at 4.

43. *Id.*

44. Bauer, *Dams and Markets*, *supra* note 37, at 599, 602.

45. *Id.* at 601.

46. *Id.*

47. See BAUER, SIREN SONG, *supra* note 19, at 103.

48. Article 14 of the Water Code defines non-consumptive rights, and then states that the

the Water Code lacks clarity and has led to conflicts over who controls the resource.⁴⁹

The Water Code's failure to establish a clear priority system between the two types of rights has allowed large hydroelectric power interests to assert their control over river basins. For example, a Chilean study found that "in times of drought and for the sake of national electricity supplies, the Public Works Ministry has managed several reservoirs that it controls to benefit hydropower over irrigation."⁵⁰ Carl Bauer, Chile's pre-eminent water law scholar, opines that in addition to doubly allocating each river basin,⁵¹ non-consumptive rights stimulated monopolistic water rights holdings and fueled water speculation by creating an entirely new economic market with a highly restrictive resource.⁵² Because Chile did not clearly establish consumptive rights as the higher-value resource, it arguably supplanted traditional consumptive practices with more lucrative non-consumptive practices that promised a higher rate of return on commercializing the country's water resources.

B. The HidroAysén Project Has Failed to Alleviate Chile's Energy Concerns and Threatens to Further Politically Alienate the Aysén Region

The HidroAysén project has emerged as the most recent iteration of Chile's decades-long experiment with hydroelectric power.⁵³ This section first provides a background on Chile's reliance on hydroelectric power and then develops the socio-political framework within which the HidroAysén project and its subsequent conflict developed.

1. Chile's Heavy Reliance on Hydroelectric Power at the Expense of Developing Other Renewable Energy Sources

Chile's National Electricity Company (*Empresa Nacional de Electricidad, S.A.*, or "ENDESA") was formed in 1943 as a state-owned electricity company.⁵⁴ As part of Pinochet's free-market plan, the country privatized ENDESA in 1989.⁵⁵

withdrawal or return flow of waters shall not damage a third party's rights to the same waters. CÓDIGO DE AGUAS (Water Code), Cód. AGUAS art. 14.

49. Bauer, *Dams and Markets*, *supra* note 37, at 602-03.

50. *Id.* at 603 (citing Manuel Prieto, *El Modelo Chileno de Gestión Hidroeléctrica: Una Aproximación desde la Sostenibilidad Profunda* (Chile) (Nov. 2007) (unpublished M.A. thesis, Pontificia Universidad Católica de Chile) (on file with Lo Condator Library, Pontificia Universidad Católica de Chile)).

51. According to Bauer, the government may fully allocate each watershed not only for consumptive use, but may also allocate that same water for non-consumptive use. *See id.* at 602.

52. *See id.* at 601-02.

53. For a comprehensive background of hydroelectric power in Chile, *see id.* at 610-26.

54. *About Us: History*, ENDESA CHILE, http://www.endesa.cl/Endesa_Chile/action.asp?id=00140&lang=en (last visited Feb. 11, 2012).

55. *Id.* *See also* Bauer, *Dams and Markets*, *supra* note 37, at 624-25.

The now-private company retained all the assets it had accumulated over its forty-five year lifespan as Chile's national energy company, including all the company's existing hydroelectric dams, the water rights pertaining to those dams, and non-consumptive rights to all the potential dam sites that the company had yet to develop.⁵⁶ Today, ENDESA-Chile is a wholly owned subsidiary of ENDESA-Spain,⁵⁷ one of Europe's largest energy producers.⁵⁸ ENDESA controls the HidroAysén project and hopes to use the project to contribute significantly to the country's power grid.⁵⁹

Chile relies heavily on hydroelectric power generation to fuel its economic engine, but energy demand has begun to outstrip supply.⁶⁰ The Chilean Government estimates that it needs to double its energy capacity in the next decade in order to keep up with a more affluent population's needs.⁶¹ "In 2002, Chile met [seventy-one] percent of its domestic energy needs with hydropower."⁶² However, recent droughts have forced the country to scramble to diversify its energy production because many of its reservoirs are running well below capacity.⁶³ Hydroelectric companies have fully utilized the generation potential of the country's northern and central rivers, and have now turned to the country's southern rivers.⁶⁴ ENDESA argues that the HidroAysén project will solve the country's energy problem by regulating energy flow and increasing the capacity of the country's largest power grid, the *Sistema Interconectado Central* (Central Grid, or "SIC").⁶⁵ The dam's opponents respond that such a remote and costly dam

56. Bauer, *Dams and Markets*, *supra* note 37, at 625, 629.

57. In 2008, ENDESA-Spain was purchased by Italian energy giant Enel. David Lawsky & William Schomberg, *EU Clears Enel-Acciona Bid for Endesa*, REUTERS (June 16, 2008, 11:28 AM), <http://uk.reuters.com/article/2008/06/16/us-eu-endesa-takeover-idUKL164379920080616>.

58. Enel is Europe's third largest energy company. Stephen Jewkes, *UPDATE 4—Enel Eyeing Capital Hike as Option, Shares Drop*, REUTERS (Feb. 27, 2009, 9:36 AM), <http://www.reuters.com/article/2009/02/27/enel-capitalincrease-idUSLR48905320090227>.

59. *See Chile*, ENDESA, <http://www.endesa.com/en/aboutEndesa/businessLines/principalesproyectos/Chile> (last visited Sept. 20, 2013) (projecting that when completed, the plants will produce energy that is equivalent to 35% of Chile's consumption) [hereinafter *Chile*, ENDESA].

60. Mark Briggs, *Chile's Reliance on Hydropower: A Risky Gamble in an Increasingly Dry Energy Climate*, SANTIAGO TIMES (Feb. 20, 2011, 8:34 PM), <http://www.santiagotimes.cl/opinion/op-ed/20800-chiles-reliance-on-hydropower-a-risky-gamble-in-an-increasingly-dry-energy-climate>.

61. NATURAL RES. DEF. COUNCIL, BUILDING A BRIGHTER FUTURE: REALIZING CHILE'S POTENTIAL TO BECOME A LEADER IN RENEWABLE ENERGY AND EFFICIENCY 1 (2011), *available at* <http://www.nrdc.org/international/files/chilebuildingbrighter.pdf>.

62. Briggs, *supra* note 60.

63. *Id.* *See also* EMBASSY OF SWITZERLAND IN CHILE, THE CHILEAN ENERGY MARKET 1-4 (2011), *available at* http://www.osec.ch/sites/default/files/The%20Chilean%20Energy%20Market_Embassy%20of%20Switzerland%20in%20Chile.pdf.

64. *See* EMBASSY OF SWITZERLAND IN CHILE, *supra* note 63, at 3. *See also* Tom Azzopardi, *Chile's Drought Dilemma*, BUS. CHILE MAG. (Apr. 20, 2011, 6:35 PM), <http://www.businesschile.cl/en/news/water/chile%E2%80%99s-drought-dilemma>.

65. *See Chile*, ENDESA, *supra* note 59. Sources disagree about how much power the project will actually increase the SIC's capacity. Compare Jude Weber, *Power Generation: Energy Plans Require*

project externalizes the negative impacts onto the local human and natural population, including high-voltage power transmission issues, regional seismic uncertainty, social displacement, and irreversible environmental damage.⁶⁶

Furthermore, many opponents have pointed out that increasing water scarcities make Chile's reliance on hydropower a losing proposition.⁶⁷ For example, a recent United Nations Environmental Programme study concluded that Alaskan and Patagonian glaciers are melting at the world's fastest rate due to warmer average temperatures and longer warm seasons.⁶⁸ Rapid glacial melt diminishes water supply over time by unlocking a higher proportion of fresh water annually.⁶⁹ When a glacier recedes entirely, it no longer acts as a natural water tower for the communities it serves, and leaves those communities extremely vulnerable to water shortages and resource conflicts.⁷⁰ Both the Baker and Pascua Rivers, which would be dammed, rely on glacial melt for their flow.⁷¹ Therefore, with less water available, the HidroAysén project provides, at best, a short-term solution to the country's energy problem.⁷²

Other possible answers to address Chile's energy needs, however, face similar limitations and remain largely untested. A March 2011 agreement with the United States officially started a serious nuclear energy feasibility study in Chile.⁷³ A nuclear power plant could be built along the SIC, providing energy without large transmission losses. However, nuclear power plants require at least as much water to operate as traditional thermoelectric (carbon-based) power plants, although

PR and Fat Purses, FIN. TIMES (Oct. 3, 2011, 2:59 PM), <http://www.ft.com/cms/s/0/d342a236-e837-11e0-9fc7-00144feab49a.html#axzz1mBRs04AG> (estimating that it will increase capacity by 25 percent), with Aaron Nelsen, *Chile Dams its Rivers to Unleash its Economy*, TIME (May 11, 2011), <http://www.time.com/time/world/article/0,8599,2070816,00.html> (stating that the dams will boost capacity by thirty-three percent).

66. See, e.g., Benjamin Witte, *Chile Patagonia Dam Debate Escalates*, ENERGY PROBE RES. FOUND. (Oct. 18, 2008), <http://eprf.probeinternational.org/node/7314>; see also *Chile's Dam Complex Faces Green Fury*, UPI (Nov. 9, 2010, 6:41 AM), http://www.upi.com/Business_News/Energy-Resources/2010/11/09/Chiles-dam-complex-faces-green-fury/UPI-41741289302878.

67. Briggs, *supra* note 60.

68. UNITED NATIONS ENV'T PROGRAMME, HIGH MOUNTAIN GLACIERS AND CLIMATE CHANGE: CHALLENGES TO HUMAN LIVELIHOODS AND ADAPTION 11-13 (B.P. Kaltenborn et al. eds., 2010).

69. Kelley Lubovich, *The Coming Crisis: Water Insecurity in Peru*, FESS ISSUE BRIEF, Sept. 2007, at 1, 3, available at http://www.fess-global.org/publications/issuebriefs/the_coming_crisis_water_insecurity_in_peru.pdf.

70. *Id.* at 4.

71. See Nelsen, *supra* note 65.

72. Peru, which has suffered from high rates of glacial melt, also relies heavily on hydroelectric power and has begun to deal with resource conflicts due to scarcities that experts have linked to rapid glacial melt. Lubovich, *supra* note 69, at 3-6.

73. *Chile, US Sign a Nuclear Agreement Despite Crisis*, TAIPEI TIMES (Mar. 20, 2011), <http://www.taipetimes.com/News/world/print/2011/03/20/2003498677>. See also *US and Chile Sign Nuclear Deal Amid Japan Fears*, BBC NEWS (Mar. 18, 2011, 2:57 PM), <http://www.bbc.co.uk/news/world-latin-america-12792299?print=true>.

much of it escapes as steam from the nuclear cooling process.⁷⁴ Thus, limited water resources may hamstring nuclear development because it will face water shortage issues similar to those applicable to hydroelectric power. Chile's seismic activity also poses a barrier to nuclear development: Chile's long coastline makes it especially vulnerable to earthquake-generated tsunamis, as seen in Chile's 2010 earthquake/tsunami twin disaster and more recently with Japan's tsunami-caused nuclear plant crisis.⁷⁵

Chile also has one of the world's best solar energy sources, the vast Atacama Desert in the north.⁷⁶ The Atacama Desert is ideally suited to solar thermal production because of its high altitude, 365 days of sunlight, and already existing power lines on the land.⁷⁷ Experts estimate that a solar array in the Atacama would provide as much energy in a more economic and less environmentally costly manner.⁷⁸ Although water use remains a concern for solar energy production,⁷⁹ both forms of energy could be produced closer to Santiago and fast-growing northern cities such as Arica and Antofagasta, where demand for energy is growing the fastest.⁸⁰

Finally, transmission problems have arguably dissuaded previous generators from taking advantage of energy opportunities in the Aysén region.⁸¹ ENDESA successfully argued that the HidroAysén project's Environmental Impact Assessment did not have to include the transmission line because ENDESA would

74. R. GOLDSTEIN & W. SMITH, ELECTRIC POWER RESEARCH INST., 3 WATER & SUSTAINABILITY: US WATER CONSUMPTION FOR POWER PRODUCTION—THE NEXT HALF-CENTURY 2-1 to 2-2 (2002), available at <http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=00000000001006786>. See also PARLIAMENT OF AUSTRALIA, WATER REQUIREMENTS OF NUCLEAR POWER STATIONS 1-2 (Dec. 4, 2006), available at http://parlinfo.aph.gov.au/parlInfo/download/library/prspub/OMOL6/upload_binary/omol62.pdf;fileTy pe=application%2Fpdf#search=%22Water+Requirements+of+Nuclear+Power+Stations%22.

