



### HidroAysén: Investment Risk Advisory

This document describes the risks inherent for potential investors considering backing a major proposed hydroelectric project – the 2,750 MW HidroAysén dam complex, which would be located in the Aysén region of southern Chile. Since 2007, International Rivers, the Natural Resources Defense Council (NRDC), the Patagonia Defense Council (CDP) and BankTrack have been following HidroAysén’s development and working with Chilean and international non-governmental organizations (NGOs) on energy policy and environmental protection in Patagonia. In the authors’ view, HidroAysén’s myriad problems make it an unsustainable and highly risky investment, and they offer the following information to apprise potential investors in HidroAysén of the full range of risks involved in such a transaction.

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## I. Project description and brief overview

The HidroAysén complex would include five mega-dams built on two of Chile's wildest and most powerful rivers, the Baker and the Pascua. The dams would inundate approximately 6,000 hectares (14,600 acres) of a pristine and unique part of Chilean Patagonia, including a portion of Laguna San Rafael National Park, a United Nations World Biosphere reserve since 1979. The transmission line linking HidroAysén to the load center in central Chile would span nearly 2,000 kilometers, cutting a wide swath through all or part of at least eight of Chile's 15 regions.<sup>1</sup>

In brief, HidroAysén is fraught with reputational, political, legal, environmental and operational risks. The project is the subject of a global "Patagonia without Dams" campaign, making the reputational costs of investing in the project high and international in scope. Seventy-four percent of Chileans are against the controversial project and it has been a focal point of and catalyst for growing civil unrest in Chile.<sup>2</sup> A well-established international campaign opposing HidroAysén is active around the globe, particularly in Europe, since one of the project's two parent companies, Enel, is based in Italy. President Piñera's support of the project is driving down his popularity and increasing the odds of a "populist" intervention by him to stop the project, exposing the project to political risk. It is mired in litigation that, if determined adversely to the company, would prevent construction. Its actual environmental and social impacts are unknown or poorly understood because of strategic behavior, poor science and a structurally flawed and politically manipulated environmental review process. Of particular concerns to dam operation are the potential risks of rapid sediment accumulation and natural hazards such as geologic activity and glacial lake outburst floods (**GLOFs**). The company must negotiate with at least 3,000 landowners over the route of its nearly 2,000 km transmission line, which can be expected to face a lengthy and complex environmental approval process. The estimated cost of the project has more than doubled, rising from U.S. \$4 billion in 2008 to \$10 billion in 2011.<sup>3</sup> Faced with these challenges, one of the co-owners of the project has recently recommended suspending further work on it. For these reasons, a direct or indirect investment in this project would be risky and on its face wholly inconsistent with any serious sustainability policy.

## II. HidroAysén has been a focal point of mass civil unrest in Chile and is the target of increasing international opposition, which exposes investors in the project to high levels of political and reputational risk.

HidroAysén has been at the heart of a tense and escalating political and social conflict among the government, large energy companies and an increasingly restive citizenry. On 13 May 2011 an estimated 30,000 people gathered outside La Moneda (Chile's seat of government) in Santiago to protest the

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<sup>1</sup> These eight regions equal approximately 51 percent of Chile's territory.

<sup>2</sup> "Overwhelming majority of Chileans reject hydroelectric project in Patagonia" *MercoPress* (May 17, 2011). "Why do 74 Percent of All Chileans Oppose HidroAysén?" *The Santiago Times* (May 15, 2011).

