

# OVER-EXPOSED

## Annex A

### Corporate Responses

The research presented in "Over-Exposed" was drawn from publicly available sources or bills of lading available by subscription, which allowed the researchers to identify exposure to the Uyghur Region in solar supply chains.

All companies named in "Over-Exposed" were emailed to provide the opportunity to contribute to the report findings. (Some emails bounced back and additional email addresses were attempted where available.) The research team invited Uyghur Region companies to explain their relationship to the labor transfer programs and asked downstream corporations to indicate any relationship they have to the named suppliers and intermediary manufacturers and to describe efforts they have made to exclude Uyghur Region products from supply chains. The research team cannot independently verify these claims, but we allowed companies an opportunity to address the exposure identified in our research.

Below are the responses received to date. These responses will be updated as new information is received. Note that Sheffield Hallam typically responds to all corporate emails with further questions. That appears to be the end of an exchange here typically means that we are still awaiting responses to our most recent inquiry.

Last Updated: November 2, 2023 1pm UK

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## CORPORATE RESPONSES

### Canadian Solar

July 18, 2023

Dear Professor Murphy:

Thank you for your emails. We would like to make the following comments regarding your request:

- We comply with the laws and regulations of all the jurisdictions in which we operate in, and have implemented policies, trainings, and ESG auditing procedures to ensure this is the case.
- Both our Thailand and Vietnam module factories sourced cells from our Thailand cell factory only. From April 2023, our Vietnam solar module production lines were closed. In other words, we supply solar modules to the U.S. and other potentially other markets only from our Thailand factory.
- Our Thailand cell factory sources wafers from our own wafer/ingot facilities in China, located in Jiangsu, Henan and Inner Mongolia. These facilities source polysilicon materials, MGS and up to quartzite, only from 4 locations: Inner Mongolia, Qinghai, Yunnan and Sichuan, with a concentration in Inner Mongolia.

Regards,

**Huifeng Chang, Ph.D.**

**Senior Vice President & Chief Financial Officer**

July 27, 2023

**[in response to request for more information regarding the Vietnam facility closure, customs records indicating that CS modules are still being shipped from Vietnam to US, discrepancies between supply relationships stated in CS annual reports and their correspondence with SHU, the names of their suppliers, and corroborating evidence of the claims made in the correspondence]**

Dear Professor Murphy:

We ceased the solar module production in Vietnam late April this year (we didn't announce it and were not required to). Sequentially, arriving at the U.S. from Vietnam in June, mentioned in your note, should be the "left-over" module shipments - think about warehousing time, shipment time and custom clearing time. Also, the only polysilicon company in Hubei has ceased operation. We are no longer buying polysilicon from the company in Shaanxi either. We continue to buy polysilicon from Wacker. I didn't include Wacker in my previous note because I thought you were asking our suppliers in China only. There are many details in operation, and I can't provide all these details for various reasons such as confidentialities, changes over time. But I am trying to be helpful to you for your research as much as I can. I just came back home from a long trip and called my procurement colleagues to confirm the above details. Wish you all the best and stay in touch.

Huifeng

**Huifeng Chang, Ph.D.**

**Senior Vice President & Chief Financial Officer**

**July 27, 2023**

**[in response to information that CSG (the only polysilicon company in Hubei) remains in operation]**

Dear Professor Murphy --- Your note triggered off my curiosity. I searched on Google for news in Chinese about CSG in Hubei. I found something very interesting: 1) lots of news in 2022 confirming what you wrote, but 2) no news in 2023. How possible? My guess is that CSG 1) invested and expanded in 2022 when the polysilicon price was high, but 2) stopped production in 2023 after the price declined significantly. Please note that I am a finance person and live in the U.S. I can only use logic to analyze the public information to figure out the truth. I may be wrong. You may call CSG directly. Cheers.

**Huifeng Chang, Ph.D.**

**Senior Vice President & Chief Financial Office**

**August 6, 2023**

Dear Professor Murphy, below is the link to an article in Chinese, published on June 15, 2023, reporting that multiple polysilicon manufacturers have ceased production due to the sharp decline in poly price and the financial loss incurred. No recent news about CSG in Hubei could be found. But the news article on Solarzoom provides the background to what I shared with you previously. I hope this piece of information is helpful to your research. <http://www.solarzoom.com/article-176561-1.html>

I am traveling last week and, on the road, quickly read your latest report on August 1. While disagreeing on the report's rating on our company, I think the industry, including us, should work closely with you to improve transparency and understanding. For instance, in the case of our Thailand factories, the report said: "Southeast Asia also has slightly higher module capacity (4.4 GW) versus cell capacity (4.2 GW). Assuming Southeast Asia module production (Thailand and Vietnam combined) is actually at capacity and thus higher than Southeast Asia cell production, incremental cells are required. These incremental cells (0.2 GW) may also be transferred from Canadian Solar China cell production". No. No incremental cells were/are transferred from our China production. The 4.4 GW and 4.2 GW numbers are "capacity", not "production". The capacity number is a forward-looking "theoretical" estimate, based on assumptions such as the production efficiency, downtime time etc., on the number of GW of products produced over a year. Thus, capacity numbers don't have to match each other exactly. Let me affirm with you: All cells used in our module factory in Thailand come from our own cell factory in Thailand.

