

Crisis in the Strait of Hormuz

A Stress Test for Taiwan with Global Implications

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► Key Takeaways

- The crisis in the Strait of Hormuz highlights Taiwan's structural overexposure to the Middle East, whose hydrocarbons accounted for 16% of Taiwan's electricity generation in 2025 and from which more than 80% of the helium required for semiconductor manufacturing is imported.
- In the short term, Taiwan's vulnerability is primarily economic. Supply has been maintained through the redirection of cargoes initially destined for other clients, but at the cost of significant additional expenses borne by public energy companies.
- The crisis is likely to accelerate broader reorientations of Taiwan's energy system, including a reduction in dependence on the Middle East in favor of US LNG, a revival of nuclear power, and the temporary use of coal to stabilize prices. Renewable energy sources, for their part, are not currently benefiting from the same momentum.
- Taiwan's semiconductor industry, on which all digital economies depend, is also threatened due to its reliance on Qatari helium. Greater awareness of this vulnerability is likely to further justify extending the concept of energy security to industrial security in Taiwan.

Introduction

The large-scale military operation carried out by the United States (US) and Israel against Iran triggered an Iranian retaliation that resulted in the partial destruction of natural gas liquefaction infrastructure and severe disruption of maritime traffic in the Strait of Hormuz. The economies of East Asia—South Korea, Japan, and Taiwan in particular—are highly exposed to this crisis due to their reliance on liquefied natural gas (LNG) imports for electricity generation.

In Taiwan, an archipelago of 24 million people claimed by China, this crisis is significant for two reasons. First, it comes at a time when Taiwan's electricity system is undergoing a transformation aimed at simultaneously meeting high electricity demand, greenhouse gas emission reduction targets, and a quest for resilience in the face of hybrid pressures exerted by China. Second, the archipelago is the world leader in so-called “logic” semiconductors, which form the basis of artificial intelligence (AI) applications: any disruption to their production—which is highly intensive in electricity and helium, a byproduct of certain gas fields—is likely to have global repercussions.

In this context, the crisis in the Middle East serves as a real-world test of Taiwan's industrial and energy resilience.

An electricity mix dependent on Middle Eastern hydrocarbons

Taiwan's electricity system relies primarily on LNG imports, which accounted for nearly 48% of the electricity mix in 2025.¹ This growing role of LNG is part of an energy transition aimed at ensuring a stable electricity supply amid a gradual phase-out of coal and nuclear power. However, it leaves Taiwan particularly vulnerable to external shocks at a time when electricity consumption is rising sharply, driven by unprecedented demand for semiconductors that is fueling industrial production. Qatar alone accounted for 34% of Taiwan's LNG imports in 2025,² equivalent to approximately 16% of the island's total electricity generation.

1. Ministry of Economic Affairs (MOEA) / Taipower (2025 generation, GWh).

2. Ibid.

**Table 1: Taiwan's LNG imports by supplier country
in 2025 (as a share of total import volume)**

Country	Share of total LNG imports
Qatar	33.7%
Australia	33.5%
United States	9.9%
Papua New Guinea	7.9%
Others (Nigeria, Indonesia, Russia, etc.)	15%

Source: CPC / MOEA, data consolidated by the author.

The partial blockade of the Strait of Hormuz and the damage caused to regional energy infrastructure have highlighted Taiwan's vulnerability. In particular, strikes on the Ras Laffan complex damaged liquefaction facilities, resulting in a net reduction of approximately 17% in Qatar's LNG export capacity, alongside a temporary shutdown of certain production units. QatarEnergy declared force majeure on certain long-term contracts for a period of up to five years, stating that repairs to this infrastructure could take between three and five years.³ Taiwan is directly affected, having signed a 27-year contract with QatarEnergy in June 2024⁴ and having increased the share of imports under long-term contracts in recent years, precisely to protect itself from price fluctuations.⁵

The price shock absorbed by the state

CPC Corporation Taiwan, the state-owned enterprise and sole importer of LNG, has thus faced considerable pressure to ensure security of supply. Shipments from other producing countries, such as the United States and Australia, were redirected to Taiwan, some of which were originally destined for Japan and South Korea,⁶ two other major Asian LNG importers. These adjustments were reportedly made in coordination with these countries, which maintain good relations with Taiwan and have an interest in

3. "H. E. Minister Saad Sherida Al-Kaabi: The Missile Attacks Reduced Qatar's LNG Export Capacity by 17% and Caused an Estimated Loss of \$20 Billion in Annual Revenue," QatarEnergy, March 19, 2026, available at: www.qatarenergy.qa.

