EU Forced Labor Ban – Undebatable cause

EUROALLIAGES, the European association representing ferro-alloys and silicon producers, welcomes the Commission's proposal for regulation on an EU forced labor ban mechanism and urges the European Parliament and Member States to accelerate its adoption and implementation.

The European Union must act now to prohibit imports of goods and sales originating from forced labor. The tendency to buy cheap products should be carefully evaluated by EU trade policies where social and environmental sustainability must play a role. Cheap and unsustainable products flooding the Union market come at a price on social and ethical values, infringed by forced labor and slavery activities. All the above jeopardizes Europe's position as a leader for both environmental sustainability, in the context of the European Green Deal, and social sustainability.

Forced labor is a violation of human rights in international law. Currently, 28 million people are subject to forced labor. According to Global Slavery Index[1], the manufacturing of solar panels comes fourth in the product categories exposed to forced labor practices after electronics, garments, and palm oil. This is directly linked to the production of silicon and polysilicon, which is used as an input by the solar industry. In 2023 and according to an independent expert source, around 37% of the total Chinese silicon production capacities are located in the Xinjiang province where Uyghurs are being exploited. Back in 2020, Chinese capacities were already around 7Mt, since that date silicon capacities kept expanding and an additional 6Mt are scheduled before 2025. In the past ten years the vast majority of expansions have taken place in the Xinjiang region. On top, several environmental concerns are tightly linked to the Xinjiang region, i.e., the usage of coal as the main power source to produce silicon. To be noted that the Xinjiang region is the country's largest resources of coal, oil, and gas.

EUROALLIAGES supports the European Parliament's proposal about introducing a list of potential high-risk geographical areas and sectors where it is certain that human rights violations are exercised. Unless proven otherwise, imported goods from these regions should be banned from entering the European market. The list of areas should be thoroughly established, as goods originating in the Xinjiang region can be exported from any other Chinese region or bought from nearby countries, e.g. India, Mongolia. Transparency and traceability are key especially when dealing with non-market economies, most of all because third party audits are not allowed. The list should be a definitive tool to prevent the entry of products made with forced labor. EUROALLIAGES strongly advocates for the Xinjiang region to be included in the list where silicon is produced with forced labor[2]. The list should be extended to product categories under the same value chain coming from this region, e.g. solar panels.

EUROALLIAGES also highlights the importance of having social and environmental parameters considered under trade measures such as customs and anti-dumping duties. Market access to goods originating from regions with high risk of human rights violations should always be questioned. On top of being ethically wrong, it harms the competitiveness of European producers as they must compete with prices, in most cases below costs, at the expense of basic human rights. We support the introduction of related criteria in the (green) public procurement where products made with forced labor shall be excluded from being listed in auctions or tenders.

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[1] Global Slavery Index
[2] See Annex I.

The European silicon production is the most environmental and climate friendly, worldwide with a carbon footprint of 7.03 t of CO2 eq/ t of silicon produced. The carbon footprint of Chinese silicon is twice as much as the European silicon and associated with human rights concerns. These two aspects of sustainability should be a clear guide to support and expand the European-based domestic production of silicon in line with the goals of the Green Deal, especially the decarbonisation of production and the deployment of solar panels across the EU.

Human rights are not to be debated and products made with forced labor should be banned from entering the European market and being used by Europeans. This should apply globally, for that EUROALLIAGES supports a simple approach similar to the UFLPA[3] law in the US which fully bans products originating from the Xinjiang region.

About Us:

EUROALLIAGES is the European association of Ferroalloys and Silicon producers, *representing more than 95% of the sector in Europe. These companies produce Ferromanganese, Ferro-silicomanganese, Ferrochromium, Ferromolybdenum, Ferrosilicon, Silicon metal, and Calcium-silicon alloys and Ferronickel. The European ferro-alloys and silicon sector has a long European history in delivering essential inputs for the European economy, forming an integrated part of strategic value chains. Our industry is the iron, steel, aluminium, and chemicals industries' first supplier. European Silicon producers also provide the electronic and solar industries with elements essential to their manufacturing process, offering the highest qualities of products with the lowest carbon footprint worldwide.*

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[3] Uyghur Forced Labor Prevention Act

EURO ALLIAGES

COMITÉ DE LIAISON DES INDUSTRIES DE FERRO-ALLIAGES

Annex I – Extract from

State Support for the Chinese Industrial Silicon Sector

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Report prepared by

THINK!DESK CHINA RESEARCH & CONSULTING

2 INDUSTRY LAYOUT

2.1 Regional Structure

The provinces of Yunnan and Sichuan in Southwest China represent the traditional centres of China's industrial silicon smelting. Thanks to favourable climatic and topographical conditions, numerous hydropower stations there provide low-priced electricity. As a consequence, the region has evolved into a major hub for highly energy-intensive nonferrous metal smelting operations. A notable industrial silicon industry cluster has formed in the Western part of the province, also as a consequence of local silicon raw material mining.