The report concerns our sales team, however. Thomas Koerner, our Global Head of Sales, asked me if you are willing to accept a visit. He is thinking, under a Non-Disclosure Agreement, to share with you more information about our supply chain. On the other hand, I will be in UK at the end of August for an insurance marketing trip. I wonder if you are willing to accept Thomas' visit in mid-August or my visit at the end of August.

Professor Murphy, we are compliant to all laws. We hope to work with you --- within the confidentiality limits we already promised to our clients. I believe when people with different background work together with trust, the result is good for all, and constructive for the cause of human rights.

I wish you all the best. Cheers.

**Huifeng Chang, Ph.D.**

**Senior Vice President & Chief Financial Officer**

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# Hemlock Semiconductor

July 25, 2023

Hi Laura,

Thank you for your time to chat this afternoon. To put down our discussion in writing, here is our "official response".

- Unfortunately, our customer contracts dictate confidentiality on who we sell to and how much.
- We produce ~30-35kT of poly today as you have listed below with 60-65% of capacity allocated for Solar today
- 100% of our MG Silicon comes from quartz mines and silicon smelters in North and South America
- If you have customers of HSC telling you that they source poly from HSC, I am happy to help confirm that information for you.

Please let me know of any questions you may have.

Phil

**Phil Rausch**

Sr. Director, Commercial  
Hemlock Semiconductor (HSC)

July 28, 2023

**[in response to a question about supplier relationship with Jinko Solar and Maxeon as indicated by the supply chain maps provided by the companies]**

Hi Laura,

I can confirm that HSC supplies polysilicon to AUO Crystal Corporation (ACC) only (as an FYI, pretty minimal volume). I cannot tell you who ACC then sells to, however, I would assume they have multiple customers. We do not supply material to Maxeon, Ferrotec, or NorSun.

I have many, many concerns about this powerpoint (<https://corp.maxeon.com/static-files/58e2514f-a805-49e6-8ec9-97c05d66de4d>) As there is nothing stating how much supply they get from any of the suppliers or how they avoid co-mingling.

For what it's worth, here are the capacities listed for each wafer manufacturer that is listed from IHS data:

- AUO Crystal Corp (ACC) = 1,108MW
- Norsun = 400MW
- Ferrotec = not listed on IHS but some capacity on website [https://www.ferrotec-global.com/tech\\_1\\_2.php](https://www.ferrotec-global.com/tech_1_2.php)
  - Notably they list capacity for Ferrotec Shanghai, Ferrotec Hangzhou, but not for Ferrotec Ningxia
  - Please note that for listing of Ferrotec Shanghai wafer as the constraint
    - 400k/month of 6" wafers would be (400k wafers/month \* 5watts/wafer \* 1,000,000w/MW) only 2MW/month of supply capability

- 100k/month of 8" wafers would be (100k wafers/month \* 7.25watts/wafer \* 1,000,000w/MW) only 0.725MW/month of supply capability

Please let me know of any other questions,  
Phil

**Phil Rausch**

Sr. Director, Commercial  
Hemlock Semiconductor (HSC)

**July 28, 2023**

And I missed the other question. Yes, I can confirm we supply the Jinko facility in Vietnam.

**Phil Rausch**

Sr. Director, Commercial  
Hemlock Semiconductor (HSC)

**August 9, 2023**

**[in response to the publication of the report]**

Hi Laura,

I do not have any firsthand knowledge of Maxeon's supply chain and want to add clarification to my statement of concern about their published supply chain maps. As I have stated in my previous email, HSC supplies polysilicon to ACC in Taiwan and Japan. HSC does not supply polysilicon to Ferrotec or NorSun at this time. [Maxeon has stated](#) that their production capacity for Generation 3 and 6 module supply is 1GW/yr. Based on IHS stated production capacities, Ferrotec, ACC, and NorSun have enough production capacity to meet the needs of Maxeon's cell and module production for Generation 3 and Generation 6 module supply.

Phil

**Phil Rausch**

Sr. Director, Commercial  
Hemlock Semiconductor (HSC)

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**Jinko Solar**

**July 4, 2023**

Laura,

Thanks for your email.

JinkoSolar appreciates the opportunity to make clarifications on the draft report. In general, the supply chain diagrams on slides 2 to 4 are not entirely precise representations of the company's supply chains. In some cases, due to confidentiality obligations, especially for our suppliers' suppliers, JinkoSolar is not able to provide further information. Nevertheless, the company is able to clarify some details.

JinkoSolar has zero tolerance for the use of forced labor and extends the same criteria to its suppliers. For the last several years, JinkoSolar has assembled internal professional teams for labor compliance and product traceability. In addition to this investment in internal resources, JinkoSolar has also engaged with external independent consultants to do periodic onsite CSR/ESG audits to ensure company operations meet the highest criteria in labor compliance, as required by international treaties and laws in different jurisdictions.