4. "Natural Gas Supply Stable Despite Rising Concerns About Qatari LNG: Ministry," *Taipei Times*, March 24, 2026, available at: www.taipeitimes.com.

5. A. Simorre, "Taiwan's Energy Supply: The Achilles' Heel of National Security," *Asie.Visions*, No. 142, Ifri, October 2024, available at: www.ifri.org.

6. "Response to Developments in the Middle East: The Government Has Activated a Coordination Group and Prepared Contingency Plans for Natural Gas Supply, Calling on the Public to Remain Assured" (因應中東情勢變化 政府已啟動應變小組 備妥天然氣備援方案 請民眾放心), Ministry of Economic Affairs (Taiwan), March 3, 2026, available at: www.moea.gov.tw.

seeing semiconductor production continue.⁷ These swift actions enabled the Taiwanese government to rapidly issue reassuring messages to industry and the public, stating that it had secured its LNG supplies for April and May and was in the process of finalizing those for June.⁸

The government's response, aided by external suppliers, has, however, come at a considerable cost. CPC Corporation Taiwan has been forced to turn to the *spot* market, where prices have skyrocketed since the start of the crisis. According to the Ministry of Economic Affairs, CPC is expected to incur total additional costs of approximately \$6.5 billion by June-July due to rising LNG and oil prices.⁹

This cost increase has been largely absorbed by electricity producers, particularly the state-owned utility Taipower, which saw the price of gas supplied to power plants rise by 41.58% on April.¹⁰ Taipower estimates that this increase will result in additional costs of approximately \$315 million per month for the remainder of the year, or between \$2.8 and \$2.9 billion for the entire year.¹¹ Although Taiwanese law allows for a twice-yearly review of rates to reflect fluctuations in global fuel prices, the government has already announced that it does not intend to pass this price increase on to consumers, a decision that is easily understood given the local elections to be held in November.

Although effective in the short term, this strategy nevertheless weakens the financial position of the two main public energy operators, limiting their ability to invest in the system's resilience. These investments, particularly in storage capacity, transmission infrastructure upgrades, renewable energy development, and cyber defense, are widely considered necessary by a number of Taiwanese experts in a highly uncertain geopolitical context.¹² This strategy also raises a question of fairness, insofar as losses incurred by public utilities are not passed on to large industrial electricity consumers but are instead absorbed by the state and thus, ultimately, by taxpayers. Following the announcement of these cost overruns, the government has also defended a support package for CPC in the Legislative Yuan, consisting of an \$11 billion recapitalization spread over four years, bank financing, and a budgetary compensation mechanism.¹³

7. "Taiwan Says It Has Assurances over LNG Supplies from 'Major' Country," Reuters, April 4, 2026, available at: www.reuters.com.

8. "Zheng Lijun: No Increase in Public Transportation Fares; Adjustment of Domestic Airline Ticket Prices Postponed" (鄭麗君：公共運輸不漲價 航空國內線票價暫緩調整), Central News Agency (CNA), April 2, 2026, available at: www.cna.com.tw.

9. "Middle East Conflict Drives Up Oil and Gas Prices; Ministry of Economic Affairs States That CPC Faces an Additional Cost of \$6.5 Billion" (中東戰火推升油氣大漲 經部：中油多負擔65億美元), CNA, April 1, 2026, available at: www.cna.com.tw.

10. Ibid.

11. Ibid.

12. C. W. Chao, "Taiwan's Energy Resilience: Security, Innovation, and Policy," Global Taiwan Institute, September 25, 2025, available at: <https://tcan2050.org.tw>.

13. "Ministry of Economic Affairs States That Qatar's Suspension of LNG Production In Qatar Is a Precautionary Measure; Taiwan's Short-Term Supply Remains Secure" (經部：卡達暫停LNG生產屬預防性措施 台灣短期供應無虞), CNA, April 8, 2026, available at: www.cna.com.tw.