<sup>3</sup> "Chile: HidroAysén to Submit Enviro Study in March," *The Santiago Times* (January 13, 2008). "HidroAysén to cost US\$ 10bn – Endesa CFO," *Business News of the Americas* (May 25, 2011).

government's decision to approve the project and an estimated 40,000 people protested on 21 May.<sup>4</sup> During President Piñera's annual address to the nation on 21 May, he reiterated his support for HidroAysén in the face of controversy and a group of congressmen in the audience held aloft a large "Patagonia without Dams" banner in response as protests flared in several cities.<sup>5</sup> Even a group of Bishops in the Catholic Church, including the Bishop of the Aysén Region, joined a diverse array of academic, labor, student and professional organizations that announced their open opposition to the scheme<sup>6</sup> and attracted sustained international media attention. On 23 May 2011, *The New York Times* editorial page called HidroAysén's environmental approval "a potentially disastrous decision," and in June 2011, *The Economist* noted that President Piñera's support had sunk to 36 percent and his disapproval rating was the highest of any president "since the return of democracy in 1990... primarily because of his support for the HidroAysén electricity scheme."<sup>7</sup> The civil unrest against HidroAysén sparked the massive student mobilizations that rocked Chile in mid-2011.

Concerns about the lack of local participation in the evaluation process of mega-energy projects like HidroAysén is one of 11 issues raised by the Social Movement for the Aysén Region. This broad-based regional movement effectively blocked all activity in Aysén from February through April 2012.<sup>8</sup> With the memory of last year's civil unrest—the largest protests Chile had seen since the waning days of the Pinochet dictatorship in the 1990s—still fresh, and the recent regional upheaval, President Piñera now faces a dilemma which has practical implications for HidroAysén. Piñera may decide to cancel the project for political reasons by extra-legal means. In late 2010 under similar political circumstances, Piñera personally intervened with the CEO of GDF Suez to prevent the construction of the Barrancones coal plant after it had been approved by the local environmental authorities.<sup>9</sup> More recently, in January 2012, the Investigative Commission on Human Rights in Chile's Parliament approved a report in a 7-2 vote stating that HidroAysén should never have received its environmental permits based on a number of procedural irregularities and technical failings in the review process.<sup>10</sup> The commission's investigation included a site visit to Aysén and hearings with public officials of the Aysén regional government whose critical observations of the HidroAysén proposal were censored, edited or eliminated. Although the vote entails no binding action, it demonstrates the depth of opposition to the project even among lawmakers.

An international campaign against HidroAysén has developed alongside Chilean opposition. In Italy, home of Enel, the "Patagonia Senza Dighe" campaign is led by a coalition of organizations active on

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<sup>4</sup> "Unos 30.000 chilenos se manifiestan en Santiago contra las represas," *Finanzas.com* (May 21, 2011). "Plan for Hydroelectric Dam in Patagonia Outrages Chileans," *The New York Times* (June 16, 2011).

<sup>5</sup> For media coverage of the protests, see: "Protest against Chile dam plan ends in violence," Fox News (May 20, 2011); "Chile protests Patagonia dam project," (video) Reuters (May 21, 2011); and, "Plans for Dams in Patagonia Draw Ire from Chileans," by Annie Murphy, National Public Radio (June 9, 2011).

<sup>6</sup> "HidroAysén enfrenta a los obispos chilenos con Piñera," *Americaeconomica.com* (May 20, 2011).

<sup>7</sup> "How the mighty have fallen," *The Economist* (June 14th 2011).

<sup>8</sup> "Social Unrest on the Rise in Southern Chile" by Jarroud, Marianela. *IPS News* (February 28, 2012).

<sup>9</sup> "Piñera's Intervention in Punta de Choros Sparks Criticism in Chile," *The Santiago Times*, August 30, 2010.