JinkoSolar has been leading the industry in supply chain investments for the U.S. market, which are affected by various international trade issues and newly enacted laws and regulations. As you note, there are dedicated supply chains for the U.S. market, which comprise quartz, MGS, polysilicon, ingot, wafer, cell, and module outside China. After careful review, CBP has consistently admitted large volume shipments from JinkoSolar to the U.S. JinkoSolar currently only has three polysilicon sources for the U.S. market via Hemlock, Wacker Germany, and Wacker USA. Those companies can confirm the MGS sources, but in any event, there is indeed no MGS or quartz from China. Those three polysilicon sources feed JinkoSolar's industry-leading Vietnam ingot plant. In addition to cells and modules in Malaysia and modules in the U.S., JinkoSolar now also operates new cell and module facilities in Vietnam. JinkoSolar has also developed dedicated traceable and auditable supply chains for customers in the European Union.

As you know, on May 24, JinkoSolar announced the sale of its 100% equity interest in the Xinjiang ingot operation. The capacity of the Xinjiang ingot entity was small, and JinkoSolar has multiple ingot manufacturing facilities inside and outside China that will suffice for the company's global needs in 2023 and beyond. By the end of 2023, JinkoSolar anticipates having 75GW of ingot and wafer capacity, matching the 75GW of global solar cell production. Moreover, concurrent to this announcement, JinkoSolar also announced a 56GW vertically integrated ingot-wafer-cell-module facility in Shanxi Province. Together with JinkoSolar's other ingot facilities, there is sufficient capacity to fulfill the company's global needs.

JinkoSolar has made tremendous efforts to diversify its global supply chain. Many have observed JinkoSolar's progress in supply chains. The company believes that all solar manufacturers, including non-Chinese companies, should undergo similar scrutiny, so solar customers can feel assured of the validity of supply chains no matter which supplier they buy from.

Best regards,  
JinkoSolar Investor Relations

[See report for Jinko's revision of the supply chain map]

**July 7, 2023**

**[in response to a request for more information regarding the differences between their version of the supply chain and SHU's, evidence to support the edits to the supply chain map, UFLPA detentions and releases, the sale of Jinko's XUAR facility, and Inner Mongolia Xinte sourcing]**

Laura,

Thanks for your follow-up questions.

JinkoSolar has previously sent a diagram showing the company's supply chain for the U.S. market. Also, the company has explained its practices and policies in supply chain management for customers who request more information on polysilicon sources and associated traceability. Customers routinely engage third party audit firms and perform on-site audits and monitoring of production in JinkoSolar's various facilities. As a dual-listed public company, JinkoSolar has obligations to disclose major investments and factories, thereby providing visibility into JinkoSolar's supply chain. The company is committed to the transparency, traceability, and auditability of production and supply chain management for interested customers. In some cases, due to supplier and customer confidentiality, the company is unable to provide further detailed information in this forum.

JinkoSolar has had products detained by U.S. Customs. The company has provided comprehensive documentation to U.S. Customs proving the provenance of materials. After review, U.S. Customs has released JinkoSolar's shipments. To answer your question, none of JinkoSolar's shipments to the U.S. have been seized or forfeited.

The sale agreement of the Xinjiang factory has been fully executed and is binding. The company expects the transaction to undergo certain ordinary registration procedures. The new owner has started to take over the operation of the factory. JinkoSolar's understanding is that the new owner of that facility intends to self-consume the ingot product as soon as possible. As previously mentioned, JinkoSolar will have sufficient capacity in the rest of its operations to satisfy its global needs.

Regarding the investment in Inner Mongolia Xinte, please see JinkoSolar's [press release](#). MGS used by that facility is sourced from Inner Mongolia.

You mention that some of the information you have is publicly available. Are you able to share that with us, so we can help point out if any of it is accidentally mischaracterized or out of date? And on what basis do you assess things to be likely, even if not known or disclosed publicly? Much appreciated.

Best regards,  
JinkoSolar Investor Relations

**July 11, 2023**

**[in response to a request for a supply chain diagram for all Jinko production, in addition to questions regarding the information supplied in the Jinko revision to the US supply chain diagram. "Slide 3" mentioned below refers to a draft Jinko supply chain linked to Jinko's JV with Tongwei.]**

Thanks Laura.

It is worth noting that slide 3 is irrelevant to JinkoSolar at the moment, as JinkoSolar has not purchased any polysilicon from the Jinko-Tongwei JV. As the company previously explained, JinkoSolar is unable to comment further on the supply chain.

Best regards,  
JinkoSolar Investor Relations

**July 25, 2023**

**[following up on a request to provide more information on Jinko's new capacity in Vietnam, clarification on custom records and shipments from Vietnamese companies to Jinko US and from a Sichuan polysilicon producer to Jinko Vietnam, and more details on the amount of polysilicon procured from suppliers]**

Thanks Laura for your questions.

JinkoSolar announced its capacity expansion plan for cells and modules in its 2022 annual report and is ramping up its capacity in Vietnam.