Lasting effects on Taiwan's energy system

The crisis is expected to have stronger effects on Taiwan's energy system by exposing the limits of the energy transition pursued by the ruling Democratic Progressive Party (DPP), which has chosen to rely more heavily on LNG in the context of phasing out nuclear power and rising electricity demand. At the height of the Strait of Hormuz crisis, China quickly exploited this weakness by asserting that unification would enable “full interconnection” capable of “addressing Taiwan's shortages of electricity, natural gas, and crude oil.” Taiwan's energy vulnerability is indeed a key factor in the public's lack of confidence in the country's resilience in the event of a major crisis.¹⁴

In this context, several significant developments are expected. First, LNG imports will undergo a rebalancing that is likely to benefit US exports. The Taiwanese government has indicated that it intends to reduce the share of LNG supplies from the Middle East after June,¹⁵ with the goal of increasing the share of U.S. LNG to 15–20% by 2029, up from about 10% today.¹⁶ Earlier this year, CPC had already signed a long-term contract with a US supplier to import 1.2 million tons of LNG per year through 2050. Although Taiwan has not imposed a blanket ban on Russian energy imports in the manner of the European Union, the government currently states that it does not wish to rely on Russian gas, which accounted for 1.8% of Taiwanese imports in 2025—a decision that could change should supply disruptions persist.

Second, the crisis provides an additional justification for the administration of Taiwanese President William Lai to accelerate the revival of nuclear power, which was tentatively announced last year. This shift remained politically sensitive for the PDP to acknowledge, as it represents a departure from its historic commitment to phase out nuclear power—a promise successfully fulfilled in May 2025 and supported by a portion of its electorate. In December 2025, the Ministry of Economic Affairs had already approved Taipower's assessment, concluding that restarting the Kuosheng and Maanshan plants was feasible. Shortly after the crisis began in mid-March, President William Lai justified the restart of the nuclear power plants by citing a threefold context: growing electricity demand linked to AI, carbon emission reductions—particularly due to the European Union's Carbon Border Adjustment Mechanism (CBAM)—and geopolitical upheavals requiring the strengthening of “energy resilience”.¹⁷ A few days later, Taipower officially filed an

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14. A. Simorre, “Taiwan's Energy Supply: The Achilles' Heel of National Security”, *op. cit.*

15. “The Ministry of Economic Affairs States That the Suspension of LNG Production in Qatar Is a Precautionary Measure; Taiwan's Short-Term Supply Remains Secure”, *op. cit.*

16. Written response to the author from the Energy Bureau of the Ministry of Economic Affairs (Taiwan), March 31, 2026.

17. “President Lai: Reviewing a Potential Restart of Nuclear Power Is Compatible with Promoting Renewable Energy” (賴總統：檢討核電是否重啟 與推動綠能產業並行不悖), CNA, March 22, 2026, available at: www.cna.com.tw.

application with the Nuclear Safety Commission to renew the license for Maanshan, whose last unit had been shut down in May 2025.¹⁸ This crisis context strengthens the government's pragmatic justification for nuclear revival while limiting criticism from pro-nuclear opposition parties that have accused the DPP of policy inconsistency. Industry sources point out that an actual restart would take several months to about a year and a half, which could help mitigate the effects of a prolonged rise in LNG prices.

Third, to mitigate the impact of rising prices, coal could serve as a temporary solution, similar to what is observed in other Asian countries such as Japan, South Korea, or the Philippines. After initially stating in March and April that an increase in coal-fired power generation was “not necessary”,¹⁹ the Taiwanese government finally requested in early April a “temporary” increase in production at the Mailiao coal-fired power plant.²⁰ This trend could continue in the event of a sustained price shock, as Taiwan has units that have been shut down but are being kept in reserve for use in a crisis, such as the two units at the Hsingda (興達) power plant with a total capacity of 2.1 gigawatts.²¹ Such a development, if confirmed, could jeopardize Taiwan's climate goals, as the country has committed to achieving carbon neutrality by 2050.