75. See FIERRO, *supra* note 4, at 15–16. See also Robert R.M. Verchick, *Disaster Justice: The Geography of Human Capability*, 23 DUKE ENVTL. L. & POL'Y F. 23, 29, 38–39 (2012). Chile's 2010 earthquake and tsunami are briefly documented by the U.S. Government. *Tsunami Event—February 27, 2010 Chile: Main Event Page*, NOAA CENTER FOR TSUNAMI RES., <http://nctr.pmel.noaa.gov/chile20100227> (last visited March 13, 2013).

76. Erin Allen, *Solar Energy Conference in Chile Brings Together World Experts*, MERCOPRESS (Uru.) (June 22, 2011, 11:54 PM), <http://en.mercopress.com/2011/06/22/solar-energy-conference-in-chile-brings-together-world-experts>.

77. *Id.*

78. *Investigadores chilenos de siete universidades desrrollan Iniciativa en energía solar*, EMOL (Chile) (Jan. 19, 2011), <http://www.emol.com/noticias/todas/detalle/detalenoticias.asp?idnoticia=459489>.

79. See, e.g., Todd Woody, *Water Use by Solar Projects Intensifies*, N. Y. TIMES (Oct. 27, 2009, 9:19 AM), <http://green.blogs.nytimes.com/2009/10/27/water-use-by-solar-projects-intensifies>.

80. See Allen, *supra* note 76 (noting that the northern region of Chile, including Arica and Antofagasta, is particularly suited for solar energy due to their altitude and weather).

81. See Letter from Juan Pablo Orrego S., Dir., Ecosistemas, to David Denison, President & CEO, CPP Inv. Bd. (May 15, 2009), available at <http://journal.probeinternational.org/2009/05/15/cpp-investment-board-urged-abandon-controversial-chilean-transmission-scheme>.

not construct it, and thus had no duty to account for its environmental impact.⁸² A transmission line connecting any energy generation project in Aysén to the country's SIC would run 1,500 miles, through multiple national parks, public lands, and numerous private lands, in nine administrative regions throughout Chile.⁸³ Multiple studies have emerged in the past decade concluding that large-scale hydroelectric dams may have no net positive impact to curbing greenhouse gas production.⁸⁴ In particular, a Massachusetts Institute of Technology ("MIT") study calculates that the proposed transmission line will contribute seventy percent of the HidroAysén project's greenhouse gas emissions because it will require a clear-cut through heavily forested regions in southern and central Chile.⁸⁵ Despite framing hydroelectric energy as a green alternative, the HidroAysén project will still emit over three million tons of carbon dioxide during its lifespan, primarily because of the land-use changes associated with a transmission line.⁸⁶

Thus, Chile's continued reliance on hydroelectric energy makes little sense other than as an extension of Pinochet's radical restructuring of the Water Code and privatization of the energy agency. Despite the high risks involved in continued reliance on hydroelectric power, the country continues to develop large dam projects because its free-market legal system has encouraged private companies like ENDESA to invest. Chile's legal framework has allowed ENDESA to make socially and environmentally risky investments in order to take advantage of their virtual monopoly over water resources. The fact that ENDESA successfully moved the HidroAysén project through the environmental review process reflects the need to revamp the environmental regulatory system in order to

82. CENTRALES HIDROELÉCTRICAS DE AYSÉN S.A., RESUMEN EJECUTIVO, PROYECTO HIDROELÉCTRICO AYSÉN, ESTUDIO DE IMPACTO AMBIENTAL 9 (2008) (Chile), *available at* http://bibliotecaverde.wikieco.org/wp-content/plugins/downloads-manager/upload/01_Resumen_Ejecutivo.pdf. *See also* Letter from Juan Pablo Orrego S. to David Denison (May 15, 2009), *supra* note 81. At some point after the favorable court decisions, Endesa and Colbun apparently changed their position because they now openly assume responsibility for the transmission part of the project if and when it ever starts. *See, e.g.*, Randall Woods & Sebastian Boyd, *Patagonia Protests Lead Colbun to Backpedal on Chile Dam*, BLOOMBERG (May 31, 2012, 9:03 AM), <http://www.bloomberg.com/news/2012-05-31/patagonia-protests-lead-endesa-partner-to-backpedal-on-chile-dam.html>.

83. Letter from Juan Pablo Orrego S. to David Denison (May 15, 2009), *supra* note 81.

84. WORLD COMM'N ON DAMS, DAMS AND DEVELOPMENT: A NEW FRAMEWORK FOR DECISION-MAKING 75-77 (2000), *available at* http://www.internationalrivers.org/files/attached-files/world_commission_on_dams_final_report.pdf. *See also* THE ASOCIACIÓN INTERAMERICANA PARA LA DEFENSA DEL AMBIENTE, GRANDES REPRESAS EN AMÉRICA: PEOR EL REMEDIO QUE LA ENFERMEDAD?: PRINCIPALES CONSECUENCIAS AMBIENTALES Y EN LOS DERECHOS HUMANOS Y POSIBLES ALTERNATIVAS 56-57 (2009) (Colom.), *available at* http://www.aida-americas.org/sites/default/files/InformeAIDA_GrandesRepreseas_BajaRes.pdf.

85. Kristen Burrall et al., *Analysis of Proposed Hydroelectric Dams on the Río Baker in Chilean Patagonia* 32 (2009) (unpublished M.E. thesis, Massachusetts Institute of Technology, Department of Civil and Environmental Engineering), *available at* http://www.waterdeva.com/pdfs/Burrall_et_al_2009.pdf.

86. *See id.* at 16.

give government agencies actual, rather than theoretical, power to determine whether to permit future projects.

2. The HidroAysén Project's Polarization of Aysén's Resident and Mobilization of National and International Opposition

Placing the HidroAysén project within Chile's geopolitical framework may explain why the project has aroused such strong sentiments. Chile's Aysén region sits in Chile's Patagonia, geographically isolated from other parts of the country by deep glacial fjords along the coast and impenetrable ice fields along the length of its northern and southern boundaries.⁸⁷ It thus shares more traditions with neighboring Argentina than the rest of Chile, and has become nationally famous for its wild spaces and intractable disdain for Santiago politicians.⁸⁸ Additionally, only 91,494 people live dispersed over Aysén's 41,890 square miles (108,494 square kilometers), about the same size as the U.S. State of Tennessee (and remarkably similar in appearance if Tennessee's east-west width were changed to face north and south).⁸⁹ With a population density of roughly 2.2 people per square mile, it would rank ahead only of Alaska in population density if it were a state in the United States.⁹⁰

The region's population also remains divided on major economic development projects. The HidroAysén project will purportedly bring wealth to the region, but also threatens a tourist economy that has grown in the past decade to become a viable regional economic driver.⁹¹ As a result, the HidroAysén project has drawn strong opposition, with local grassroots organization *Patagonia Sin Represas* (Patagonia without Dams) spearheading local campaigns and organizing protests.⁹² The project does have some local support, however, in part because of

87. Although Region XII (Magallanes) lies further south of Aysén, Aysén does not have the natural ports that exist in Magallanes that allow for easy transfer of goods and services. Likewise, Aysén and Magallanes are separated by the Southern Ice Field, the Western Hemisphere's second largest ice field. See AYSÉN REG'L GOV'T ET AL., AYSÉN: MATICES DE UNA IDENTIDAD QUE ASOMA /SHADES OF AN EMERGING IDENTITY, 51 (2009), available at http://www.territoriochile.cl/1516/articulos-83982_recurso_1.pdf.

88. See *id.* at 12, 28-29, 46-47.

89. Daniela Estrada, *CHILE: Mega Dams, Mega Impacts, Mega Half-Truths*, INTER PRESS SERV. NEWS AGENCY (Sept. 25, 2007), <http://ipsnews.net/news.asp?idnews=39399>.

90. Alaska's 2010 population density is 1.2 people per square mile, and Wyoming has the next lowest population density, at 5.8 people per square mile. *Resident Population Data*, UNITED STATES CENSUS BUREAU, <http://www.census.gov/2010census/data/apportionment-dens-text.php> (last visited Sept. 26, 2012).

91. Interview with Kris Tompkins, in Estancia Valle Chacabuco, Chile (Jan. 13, 2011). Compare Warren & Vergara, *supra* note 2 (highlighting the potential development that could result in the region) and Letter from Juan Pablo Orrego S. to David Denison (May 15, 2009), *supra* note 81 (highlighting the threat to the tourist industry in the region).

92. See PATAGONIA SIN REPRESAS (Chile), <http://www.patagoniasinrepresas.cl/final/index.php> (last visited Feb. 14, 2012). In addition, a full-length documentary highlights local opposition to the project from its early stages. See *Sin Represas, 180 DEGREES SOUTH: CONQUERORS OF THE USELESS*, http://www.180south.com/sin_represas.html (last visited Sept. 26, 2013).

ENDESA's aggressive public relations campaign to tout the project's benefits.⁹³ For example, ENDESA's literature promises that these dams will increase energy capacity,⁹⁴ but a company official admitted that "every last drop" of energy generated from the dams will go directly to Santiago.⁹⁵ Instead, ENDESA quietly plans to build ten smaller dams on other rivers in the region that will generate energy for the population.⁹⁶ Additionally, the company promises to reduce energy costs for the region,⁹⁷ but an interview with HidroAysén officials determined that it has not developed a concrete plan for energy cost reduction.⁹⁸ The company has nonetheless introduced a high-profile public relations campaign—including university scholarships for Aysén regional students and expenditures on local infrastructural projects—to win local support.⁹⁹

Likewise, local, national, and international environmental and legal organizations worked to postpone the HidroAysén project's Environmental Impact Assessment ("EIA").¹⁰⁰ Collectively, these organizations call themselves *Consejo de Defensa de la Patagonia Chilena* ("Patagonian Defense Council").¹⁰¹ This Council includes local ranchers, priests, lawyers, and nongovernmental organizations, as well as international organizations and celebrities such as: International Rivers, Robert F. Kennedy, Jr. (Natural Resource Defense Council), Yvon Chouard (founder of Patagonia clothing company), and Douglas and Kris Tompkins (American philanthropists and founders of *Conservación Patagónica*, who built and now operate Pumalin, one of the world's largest private national parks).¹⁰² The organizations' efforts worried Chilean officials and reportedly

93. Diego Cupolo, *Tough Questions for Chile as Ongoing Protests Stall Patagonian Dam Project*, UPSIDE DOWN WORLD (Feb. 20, 2013, 7:08 PM), <http://upside-downworld.org/main/chile-archives-34/4142-tough-questions-for-chile-as-ongoing-protests-stall-patagonian-dam-project>.

94. *Chile*, ENDESA, *supra* note 59.

95. Conversation with HidroAysén Official, in Coyhaique, Aysén, Chile (Jan. 17, 2011) (on file with author).

96. *Id.*

97. Matt Craze & Randy Woods, *Endesa's HidroAysen Project Approved by Chilean Authorities Amid Protests*, BLOOMBERG (May 9, 2011, 4:02 PM), <http://www.bloomberg.com/news/2011-05-09/pinera-uses-chile-mine-rescue-head-to-sell-patagonia-hydro-power-project.html>.

98. Conversation with HidroAysén Official, *supra* note 95.

99. Cupolo, *supra* note 93.

100. See *Patagonia Sin Represas*, INT'L RIVERS, <http://www.internationalrivers.org/campaigns/patagonia-sin-represas> (last visited Apr. 16, 2013).

101. Quiénes Somos, PATAGONIA CHILENA ¡SIN REPRESAS!, <http://www.patagoniasinrepresas.cl/final/quienes-somos.php> (last visited Sept. 30, 2013).