For a certain period, JinkoSolar utilized additional module assembly capacity from OEMs in Vietnam. These vendors used JinkoSolar approved U.S. supply chains to produce the modules. Since that time, as noted in the company's previous responses, JinkoSolar built and is expanding cell and module capacity in its factory in Vietnam, which already hosts operating ingot and wafer capacity. Moving forward, JinkoSolar will have its own cell and module factories in both Malaysia and Vietnam, in addition to its module assembly factory in Jacksonville, Florida, to service the U.S. market.

JinkoSolar's previous responses capture the company's present supply chain to the U.S. market. In any case, JinkoSolar's Vietnam ingot/wafer factory produces ingots with single sources of polysilicon, with such production physically segregated by polysilicon source in the factory.

JinkoSolar provides products addressing diversified requirements of customers from different regions. The company is not commenting on the specific compliance topics related to specific regions. JinkoSolar has zero tolerance for the use of forced labor in its operations and its global supply chain. And JinkoSolar will continue investing in efforts to ensure its operations are in line with the highest criteria in labor compliance, as required by international treaties and laws in different jurisdictions.

Beyond the above, due to confidentiality obligations, JinkoSolar is not able to provide more detailed information for follow-up questions in this forum.



Regards,  
JinkoSolar Investor Relations

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**LONGi Solar**

July 14, 2023

Professor Murphy,

Thank you for reaching out to us.

We have reviewed your draft supply chain map and checked it with currently available public and private information. During our review, we found some incorrect and misleading information.

Attached is LONGi's current supply chain map. As you may be aware, supply chains evolve and shift over time. We continue to review our manufacturing footprint and our relationships with suppliers.

LONGi, as an international corporation, has always complied and will always comply with the applicable laws and business ethics in jurisdictions it operates in. LONGi is committed to closely monitoring local and international laws and corporate practices to ensure compliance.

Kind regards,  
LONGi Green Energy Technology Co., Ltd.

[See report for LONGi's revision of the supply chain map]

July 25, 2023

**[following request for more information regarding LONGi's suppliers as well as the status of the Malaysia manufacturing facilities]**

Professor Murphy,

With regards to your additional questions, we would like to provide some clarifications. We are not able to provide additional documentation on our supply chain. The requested documentation is business confidential. Public disclosure would be against our confidentiality policy and of significant competitive disadvantage to us.

1. We designed the supply chain following proximity and economic principles. Xinte polysilicon is close to LONGi factories in Ningxia, which are close to LONGi module factories in Shaanxi/Shanxi. The modules manufactured under this supply chain are sold domestically in China.

2. (addresses questions 1, 2, and 5) We cannot provide business confidential documentation for public disclosure. We were able to provide extensive traceability documentation to U.S. CBP which can support that the Asia Silicon is used in the Vietnam supply chain, Wacker is our polysilicon supplier, and OCI Malaysia is not sourcing MGS from China for the polysilicon supplied to us.
3. We are not in the right position to publicly disclose information about the MGS producers for our polysilicon suppliers as we do not purchase the MGS. We were able to provide traceability documentation to U.S. CBP that identifies MGS and quartz suppliers.
4. We have purchased dozens of tons of polysilicon from Inner Mongolia. We confirmed with our polysilicon suppliers that their MGS was purchased from suppliers in Inner Mongolia via traceability documentation, such as contracts, invoices, and shipping and storage information.
5. (addresses follow-up question #6) The previous module facility in Kuching, Malaysia has ceased production and we are building a new module facility in Negeri Selangor, Malaysia.

Compliance with applicable laws and business ethics in all the jurisdictions LONGi operates in is of utmost importance to us. LONGi has devoted significant resources to ensure the establishment and implementation of effective compliance measures. LONGi remains dedicated to closely monitoring both local and international laws and corporate practices to ensure full compliance.

Kind regards,

LONGi Green Energy Technology Co., Ltd.

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**Maxeon**

July 27, 2023

Dear Laura,

The diagrams you sent to Maxeon's PR email address in June are highly inaccurate. Correct and complete information about the supply chains you sought to depict, in substantially the same format, is available on our website at <https://corp.maxeon.com/esg> under 'Supply Chain' ([direct link](#)).

Maxeon is a global leader in ethical sourcing and responsible manufacturing, and complies fully with all relevant governmental regulations including the U.S. UFLPA. As you can see, solar panels that Maxeon manufactures contain polysilicon made in several countries outside of China with zero Chinese upstream materials. Many of our panels utilize wafers whose supply chain never touches China. For the others, ingoting and wafering occur in northeast China (far from XUAR) with 100% lot traceability back to non-Chinese polysilicon, after which the wafers move on to our facilities in southeast Asia and Mexico for solar cell fabrication and panel assembly. Our supply chains shown at the above link are the product of careful design, certification and traceability. Operating lawful and ethical supply chains is a responsibility that we take very seriously.