The major absentees from this reconfiguration are renewable energies, which could have benefited from renewed interest amid the crisis. Despite the launch of the third round of tenders for offshore wind development, many industry players lament unattractive economic conditions and a notable decline in political support for renewables since William Lai took office. The issue has indeed become politically sensitive due to corruption scandals, local conflicts surrounding solar and wind projects, and unresolved planning issues.²²

A major sector risk: semiconductors

In terms of the broader global implications of the Middle East crisis Taiwan's situation has a unique dimension due to its central role in the semiconductor industry. Helium, a byproduct of certain natural gas fields, is essential for chip manufacturing, particularly

18. “On March 27, The Nuclear Safety Commission Received an Application from Taipower for the Renewal of the Operating License for Nuclear Power Plant No. 3 and Will Conduct Its Review In Accordance with Procedures” (核安會於3月27日收到台電公司提出核三廠運轉執照換照之申請, 將依程序進行審查作業), Nuclear Safety Commission (Taiwan), March 27, 2026, available at: www.nusc.gov.tw.

19. “The Conflict in the Middle East Continues; Kuo Jyh-Huei States That the Mobilization of 20 Natural Gas Shipments Guarantees Supply Through April” (中東戰事持續 龔明鑫: 天然氣調度到20船4月前供氣無虞), CNA, March 9, 2026, available at: www.cna.com.tw.

20. “Natural Gas Shipment Schedule for March–April Finalized: Ministry of Economic Affairs Pledges to Stabilize Electricity Supply and Prices to Mitigate the Impact of the War in the Middle East” (完成3-4月天然氣船調度 經濟部: 全力穩定供電及物價以降低中東戰爭影響), Ministry of Economic Affairs (Taiwan), March 10, 2026, available at: www.moea.gov.tw.

21. “Ministry of Economic Affairs: Domestic Energy Supplies Are Sufficient; In Response to the Conflict Between the United States and Iran, the Government Has Already Implemented Energy Diversification Measures and Continues to Monitor Developments to Adjust Its Response” (經濟部: 國內能源供應充足 針對美伊戰事 政府已採能源分散措施 並持續關注後續發展提出應變措施), Ministry of Economic Affairs (Taiwan), March 2, 2026, available at: www.moea.gov.tw.

22. A. Simorre, “Taiwan's Energy Supply: The Achilles' Heel of National Security,” op. cit.

in cooling and leak detection processes, and has no viable large-scale substitute. As with LNG, Taiwanese manufacturers are particularly exposed to the Middle East. In 2025, approximately 86% of their helium imports came from Qatar, compared to marginal shares for China (5.24%), the United States (4.31%), and Russia (3.69%) (see Table 2). Qatar's dominant position reflects both the helium richness of its gas fields and its competitive cost structure.²³

Damage to the Ras Laffan infrastructure has resulted in an estimated net loss of approximately 14% of Qatar's helium exports,²⁴ compounded by logistical disruptions linked to the blockage of the Strait of Hormuz, a key transit route for helium shipments.²⁵ As with LNG, QatarEnergy has declared force majeure, calling into question the guarantee of contractual supplies. Air Liquide, one of Taiwan Semiconductor Manufacturing Company's (TSMC) main helium suppliers, warned at the end of March of tightening conditions in the global market and plans to compensate by redirecting volumes from other regions, notably by tapping into its underground storage facilities in Europe.²⁶

Table 2: Breakdown of Taiwan's Helium Imports by country of origin in 2025

Country	Share of helium imports
Qatar	86%
China	5.24%
United States	4.31%
Russia	3.69%
Other	0.76%

Source: Taiwanese customs data compiled by the author.²⁷

Despite supply chain challenges, major industry players appear resilient in the short term, with TSMC stating that it has observed "no significant impact at this stage."²⁸ Past helium supply crises, particularly in 2021, prompted TSMC to expand its helium

23. Written response to the author, Industrial Development Administration, Ministry of Economic Affairs (Taiwan), April 2026.

24. "H. E. Minister Saad Sherida Al-Kaabi," op. cit.

25. A. Reys and V. Bos, "Helium: The New Geographies of a Critical Resource," *Ifri Memos*, June 16, 2022, available at: www.ifri.org.

26. "Helium: Air Liquide Warns of Global Supply Shortages," *La Tribune*, March 30, 2026, available at: www.latribune.fr.

27. The HS code 280429 used by Taiwanese customs officially includes several noble gases, but in reality consists overwhelmingly of helium.

28. Written response to the author, April 2026.

recycling capabilities, with recovery rates reaching up to 80 to 90%.²⁹ According to the Taiwanese subsidiary of the Semiconductor Equipment and Materials International (SEMI) association, the industry has been able to rely on alternative sources such as the United States or Canada, allowing semiconductor factories to avoid production shutdowns.³⁰ Since Taiwan has not imposed a general ban on imports of Russian hydrocarbons, Taiwanese manufacturers could theoretically increase their supply of Russian helium.