102. *Id.* See also *History*, PUMALIN PARK (CHILE), <http://www.parquepumalin.cl/content/eng/index.htm> (last visited Sept. 30, 2013). The transmission route plan responded to objections over using Pumalin Park land by deciding on an underwater cable for this part of the route, although many other parks remain on the route. Ivonne Toro, *Gobierno estudia cableado submarino que complica a HidroAysén*, LA TERCERA (Chile) (Oct. 31, 2011), <http://diario.latercera.com>. See also Amanda Maxwell, *Latin America Climate, Energy, and Environmental News 10/31–11/4/2011*, NAT. RESOURCES DEF. COUNCIL (Nov. 4, 2011), http://switchboard.nrdc.org/blogs/amaxwell/la_climate_energy_environmenta_1.html.

caused the three-year delay in the EIA approval before it was ultimately approved on May 13, 2011.¹⁰³

Although citizens have taken to the streets to protest the project,¹⁰⁴ and public approval remains low, support for the project continues amongst high-ranking government officials. Current President Sebastián Piñera not only has strongly supported the project, but he has made the development of hydroelectric projects a priority in his administration, publicly stating that he hopes hydroelectric power accounts for fifty percent of Chile's energy output within twenty years.¹⁰⁵ Former President Lagos also supported the project and deemed the project "necessary."¹⁰⁶ Maria Isabel Gonzalez, the former head of Chile's National Energy Commission has stated:

Chile is still a poor country, with 2.5 million poor people, and to overcome poverty we need energy, and for that reason we need to develop our own resources, the most competitive ones. . . . It would be very selfish on the part of the rich countries to say, 'Look how they are destroying these uninhabited pristine areas.'¹⁰⁷

This comment reveals that some influential Chilean officials bristle when outside forces attempt to dictate the terms of Chile's economic development, particularly how the country chooses to develop its own resources.

Most recently, the HidroAysén project appears to have influenced Chile's 2013 presidential election campaign, with candidates forced to answer pointed questions regarding their support or opposition for the project. Vota sin Represas, a grassroots organization, has played a major role in determining the candidates' positions by asking all candidates to publicly sign a pledge opposing the project.¹⁰⁸ Though neither major party candidate has signed the pledge, the current presidential frontrunner, former President Michelle Bachelet, has come out

103. Andrea Hartung, *Corte de Apelaciones de Puerto Montt rechaza recursos contra HidroAysén*, LA TERCERA (Chile) (Oct. 6, 2011, 2:21 PM), <http://latercera.com/noticia/nacional/2011/10/680-397349-9-corte-de-apelaciones-de-puerto-montt-rechaza-recursos-contra-hidroaysen.shtml#>. See also Amanda Maxwell, *A Surprise Announcement Paralyzed HidroAysén*, NAT. RESOURCES DEF. COUNCIL (May 31, 2012), http://switchboard.nrdc.org/blogs/amaxwell/a_surprise_announcement_paraly.html.

104. Annie Murphy, *Plans for Dams in Patagonia Draw Ire from Chileans*, NPR (June 1, 2011, 3:21 PM), <http://www.npr.org/2011/06/09/136855319/plans-for-dams-in-patagonia-draw-ire-from-chileans>.

105. A. Astudillo & C. Pizarro, *Piñera delinea nuevo plan energético y da fuerte respaldo a la hidroelectricidad*, LA TERCERA (Chile) (Jan. 13, 2012), <http://diario.latercera.com/2012/01/13/01/contenido/negocios/10-97025-9-pinera-delinea-nuevo-plan-energetico-y-da-fuerte-respaldo-a-la-hidroelectricidad.shtml>.

106. *Ex presidente Lagos asegura que proyecto Hidroaysen "es necesario"*, TERRA (Colum.) (May 15, 2011), http://economia.terra.com.co/noticias/noticia.aspx?idNoticia=201105151509_UPI_79701199.

107. Michael Warren & Eva Vergara, *Chile Approves Huge Dam Project in Wild Patagonia*, STAR TRIBUNE (May 9, 2011, 7:57 PM), <http://www.startribune.com/printarticle/?id=121525944>.

108. Kate Ross, *HidroAysén Not the Right Future for Chile*, INT'L RIVERS (Aug. 14, 2013, 2:57 PM), <http://www.internationalrivers.org/blogs/259/hidroaysen-not-the-right-future-for-chile>.

strongly against the Project in response to Vota sin Represas' public pressure.¹⁰⁹ Notably, she posed on billboards in the capital bearing the slogan "We are Patagonia Sin Represas."¹¹⁰ Additionally, Bachelet affirmed in an interview that HidroAysén should be shelved because it is not a viable project, and further that she would be open to assessing alternatives to hydroelectric production.¹¹¹

Bachelet's main opponent, Evelyn Matthei, has neither opposed nor openly supported the project. Matthei served as Labour Minister under current Chilean President Sebastian Piñera from January 2011 until July 2013.¹¹² Piñera—and his cabinet—have offered strong support for HidroAysén since it was approved in 2011, despite growing opposition to the project.¹¹³ During the campaign Matthei has remained coy about her position.¹¹⁴ Sebastian Bernstein, Matthei's spokesperson for energy and environment, has dodged the question whether Matthei would oppose HidroAysén.¹¹⁵ Instead, Bernstein stated that Matthei would investigate an alternative to any new large power project proposal if either the Chilean population or the political establishment did not wholly support that project.¹¹⁶ Given Matthei's involvement in Piñera's government, her refusal to openly support the project speaks to HidroAysén's potential to act as political kryptonite. Matthei's fading presidential hopes make her muddled position on the HidroAysén project less relevant than Bachelet's public opposition.¹¹⁷

Politics aside, part III of this article below develops the environmental regulatory framework that existed when the HidroAysén project began, highlighting the former legislation's weaknesses to demonstrate why the EIA was approved. Lastly, it describes why Chile transitioned to a more robust environmental management regime.

109. *Id.*

110. *Id.*

111. Victor Toloza Jiménez, *Entrevista, Michelle Bachelet, candidata de la Nueva Mayoría*, EL MERCURIO DE ANTOFAGASTA (Chile) (July 20, 2013), <http://www.mercurioantofagasta.cl/impresa/2013/07/20/full/5>.

112. *See Chile Labour Minister Evelyn Matthei to Run for President*, BBC (July 20, 2013, 9:23 PM), <http://www.bbc.co.uk/news/world-latin-america-23392856>.

113. G.L. Santiago, *How the Mighty Have Fallen*, THE ECONOMIST (Jun. 14, 2011, 12:48 PM), <http://www.economist.com/blogs/americasview/2011/06/chiles-politics>.

114. *Jefe programático de Matthei: "Esfuerzos en materia social se harán sin sacrificar la economía,"* EMOL (Chile) (Aug. 13, 2013), <http://www.emol.com/noticias/nacional/2013/08/13/614339/matthei-y-equipo-programatico.html>.

115. Hernán Vargas S., *Comando de Matthei analiza encuesta ciudadana para definir viabilidad del proyecto HidroAysén*, LA SEGUNDA ONLINE (Chile) (Oct. 15, 2013), <http://www.lasegunda.com/Noticias/Economia/2013/10/885848/comando-de-matthei-analiza-encuesta-ciudadana-para-definir-viabilidad-del-proyecto-hidroaysen>.

116. *Id.*

117. Michelle Bachelet won 47% of the vote in the election, however failed to get the requisite 50% for victory. Jonathan Franklin, *Bachelet Faces Runoff Against Matthei in Chile's Presidential Election*, GUARDIAN (Nov. 18, 2013, 3:41 PM), <http://www.theguardian.com/world/2013/nov/18/bachelet-runoff-matthei-chile-presidential-election>. Bachelet faces a run off against Evelyn Matthei on December 15, 2013. *Id.*

III. CHILE'S ENVIRONMENTAL REGULATORY FRAMEWORK WAS DEVELOPED TO CAPITALIZE ON PROMISED INTERNATIONAL TRADE PARTNERSHIPS

Chile's environmental management regime has developed in fits and starts alongside its meteoric economic growth.¹¹⁸ This part describes how the promise of private foreign investment—fuelled by international trade agreements—has provided one strong incentive for Chile to strengthen its environmental framework laws. It begins with a short history of Chile's pre-1994 attempts at environmental laws, then introduces and critiques the 1994 Environmental Framework Law. The final subsection explains that accession to the Organization of Economic Co-operation and Development (“OECD”) spurred discussion within Chile to revisit and strengthen the 1994 law.

A. *Despite International Pressure Chile Lacked Meaningful Environmental Protection before 1994*

During Pinochet's dictatorship Chile began trying to integrate into the international trade community.¹¹⁹ However, its lack of comprehensible and overarching environmental standards threatened to impede its economic growth.¹²⁰ For instance, the growth-at-all-costs mentality during the dictatorship ignored the environmental costs of Chile's growing economy, putting the country at risk of becoming a pollution haven—a country with weak environmental laws where multinational corporations could operate with little or no oversight from environmental legal regimes.¹²¹ In fact, throughout the dictatorship Chile's legislature only occasionally enacted emergency measures designed to protect public health.¹²² Without meaningful legislation, both foreign and domestic companies benefited from Chile's failure to regulate pollutants; Chile's industrial boom had produced not only economic growth, but also air quality in Santiago that ranked among the world's worst;¹²³ loss of native tree, plant, and animal species caused by deforestation;¹²⁴ and highly contaminated water resources near the

118. Tara Bunker, Comment, *Environmental Upgrade: The Potential for Chile to Use Market Incentives in Preparing for NAFTA Accession*, 8 COLO. J. INT'L ENVTL. L. & POL'Y 165, 166 (1997).

119. See Heather Walsh, *Augusto Pinochet, Chilean Dictator for 17 Years, Dies*, BLOOMBERG (Dec. 10, 2006, 5:15 PM), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aHzYOpudu4as&refer=home>.

120. See, e.g., Nancy Birdsall & David Wheeler, *Trade Policy and Industrial Pollution in Latin America: Where are the Pollution Havens?*, 2 J. ENV'T & DEV 137, 141-42 (1993).

121. *Id.*

122. See Jay V. Sagar, Note, *The Labor and Environment Chapters of the United States-Chile Free Trade Agreement: An Improvement Over the Weak Enforcement Provisions of the NAFTA Side Agreements on Labor and the Environment?*, 21 ARIZ. J. INT'L & COMP. L. 913, 944-48 (2004). See also Jeffrey Lax, *A Chile Forecast for Accession to NAFTA: A Process of Economic, Legal and Environmental Harmonization*, 7 CARDOZO J. INT'L & COMP. L. 97, 133-34 (1999).

123. Other cities with similar pollution levels in 1992, as measured by particulate matter, included Calcutta, Beijing, Tehran, Mexico City, and Bangkok. See Marcela Rabi, *Chile Air Pollution*, TRADE & ENVIRONMENT DATABASE (Jan. 11, 1997), <http://www1.american.edu/TED/class/all.htm>.

124. Patricio Meller et al., *Growth, Equity, and the Environment in Chile: Issues and Evidence*, 24 WORLD DEV. 255, 263 (1996).

northern copper mines.¹²⁵

A return to democracy in 1990 brought about public debate and official government recognition of the country's environmental problems,¹²⁶ but the government was slow to act until 1992, when the United States' Government Accountability Office ("U.S. GAO") warned that "Chile's continued environmental negligence would jeopardize its potential accession to NAFTA [the North American Free Trade Agreement]."¹²⁷ The possibility that Chile would "lose out on a free-trade agreement . . . due to a poor environmental record"¹²⁸ drove the government to begin formulating environmental protection laws.¹²⁹

B. *Interpreting Chile's Constitutional Environmental Provisions*

The Chilean Constitution guarantees its citizens the right to live in an environment free from contamination and creates an affirmative obligation on the government of Chile to serve as a guardian for the preservation of nature and the environment.¹³⁰ Even before LSBMA, Chile's Supreme Court interpreted these constitutional provisions liberally, and several cases shed light on these broadly phrased environmental protections. First, in *Comunidad de Chañaral v. Codeco División el Saldor*, the Court upheld the right of a farmer to bring a claim to enjoin drainage of Lake Chungará based upon the constitutional "right to life."¹³¹ Here, the Court found that the right to a clean environment is owed not only to individuals and communities, but also to future generations.¹³² In a case three years later, *Pedro Flores y Otros v. Corporación Del Cobre, Codeloco*, the Chilean Supreme Court ruled that "the preservation of nature and the conservation of the environmental heritage is an obligation of the State, according to the [Chilean] Constitution."¹³³ In *Pedro Flores* residents of Chañaral filed suit against a copper mine to "restrain the company from continuing to discharge [mine] tailings on the local beaches and coves."¹³⁴ After a site visit, the Court enjoined all further discharges within one year.¹³⁵ Shortly after the enactment of *Ley sobre Bases Generales de Medio Ambiente*, the Chilean Supreme Court made a landmark

125. See, e.g., Alexei Barrionuevo, *Chilean Town Withers in Free Market for Water*, N.Y. TIMES (Mar. 14, 2009), <http://www.nytimes.com/2009/03/15/world/americas/15chile.html>.