We are currently in site selection for new cell fabrication and module assembly facilities within the United States. Wafers sourced for that incremental production will reflect the same scrupulous care, in

regard to avoiding exposure to forced labor, as our current supply chains. As U.S. activity along the value chain increases, it should become possible to procure domestically-sliced wafers; Maxeon eagerly anticipates that vision becoming a reality.

**Lindsey Wiedmann**

Chief Legal & Sustainability Officer

**Web:** [maxeon.com](https://maxeon.com)

**July 27, 2023**

**[in response to a request for more information on press releases or sourcing contract announcements that could assist in corroborating the polysilicon sourcing relationships provided in the revised map]**

Dear Laura,

This information is now publicly available (it's on our website) and each element goes through the same internal validation process that we have for our press releases or other public statements. Thank you.

**Lindsey Wiedmann**

Chief Legal & Sustainability Officer

**July 28, 2023**

**[in response to a request for more information on the supply chain for the generation 5 cells and how Maxeon ensures that the wafers purchased from TZS are not made of Xinjiang inputs]**

Dear Laura,

The Maxeon 5 product is longer in production (but had a similar supply chain when it was).

Our TZE-manufactured wafers utilize an audited and certified MES system that enables 100% lot traceability back to the source non-Chinese polysilicon. We publicly disclose this process in our Modern Slavery Statement, which is available on our website here. This is our second annual statement that we voluntarily file in Australia in response to their Modern Slavery Act of 2018.

While we do not disclose details of our supply contracts due to competitive sensitivity and contractual confidentiality agreements with vendors, Maxeon has engaged independent third parties to ensure the integrity of our supply chain and it is worth noting that:

- Clean Energy Associates (CEA) has performed a 'Chain of Custody' audit of Maxeon's supply chain, which included an onsite audit of TZE's tracing and segregation process for raw materials that are used in our products, and found our policies and operational abilities to be 'best of class'.
- US Customs has validated Maxeon's policies and procedures to prevent forced labor / exposure to XUAR, most recently this week.

Thank you,

Lindsey Wiedmann  
Chief Legal & Sustainability Officer

**August 9, 2023**

**[in response to the publication of the report]**

Dear Laura,

I am writing you to follow up on our correspondence now that the Sheffield Hallam report 'Over-Exposed: Uyghur Region Exposure Assessment for Solar Industry Sourcing' has just been released.

While your intentions may be sincere, with Maxeon you have simply got it wrong, and the superficially plausible connections you make lead to false and damaging conclusions about our company.

Below please find our point-by-point responses to the "Assessment" made.

o The long-term polysilicon supply agreement with US-based Hemlock Semiconductor ended on 1 January 2023;

This is not a relevant data point. Maxeon does not do ingoting and wafering, and therefore we don't procure polysilicon directly. We however specify the type of polysilicon to be used in our wafers. In point of fact, only Hemlock, OCI and Wacker meet Maxeon's specifications for the poly in our wafers so our suppliers listed in the materials we provided can only use these sources.

By way of background, SunPower Corporation signed the contracts with Hemlock between 2007-2009, and they expired in accordance with their terms at the end of 2022. Details of this contract has been required in our financial statements filed publicly due to the accounting impacts of their unusual out of market pricing (which was agreed to when executed).

o Maxeon's second largest shareholder is TCL Zhonghuan Renewable Energy Technology Co. Ltd. (TZS), the second largest solar wafer producer in the world. TZS sources XUAR-produced polysilicon and owns 30% of Xinjiang GCL-Poly;

This is also not a relevant data point. As we pointed out in my previous email, Maxeon's polysilicon produced by TZS is segregated and this fact has been audited by Clean Energy Associates. We cannot speak for TZS on its non-Maxeon-related operations but none of the polysilicon used in wafers made by TZS and incorporated into Maxeon's products, nor any input from any supplier of any other product, is sourced from Xinjiang Province, XUAR.

o Maxeon's 2021 and 2022 filings to the US Securities and Exchange Commission state that TZS would be the main supplier of p-type wafers used in the production of Maxeon's Performance Series modules;

TZS is the number two wafer supplier in the world and does supply the wafers for our Performance Series modules. Those wafers, however, can only contain polysilicon that we have specified, sourced from poly producers that we have specified. Exercising our contractual rights, we specify polysilicon that

is not made in China and whose MGSI inputs do not come from China. In short, what you have misunderstood is that TZS performs a discrete step – ingoting and wafering – within a supply chain that is governed from end to end by our specifications. TZS’s performance of this discrete step is verified with an audited process for segregation.

It may be helpful to understand that TZS’s process for segregation and traceability is well-vetted and predates the UFLPA, we have consistently used it to satisfy our low-carbon requirements for certain applications in Europe.

o There is a lack of additional public domain information about TZS polysilicon suppliers and Maxeon’s current polysilicon and wafer suppliers.

Wacker is a significant polysilicon supplier to TZS. Similar to our non-disclosure restrictions, presumably TZS has similar restrictions and the reason they don’t have public filings on the topic. However, here is a speech made by TZS’s CEO Mr. Shen Haoping, Vice Chairman and CEO of TZS:

<https://xueqiu.com/2324846620/227811110>. It is from 2022 and states backward looking that “in 2020 and 2021, we (TZE) take 40% production of Wacker. The volume we buy from Wacker is 40% of its annual production, about 40% of its total production”.