As with LNG, the expected impact is therefore primarily an increase in production costs, as the price of helium has nearly doubled in some cases.³¹ It is not yet clear whether this increase will affect TSMC's margins or chip prices, but it should remain

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relatively marginal given helium's small share of the total cost of high-value-added products. The situation is more complex for smaller companies in the sector producing more mature, lower-value-added chips and do not necessarily have recycling capabilities. These firms are already facing longer "logistical lead times, a significant increase in production costs, and, in some cases, a direct erosion of their margins due to soaring helium costs," according to Liu Pei-Chen, a

semiconductor expert at the Taiwan Institute of Economic Research (TIER).³² If the crisis were to continue, the situation could lead manufacturers to prioritize high-value-added customers, with consequences potentially including a semiconductor shortage in less profitable segments such as consumer electronics or the automotive industry.³³ Some industry observers believe that such an effect could occur if disruptions in the Strait of Hormuz extend beyond the third or fourth quarter of the year.³⁴

In this context, some voices in Taiwan have called for government intervention to strengthen Taiwan's resilience in this area. The executive director of the Taiwan Semiconductor Industry Association (TSIA), Wu Chih-yi, has thus suggested establishing strategic helium reserves, modeled after existing oil reserves.³⁵ Liu Pei-Chen emphasizes: "The effects of this crisis on Taiwan's supply chain are no longer limited to

29. Data provided to the author by the Taiwan Institute of Economic Research (TIER).

30. "CPC Keeps Natural Gas Prices Unchanged for Households in April; 5% Increase for Industrial Users and 41.58% Increase for the Electricity Sector" (中油4月民生天然氣價不調整 工業用戶漲5%、電業漲41.58%), CNA, March 31, 2026, available at: www.cna.com.tw.

31. "Helium Prices Soar As Qatar LNG Halt Exposes Fragile Supply Chain," Reuters, March 12, 2026, available at: www.reuters.com.

32. Interview with the author in Taipei, April 2026.

33. Interviews with industry stakeholders in Taipei, April 2026.

34. Interviews with industry stakeholders in Taipei, April 2026.

35. "CPC Keeps Natural Gas Prices Unchanged for Households in April; 5% Increase for Industrial Users and 41.58% for the Electricity Sector" (中油4月民生天然氣價不調整 工業用戶漲5%、電業漲41.58%), CNA, March 31, 2026, available at: www.cna.com.tw.

the traditional perception of crude oil prices, but now profoundly affect the essential raw materials and energy infrastructure at the heart of semiconductor manufacturing.”³⁶

Conclusion

The crisis in the Strait of Hormuz demonstrates that Taiwan is capable of weathering a short-term shock by prioritizing the supply of cheap and stable electricity to its industrial sector. However, this resilience diminishes as the crisis drags on. In the medium term, this crisis will help reshape Taiwan’s electricity mix by shifting supplies toward the United States, reviving nuclear power, and making occasional use of additional coal-fired capacity. LNG is nevertheless expected to retain its central role given continued growth in electricity demand. At this stage, and somewhat counterintuitively, renewable energy has not experienced a renewed policy push as a result of the crisis.

Challenges related to helium supply will likely help broaden Taiwan’s understanding of resilience beyond energy supply, a trend already underway, as evidenced by government-led programs to secure food supplies and storage³⁷ and to ensure the availability of medicines.³⁸

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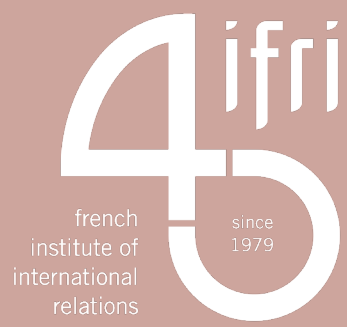
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36. Interview with the author in Taipei, April 2026.

37. “Emergency Food Supplies ‘Fully Planned,’ MOA Says,” *Taipei Times*, March 28, 2025, available at: www.taipeitimes.com.

38. “CPC Absorbs Costs; Household Gas Rates to Remain Unchanged in April” (中油吸收成本 4月民生用氣不調整), CNA, March 31, 2026, available at: www.cna.com.tw.



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