126. See Birdsall & Wheeler, *supra* note 120, at 141.

127. Lax, *supra* note 122, at 135.

128. Rafael X. Zahraiddin-Aravena, *Chilean Accession to NAFTA: U.S. Failure and Chilean Success*, 23 N.C. J. INT'L L. & COM. REG. 53, 80 (1997).

129. *Id.* at 79-80.

130. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DE CHILE [C.P.] arts. 19(1) & 19(8).

131. Barry E. Hill et al., *Human Rights and the Environment: A Synopsis and Some Predictions*, 16 GEO. INT'L ENVTL. L. REV. 359, 387 (2004).

132. *Id.* at 387.

133. Corte Suprema de Justicia [C.S.J.] [Supreme Court], 28 julio 1988, "Pedro Flores y Otros c. Corporación Del Cobre, Codeloco," Rol de la causa: 12.753.FS 641, (Chile). See also Hill et al., *supra* note 131 at 387-88.

134. Hill et al., *supra* note 131, at 387-88.

135. *Id.* at 388.

decision in a case known as *Trillium*.¹³⁶ This decision turned directly on the question of sustainability.¹³⁷ An entrepreneur from Seattle sought to harvest dwarf trees in the forest in Tierra del Fuego, an area of Chile that is often regarded as the end of the world.¹³⁸ Trillium submitted its plan for environmental review, and received approval for the project. A citizen suit followed, and the Chilean Supreme Court found that the approval “violated the country’s constitutional environmental ‘right to live in an environment free from contamination.’”¹³⁹ By allowing the citizen suit, the Chilean Supreme Court “clarified that direct, individual harm need not be shown to enforce the constitutional environmental right to be free of environmental contamination.”¹⁴⁰

C. *Chile’s 1994 Environmental Framework Law was Enacted to Take Advantage of a Potential Free Trade Agreement with the United States*

Chile, in response to the U.S. GAO’s rebuke of its environmental framework, formulated the Environmental Framework Law, *Ley 19.300 (Ley Sobre Bases Generales del Medio Ambiente*, or “LSBMA”) in 1994.¹⁴¹ Chilean lawmakers based the LSBMA on the United States’ National Environmental Policy Act (“NEPA”), both in form and function, acting as a broad-based law intended to infuse environmental ethos into governmental and private activities.¹⁴² The country’s subsequent development of major environmental regulations strongly suggests that Chile developed LSBMA in order to mollify the United States and pave the way for its accession to NAFTA.¹⁴³

Among other provisions, LSBMA developed two key relevant components. First, Article 69 established a National Environmental Commission (*Comisión Nacional del Medio Ambiente*, or “CONAMA”).¹⁴⁴ As originally formulated, CONAMA set environmental policies and promulgated regulations.¹⁴⁵

136. See *Chile—Trillium, March 19, 1997*, ENVTL. L. ALLIANCE WORLDWIDE, <http://www.elaw.org/node/1310> (last visited Oct. 9, 2013). See generally OLIVER A. HOUCK, *TAKING BACK EDEN: EIGHT ENVIRONMENTAL CASES THAT CHANGED THE WORLD*, 151-174 (2010) (the story behind the Trillium case).

137. See *Chile—Trillium, March 19, 1997*, *supra* note 136.

138. Oliver A. Houck, *A Case of Sustainable Development: The River God and the Forest at the End of the World*, 44 TULSA L. REV. 275, 294-95 (2008).

139. James R. May & Erin Daly, *Vindicating Fundamental Environmental Rights Worldwide*, 11 OR. REV. INT’L L. 365, 392 (2009).

140. Hill et al., *supra* note 131, at 388. Although Trillium later received approval to continue logging under a new law, the delay and public scrutiny derailed the project. HOUCK, *supra* note 136, at 167-69. Trillium’s project finance debt was acquired by Goldman Sachs and Trillium relinquished the property to extinguish the debt. *Id.* at 169. Goldman placed the property in its charitable trust, which then transferred it to a non-profit organization to operate as a natural reserve. *Id.* at 170.

141. See U.S. GEN. ACCOUNTING OFFICE, *U.S.-CHILEAN TRADE: PESTICIDE STANDARDS AND CONCERNS REGARDING CHILEAN SANITARY RULES 38* (1994).

142. Sagar, *supra* note 122, at 944-46 (NEPA laid the federal requirements for environmental impact assessments).

143. See Zahralddin-Aravena, *supra* note 128, at 80.

144. Law No. 19300, art. 69, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile).

145. OECD, 2005 CHILE REVIEW, *supra* note 9, at 16.

Additionally, CONAMA fostered the integration of environmental concerns into other areas of Chile's domestic policy.¹⁴⁶ Each region in Chile counted on a Regional Environmental Commission (*Comisión Regional del Medio Ambiente*, or "COREMA") to which CONAMA delegated powers to review proposed development projects that impacted the environment in each of Chile's twelve regions.¹⁴⁷

Second, LSBMA incorporated the Environmental Impact Evaluation System (*Sistema de Evaluación de Impacto Ambiental* or "SEIA"),¹⁴⁸ a system of environmental regulations and accompanying enforcement mechanisms, under the auspices of CONAMA.¹⁴⁹ In general, the SEIA was designed to "incorporate the environmental dimension in the building, operation, closure and decommissioning of public and private projects or activities."¹⁵⁰ The SEIA oversees and evaluates Environmental Impact Assessments (*Estudio de Impacto Ambiental*, or "EIA") and Declarations of Environmental Impact (*Declaración de Impacto Ambiental*, or "DIA").¹⁵¹ These proposals closely parallel the U.S. EPA's Environmental Impact Statement and Environmental Assessment, respectively.¹⁵²

Under the SEIA, all companies or entities taking any action that may harm the environment must submit their proposal to SEIA.¹⁵³ In particular, Article 10 of LSBMA (adopted verbatim as Article 3 of the SEIA regulations), requires "projects or activities likely to cause environmental impact, at any of their phases" to submit an EIA.¹⁵⁴ The current iteration of Article 10 lists eighteen distinct categories of projects subject to developing an EIA, including reservoirs, transmission lines, and energy sources larger than three mega-watts.¹⁵⁵

Article 16 of LSBMA directs CONAMA or its regional subsidiaries to approve an EIA, if it complies with the applicable environmental regulations.¹⁵⁶ To qualify, an EIA must propose "mitigation, compensation or reparation measures" for aspects of a project that will: impact public health; damage air, water, and soil quality; significantly alter the landscape, cultural heritage, or touristic value; or require a significant alteration to human communities.¹⁵⁷

146. *Id.*

147. *See id.* at 138.

148. *Id.* at 127-28 (explaining that the SEIA predated the LSBMA but languished until the LSBMA integrated it as a tool for evaluating environmental impact).

149. Law No. 19300, art. 8, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile).

150. OECD, 2005 CHILE REVIEW, *supra* note 9, at 127.

151. GRN: *Declaración de impacto ambiental*, GRN GESTIÓN EN RECURSOS NATURALES (Chile), <http://www.grn.cl/declaracion-de-impacto-ambiental.html> (last visited May 1, 2013).

152. *See Sagar, supra* note 122, at 946.

153. Zahraiddin-Aravena, *supra* note 128, at 86.

154. Law No. 19300, art. 10, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile). *Chile—Reglamento del Sistema de Evaluación de Impacto Ambiental*, ENVTL. L. ALLIANCE WORLDWIDE, <http://www.elaw.org/node/1350> (last visited Oct. 9, 2013).

155. Law No. 19300, art. 10, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile).

156. *Id.* art. 16.

157. *Id.* art. 11.

Theoretically, every single hydroelectric dam project will require an EIA under at least one of those criteria because it will significantly alter a landscape by inundating significant amounts of land, force communities or families to relocate, or impact the development of cultural heritage or tourist sites. Additionally, LSBMA gave CONAMA the sole authority to accept or reject projects submitted to the SEIA.¹⁵⁸ Initially, the SEIA process operated on a voluntary basis, but after 1997 it became mandatory for all public and private actions that would have an environmental impact.¹⁵⁹

D. Chile's Environmental Law's Limitations, Including a Failure to Adequately Empower CONAMA, Encouraged Hydroelectric Development and Resulted in an Overemphasis on Project Approval

In practice, LSBMA presented two major hurdles to effective environmental management in the hydroelectric dam context: (1) CONAMA did not have the capacity or mandate to carry out its necessary functions on all levels; and (2) the SEIA's procedure favored approval over rejection.

First, because government regulation theoretically disrupts the free market from functioning at a high level, Pinochet's Constitution minimized administrative agencies' powers.¹⁶⁰ Thus, although CONAMA oversaw adoption of environmental regulations it never had the firepower to ensure compliance.¹⁶¹ Instead, enforcement remained primarily sectorial, meaning that various other government agencies oversaw environmental enforcement for similar activities taking place in different contexts. Using water as an example, the Public Works Ministry tracked water rights and enforced water quality standards in freshwater systems while the Defense Ministry oversaw marine sewage discharge, and the Mining Ministry monitored all environmental enforcement for mining waste and tailings.¹⁶² In order to determine a project's environmental impact, for example, CONAMA had to approach as many as twenty-two separate agencies with conflicting interests to decide whether or not to issue a permit.¹⁶³ Thus, instead of consolidating compliance and enforcement under one agency, LSBMA merely authorized a new agency with limited jurisdictional power to manage environmental issues across other Chilean agencies. It did not grant CONAMA a sweeping mandate to make drastic changes.

Second, the vast majority of proposals submitted under SEIA have been approved.¹⁶⁴ This suggests that development, rather than environmental protection, formed LSBMA's primary legislative intent.¹⁶⁵ In the first place,

158. *Id.* art. 9.

159. OECD, 2005 CHILE REVIEW, *supra* note 9, at 127.

160. See BAUER, SIREN SONG, *supra* note 19, at 35-36.

161. See *id.* at 128.

162. OECD, 2005 CHILE REVIEW, *supra* note 9, at 128-29.

163. See *id.*

164. *Id.* at 127 (interpreting the data contained in the table).

165. See Fernando Campos Medina & Luis Campos Medina, The Environmental Institution in Chile: A Political Representation of the Ecological Crisis, Address to the 2012 Berlin Conference on the

Article 17 of LSBMA granted a strong presumption of approval to project proposals by declaring that if CONAMA failed to act within 120 days, then it would be assumed that the agency approved them.¹⁶⁶ Considering that CONAMA had to consult multiple agencies, assess a proposal from environmental, socio-economic, and sustainable development perspectives, and present a final answer within 120 days, an entity seeking approval could attempt to make the proposal as onerous and complicated as possible in order to stretch the agency's resources.¹⁶⁷ Moreover, if CONAMA rejected a proposal it had to present certain changes that the potential permittee could make that would ensure the project's approval, effectively permitting the project's proponent to develop alternatives that would not be subject to the public participation process.¹⁶⁸ In short, the legislation gave possible permittees multiple opportunities to secure a permit either by default or through tweaking their proposals until they matched CONAMA's specifications for approval. Critics have denounced this approach as a thinly veiled attempt to validate projects while still ensuring maximum economic development.¹⁶⁹ One researcher argued "[t]he system is designed . . . to facilitate projects. It orients companies so that they can follow the law and meet all the existing requirements."¹⁷⁰

Although the overall rate of approval does not indicate an overwhelming bias toward approval—about nineteen percent of all projects were rejected between 1994 and 2003¹⁷¹—hydroelectric dam projects proposals have fared inordinately well. CONAMA approved thirty of the thirty-two hydroelectric dam proposals submitted.¹⁷² For instance, CONAMA approved one mega-project—the Panguel-Ralco Dam Complex—that caused an international uproar when an indigenous group in Chile brought a case before the Inter-American Court for Human Rights against the government for violating the country's treaty obligations by flooding native cultural heritage sites and forcibly removing families from their land.¹⁷³

Human Dimension of Global Environmental Change 17 (Oct. 5-6, 2012), available at http://www.berlinconference.org/2012/wp-content/uploads/2013/01/Campos_Medina-The_Environmental_Institution_in_Chile_A_Political_Representation-330.pdf.