I also find it concerning that you indicated multiple times in your 'Evidence Base' and 'Analysis' that we didn’t respond to your requests, when it is clear in Appendix A that this is not the case. I would appreciate the opportunity to walk you through our ESG program and explain our zero-tolerance approach to forced labour. This would include a very specific live presentation on our supply chain process for polysilicon, which will incorporate documentation to prove the assertions made above.

In order to remain in compliance with our contractual obligations, I would need you to execute a non-disclosure agreement for this additional verification to what we have already said publicly on our website. We are doing this on the basis that you have an open mind towards revising your assessment made for a fair and accurate report, of course provided we can show sufficient proof.

Please let me know at your earliest convenience.

Best regards,  
Lindsey Wiedmann  
Chief Legal & Sustainability Officer  
Maxeon Solar Technologies, Ltd.

**August 10, 2023**

**[In response to SHU explanation that we do not do direct engagement with companies unless they have made a credible public announcement that they do not source from the Uyghur Region.]**

Dear Laura,

Thank you for specifying your parameters, we will work on providing you with further information/addressing some of our limitations in the meantime, so that we can proceed with a call upon your return. Also appreciate you publishing our response.

Thank you and enjoy your holiday,

**Lindsey Wiedmann**  
Chief Legal & Sustainability Officer

**[in response to further requests for documentation of a XUAR-free supply chain. Maxeon comments are interwoven into SHU questions and replicated as submitted, with the insertion of "SHU" where a SHU question appears for clarity, below.]**

Dear Laura,

Welcome back, I hope it was a nice leave. Please see below. We look forward to reviewing further written evidence with you and addressing any remaining questions (not under NDA, as requested), please let me know of your availability.

Thank you,

**Lindsey Wiedmann**  
Chief Legal & Sustainability Officer

[SHU]: Without written evidence -- supply contracts, press releases, etc. -- we cannot be sure of the following:

- whether/how TZS segregates the supply for Maxeon and how regularly this is monitored

MAXN: Maxeon specifies the polysilicon that TZE is required to use in each order of wafers (please see an example purchase order attached from a Maxeon subsidiary to a TZE company specifying Wacker polysilicon for an indicative operative document, we have redacted pricing for obvious reasons). The polysilicon is traced from the time it arrives at port in China from overseas. It is also segregated from the time it arrives at TZE factories until the time it leaves their factories. Maxeon continues this traceability until it gets installed, such that a shipment of Maxeon cells or panels can be stopped at any leg of the journey and you can track back where the polysilicon comes from.

For general factory standards, TZE follows ISO 9001 and ISO 45001. The audited documents and systems used for tracking the chain of custody of the polysilicon include the following:

- (i) Purchase Contracts;
- (ii) Invoices;
- (iii) Materials Delivery Lists of Specified Quantities;
- (iv) Bills of Lading;

- (v) Bills of Entry;
- (vi) In-line Operator Records for Material Segregation;
- (vii) Record Verification Systems;
- (viii) ERP Systems Records;
- (ix) Manufacturing Execution Systems (MES);
- (x) Materials Receiving Records;
- (xi) Designated Storage Systems for Sensitive-Origin Raw Materials; and
- (xii) Packaging Records.

To supplement the Purchase Order, we can walk you through this process of tracing the polysilicon on our call (without an NDA). This supply chain for Maxeon has been fully audited and is periodically re-audited at least annually (and often more than once by both Maxeon internally and also by our customers using third party audit firms). We regularly stress-test this by taking a cell shipment arriving at the factory in Mexico and tracing it through the manufacturing processes to the polysilicon's arrival at the port in China. Through the MES system as well as the other tracking we do, you can actually take any panel off a rooftop or an industrial installation and trace back the poly to the source whether Wacker, Hemlock or OCI.

- [SHU:] whether/how Maxeon separates out wafers for the different lines in Philippines and Mexico to ensure that TZS is not used in Gen 3/6 lines  
 MAXN: The two supply chains are not comingled. Indeed, the Philippines factory does not have any TZE wafers ever enter the factory as it only makes IBC Gen 3 panels. We have two factories in Mexico, one of which is all Gen 3 / 6 using Hemlock / Wacker / OCI and one of which is all P-Series which uses TZS / Wacker-OCI so the wafers aren't even in these same factories to comingle. Furthermore, the specifications are different: Gen 3 / 6 IBC is N type wafer, P series is P type wafer. IBC current wafer size is 5" and M6 size and P series is G12 size. A TZE wafer wouldn't physically fit in the design an IBC Gen 3 / 6 panel.

[SHU:] It would also be useful to know whether TZS is also a paid client of CEA (potentially representing a conflict of interest).

MAXN: The audit we referenced was not paid for by TZE nor is TZE a CEA customer. The audit was paid for by a Maxeon customer. MAXN also conducts its own audits and engages with other third parties for audits such as Elevate and Achilles to name just two. You may find social audits we have done in China of Chinese suppliers if you are a Sedex member. Many of these audits are paid for by customers, which

should address your concerns regarding conflicts of interest as Maxeon is not (nor is TZE) procuring these audits.