<sup>10</sup> Segura, Patricio and Urtubia, Mitzi. "Todo el proceso de HidroAysén está viciado, nunca debió entrar siquiera al SEIA," available at Terram.cl (January 19, 2012). The commission's full report is available at: <http://www.camara.cl/pdf.aspx?prmid=3120&prmtipo=SOBRETABLA>

water issues and on monitoring corporate and banking responsibility in Europe.<sup>11</sup> This campaign has brought Chilean citizens before Enel's Annual General Meetings and led demonstrations against Enel's headquarters in Rome.<sup>12</sup> The Patagonia without Dams campaign has also reached out to the European Parliament to highlight the problems with the HidroAysén project. As a result, several Members of the European Parliament have spoken critically about the project and are planning initiatives to help promote the protection of Patagonia and more sustainable energy alternatives in Chile.<sup>13</sup>

### **III. HidroAysén depends on a complex, controversial transmission line that is just beginning to be developed and the environmental impacts of which have not been evaluated.**

To transport the power to the main electric grid, called the Sistema Interconectado Central (SIC), the project depends on the completion and operation of a new transmission line spanning slightly less than the distance between Moscow and Rome.<sup>14</sup>

The company states that the line would be a high-voltage direct current line tying the dam complex to the SIC, which feeds metropolitan Santiago, nearly 2,000 kilometers away.<sup>15</sup> The proposed land route is currently expected to impact 17 parks and national reserves, threatening to disrupt wildlife corridors and affect the country's biodiversity. The company estimates there are a minimum of 3,000 landowners with whom to negotiate the necessary rights of way, a process which could itself take several years and will almost certainly involve protracted litigation and significant social and cultural issues.<sup>16</sup> The line would be one of the longest in the world and the first of its kind in Chile in terms of voltage level, design and the type of complex terrain it would have to cross, including a 160 km underwater stretch,<sup>17</sup> creating ample opportunities for delays and cost overruns. The entire area is seismically active, with multiple geological faults and volcanoes.<sup>18</sup> There are no public studies on any of the environmental or social impacts of the line, nor have the Chilean authorities released a reliability study of the impact of losing up to 20 percent of capacity on the SIC (the project's expected maximum contribution), should the lines fail.

The company has postponed delivery of the environmental impact assessment multiple times. Given the existing controversy of the line and the history of strongly negative public reactions at project milestones, its delivery may provoke civil unrest.

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<sup>11</sup> See "Chi Siamo" on <http://patagoniasenzadighe.org>.

<sup>12</sup> See "Documenti: Patagonia Senza Dighe" at <http://patagoniasenzadighe.org/?cat=15>.

<sup>13</sup> "Ambientalistas se reúnen con parlamentarios europeos por proyecto Hidroaysén," *Radio Universidad de Chile* (May 11, 2010); and "Parlamento Europeo recibe antecedentes sobre excesos policiales cometidos en Aysén," *El Divisadero* (March 29, 2012).

<sup>14</sup> Media sources report that HidroAysén's transmission line would run 1,912 kilometers; see Astudillo, Antonio; "HidroAysén: 20% del tendido será visible en Carretera Austral y afectará 700 hectáreas," *La Tercera* (December 6, 2011). That distance is longer than the distance from Seattle, Washington (U.S.) to Los Angeles, California (U.S.); from Quito (Ecuador) to Lima (Peru); from Paris (France) to Belgrade (Serbia); and from Geneva (Switzerland) to Lisbon (Portugal). It would be one of the longest transmission lines in the world.

<sup>15</sup> The SIC stretches from Taltal in the northern second region of Antofagasta, to Puerto Montt in the tenth region, and provides electricity for 93 percent of the Chilean population. For more information on the SIC, see Centro de Despacho Económico de Carga: Sistema Interconectado Central, [www.cdec-sic.cl](http://www.cdec-sic.cl).

<sup>16</sup> "HidroAysén deberá negociar con 3 mil propietarios paso de la línea," *La Tercera* (October 25, 2010).

<sup>17</sup> "HidroAysén da a conocer línea de transmisión de proyecto eléctrico a comunidades de Aysén" by Astudillo, Antonio; *La Tercera* (December 12, 2011).

<sup>18</sup> "Chaitén Volcano – Chile," Geology.com, site visited October 6, 2011. <http://geology.com/volcanoes/chaiten/>.