166. Law No. 19300, art. 17, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile).

167. *Id.* arts. 15-17.

168. *Id.* art. 16 ("In case of unfavorable ruling on Environmental Impact Study, the decision shall be substantiated and shall indicate the specific requirements that the proponent must comply."). See also Hale E. Sheppard, *Native Forest Protection in Chile: The Inadequacies of the Recent Environmental Framework Law and Relevant Multilateral Instruments*, 14 J. ENVTL. L. & LITIG. 225, 267-68 (1999) (discussing the short-comings of the current process).

169. David Carruthers, *Environmental Politics in Chile: Legacies of Dictatorship and Democracy*, 22 THIRD WORLD Q. 343, 349-50 (2001).

170. Benjamin Witte, *Chile, Rubber Stamping the Future of its Rivers*, SANTIAGO TIMES (Apr. 27, 2009), <http://santiagotimes.cl/content/chile-rubber-stamping-the-future-of-its-rivers> (quoting Manuel Jose Prieto, a doctoral student at the University of Arizona).

171. OECD, 2005 CHILE REVIEW, *supra* note 9, at 127 (referencing Table 5.3).

172. Witte, *supra* note 170.

173. See Marcos A. Orellana, *Indigenous Peoples, Energy, and Environmental Justice: The Panguel/Ralco Hydroelectric Project in Chile's Alto BioBio*, 23 J. ENERGY & NAT. RESOURCES L. 511,

The government narrowly avoided an unfavorable ruling only after committing to a negotiated settlement with the affected community.¹⁷⁴

In brief, these regulations merely formed a paper barrier against environmental degradation with respect to hydroelectric development. Chile thus rubber-stamped many hydroelectric projects because the proposed permittee simply followed the procedural guidelines, and CONAMA did not have the ability or the mandate to substantively critique environmental damages stemming from proposed projects. Some commentators noted that SEIA's assessment guidelines remained too restricted to "environmental" issues without addressing the related socio-economic factors.¹⁷⁵ The Pangué-Ralco hydroelectric development described above exemplifies this argument.¹⁷⁶

Other scholars, however, opined that LSBMA's "comprehensive framework for protection and enforcement" allowed Chile to enter into numerous free trade agreements without substantively altering LSBMA.¹⁷⁷ For example, Chile entered into agreements with both Canada and Mexico in the 1990s after the United States failed to deliver on its promise to bring Chile into NAFTA.¹⁷⁸ It also entered into a bilateral free trade agreement with the United States in 2004.¹⁷⁹ Instead of undertaking a searching review of Chile's environmental regulatory framework, the United States simply made a side agreement on environmental protection that prohibited either country from "weaken[ing] its domestic environmental laws in order to attract investment."¹⁸⁰ Chile's LSBMA thus escaped an overhaul. However, when Chile began to seek full membership in the Organization of Economic Co-operation and Development ("OECD"), LSBMA came under scrutiny.¹⁸¹

E. Chile's Full Membership in OECD Reflect a Willingness to Evolve Its Environmental Norms in Return for International Trade Benefits

The OECD formed in 1961 to promote free trade,¹⁸² likely as a response to the

523 (2005) (discussing the problems that have arisen from these new dams); see also Lila Barrera-Hernández, *Indigenous Peoples, Human Rights and Natural Resource Development: Chile's Mapuche Peoples and the Right to Water*, 11 ANN. SURV. INT'L & COMP. L. 1, 10-24 (2005) (exploring the social and environmental consequences of constructing dams in Chile).

174. See Orellana, *supra* note 173, at 523-26.

175. See, e.g., Sheppard, *supra* note 168, at 258-59; see also Orellana, *supra* note 173, at 527-28 (exploring the social tensions that arise when constructing through rather than around the environment).

176. See Orellana, *supra* note 173, at 515, 527-28.

177. Sagar, *supra* note 122, at 946.

178. See Heather Corbin, Notes & Comments, *The Proposed United States—Chile Free Trade Agreement: Reconciling Free Trade and Environmental Protection*, 14 COLO. J. INT'L ENVTL. L. & POL'Y 119, 127 (2003); see also Anthony Faiola, *Chile Takes Its Trade Elsewhere*, WASH. POST, Dec. 25, 1997, at A29 (describing the events that led up to Chile and the United States finally signing a free trade agreement in 2004).

179. Sagar, *supra* note 122, at 913.

180. *Id.* at 940.

181. See OECD, 2005 CHILE REVIEW, *supra* note 9, at 15-16.

182. See History, ORG. FOR ECON. CO-OPERATION & DEV., <http://www.oecd.org/about/history> (last

Soviet Union's increasing Cold War influence. It sought to expand non-member countries' economies by helping them to open their export markets and improve their capacity to trade on the global scale.¹⁸³ Over time, the OECD began to recognize that increased trade opportunities correspond closely to improvements in environmental standards.¹⁸⁴ As a result, it has published a set of environmental guidelines for multinational enterprises ("MNEs") to follow, encouraging them to raise their own environmental performance.¹⁸⁵ The basic premise, as stated in the guidelines, is that MNEs should "act as soon as possible, and in a proactive way, to avoid . . . serious or irreversible environmental damages resulting from their activities."¹⁸⁶ The guidelines apply not to the MNEs, but rather to OECD member countries; those countries must have adequate environmental regulations and enforcement regimes that meet or exceed these guidelines.¹⁸⁷ In effect, each member country's environmental regulatory structure acts as the stick to complement OECD's carrot.

According to its literature, the OECD environmental regulations "reflect[] the principles and objectives contained in the Rio Declaration on Environment and Development and in *Agenda 21* [on fostering sustainable development]."¹⁸⁸ The organization sees a strong correlation between free trade and improved environmental quality from the public and private sectors.¹⁸⁹ Unlike other international environmental agreements, however, the OECD environmental guidelines have only voluntary standards for MNEs, developed with strong input from financial institutions and civil society networks,¹⁹⁰ however does not provide for any compliance mechanism, be it rewards or punishment.¹⁹¹

As an emergent country, Chile has the necessary framework to succeed under the OECD's guidelines. Chile's free market model mirrors OECD's purpose of promoting economic development through sustainable development principles.¹⁹²

visited Apr. 3, 2013).

183. Convention on the Organisation for Economic Co-operation and Development art. 2(e), Dec. 14, 1960, 12 U.S.T. 1728, 888 U.N.T.S. 179.

184. See Corbin, *supra* note 178, at 122.

185. ORG. FOR ECON. CO-OPERATION & DEV., OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES 14 (2011 ed.).

186. *Id.* at 46.

187. See Sarah Fick Vendzules, *The Struggle for Legitimacy in Environmental Standards Systems: The OECD Guidelines for Multinational Enterprises*, 21 COLO. J. INT'L ENVTL. L. & POL'Y 451, 460-61 (2010). See also Conversation with Paulina Riquelme, Universidad Andrés Bello, Santiago, Chile (Jan. 4, 2011) (on file with author).

188. ORG. FOR ECON. CO-OPERATION & DEV., ENVIRONMENT AND THE OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES: CORPORATE TOOLS AND APPROACHES 7 (2007).

189. See Corbin, *supra* note 178, at 122.

190. See David B. Hunter, *Civil Society Networks and the Development of Environmental Standards at International Financial Institutions*, 8 CHI. J. INT'L L. 437, 437, 447-48 (2008).

191. See Vendzules, *supra* note 187, at 479.

192. See generally George Matheson & Laurie Giroux, *Capacity Development for Environmental Management and Governance in the Energy Sector in Developing Countries* (OECD Environment, Working Paper No. 25, 2010), available at <http://www.oecd->

Additionally, Chile has among the most well developed environmental regulatory schemes outside the United States and Europe. As evidenced by its promulgation of LSBMA,¹⁹³ the country has expended significant resources reshaping its environmental regulations to conform to international environmental quality standards. In fact, Chile's accession to the OECD in 2010 marks the second time that the country has restructured its environmental regulatory system in the past twenty years in response to international trade agreements seeking to impose or recommend stronger environmental laws.¹⁹⁴ Chile fought hard to become a member of the OECD and is the first South American country to join the OECD, signifying its ability and desire to work to improve social policy and foster environmentally friendly economic growth in developing countries.¹⁹⁵

In considering Chile for accession, OECD recommended that Chile update its environmental oversight system to reflect a stronger dedication to sustainable development and heightened judicial enforcement¹⁹⁶ and to add safeguards to ensure compliance with domestic environmental regulations.¹⁹⁷ In particular, OECD recommended that Chile "develop and strengthen" its 1) national and regional environmental institutions; 2) environmental regulatory framework; and 3) compliance and enforcement capacity.¹⁹⁸ Chile responded with *Ley 20.417*.

IV. *LEY 20.417'S CHANGES TO THE REGULATORY FRAMEWORK COULD LEAD COURTS AND REGULATORS TO ULTIMATELY REJECT FURTHER PORTIONS OF THE HIDROAYSÉN PROJECT*

As written, *Ley 20.417* makes several changes to the existing regulatory structure. Most importantly, it creates three centralized bodies to oversee and enforce environmental law in Chile: a cabinet-level Ministry of the Environment;¹⁹⁹ a new national regulator, or "Superintendency" of environmental

ilibrary.org/docserver/download/5km4knxj9tf3.pdf?expires=1381773678&id=id&accname=guest&checksum=E0AC7C285114FA94DB83792C463BDC85; Michel Potier & Cristina Tébar Less, *Trade and Environment at the OECD: Key Issues Since 1991* (OECD Trade and Environment, Working Paper No. 2008/1, 2008), available at <http://www.oecd-ilibrary.org/docserver/download/5kzc06m8wds8.pdf?expires=1381773274&id=id&accname=guest&checksum=257F81194ACF410523F821D6B5AA3156;>

193. See *supra* notes 143-52 and accompanying text.

194. See Sagar, *supra* note 122, at 944-46 (examining the restructuring in the 1990's); Chile Signs Up as First OECD Member in South America, ORG. FOR ECON. CO-OPERATION & DEV. (Jan. 11, 2010), <http://www.oecd.org/chile/chilesignsupasfirstoecdmemberinsouthamerica.htm> (highlighting the changes brought on upon joining the OECD).

195. See *About the OECD*, ORG. FOR ECON. CO-OPERATION & DEV., <http://www.oecd.org/about> (last visited Apr. 4, 2013); Chile Signs Up as First OECD Member in South America, *supra* note 194.

196. OECD, 2005 CHILE REVIEW, *supra* note 9, at 16-18.

197. *Id.* at 17. See also Tom Azzopardi, *Cleaning Up Environmental Regulation*, BUS. CHILE MAG. (Feb. 25, 2010, 11:28 AM), <http://www.businesschile.cl/en/print/news/cronica/cleaning-environmental-regulation>.

198. OECD, 2005 CHILE REVIEW, *supra* note 9, at 17.

199. Law No. 19300, art. 69, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), as amended by Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

compliance,²⁰⁰ and a revamped Environmental Evaluation Service.²⁰¹ This section first compares the three new bodies' powers before turning to the ongoing court battle over the HidroAysén project. In particular, it asks whether the project would have survived the permitting process under the revamped system and, more importantly, whether the upcoming permit process for the transmission line will survive.

A. *Ley 20.417's Improvements to Chile's Environmental Framework*

This section first discusses the new Ministry of the Environment's powers under *Ley 20.417* to manage the country's *environmental* framework. It then discusses the broad superintendency of the Ministry of the Environment's enforcement powers over individual compliance and oversight over other government agencies related to environmental issues. Lastly, it discusses the Environmental Evaluation Service's replacement of CONAMA as the administrative environmental permitting oversight agency.

