

Analysing the Relationship between Chinese Money and Solar Energy Promotion: The Experience of Malaysia and Argentina

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This brief note provides a quick survey of how Chinese capital exports have been welcomed by the governments of Malaysia and Argentina to promote solar energy development. In addition to their similar GDP per capita (about USD13,000), both economies are amongst the largest (in terms of population size and economic output) in their respective regions. They have also been forging increasingly closer economic cooperation with China, including but not limited to renewable energy promotion.

At a macro level, we observe Chinese firms' increasing competence in renewable energy. In solar energy provision, China's dominance is particularly pronounced. As of 2022, the world's 10 largest solar energy companies – measured in solar panel shipment capacity in gigawatts – include eight Chinese firms. Coupled with the 2013 announcement of the Belt and Road Initiative (BRI), this development has prompted talk both within and outside China of a 'green' BRI. However, to what extent is this 'greening' effect materializing, not least in Southeast Asia and Latin America?

To shed light on the above question, we examine the most prominent Chinese-financed projects in Malaysia and Argentina. For Malaysia, the case study involves LONGi's (a private firm) investment MYR1.3 billion investment to set up a wholly-owned subsidiary in the Borneon state of Sarawak in 2016. As local operations expanded, LONGi put additional investment with approximately MYR130 million by taking over solar manufacturing plant previously owned by Comtec Solar (another private firm originating from China) in 2017. As its first overseas operation, LONGi's production in Kuching (capital city of Sarawak) became the first in the world to have a full vertically integrated supply chain for mono-crystalline silicon products in one single location. LONGi's facilities in Malaysia is also initiated as counter measures to anti-dumping policies imposed by the United States (and to a smaller extent, other Western economies). In 2014, the U.S. Department of Commerce raised tariff duties up to 165% on crystalline silicon photovoltaic (PV) solar products imported from China. The massive glut in solar panels arising from the unexpected entry of China as a major producer resulted in prices falling by almost 40%, which has led to more countries raising duties on these products. At the same time, the Chinese economy by the early to mid-2010s was already suffering from overcapacity not only in labour-intensive traditional industries, but also in so-called high value-added emerging industries such as solar panel manufacturing.

Like Malaysia, Argentina too courted Chinese firms to develop solar energy. However, the largest project thus far, a three-part solar park complex in Cauchari (Jujuy Province), has manifested itself in different ways from the export-driven model of LONGi's Malaysian investment. With a total power-generating capacity of about 315 megawatts, the Cauchari solar park was inaugurated in October 2019, with commercial operations beginning in September 2020. An Argentinian state-owned firm, Jujuy Energía y Minería Sociedad del Estado (JEMSE), was awarded the tender to construct this solar park. In turn, JEMSE engaged two Chinese SOEs – PowerChina and Shanghai Electric – to design, construct, and operate the

park. The solar panels are installed by Talesun, a Chinese private firm. Perhaps unfortunately, the Cauchari solar park has courted controversy on ESG grounds. There have been complaints regarding environmental disclosures and consent processes regarding land use in the area around the Cauchari solar park. Amongst other things, the local community claims that the environmental impact study was issued without comprehensive and timely information. They also claimed that they were side-lined in the consultation process.

There are several interesting observations here. In Malaysia, much of the Chinese money has been directed towards solar panel manufacturing. LONGi's overall gameplan seems to be on the export markets, especially the US and the EU. However, this has led to both economies opening investigations on Malaysia's solar energy industry. Although solar energy usage has been encouraged by the Malaysian government, there is seemingly no direct involvement of Chinese companies (such as LONGi) in fostering large scale solar farms. The Cauchari solar park was a different proposition altogether. There were three Chinese firms involved as each performed specific duties in the production network. Here, we witness Chinese SOEs collaborating with their private sector counterpart (Talesun). The overall package is turnkey in nature, with JEMSE serving as their Argentinian counterpart. This also implies that the Argentinians are likely going to benefit more as an end product consumer, rather than being involved in the manufacturing process.

The overall inference from this brief survey is that while both Malaysia and Argentina attracted Chinese firms to promote solar energy adoption and faced generally similar opportunities, the manners by which their respective production networks are forged differed substantially. These two economies have surely benefitted from Chinese capital and technology, but in different forms. Malaysia has seemingly benefited more by leveraging its position as an export hub, a constant feature since its late 1960s export-oriented industrialization. For Argentina, it appears that solar energy adoption is much more localized, which is beneficial to the environment. However, the fact that it was not selected as a regional production hub suggests the path-dependency of its economic strategy of relying on a relatively big domestic market and, by the same token, import substitution industrialization. In other words, solar transition through the welcoming of Chinese capital exports is highly contextual and dependent on place-specific political economic systems.