Simply put, the dams depend on the transmission line (classic “project on project risk”), and the transmission lines have not cleared a single hurdle towards completion, a process that could take several years or, considering the recent recommendation by the 49 percent owner (see next section), might never happen.

#### **IV. The 49 percent owner of HidroAysén doubts its feasibility and recommends suspending progress on the transmission line.**

HidroAysén is a joint venture between two private companies: Colbún, a leading Chilean energy company, holds 49 percent of the project; Endesa Chile, the local branch of Endesa, a Spanish company ultimately owned by the Italian energy giant, Enel, owns 51 percent.<sup>19</sup> On May 31, 2012, Colbún’s board of directors announced that it recommends stopping all progress on the project’s transmission line indefinitely.<sup>20</sup> Such an action would effectively halt the entire project, since the dams are dependent on the transmission line. The directors cited an uncertain energy policy environment as a reason for their decision, together with the absence of public consensus in favor of the project, which has become a prerequisite for projects as large and complex as HidroAysén. More recently, Colbún’s Chief Executive Officer announced in early December that the company is interested in selling a stake of HidroAysén, again pointing to an uncertain political climate and lack of “solid” social support as reasons for its decision.<sup>21</sup>

In response to the May announcement, the board of directors of HidroAysén called an emergency meeting, during which they considered Colbún’s recommendation and agreed to conduct new viability studies for the transmission line.<sup>22</sup> Although the board stated that the project would continue as planned, these events demonstrate instability and dissention at the heart of project, which should give pause to potential third party investors.

#### **V. The dams’ environmental permit is at risk.**

An appeals suit filed by a group of local parliamentarians, environmental groups and affected individuals in May 2011 went all the way to Chile’s Supreme Court.<sup>23</sup> The plaintiffs’ claims included failure to establish a baseline upon which the environmental impacts can be evaluated; failure to possess the water rights necessary to operate HidroAysén as designed; failure to adequately incorporate public participation into the review process; failure to consider the project’s impacts on the coastal fishing sector; and failure to provide sufficient data for the reviewing agencies to evaluate many substantive aspects of HidroAysén (including, notably, sedimentation impacts). In a split 3-2 decision, the Supreme Court ruled against the appeal in April 2012 and upheld HidroAysén’s environmental approval.<sup>24</sup> Yet opponents are pursuing additional arguments and cases that may again reach the Supreme Court.

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<sup>19</sup> “Quiénes Somos,” [www.HidroAysén.cl](http://www.HidroAysén.cl), site visited July 7, 2012.

<sup>20</sup> “Chilean power firm Colbún puts project on ice,” BBC News (May 31, 2012).

<sup>21</sup> “Colbun is open to selling Patagonian Power Project Stake,” *Bloomberg* (December 7, 2012).

<sup>22</sup> “Directoria HidroAysén da señal ambigua sobre eventual paralización,” *El Mercurio* (June 21, 2012).

<sup>23</sup> “HidroAysén: Corte Suprema tiene la última palabra.” by Venegas, Esteban Acuña and Becerra, Mauricio. *El Ciudadano* (December 27, 2011).

<sup>24</sup> “Chile court rules in favour of Patagonia HidroAysen dam,” *BBC News* (April 4, 2012); available at: <http://www.bbc.co.uk/news/world-latin-america-17620307>

A final, non-appealable rejection of HidroAysén's environmental permit is a real possibility in Chile. In recent years, Chilean courts have begun to take a hard look at how these permits are awarded. The close 3-2 decision in HidroAysén's first appeals case is indicative of this change. Following the 1997 Trillium case,<sup>25</sup> in which the Chilean Supreme Court overturned approval of a controversial logging project, courts struck a deferential posture when examining environmental reviews, and only one license was declared void during the period 1997-2008.