1. Ministry of the Environment's New Powers: Managing the Country's Environmental Framework

The new Ministry of the Environment significantly strengthens Chile's environmental regulatory landscape, at least on the new law's face. Most importantly, the Ministry of the Environment (*Ministerio del Medio Ambiente*, or "MMA") consolidates environmental regulatory powers under one sitting cabinet member, replacing CONAMA, a non-cabinet agency.²⁰² This represents a step forward from the now-defunct CONAMA because it permits the Minister of the Environment to compel the chief officers of any government wing with a connection to environmental issues to submit periodic reports on the state of the environment.²⁰³ CONAMA, as a mere government agency, played a more collaborative role with other agencies rather than commanding a ministerial oversight role, minimizing its ultimate efficacy.²⁰⁴

To further distinguish MMA from CONAMA, *Ley 20.417* empowers the Ministry to work directly with the President to: 1) design and implement policies, plans, and programs relating to environmental issues; 2) protect and conserve biological diversity and land and aquatic natural resources; and 3) promote sustainable development, and the integrity of environmental policy and regulations.²⁰⁵ In particular, *Ley 20.417* permits MMA to develop national

200. Law No. 20417, Artículo Segundo, art. 1, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

201. Law No. 19300, art. 80, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

202. Law No. 19300, art. 69, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

203. Law No. 19300, art. 70(o), Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

204. *See* notes 160-174 and accompanying text.

205. Law No. 19300, art. 69, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law

environmental policies addressing protected areas, international agreements with environmental components, all natural resources, climate change, and sustainable development.²⁰⁶ The HidroAysén Project, for example, implicates MMA's involvement in policy-making because it floods areas protected as national parks, potentially violates an international water-sharing agreement with Argentina, deals extensively with water rights, represents an attempt to minimize Chile's carbon footprint, and undermines sustainable development principles.²⁰⁷

Furthermore, the law creates the Ministerial Council on Sustainability (*el Consejo de Ministros para la Sustentabilidad*), with the Minister of the Environment presiding.²⁰⁸ Functionally, the Council on Sustainability achieves two goals absent from the previous law. First, it recognizes Chile's drive to incorporate sustainable development initiatives at all levels of government. Second, it places the Minister of the Environment as the head of a team of ministers who represent the many facets necessary to achieve a broad-based sustainable development initiative within the country: the Ministers of Agriculture, Interior, Public Health, Economics, Energy, Public Works, Urban Planning, Transportation and Telecommunication, Mining, and Planning all have positions on the Council.²⁰⁹ This is a significant improvement over the old law because it enables MMA to direct other ministries' activities that fall within the scope of sustainable development and the environment.

Finally, MMA creates sub-director positions in each of Chile's regions that answer to the Minister in Santiago.²¹⁰ By assigning a local official in each region, this change streamlines communications from regional capitols to Santiago, ostensibly in order to avoid the confusion and power politics that existed under CONAMA.²¹¹

No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile). The original reads as follows:

Artículo 69.- Créase el Ministerio del Medio Ambiente, como una Secretaría de Estado encargada de colaborar con el Presidente de la República en el diseño y aplicación de política, planes y programas en materia ambiental, así como en la protección y conservación de la diversidad biológica y de los recursos naturales renovables e hídricos, promoviendo el desarrollo sustentable, la integridad de la política ambiental y su regulación normativa.

Law No. 19300, art. 69, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile).

206. Law No. 19300, art. 70 (b)-(i), Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

207. *See, e.g.,* Susan Munroe, *HidroAysén Opponents Appeal to Chile's Supreme Court*, SANTIAGO TIMES (Dec. 16, 2011), <http://www.santiagotimes.cl/chile/environment/23101-hidroaysen-opponents-appeal-to-chiles-supreme-court>.

208. Law No. 19300, art. 71, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

209. *Id.*

210. Law No. 19300, art. 75, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

211. Interview with Professor Tomás Vial Solar, Program Director of Public Law, Universidad Andres Bello, Santiago, Chile (Jan. 4, 2011).

2. Broad Superintendency of the Environment Enforcement Powers over Individual Compliance and Oversight over Other Government Agencies Related to Environmental Issues

Arguably, the Superintendency of the Environment (*Superintendencia del Medio Ambiente*, or “SMA”) is the most important addition to Chile’s environmental regulatory structure. By establishing SMA, *Ley 20.417* closes two major loopholes: first, it gives broad enforcement powers to SMA to police any environmental permit or other document; second, it empowers SMA to compel other agencies to carry out SMA’s enforcement schemes.²¹² However, as explained below, *Ley 20.417* does limit SMA’s power in certain areas that may have strong implications for the HidroAysén Project.

First, although SMA must contract to certified third party professionals the job of inspecting already-approved projects, it retains full power over enforcement and supervision of those contractors.²¹³ Additionally, it has the right to request all the information that the third party gathered or used during its own evaluation of any given project.²¹⁴ This ensures that proposed projects undergo a preliminary review, but also takes advantage of Chile’s burgeoning market resources. By maximizing government oversight and use of the private sector, SMA will have more resources free to review data and conclusions regarding the status of a proposal for a permit.

Second, SMA has the power to suspend any previously authorized permit—or take any other necessary measures—under two circumstances. In one situation, the agency may halt a permitted project if it poses a “grave and immediate threat” to the environment due to the project’s noncompliance with the applicable rules and regulations set forth in its permit.²¹⁵ In another situation, it may halt a project if “unforeseen effects” may lead to grave and immediate danger to the environment, even if the project’s execution does not violate any applicable rules or regulations.²¹⁶

Third, Article 11 *bis* of *Ley 20.417* prohibits potential permit applicants from knowingly segmenting a project with the purpose of avoiding an environmental review on sections of their project.²¹⁷ The SMA determines the severity of the applicant’s avoidance measures and then may require them to rewrite that application to include the segmented portion of the project.²¹⁸

However, Article 11 *bis* goes on to limit SMA’s enforcement power when the

212. Law No. 20417, Artículo Segundo, art. 2, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

213. *Id.* Artículo Segundo, art. 3(c).

214. *Id.* Artículo Segundo, art. 3(d)-(e).

215. *Id.* Artículo Segundo, art. 3(g).

216. *Id.* Artículo Segundo, art. 3(h).

217. Law No. 19300, art. 11 bis, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 9, Enero 12, 2010, DIARIO OFICIAL [D.O.] (Chile).

218. *Id.*

project's proponent argues that it segmented the project because it intended to develop the project in a series of phases.²¹⁹ This paragraph severely restricts SMA from taking necessary action to protect the environment because it allows project proponents to split large projects into phases in order to minimize that project's full impacts.²²⁰ For example, the HidroAysén Project would not functionally exist without a transmission line carrying hydroelectric power from Aysén to the Central Grid. However, even under the new law, SMA would not have had the statutory power to require HidroAysén to evaluate the environmental impact of the transmission line, because HidroAysén stated that it intended to develop the dam project separately from the transmission line from the outset of the project.

Fourth, *Ley* 20.417 mandates that SMA work in close conjunction with MMA and other agencies in the Chilean government, in order to develop enforcement guidelines for the *Ley*'s substantive provisions.²²¹ These powers simply underline SMA's role as the Chilean government's centralized environmental enforcement wing. In order to effectuate SMA's rulemaking power, the *Ley* provides the necessary extension of the power to create enforcement guidelines: it also empowers SMA to "impose sanctions" over anything within its ambit in the *Ley*.²²² Thus, SMA works closely with MMA and the Environmental Evaluation Service, discussed *infra*, to help those two entities carry out the environmental policy and technical evaluation.

3. The Environmental Evaluation Service's Replacement of CONAMA as the Administrative Environmental Permitting Oversight Agency

Under *Ley* 20.417, the Environmental Evaluation Service (*Servicio de Evaluación Ambiental*, or "SEA") takes on the role formerly occupied by the now-defunct CONAMA to oversee and manage the administrative permitting process. *Ley* 20.417 concentrates the administrative permitting function under an Executive Director of SEA, who answers directly to the Minister of the Environment.²²³ Like CONAMA, SEA has a regional presence that approves or rejects proposed projects.²²⁴

219. *Id.*

220. *Id.* This stands in contrast to another OECD member, the United States, where such segmentation would violate the purpose of its National Environmental Policy Act ("NEPA"). *See, e.g.,* Thomas v. Peterson, 753 F.2d 754, 758-59 (9th Cir. 1985). Major U.S. federal actions affecting the quality of the environment must account for the cumulative impacts of inherently connected actions. *Id.* Thus, the transmission line project likely would have been subject to NEPA permitting review concurrently with the dam proposal if this dam were sited in the United States rather than Chile.

221. Law No. 20417, Artículo Segundo, art. 3(q)-(v), Enero 12, 2010, DIARIO OFICIAL [D.O.] (Chile).

222. *Id.* Artículo Segundo, art. 3(o).

223. Law No. 19300, art. 80, 82, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended by* Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2010, DIARIO OFICIAL [D.O.] (Chile).

224. CONAMA's regional bodies were known as the Regional Environmental Commission (Comisión Regional del Medio Ambiente, or "COREMA"). *See* discussion *supra* note 147 and accompanying text.

However, *Ley 20.417* replaces COREMA with the Regional Environmental Evaluation Commission, (*Dirección Regionales de Evaluación Ambiental*, or “Regional Commission”) presided over by the regional sub-Minister for the Environment and including the regional director of the Environmental Evaluation Service, as well as any other ministerial director that has a connection with environmental issues.²²⁵ The Regional Commission will evaluate each project.²²⁶ At that point a separate commission—presided over jointly by the regional *Intendente* (or Governor) and regional sub-Director of SEA and including the regional sub-Ministers of the Environment, Agriculture, Interior, Public Health, Economics, Energy, Public Works, Urban Planning, Transportation and Telecommunication, Mining, and Planning—will ultimately approve or reject the project.²²⁷ It remains to be seen whether this two-step evaluation and approval process will have an alleviatory effect by subjecting project proposals to stricter scrutiny. At the least, requiring a cross-sectoral commission to make the final decision will ensure that projects incorporate important environmental, public health, community development, and human rights considerations into their impact analyses.

In summary, the Regional Commission plays functionally the same role as COREMA, but has a stronger infrastructure supporting its decisions and answers to a cabinet ministry rather than a wholly decentralized administrative agency. Because the Regional Commission must follow the Minister of the Environment’s policy and can, in turn, rely on the Minister to support its decisions, the Regional Commission represents an improvement over its predecessor.

B. Would the Chilean Courts’ HidroAysén Decisions Reach a Different Outcome if Ley 20.417 Were Applicable to the Project’s Generation and Transmission Components?

This section attempts to determine whether the Chilean Courts’ HidroAysén Project decisions would be different if *Ley 20.417* were applicable to the Project’s generation and transmission components.

1. Puerto Montt Appellate Court’s Reliance on the Superseded LSBMA to Uphold Approval of the HidroAysén Project

On October 6, 2011, the Appellate Court in Puerto Montt—by a 2-1 vote with a powerful dissent—determined that the now-defunct CONAMA did not abuse its discretion by approving the HidroAysén project.²²⁸ Opponents of HidroAysén

225. Law No. 19300, art. 86, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *as amended* by Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2010, DIARIO OFICIAL [D.O.] (Chile).

226. *Id.*

227. *Id.*

228. Apelaciones, *Kiss, Antonio Horvath c. Comisión de Evaluación Ambiental de la Region de Aysén*, *supra* note 12, at 147-59.

challenged the EIA to the Chilean Supreme Court,²²⁹ and on April 4, 2012, the Chilean Supreme Court affirmed the lower court, and rejected all appeals in a 3-2 vote.²³⁰ In brief, the Appellate Court first determined that it would rely on the now-superseded LSBMA.²³¹ Proceeding from that starting point, it reviewed and rejected the appellants' seven challenges to the approval, which include: 1) procedural violations by COREMA when it initially reviewed the HidroAysén project's EIA; 2) an inadequate mitigation plan for the endangered *huemul*, a small Patagonia deer species; 3) COREMA's blatant disregard for Chile's national law and its accession to the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES"); 4) a violation of the Chilean Constitution; 5) illegal segmentation of the project into a separate transmission and dam projects; 6) arbitrarily reduced public participation; and 7) failure to consider the social and environmental impact wrought by an influx of temporary workers into the Aysén region.²³² *Ley 20.417* did not factor into the Supreme Court's decision, as the Appellate Court made the determination to rely on LSBMA.