For 2021, the Kunming Electric Power Trading Centre reported an average price per kWh supplied to large energy consumers in Yunnan Province of RMB 0.2026 (EUR 0.037[5]). The Sichuan Electric Power Trading Centre reported an annual average of RMB 0.2667 (EUR 0.049) per kWh of hydropower to large users in direct supply contracts (Sina 12.12.2022).

A large number of products and technology that base on mono-/polycrystalline silicon, organic silicon or silicon carbide fall into the new energy and new materials categories which enjoy special support from national and provincial authorities. With many downstream applications of industrial silicon under the umbrella of Strategic Emerging Industries, the principal upstream smelting operations are subject to strong state regulation and promotion.

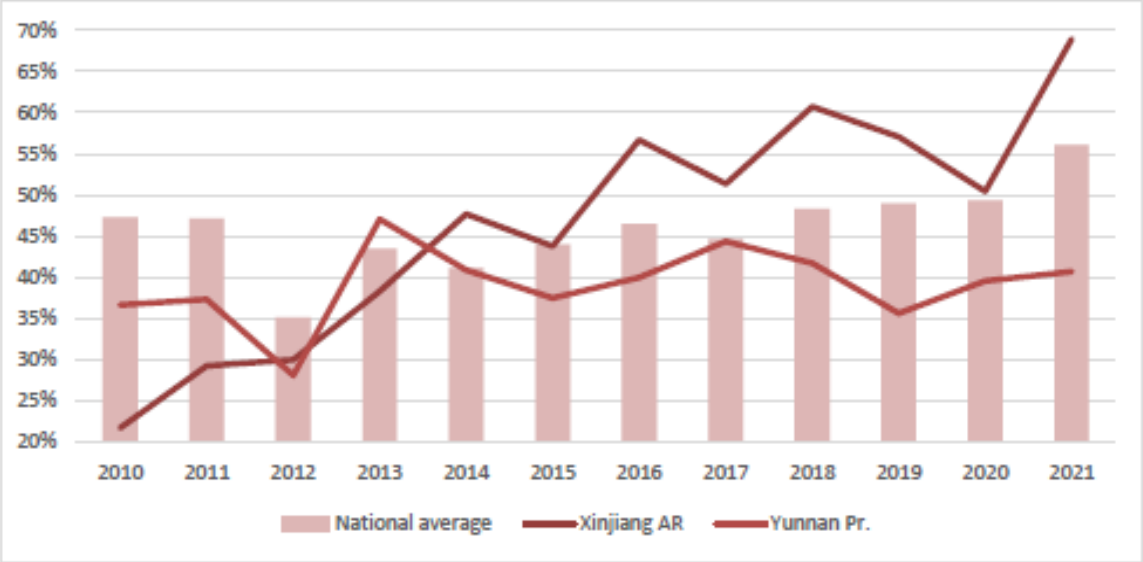
However, the seasonality of rainfall[6] and power generation leads to variations in energy supply and price. During the 2022 wet season, uncharacteristically high temperatures and drought led to power rationing for high-energy-consuming enterprises and depressed production capacity utilization. However, even in normal years, the cyclical changes of hydropower output and electricity cost imposes limits on industrial silicon smelting operations (Sina 09.12.2022). This phenomenon is the major reason behind the low utilisation rate of plants based in Yunnan Province, as shown in Figure 7. Other contributing factors include the relatively large number enterprises as well as the prevalence of smaller, older and less efficient equipment.

In light of the disadvantages faced by smelting operations in Yunnan Province, and its hydropower-electricity-industrial silicon value chain, investors have turned to China's far West instead. The country's enormous capacity build-up after 2010, has largely taken place in Xinjiang Uyghur Autonomous Region which offers a value chain based on low-priced electricity from coal fired power plants. Between 2010 and 2021, smelting capacity in Xinjiang has expanded by 660% compared to just 29% in the rest of the country.

[5] Calculated based on average annual exchange rates of various currencies as provided by the U.S. Internal Revenue Service (IRS, n.d.).

[6] The wet season in Southeast China typically runs from June to November

Figure 7: Utilisation Ratio of Industrial Silicon Smelters in Various Regions



Source: Silicon Industry Branch of the Nonferrous Metals Industry Association

Plant construction in Xinjiang began in the early 2010s but picked up pace from 2015 with Hoshine Silicon Industry and Oriental Hope Group launching large-scale smelting operations complete with self-owned thermal power stations. As silicon projects in the Autonomous Region are of recent vintage, they feature modern equipment and large furnaces of 25,000kVA and 33,000kVA. This industrial layout contrasts with that in the rest of the country: In Xinjiang, a small number of enterprises generate disproportionally large output volume. Within the span of less than 15 years, the region has jumped from close to zero to 44% of national production. In 2022, smelting capacities of Xinjiang Uyghur Autonomous Region were larger than the combined capacity of all plants located outside China (Sohu 22.05.2023). A look at the planned capacity releases for 2022 and beyond indicates that Xinjiang is set to remain at the centre of China's industrial silicon production (Table 2).