Yet the Supreme Court has diverged from this pattern since June 2009, when it nullified the license of AES Gener's Campiche coal plant. In January 2011, the Supreme Court canceled the environmental licenses of two projects, one for affecting tourism and the other for its effect on indigenous people. More recently, in March 2012, the Court overturned the permits granted to a wind farm due to missteps in the environmental review process, and in May 2012 invalidated the environmental approval of the Río Cuervo dam proposal in Patagonia.<sup>26</sup> Given these recent precedents, it would not be a departure for the Supreme Court to nullify HidroAysén's permit in future cases based on any one of the numerous alleged irregularities.

## **VI. HidroAysén's water rights are at risk.**

Several interrelated disputes over water rights threaten the core of HidroAysén's plans. The undisputed fact is that in 2008, when the company submitted its Environmental Impact Assessment (EIA) for review, it did not possess the water rights necessary to build and operate the dams as set out in the EIA. It eventually petitioned the local General Water Directorate (DGA) for the necessary additional rights. The local DGA denied the petition on what many legal practitioners agreed was clear precedent. The national DGA then proceeded to change the precedent via a general decree (Resolution 1800) that did not specifically mention the project but seemed tailor-made for it. The company's appeal of the original decision was granted based on the strangely timely decree, which the National Comptroller's Office (Contraloría General) later ruled illegal, leaving HidroAysén without a clear route to obtaining the needed water rights. There are ongoing claims and appeals related to the authority of the national DGA to overrule the original decision, and a criminal investigation into the direct input HidroAysén's lawyers had in writing Resolution 1800. If any of the cases are decided against the national DGA, HidroAysén could be blocked from getting the key water rights needed to complete its dams as designed in the EIA.

## **VII. HidroAysén's environmental impact was evaluated under a weak review system that failed to meet international standards. HidroAysén took full advantage of this system to obscure the true environmental impacts. This strategy may ultimately yield an environmental authorization for the project, but increases reputational risks for investors in this high profile project.**

The HidroAysén dams were evaluated under Chile's weak pre-2010 environmental impact assessment system (SEIA), which subordinated environmental protection to building up energy generation. The Organization for Economic Co-operation and Development (OECD) highlighted this fact when it noted in

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<sup>25</sup> For more information, see the Center for International Environmental Law's summary of the case from March 21, 1997: "Chilean Supreme Court Rejects Controversial Trillium Logging Project." <http://www.ciel.org/Publications/trillium.html>

<sup>26</sup> "Chile's Supreme Court Halts Illegal Wind Farm," *Environmental News Service* (March 29, 2012); available at <http://www.ens-newswire.com/ens/mar2012/2012-03-29-02.html>. "Chile's Supreme Court Blocks Dam Project," *Science Magazine*. (May 16, 2012); available at <http://news.sciencemag.org/scienceinsider/2012/05/chiles-supreme-court-blocks-dam.html>.

its 2005 Chile environmental performance review that “[a]lthough the sustainable growth of the electric power sector is an explicit goal of Chilean energy policy, little attention is given to environmental concerns as such.”<sup>27</sup> In 2009, the Parliament amended the SEIA with Law 20,147 to come closer to OECD standards in preparation for Chile’s 2010 accession to the OECD. However, because the HidroAysén dams entered the SEIA system in 2008, they were evaluated under the old system.<sup>28</sup>

In 2008, the OECD process was well underway and efforts to amend the SEIA law had commenced. In addition, by this time the Equator Principles and other heightened standards driven by the investor community were well established.<sup>29</sup> In spite of these developments and the high likelihood that the expensive project would need to access the international capital markets, HidroAysén’s sponsors chose to develop HidroAysén to a standard well below international best practices.

In a clear departure from international best practices,<sup>30</sup> the old SEIA gave project proponents a free hand in the design and evaluation phase, a fact which HidroAysén exploited. The company decided most key project parameters, such as location, design and operating procedures, based solely on its preferences and without any input from the government or the public. The company also unilaterally determined the scope of work for the EIA, including areas of influence, baselines, and which environmental impacts to focus on, and selected the consultants that conducted the study. This failure to engage with stakeholders is a hallmark of poor development practices and is a classic indicator of future conflicts.