The Appellate Court applied a deferential standard of review on COREMA's approval, determining that it was neither "capricious, irrational, illogical, nor lacking in reason."²³³ The Court's reasoning also outlined the State's duty in balancing economic development and environmental protection:

Economic development always entails some level of alteration to the environment, and *it is the duty of the State to guarantee that such intervention does not produce harmful side effects to people and other living things* [in the area of development]; this duty is carried out precisely through the process of environmental evaluation, much as was done here.²³⁴

229. Anna Pope, *Chile's HidroAysén Project Gets Green Light by Local Appeals Court*, SANTIAGO TIMES (Oct. 8, 2011), <http://www.santiagotimes.cl/chile/environment/22624-chiles-hidroaysen-project-gets-green-light-by-local-appeals-court>.

230. David Pedigo, *Chilean Supreme Court Approves HidroAysén Project*, SANTIAGO TIMES (Apr. 5, 2012), <http://www.santiagotimes.cl/chile/human-rights-a-law/23665-chilean-supreme-court-approves-hidroaysen-project>.

231. Apelaciones, Kiss, *Antonio Horvath c. Comisión de Evaluación Ambiental de la Región de Aysén*, *supra* note 12, at 127.

232. *See id.* at 147–48. For a synopsis of the appellants' arguments in English, written by appellants' partners, *see* Amanda Maxwell, *Appeals Court Rules in Favor of HidroAysén—And Sends Our Case to Chile's Supreme Court*, NAT. RESOURCES DEF. COUNCIL (Oct. 12, 2011), http://switchboard.nrdc.org/blogs/amaxwell/appeals_court_rules_in_favor_o.html.

233. Apelaciones, Kiss, *Antonio Horvath c. Comisión de Evaluación Ambiental de la Región de Aysén*, *supra* note 12, at 146 (“[N]o aparece caprichoso, irracional, ilógico ni carente de razonabilidad . . .”).

234. *Id.* at 140–41 (emphasis added). Translated from Spanish by the authors. The original reads:

El desarrollo de la vida siempre conlleva algún nivel de alteración del medio ambiente y es deber del Estado garantizar que esa intervención no produzca efectos dañinos para las personas y demás seres vivientes que allí habiten, y esto debe hacerse precisamente a través de un procedimiento de evaluación ambiental, como es el que ha realizado la Comisión recurrida.

Id.

Although the Court speaks in absolute terms—the State must guarantee that economic development does not harm people and the environment—it assumes that the State may consider its duty fulfilled simply by approving a project, even if that project will admittedly harm the environment. The Appellate Court explained that the agency's procedural duties are satisfied as long as an "approval is preceded by a rigorous evaluation by the environmental authority" and the project "is executed under certain conditions and requirements" that strive to protect existing natural resources for the national benefit.²³⁵ Thus, held the Appellate Court, under LSBMA, a project could be approved as long as the state agency positively reviews the proposal.

2. The Chilean Supreme Court's Majority Decision to Interpret LSBMA Narrowly in Upholding the Puerto Montt Appellate Court's Ruling

On April 4, 2012 the Supreme Court, in a 3-2 opinion, affirmed the Appellate Court's opinion.²³⁶ Two judges voiced strong dissents to highlight flaws in the majority's rationale, particularly its narrow construction of LSBMA's language that ultimately provided the basis for upholding the Appellate Court.²³⁷ At the outset, the Supreme Court refuted the appellants' procedural arguments. First, *Ley* 20.417's passage nullified COREMA's authority, thus invalidating certain agency requests, including final approval of the project.²³⁸ The Court held that it does not constitute an illegal or arbitrary exercise of agency authority, nullify the final agency decision, or conflict with any constitutional guarantee when said agency makes a request to a project proponent on a pending issue after a new law has already withdrawn that agency's authority.²³⁹ Furthermore, because *Ley* 20.417 established the MMA and SEA as the natural successors to CONAMA, and

235. *Id.* at 138. Translated from Spanish by the authors. The original reads: "[L]o que se exige es que la calificación favorable de dichos proyectos sea precedida de una rigurosa evaluación por la autoridad ambiental a fin de que sólo pueda ejecutarse bajo ciertas condiciones y exigencias en defensa del uso nacional de los recursos naturales existentes." *Id.*

236. Corte Suprema de Justicia [C.S.J.] [Supreme Court], 4 abril 2012, "Kiss, Antonio Horvath c. Comisión Ambiental de la Region de Aysén," Rol de la causa: 10.220-2011, protección, p. 24–25 (Chile), available at <http://suprema.poderjudicial.cl/SITSUPPORWEB> (click "Ingresar" from the "Corte de Origen" box and input "10220-2011" into the text box for Rol Ingreso and click "Consulta"; follow "10220-2011" hyperlink to access docket; follow "27235" folio hyperlink to access document) [hereinafter Corte Suprema de Justicia, *Kiss, Antonio Horvath c. Comisión Ambiental de la Region de Aysén*].

237. *Id.* at 25, 36.

238. *Id.* at 3-4.

239. *Id.* at 5. Translated by the authors. The original reads:

"[S]in embargo . . . cuando dicho órgano ya debía haber cesado en su ejercicio, no conlleva una ilegalidad o arbitrariedad de la actuación ni menos conduce a dejar sin efecto la resolución final, por cuanto la conducta de dicha comisión sólo tuvo por finalidad dar curso a la evaluación del proyecto que se encontraba pendiente y ello no conculca garantía constitucional alguna."

Id.

established the Regional Commission as the agency in charge of project approval, the “project has been approved by the agency that is empowered to do so under the new legal framework.”²⁴⁰

Second, the Supreme Court concluded that the agency adequately considered the appellants’ public comments even though the agency failed to publish its responses to the comments until it ultimately presented the addenda to the permit. The Court held that the fact that appellants successfully submitted thousands of comments, “demonstrates that the community has been heard and, as a consequence, [the agency] has complied with the principles” of citizen participation.²⁴¹ In other words, merely opening the door to public comment satisfies procedural due process.

The Court next criticized the appellants for attempting to stop the project by asking the court to enjoin the implementation of the approved project by issuing a *recurso de protección*. The Chilean Constitution defines *recurso de protección* as injunctive relief; it specifically permits a party to request a *recurso de protección* if the party believes that arbitrary or unlawful agency action has infringed on her constitutional right to live in a contamination-free environment.²⁴² In this case, the Supreme Court said that the appellants waited until June 2011—nearly two years from the date of injury—to present their request for an injunction, demonstrating a lack of urgency.²⁴³ However, the Court failed to mention that the project ultimately was not approved until May 2011.

After striking down the appellants’ procedural complaints, the Court evaluated the appellants’ substantive arguments: that the agency permitted the project despite HidroAysén’s failure to adequately explain and mitigate impacts to National Park Laguna San Rafael; to species of concern, including the *huemul* deer; and to human settlements and life.

Appellants began by arguing that the agency did not assess the project’s plan to flood portions of Laguna San Rafael. The Court responded that the LSBMA only required the agency to determine that the activity requested is lawful and does not contravene any judicial order.²⁴⁴ Additionally, the Court rejected the appellants’ argument that CITES forbids altering a national park unless a law specifically authorizes it. Instead, the Court held that Article 60 of the Chilean Constitution, which establishes the subject matter of laws, remains silent as to whether a new law is required in order to alter a national park boundary. So, an agency action altering the park boundary does not violate the law.²⁴⁵ The

240. *Id.* at 6-7. Translated by the authors. The original reads: “[Q]ue el proyecto haya sido calificado por el organismo al que en la actualidad le corresponde hacerlo bajo el imperio de la nueva normativa . . .” *Id.*

241. *Id.* at 9. Translated by the authors. The original reads: “Ello demuestra que la comunidad sí ha sido oída y, en consecuencia, cumplidos los principios antes enunciados.” *Id.*

242. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DE CHILE [C.P.] art. 20.

243. Corte Suprema de Justicia, *Kiss, Antonio Horvath c. Comisión Ambiental de la Region de Aysén*, *supra* note 236, at 7-8.

244. *Id.* at 9-10.

245. *Id.* at 10-12.

appellants also argued the project approval was inappropriate because the agency did not require HidroAysén to conduct an environmental impact study to determine the project's impact to the endangered *huemul* deer's habitat before approving the project. Instead, the agency approved the project on the basis that HidroAysén promised to undertake a study that would contribute to increased knowledge about the Patagonian deer population and habitat.²⁴⁶

Finally, the Court refused to rule on whether HidroAysén impermissibly segmented the project into a generation project and transmission project. According to the Court's interpretation of LSBMA, segmentation is impermissible only if the project proponent knowingly segments a project with the intent to avoid having to submit it to the SEIA process.²⁴⁷ Because HidroAysén still had to submit the project for environmental review, the Court determined that it had not violated LSBMA's segmentation rule.

The dissent, in a barbed response to the majority's conclusion, castigated COREMA, as well as the majority, for failing to comply with Article 12(d) and (e) of LSBMA, which requires a comprehensive environmental impact study to weigh the risks of the project and adopt clear, specific, and effective mitigation or compensation measures.²⁴⁸ Its inadequate review of the project infringed on the appellants' constitutionally protected rights to a contamination-free environment.²⁴⁹ Citing the Presidential Decree accompanying LSBMA, the dissent highlighted the agency's obligation to determine all the environmental impacts in order to make a fully informed decision to approve, mitigate, or reject the project proposal.²⁵⁰ Since the agency had failed to carry out its duty, the Court should overturn the Appellate Court's ruling and grant an injunction in favor of the appellants.

As to flooding in Laguna San Rafael, the dissent found that HidroAysén had avoided its duty by passing the valuation of and compensation for the impacts of flooding to a third party. That key information, according to the dissent, formed a critical part of HidroAysén's impact study; without an exact accounting of that impact, the project should not move forward.²⁵¹ With respect to HidroAysén's proposed *huemul* study, the dissent aptly asserted that, under LSBMA Article 12(d) and (e), the environmental impact study must occur before project approval because its conclusions help the COREMA determine whether to approve or reject the proposed project.²⁵² By approving the project without requiring HidroAysén to undertake the *huemul* study beforehand, COREMA acted arbitrarily.

246. *Id.* at 13-15.

247. *Id.* at 22-23.

248. *Id.* at 27, 34 (Araneda, M., dissenting).

249. *Id.* at 35-36 (citing CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DE CHILE [C.P.] arts. 19(1), 19(8)).

250. *Id.* at 25-31.

251. *Id.* at 29-31.

252. *Id.* at 26-27.

Finally, the dissent went further than the majority by discussing how HidroAysén inadequately evaluated potential impacts to human health and safety. In particular, it found that the company did not assess the impacts of a phenomenon known as “glacial lake outburst floods”, or GLOFs, which occur regularly in the region and drastically change the flow volume in the Baker and Pascua Rivers.²⁵³ The dissent again concluded that LSBMA Article 12(d) and (e) required an adequate evaluation of adverse impacts.

3. Chilean Judicial Application of *Ley 20.417* to the HidroAysén Project: Likely Reversal of the CONAMA Approval Decision and Possible Rejection of the Project’s Transmission Component?

In order to gauge how the new Ministry of the Environment and its sub-agencies should react to future proposals for hydroelectric development, this article assesses the relevant issues from the Appellate and Supreme Courts’ decision through the lens of *Ley 20.417*. Most importantly, because HidroAysén purposefully did not prepare an EIA for the transmission line connecting the dam to the Central Grid, the proposal for the transmission line will be evaluated under *Ley 20.417*’s new framework. This section will thus outline how a court should apply the analysis of the pertinent issues to a hypothetical transmission line proposal scenario.

First, *Ley 20.417* prohibits segmentation of projects—unless the proponent intends to develop the project in stages.²⁵⁴ Thus, the new framework still permits segmentation as long as the proponent says it intended to stage the project’s development. Nevertheless, HidroAysén’s decision to segment the project will have powerful ramifications because it must now submit the transmission line proposal to the new regulatory framework.