[SHU:] Without this evidence, we would not be able to have a call with a customer of TZS, as TZS sourcing represents such extraordinary risk.

MAXN: As mentioned, we have an exhaustive amount of evidence we have provided to external parties including customers, third-party auditors, law firms, Government authorities, etc., which we would like to walk you through (and which won't require an NDA). If you would like to review before the call, we have published detailed summaries of this such as in our Modern Slavery Statements which is filed with a public authority and comprehensively explains the measures we take with details on our sourcing controls (including validating no-Xinjiang), traceability, audits, etc.

[SHU:] We are pleased to see that Maxeon has made declarations to show that it is conducting due diligence to address supply chain risk in its supply chain. Given that there is documented use of Uyghur forced labor in solar-grade polysilicon and MGSI production and in aluminum production, and in particular are sourced by your suppliers, the Modern Slavery statement does not provide adequate evidence to show that you have eliminated XUAR sourcing.

MAXN: We categorically deny that there is any – or has ever been any – Uyghur forced labor in our supply chain. To reiterate what we have said before, Maxeon is operated entirely separately from TZE and conflating the two is factually wrong. Indeed, Maxeon has zero suppliers (or sub-suppliers) in Xinjiang Province and has stated so repeatedly and publicly. The fact that we file public statements asserting this fact with Government authorities is *prima facie* evidence that we have taken great caution and satisfied our external legal and other advisers of this fact. A 'guilt by association' argument does not document or prove that there is any forced labor, especially considering the fact pattern we have established and painstakingly documented of only using selected poly suppliers to ensure that we have no Uyghur forced labor in our supply chain.

[SHU:] We look forward to reviewing whatever documents you are able to provide us. Please be aware, however, that our work is very much focused on transparency and evidence, and thus we will never be able to sign an NDA.

MAXN: As a company that takes human rights seriously, and in fact was ahead of First Solar in publishing the results of social audits in Malaysia – including acknowledging that we had an infraction years back – and that has and continues to perform on-site social audits in China, we value the work that you are doing and would like to discuss this in a collaborative spirit. In this way we can learn your perspective as an interested stakeholder and try to address any continuing concerns you have.

**October 11, 2023**

**[in response to a request for more information about the supply chain]**

Dear Laura,

Thanks for your continued engagement and thoughtful questions. It is my turn to thank you for your patience, we have been navigating some rough times here that are now public. I also wanted to wait until I could share an update that TZE has been working on, given we don't have an NDA.



You can see here that TZE is divesting from GCL: <https://en.tzeco.com/about-us/dynamic/corporate/1707563910655000578.html>. While we have been assiduous about avoiding any Xinjiang GCL in our own supply chain that goes into Maxeon's products, we believe that this fact should alleviate some of the concerns that led you to rate us – wrongly in our estimation – as 'High Risk'.

Please see below my answers to your further queries. I do hope that we can get on a call soon, I believe we have provided all of what you have asked for in order to do so. Could you kindly let me know?

Thank you,

Lindsey Wiedmann  
**Chief Legal & Sustainability Officer**

...

[SHU:] For Gen 3/6: We have learned from Hemlock that, among your ingot/wafer suppliers, Hemlock only supply ACC. Your supply chain map suggests (perhaps unintentionally or to protect your suppliers' interests) that all of the polysi companies supply all of the ingot/wafer companies. We would like to have the most accurate map possible, so it would be beneficial to know whether Wacker and OCI supply all three of the named ingot/wafer companies.

MAXN: The reality is that polysilicon is a commodity that is bought and sold. Indeed, when we had our own contract with Hemlock, during periods when we didn't need the entire allocation for our own wafer suppliers due to slowdowns at our manufacturing facilities, we sold our Hemlock allocation to third parties. Likewise, companies other than ACC are able to procure Hemlock even if not buying direct from Hemlock. Therefore, your inference that we can't get Hemlock wafers if not from ACC from ACC simply isn't true as we do have wafers made with Hemlock poly from suppliers other than ACC. Hemlock's strong reaction to our disclosure hopefully helps you understand why we have aggregated our charts, so that we can provide transparent public disclosures and still respect our obligations to our suppliers. For Gen 3 /6, as we have indicated, only Hemlock, OCI and Wacker are qualified to be used in our wafers and that is all we use with the suppliers we have identified. This is specified in the POs as we have shown you.

[SHU:] For Gen 3/6 and Performance: Could you please be more specific about the MGS suppliers for OCI, Wacker, and Hemlock? We have mapped what we have learned through our own research, which you will see in our Prelim Rev 1 maps. But that information does not correspond with what you have suggested. In particular, we are interested in the missing China suppliers of MGS to OCI, which OCI itself admits to. But any other refinement would also be appreciated.