In another deviation from best practice, the pre-reform SEIA did not require the proponent (or any reviewing agency) to develop and consider alternatives. The alternatives analysis, including a “non-action” alternative and an analysis of the environmental impact of different options, is considered a main element of an EIA by the OECD following the precedent set by the U.S. National Environmental Protection Act (NEPA).<sup>31</sup>

Chile’s old system was also seriously flawed in that it did not specifically require the dams and the transmission line to be evaluated as a single project. Faced with the opportunity to artificially reduce the considered impacts, HidroAysén strategically opted for bifurcation, likely calculating that having the authorization of the dam in hand would smooth the way for the transmission line authorization. Consequently, the total and synergistic effects of the dams and the transmission line are unknown and difficult to effectively mitigate. Precisely for this reason, such bifurcation is generally not permitted in

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<sup>27</sup> “Environmental Performance Reviews, Chile: Conclusions and Recommendations,” Organisation for Economic Co-operation and Development, UN Economic Commission for Latin America and the Caribbean, 2005.

<sup>28</sup> Law 20,417, which reformed the SEIA and created a new Ministry of Environment, took effect in 2010. However, HidroAysén’s evaluation was begun under the older regime, and so it continued as such. The transmission line, should it be developed, will be evaluated under the new law. Note that this document does not contain an analysis of the new SEIA. For more thorough information on Chile’s pre- and post-reform Environmental Impact Assessment System see “Fortalecimiento del Sistema de Evaluación de Impacto Ambiental de Chile: lecciones de la legislación internacional.” December 2011. Available at: <http://www.nrdc.org/laondaverde/international/SEIAreport.asp>

<sup>29</sup> The Equator Principles “are primarily intended to provide a minimum standard for due diligence to support responsible risk decision making,” [www.equator-principles.com](http://www.equator-principles.com).

<sup>30</sup> OECD Development Assistance Committee. Guidelines on Aid and Environment No.1 Good Practices for Environmental Impact Assessment of Development Projects. Paris (1992).

<sup>31</sup> Indeed, in the regulations implementing NEPA, the alternatives analysis is called the “heart of the environmental impact statement.” See Regulations for Implementing NEPA at 40 CFR §1502.

OECD countries, nor would it be permitted under the reformed Chilean environmental law that came into effect in 2010.<sup>32</sup>

The credibility of the Chilean SEIA was further undermined by the asymmetry between the unlimited amount of time given to project proponents to prepare an EIA and the hard limit of six months allocated to government agencies to analyze and comment on it. This failure and the free hand given to project developers to define the scope of EIAs created a clear incentive to create a deluge of paper, overwhelming agency evaluators and leading to politically-motivated decisions weakly supported by science.

We see strong indications that HidroAysén maximized this strategy in the case of the dams. Specifically, after submitting the original EIA, the company sought and was granted three extensions totaling almost two and a half years to amend it, resulting in over 15,000 pages of submissions. According to the analysis of the Patagonia Defense Council and its lawyers, many of the original, well-founded issues raised by public agencies were never addressed in addenda to the EIA in spite of the extensions and massive amounts of paper, even after the agencies' repeated requests. Disturbingly, the COREMA, which was at the time the local office of the government's environmental agency and the only agency capable of making a global assessment, did not even submit its own written comments to the company, but merely compiled the comments of the various specialist agencies. This revealed that in the massive review process, no one evaluated the project as a whole. Compounding these shortcomings, the public submitted over 10,000 comments which, controversially, were not considered.

After the EIA process concluded in May 2011 with the dams' approval (subject to appeal), local officials from the National Geology and Mining Service (**SERNAGEOMIN**), the National Forestry Corporation (**CONAF**), and the Ministry of Housing accused their respective central offices of deleting the critical, technical reviews of the dams made by the regional employees, and replacing them with innocuous comments intended to ease approval of the dams. These claims are also the subject of ongoing criminal litigation that centers on the claim that the agencies acted illegally and that the COREMA did not have a reasonable evidentiary basis upon which to approve the project.

