

## U.S. Engagement in Chile: Promoting a Clean Energy Transformation

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Aerial view of the charging station “Electroterminal Los Espinos” in Peñalolén, Chile/ International Monetary Fund/ [Flickr/ Creative Commons License](#)

Chile is a country with few fossil fuel resources and has been historically marked by an insecure energy supply. At the same time, its per capita energy consumption has been higher than average in the Latin American region, exposing it to recurring crises.<sup>1</sup> The country recently experienced dramatic episodes, such as Argentina's 2004 restriction of gas delivery and disruptions of hydroelectric energy caused by increasingly recurrent droughts. In line with this trajectory, in 2017 Chile imported 97 percent of the oil it consumed and 80 percent of the natural gas it consumed.<sup>2</sup>

However, in 2021 the *New York Times* identified Chile as a regional leader in clean energy development.<sup>3</sup> In the same vein, The *Washington Post* called Chile South America's "Solar Saudi Arabia."<sup>4</sup> The rapid transformation of the country's energy sector has largely been driven by the emergence of clean energies, the result of intense cooperation between Chile and the U.S. to promote these technologies. The development of Non-Conventional Renewable Energies (NCRE) in Chile has led to the deepening of Chile's relationship with different U.S. actors, and this cooperation has contributed to mitigating Chile's energy dependence on its neighbors.

In 2014 the U.S. and Chile also initiated a gas exchange. At the beginning of President Michelle Bachelet's second term (2014-2018), Chile launched an ambitious energy agenda,<sup>5</sup> which included ensuring a greater presence of liquefied natural gas (LNG) in the national energy matrix.<sup>6</sup> During this period the “shale gas revolution” was underway in the U.S. Framed by the Free Trade Agreement (FTA) of 2004, this scenario resulted in a proposal for Chile to receive U.S. gas. In

2016 one of the first shipments of shale gas exported from the U.S. arrived in Chile. A year later the U.S. became the second largest gas exporter to Chile, behind only Trinidad and Tobago.<sup>7</sup>

2014 also marked the beginning of a shift in Chile's position regarding energy production. The country's solar energy capacity went from 11 megawatts to 850 megawatts between 2013 and 2015.<sup>8</sup> In 2013 Chile generated about 5 percent of its energy from NCREs, which increased to 20 percent in 2017.<sup>9</sup> As noted by Ernest Moniz, former Secretary of Energy under President Barack Obama, the South American country is a global example of the road to energy transition.<sup>10</sup> Moniz credited Chile's leadership in the development of renewable energy alternatives, taking advantage of its wealth in sun, water, wind, and geothermal energy.

Chile's success in promoting NCREs is usually attributed to the government promoting competition in the energy market without subsidies and encouraging the entry of various actors and new technologies into the country.<sup>11</sup> Chile has seen success toward greater energy autonomy, with significant U.S. support. The former North American Secretary described the relationship between the U.S. Department of Energy and its Chilean counterpart as efficient.<sup>12</sup> Chile and the U.S. signed a Joint Statement on Bilateral Energy Cooperation, which covers electricity, gas, oil, renewable energy, and energy efficiency.<sup>13</sup> Cooperation and innovation in clean energy also received a multilateral boost with the Mission Innovation (MI) and Clean Energy Ministerial (CEM) meetings, as well as through the different strategic plans of U.S.-based Chilean interest groups, such as Chile California,<sup>14</sup> Chile-Mass, and Chile-Washington. Boriana Benev, diplomat for the Chilean Embassy in the U.S. has affirmed that Chile's development of renewable energy has created greater parity in its cooperation with U.S. counterparts in Washington State and elsewhere.<sup>15</sup> The role of U.S. universities in Chile, especially the Massachusetts Institute of Technology (MIT), has also been relevant through the creation of courses, partnerships, talks, and other forms of knowledge transfer and innovation.

Another example of cooperation between Chile and the U.S. to develop renewable energy has been the construction of a Concentrated Solar Power (CSP) plant located in the Atacama Desert.<sup>16</sup> In 2016 the U.S. Overseas Private Investment Corporation loaned \$230 million toward the construction of this plant.<sup>17</sup> Inaugurated in 2021, this plant is the first concentrated solar power plant in Latin America. The plant boasts 10,600 heliostats, 392,000 solar panels, and a 250m high tower.<sup>18</sup> It is also different from photovoltaic and wind power plants in that it can store the sun's heat and generate electricity for hours, including at night. There continues to be great potential for energy development in Chile. Due to the abundance of sun, copper, and lithium, Chile can produce batteries for electric cars.<sup>19</sup> The country also has significant growth potential in the green hydrogen industry, and Fundación Chile together with national and California-based companies are currently seeking financing to invest in green hydrogen projects in the country.