Table 2: Planned Capacity Additions by Region (as of early 2022)

Region	Project Name	Planned Furnaces no. / type (kVA)	Total Planned New Capacity (MT)	2022 Planned New Capacity (MT)
Xinjiang AR	Xinjiang Xintao Silicon Industry Co., Ltd.	2x 26400	30,000	30,000
Xinjiang AR	Xinjiang Eastern Hoshine Silicon Industry Co., Ltd.	32x 33000	400,000	400,000
Inner Mongolia AR	Inner Mongolia Xinyuan Silicon Material Technology Co., Ltd.	12x 33000	18,000	180,000

Region	Project Name	Planned Furnaces no. / type (kVA)	Total Planned New Capacity (MT)	2022 Planned New Capacity (MT)
Xinjiang AR	Xinjiang Jingheyuan New Materials Co., Ltd.	24x 25500	361,000	60,000
Xinjiang AR	Hami Guangkaiyuan Silicon Industry Co., Ltd.	8x 33000	300,000	100,000
Yunnan Pr.	Xin'an Silicon Materials (Yanjin) Co., Ltd.	6x 33000	100,000	100,000
Ningxia AR	Oriental Hope	9x 33000	29,000	125,000
	Total			**995,000**

Source: Founder CIFCO Futures 2022

In a nutshell, the regional shift in industrial silicon production represents a transition from renewable to fossil fuel sources as key production input.

Taken together, Northwest and Southwest China account for 75-80% of China's installed capacity. In both cases, cheap energy supply represents the principal driver of investment and competitive advantage. In some cases, industrial silicon production bases also locate close to raw material deposits which cuts transportation costs. In light of the overwhelming importance of energy in the production structure, plant localisation near silica (quartzite) mining is less relevant.

Smaller production bases can be found in Inner Mongolia Autonomous Region as well as the provinces of Gansu, Fujian, Chongqing, Hunan, Guizhou, Guangxi and Heilongjiang. A review of production statistics shows a continuous concentration of output in the three leading regions. Between 2010 and 2021, nationwide industrial silicon output volume has increase by 135%. Over the same timeframe, the combined production of Xinjiang, Yunnan and Sichuan has surged by 380%, whereas the combined output of all other regions has declined by 17%.

Box 1: Allegations of Forced Labour at Xinjiang-based Plants

The Zhundong and Shanshan industrial parks, like many others in Xinjiang Uyghur Autonomous Region, are operated by the Xinjiang Production and Construction Corps (XPCC). Formally registered as an SOE, the Corps is a paramilitary unit that exercises comprehensive administrative authority over parts of the Autonomous Region. In the GOC context, the Corps stands out due to its large and highly diverse set of responsibilities as it operates farms, factories, prisons, security forces, hospitals as well as other social

institutions while also serving as municipal government in cities and towns.[7] In its role as industry park operator, the XPCC attracts silicon industry projects, manages investment incentives, provides a broad portfolio of supporting services and performs general administrative functions. As such, the XPCC closely interacts with resident companies and maintains a tight connection to the silicon industry value chain.

In July 2020, the Office of Foreign Assets Control under the U.S. Department of the Treasury imposed sanctions on the XPCC and two of its officials in connection with serious rights abuses against ethnic minorities in the Xinjiang Uyghur Autonomous Region (U.S. Department of the Treasury 31.07.2020).

Over the following months, investigative reporting by the Wallstreet Journal (11.04.2021), the New York Times (20.04.2021) and Bloomberg (13.04.2021) raised the issue of human rights abuses in the silicon industry value chain of Xinjiang Uyghur Autonomous Region.

In May 2021, allegations were substantiated by a comprehensive research report published by Laura Murphy and Nyrola Elimä from Sheffield Hallam University. The authors argue that members of the Uyghur minority are subjected to forced labour in the silicon industry supply chain at the hands of the XPCC. The report, titled In Broad Daylight – Uyghur Forced Labour and Global Solar Supply Chains, makes allegations against Hoshine Silicon, Oriental Hope and various other major local silicon producers (Murphy and Elimä 2021).

In June 2021, the Bureau of Industry and Security under the U.S. Department of Commerce has added 3 major Chinese silicon enterprises to the so-called Entities List which covers foreign businesses, research institutions, government and private organizations, individuals, and other types of legal persons – that are subject to specific license requirements for the export, reexport and/or transfer (in-country) of specified items (U.S. Department of Commerce n.d.). The Bureau determined Hoshine Silicon Industry (Shanshan) Co., Ltd., Xinjiang Daqo New Energy, Co. Ltd and Xinjiang East Hope Nonferrous Metals Co. Ltd. to be acting contrary to the foreign policy interests of the United States (Federal Register 24.06.2021).

[7] In March 2021, the Council of the European Union declared the Public Security Bureau of the Xinjiang Production and Construction Corps "responsible for serious human rights violations in China, in particular large-scale arbitrary detentions and degrading treatment inflicted upon Uyghurs and people from other Muslim ethnic minorities, as well as systematic violations of their freedom of religion or belief, linked, inter alia, to the XPCC's implementation of a large-scale surveillance, detention and indoctrination programme targeting Muslim ethnic minorities" (Official Journal of the European Union 2021)