Second, *Ley 20.417* includes an extra protection against premature or improper procedural decisions. The regional sub-Minister of the Environment must actively evaluate each project within the constraints of her mandate by determining whether the project promotes sustainable development, protects biodiversity and Chile’s natural heritage, and aligns with MMA’s policy objectives.²⁵⁵ If the project survives that review, the regional sub-director of the SEA must still work with various sub-ministers to approve or reject it in line with the sub-director’s mandate from the MMA.²⁵⁶ While it does not negate the possibility that a flawed proposal will still survive review, adding a layer of oversight from the cabinet will insure against local bias in the decision-making process. It will also allow a high-level official to scrutinize projects for compliance with the framework law. HidroAysén has not submitted its proposal

253. *Id.* at 31-34. See also Burrall et al., *supra* note 85 (providing an in-depth analysis of GLOF events in Patagonia).

254. Law No. 19300, art. 11 *bis*, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), amended by Law No. 20417, Artículo Primero, ¶ 9, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

255. See *supra* notes 202-211 and accompanying text.

256. See *supra* notes 223-227 and accompanying text.

for the transmission line yet, but this additional procedural oversight function will ensure that a cabinet-level minister and her advisors will supervise the review of each proposal, strengthening the procedural process.

Third, MMA's organic statute requires it to protect biological diversity in its decision-making process.²⁵⁷ Because MMA must assess proposed permits, it follows that MMA should have to reject or require protective measures when a proposal will result in significant loss of biodiversity. Under the new law, the MMA will have to carefully scrutinize the HidroAysén dam project's impact on the *huemul* deer. If the Ministry fails to carry out an adequate analysis of the impacts on biological diversity, it would violate its own organic statute.

Because the transmission line will cause large-scale land use changes across a 1,500-mile swath of Chile, MMA must consider whether the line will disrupt migration corridors for endangered species or threaten endangered tree species where it passes through sensitive landscapes such as Parque Nacional Pumalín and Parque Nacional Alerce Andino, two areas with high levels of biological diversity and sensitive flora (the alerce tree only grows in this narrow region of the world) and fauna (puma, condors, *huemul* deer, and other threatened species). Because the transmission line will have an impact, MMA will have to determine whether it can legally justify permitting a clear-cutting project that jeopardizes biological diversity.

Fourth, *Ley* 20.417 requires MMA to interpret and uphold domestic and international laws dealing with the environment.²⁵⁸ Arguably HidroAysén's project will violate a bilateral agreement with Argentina that prohibits either country from taking unilateral actions that may cause environmental degradation in the other country.²⁵⁹ The reservoir will change flow patterns in Lago General Carrera (known in Argentina as Lago Buenos Aires) and has the potential to adversely impact Argentina's water quality.

Appellants also argued that Chile contravened CITES and the Convention on Biological Diversity ("CBD") by condoning this action. HidroAysén's plan will flood a portion of National Park Laguna San Rafael, a protected area with high biological diversity that appellants said merited protection under both agreements. Although the Appellate Court rejected the environmental appellants' argument in this respect, *Ley* 20.417 explicitly instructs MMA to make and interpret policy relating to international environmental agreements and to protect biological diversity.²⁶⁰ If MMA had existed at the time HidroAysén submitted the application, the Ministry's organic statute would have obligated MMA to require

257. Law No. 19300, art. 69, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), amended by Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

258. Law No. 19300, art. 70, Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), amended by Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

259. Treaty on the Environment art. 1, Arg.-Chile, Aug. 2, 1991, 1733 U.N.T.S. 201.

260. Law No. 19300, arts. 69, 70(d), Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), amended by Law No. 20417, Artículo Primero, ¶ 63, Enero 12, 2011, DIARIO OFICIAL [D.O.] (Chile).

the company to alter its plans.

Similarly, because the transmission line currently will pass through a number of protected areas in Chile—geographically it *must* pass through at least one national park because Parque Nacional Pumalín stretches the width of the country from the ocean to the Argentinian border²⁶¹—the MMA will have to take its organic statute into account when assessing the transmission project. Specifically, MMA will have to ask whether it can justify a project that will place Chile in the position of violating international environmental agreements to which the country has acceded.

Fifth, *Ley* 20.417 exhorts SMA to halt or reject any project under the “grave and immediate danger to the environment” standard.²⁶² This broad standard allows SMA to exercise significant discretion over proposed projects if it believes that grave or immediate danger may result. For example, as evidenced above, the HidroAysén project certainly poses an immediate danger to Chile’s national parks and its endangered *huemules*,²⁶³ which could trigger this provision. In addition, the project arguably fails to account for the socio-environmental impacts of temporary workers in the Aysén region, which also could trigger this provision. HidroAysén estimates that it will require an average 2,260 workers over the 11-year construction period, with a high-water mark of 5,100 workers.²⁶⁴ The town of Cochrane, just downstream from the damsites, will see a large percentage of these workers.²⁶⁵ Cochrane currently has only 2,800 inhabitants,²⁶⁶ meaning that the HidroAysén project will more than double the town’s size and its infrastructural requirements in the span of a decade.

More importantly, the “grave and immediate danger” standard may also implicate climate change impacts that the dam will produce. Because the MMA must make policies related to climate change,²⁶⁷ and SMA must carry out MMA’s policy goals, under *Ley* 20.417 SMA would have to account for the HidroAysén project’s carbon footprint. The recent MIT study found that the land use changes from the dam project alone will release nearly 2.5 million tons of carbon dioxide (“CO₂”) emissions.²⁶⁸ Although the dam project will emit less than ten percent of

261. See *Parque Pumalín*, PARQUE PUMALIN (Chile), <http://www.parquepumalin.cl/content/download/mapapumalin.pdf> (last visited April 16, 2013).

262. Law No. 20417, Artículo Segundo, art. 3(g), (h), 12 Enero, 2011, DIARIO OFICIAL [D.O.] (Chile).

263. See *supra* note 250 and accompanying text.

264. See *Apelaciones, Kiss, Antonio Horvath c. Comisión de Evaluación Ambiental de la Región de Aysén*, *supra* note 12, at 104.

265. See *id.*

266. *Cochrane*, INSTITUTO NACIONAL DE ESTADÍSTICAS (Chile), http://www.ine.cl/canales/chile_estadistico/censos_poblacion_vivienda/censo2002/mapa_interactivo/mapa_interactivo.htm (follow “Región Aysén del General Carlos Ibáñez del Campo” hyperlink; then follow “Cochrane” hyperlink) (last visited Oct. 16, 2013).

267. Law No. 19300, art. 70(h), Marzo 1, 1994, DIARIO OFICIAL [D.O.] (Chile), *amended by* Law No. 20417, Art. Primero 63, Enero 12, 2010, DIARIO OFICIAL [D.O.] (Chile).

268. See Burrall et al., *supra* note 85, at 15.

the CO₂ of a natural gas plant of similar energy production scale,²⁶⁹ recent studies indicate that large-scale dams have a greater and more lasting impact on global carbon emissions.²⁷⁰ The World Commission on Dams suggests that large, shallow hydroelectric reservoirs—such as the HidroAysén reservoirs—may emit as many greenhouse gases per kilowatt-hour as thermal power plants.²⁷¹ It also warns that destroying boreal forests—such as the one in southern Chile—would disturb one of the world's most important terrestrial carbon sinks.²⁷²

The SMA must take the “grave and immediate danger” standard into account when analyzing the transmission line proposal because of the possibility of environmental impact and because of the numerous potentially grave impacts that HidroAysén has thus far overlooked. According to the MIT study, land use changes for the transmission line will add another 8.1 million tons of CO₂ into the atmosphere.²⁷³ It will also disrupt nearly 11,000 hectares (approximately 27,100 acres) of land.²⁷⁴ As detailed above, it also has the potential to disrupt migration corridors and impact nationally protected areas in Chile.²⁷⁵ Moreover, due to the seismic uncertainty of the region through which it will pass,²⁷⁶ the transmission line has the potential to rupture and cause grave, yet unforeseen, impacts to the region. The SMA has the responsibility under its organic statute to anticipate those unforeseen impacts in determining whether it should approve the project.

Another consideration regarding the HidroAysén transmission line is funding. As described in Part II, Chile has a strong free-market philosophical commitment, so government funding does not figure prominently. Thus far the Chilean government has been reluctant to pledge any public funding for the project.²⁷⁷ The private international finance market may not prove eager to lend for entirely different philosophical reasons: many banks and financial institutions have adopted the Equator Principles, a set of principles adopted by financial institutions and applied to public finance transactions exceeding USD \$10 million in capital costs.²⁷⁸ Under the Equator Principles, a participating financial institution commits to not providing loans to projects where the borrower will not or is unable to

269. *Id.* at 14.

270. See WORLD COMM'N ON DAMS, *supra* note 84, at 75-77. See also GRANDES REPRESAS EN AMÉRICA, *supra* note 84, at 19.

271. See WORLD COMM'N ON DAMS, *supra* note 84, at 77.

272. *Id.* at 75-76.

273. See Burrall et al., *supra* note 85, at 15.

274. *Id.* at 5.

275. See Letter from Juan Pablo Orrego S., *supra* note 81; see also *supra* notes 257-261 and accompanying text.

276. See FIERRO, *supra* note 4, at 15-16.

277. Graciela Ibanez, *Chile Government Rules Out Buying Stake in Hidroaysen Power Project*, 4-TRADERS (June 1, 2012, 11:33AM), <http://www.4-traders.com/COLBUN-SA-6494571/news/Chile-Government-Rules-Out-Buying-Stake-In-HidroAysen-Power-Project-14353974>.

278. Public finance is often used to fund the development and construction of major infrastructure and industrial projects. *About the Equator Principles*, EQUATOR PRINCIPLES, <http://www.equator-principles.com/index.php/about-ep/about-ep> (last visited Apr. 14, 2013).

comply with the bank's respective social and environmental policies and procedures.²⁷⁹ Already, the Spanish bank BBVA has cited the Equator Principles as an insurmountable barrier to funding the HidroAysén project.²⁸⁰

V. CONCLUSION

At press, the transmission line that will carry hydroelectric power from the dam project to the Central Grid has not yet been submitted to SEA for approval. HidroAysén has delayed submission, supposedly in order to draft a more airtight proposal.²⁸¹ There are also rumors that economically the project is dead because of project funding problems associated with the Equator Principles and legal uncertainties arising from the new *Ley 20.417* application to the transmission part of the project. Since HidroAysén decided not to include the transmission line in its original proposal, if the project continues, the transmission line project will be subject to the new *Ley 20.417* instead of the older LSBMA. Many locals believe that an approved HidroAysén permit will make the transmission line a foregone conclusion.²⁸² However, several obstacles may quash the HidroAysén project before the company pours any concrete. First, the SEA will have to assess the proposed transmission line under more stringent substantive rules than those that existed when HidroAysén and ENDESA submitted the dam project for approval. Second, Chile's recent accession to OECD may provide a strong incentive for the country's new environmental ministry to exercise its authority by determining that the transmission line project poses too many social and environmental risks to be approved. If any of these factors dissuade the company from proceeding, it will both demonstrate *Ley 20.417's* enactment and establish that the heightened regulatory framework required as a prerequisite to OECD membership made a strong impact on Chile's environmental institutions. It will also demonstrate that Chile's new environmental laws are alive, well, and even thriving in how they require adherence to developed, rather than developing, country environmental standards applicable to large scale energy and other infrastructure projects.

279. *Id.*

280. Claudia Urquieta, *BBVA cerraría puertas a HidroAysén "por sus elevados impactos sociales y medioambientales,"* EL MOSTRADOR (Chile) (Jan. 15, 2010), <http://www.elmostrador.cl/noticias/negocios/2010/01/15/bbva-cerraria-puertas-a-hidroaysen-%E2%80%9Cpor-sus-elevados-impactos-sociales-y-medioambientales%E2%80%9D>.

281. *HidroAysén retrasa presentación de Estudio de Impacto Ambiental para línea de transmisión,* EMOL (Chile) (Jan. 13, 2012), <http://www.emol.com/noticias/economia/2012/01/13/521470/hidroaysen-retrasa-presentacion-de-estudio-de-impacto-ambiental-de-linea-de-transmision.html>.

282. See also Interview with Elizabeth Shindele and Rozendo Sanchez, *supra* note 1.