While the road remains long, with U.S. help Chile has made rapid progress in the development of alternative energy and energy autonomy. The country has shifted from a high dependence on imported fossil fuels to becoming an energy exporter to its neighbors and an example for how to develop renewable energy.<sup>20</sup> Its relationship with the U.S. around these issues deepened during the Obama administration, with a focus on strengthening cooperation and investments in energy.<sup>21</sup>

State and non-state actors in both countries have pursued cooperation in the exchange of liquified gas and development of clean energy.

## Endnotes

- <sup>1</sup> Palma, Rodrigo and Hugh Rudnick. 2018. “El Rol Del Mundo Académico.” In *Revolución Energética En Chile*, ed. Máximo Pacheco. Santiago: Ediciones UDP, 393–413.
- <sup>2</sup> Estévez, Paula. 2018. “El Nuevo Lugar de Chile En l Mapa Energético Internacional.” In *Revolución Energética En Chile*, ed. Máximo Pacheco. Santiago: Ediciones UDP, 235–59.
- <sup>3</sup> NY Times. Accessed August 31, 2021. <https://www.nytimes.com/2017/08/12/world/americas/chile-green-energy-geothermal.html>.
- <sup>4</sup> The Washington Post. Accessed August 29, 2021. [https://www.energia.gob.cl/sites/default/files/energia\\_2050\\_-\\_politica\\_energetica\\_de\\_chile.pdf](https://www.energia.gob.cl/sites/default/files/energia_2050_-_politica_energetica_de_chile.pdf).
- <sup>5</sup> Gobierno de Chile. Accessed August 31, 2021. [https://www.energia.gob.cl/sites/default/files/energia\\_2050\\_-\\_politica\\_energetica\\_de\\_chile.pdf](https://www.energia.gob.cl/sites/default/files/energia_2050_-_politica_energetica_de_chile.pdf).
- <sup>6</sup> Estévez 2018.
- <sup>7</sup> Revista Electricidad. Accessed August 25, 2021. <https://www.revistaei.cl/2017/09/20/importacion-gnl-desde-estados-unidos-se-triplica-ano/#>.
- <sup>8</sup> Ibid.
- <sup>9</sup> Ibid.
- <sup>10</sup> Moniz, Ernest. 2018. “Prólogo.” In *Revolución Energética En Chile*, ed. Máximo Pacheco. Santiago: Ediciones UDP, 11–15.
- <sup>11</sup> Estévez (2018).
- <sup>12</sup> Máximo Pacheco also led the launch of the SE4All Americas initiative in Santiago in 2014 and the III Ministerial meeting of the Energy and Climate Alliance of the Americas (ECPA) in Viña del Mar in 2017. He is a minister recognized for his achievements in the Ministry of Energy, and for having sought proximity to the United States in the area.
- <sup>13</sup> U.S Department of Energy. Accessed August 31, 2021. [https://www.energy.gov/sites/default/files/pi\\_iec/098b7ef980096c66.pdf](https://www.energy.gov/sites/default/files/pi_iec/098b7ef980096c66.pdf).
- <sup>14</sup> The Chile-California Council (CCC) is in the process of forming an alliance between the CCC and the Chilean Ministry of Energy. Although the California Energy Commission is not financing this project, Josefina Edwards highlights that until now there has been the participation of a commissioner in each of the tables, who presented strategies and pillars of energy transfer in California.
- <sup>15</sup> Boriana Benev during an interview for the project “Assessing the Cumulative Effects of US Engagement in Uruguay and Chile.” August 25, 2021.
- <sup>16</sup> “El sur del Perú y el norte de Chile cuentan con la mejor radiación solar del mundo para producir energía limpia y económica.” (Estévez 2018, 253).
- <sup>17</sup> Fuentes, Claudia, and Francisco Rojas Aravena. 2016. “Chile and the United States: A Cooperative Friendship.” In *Contemporary U.S.-Latin American Relations. Cooperation or Conflict in the 21st Century?*, eds. Jorge I. Domínguez and Rafael Fernández de Castro. New York: Routledge, 128–50.
- <sup>18</sup> BBC News Mundo. Accessed August 31, 2021. <https://www.bbc.com/mundo/noticias-57489950>.
- <sup>19</sup> Moniz, Ernest. 2018. “Prólogo.” In *Revolución Energética En Chile*, ed. Máximo Pacheco. Santiago: Ediciones UDP, 11–15.
- <sup>20</sup> Estévez (2018).
- <sup>21</sup> Fuentes and Rojas Aravena (2016).

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