It bears repeating that more recently, in January 2012, the Investigative Commission on Human Rights in Chile's Parliament voted 7-2 in favor of a report which stated that due to irregularities and technical failings in the review process, the project's environmental impact assessment should never have been approved.<sup>33</sup>

In sum, HidroAysén has devoted its energy and resources to avoiding an OECD standard environmental impact analysis instead of developing a strong project able to access the international capital markets. Investors from OECD member countries in particular face exposure by participating in this already controversial project.

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<sup>32</sup> Ley 20.417, Article 11 bis.: "Proponents cannot, knowingly, fragment their projects or activities with the purpose of affecting the evaluation tools or of avoiding entrance to the Environmental Impact Evaluation System."

<sup>33</sup> Segura, Patricio and Urtubia, Mitzi. "Todo el proceso de HidroAysén está viciado, nunca debió entrar siquiera al SEIA," available at [Terram.cl](http://Terram.cl) (January 19, 2012).

## **VIII. Poor scientific analysis in HidroAysén’s EIA could have real consequences on the expected performance of the dams.**

The shoddy SEIA process will likely have real economic and environmental consequences. NRDC has consulted with a number of independent physical and social scientists who volunteered, without any remuneration from NRDC, to offer their views on the quality of the environmental impact statement. Among the most impactful findings of the scientists is that the company’s sediment analysis, which has implications for upstream and downstream biodiversity as well as for the useful life of the dams, contains fundamental errors and misinformation. This finding is indicative of the quality of the entire effort. We would be happy to share their detailed findings with you upon request.

Other important issues identified by the scientists we spoke with, which were excluded from or insufficiently addressed in the EIA include: drastically and unnecessarily altered flow regimes out of the reservoirs on both rivers; the lack of concern for the risks that the increasingly frequent glacially-sourced floods (**GLOFS**) on the Baker River could pose to the dams and downstream life; the failure to identify correctly (or at all) the flora and fauna species that would be affected; and the failure to evaluate the potential impacts of local volcanoes on the dams and infrastructure.

**Conclusion: HidroAysén is a poorly conceived, poorly developed project that is incompatible with any real sustainable development policy and a risky investment.**

As outlined above, HidroAysén may not be in compliance with the relevant Chilean laws, has neither properly identified or mitigated fundamental environmental impacts and physical risks nor produced the quantitative or qualitative minimum threshold of scientific analysis to meaningfully evaluate the environmental and social impacts of the project. In sum, HidroAysén has become the most controversial energy project in Chile’s history, to the extent that one of its two owners has recommended suspending work on the project’s transmission line indefinitely. It is a very risky black box, and could not conceivably meet the minimum internationally recognized standards for sustainable debt or equity investment.<sup>34</sup>

In light of the numerous problems with HidroAysén, the ongoing negative media attention focused on the project, and the demonstrated commitment of Chileans and their international allies to oppose the project and its facilitators, financial institutions that are committed to sustainable investments should not consider investing in HidroAysén. Instead, such institutions should look to the growing opportunities to finance energy efficiency and non-conventional renewable energy in Chile.<sup>35</sup> The authors encourage interested institutions to use any influence they may have with the sponsors or the government to channel investment to a sustainable alternative.

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<sup>34</sup> “The Equator Principles.” (2006). <http://equator-principles.com/index.php/best-practice-resources>

<sup>35</sup> “Chile: Levelised Cost of Energy. Presented to NRDC” by Tringas, Tyler. Bloomberg New Energy Finance (April 2011). [http://docs.nrdc.org/energy/files/ene\\_11052401a.pdf](http://docs.nrdc.org/energy/files/ene_11052401a.pdf)