MAXN: First of all, we are aware that OCI has some residual MGS from China. And we are careful to avoid it and only use OCI that has MGS sourced from outside of China. We unfortunately cannot be more specific other than to say none comes from China. Of this fact, we have written assurances from our polysilicon suppliers regarding the geographical location that the MGSi is sourced from. We also have assurances that the complete information can be provided if we are stopped at US Customs. We further have had discussions with our polysilicon suppliers about how the process worked at US Customs when stopped in connection with shipments for other manufacturers. And each of Hemlock, OCI and Wacker have withstood the scrutiny of US Customs' detention and proved that they do not contain Xinjiang poly / MGS so their claims to have the documentation have withstood scrutiny. We are

also aspirational and that's why we have a long term target to have it all on the blockchain. For now, however, we have strong and tested evidence that none of the poly / MGS in these products comes from China and certainly not Xinjiang as the 'High Risk' designation avers.

[SHU:] Regarding the missing information about the HSPV joint venture: We understand that the HSPV joint venture produces a significant proportion of Maxeon panels. This supply chain appears to be missing from the information you have provided so far. Could you please provide a similar level of detail regarding the Jiangsu HSPV facility's sourcing?

MAXN: We have only included supply chains for the panels we manufacture, but as we have stated publicly in our filings with for instance the Australian Border Force, none of the products we buy from HSPV touch, or include any materials that touch, the Xinjiang Province. We have certifications and due diligence to support these statements, as described in our Modern Slavery Statement. Furthermore, our JV has been audited by the audit firm Elevate using the SMETA ethical audit methodology and the results are available to Sedex members.

**October 18, 2023**

Dear Laura,

As you know from our transparent supply chain charts, none of the MGS or polysilicon that is incorporated into Maxeon products is produced in China. To be perfectly clear, we have no GCL or Daqo in our ownership or supply chain. As to your question below on Inner Mongolia, that does align with what we have seen. Some of the MGS that gets incorporated into polysilicon in Inner Mongolia originates in other parts of China such as XuBei and NingXia, so that could be caused by insufficient supply within IM. We haven't seen MGS originating from Xinjiang being used in our own supply chain diligence work, but we can't speak for others in our industry of course.

At this point, we would like you to revisit your recent assessment of our company. We have addressed every item in your 'Assessment' of Maxeon, and nothing leads to "The overall XUAR exposure for all solar modules produced by Maxeon Solar Technologies/ SunPower is assessed as "VERY HIGH"". Maxeon couldn't be more different from the other companies in the same category who have admitted their exposure, and said yes, we have Xinjiang, but 'it's for a different market' or, yes, we have Xinjiang, but 'we don't do that anymore'.

This report has caused a lot of damage to our company, which we can well document, and we really don't understand why we have been targeted in this way. Especially after all of the information we have provided. Maxeon has not had exposure to Xinjiang in its entire history, and we have been very proactive in tracing and auditing our supply chain so that we can ensure this and to support our public filings that we have no Xinjiang in our products. We continue to stand by this statement, and we have been active in the industry & with governments in supporting efforts to eliminate forced labor in solar supply chains.

We have repeatedly asked for a call or in person meetings, with no progress. Please help us understand what the next step is.

Thank you in advance and we look forward to hearing from you soon.

**Lindsey Wiedmann**

**Chief Legal & Sustainability Officer**

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**OCI**

**April 21, 2023**

**[in response to request for supplier information from Alan Crawford]**

Dear Mr. Crawford,

Thank you for reaching out to OCI.

Unfortunately, we are not allowed to disclose our suppliers information according to our company disclosure policy.

Yet, we confirmed with the related department that we do not purchase the MgSi from Xinjiang.

Please kindly be informed that neither our plants in Korea nor Malaysia use the Mg-si from Xinjiang.

And we are planning to reduce the portion of Mg-si from China gradually.

If you have any further questions or concerns, please let us know.

Thank you.

Sincerely,

OCI IR Team

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**Qcells**

**July 31, 2023**

To: Laura T. Murphy

Professor of Human Rights and Contemporary Slavery

Helena Kennedy Centre for International Justice

Sheffield Hallam University

Thank you for the opportunity to respond to the report examining the global solar supply chain. Qcells takes the issue of human rights very seriously and invests considerable effort to document our supply chain.

Qcells has adopted a [Code of Conduct](#) that prohibits forced labor made products in our supply chain. We also stand with our industry partners having [signed a pledge](#) committing to a supply chain free of forced labor. Consistent with U.S. law, we have implemented a triple layer of certification, traceability maps, and third-party verification audits to ensure compliance amongst our suppliers. Qcells terminates agreements if suppliers fail to comply.

While we cannot share our full supply chain maps due to the confidential nature of the agreements, our wafer suppliers have confirmed in writing that they procure polysilicon from a mix of companies, including Wacker and OCI, and that our suppliers provide certification that confirms no polysilicon, MGS, or quartz is sourced from Xinjiang. In addition, Huantai Meiki has not been a supplier to Qcells since 2021.

Importantly we are investing billions of dollars and are creating thousands of jobs based on our commitment to stand up an entirely American supply chain for the production of polysilicon-based solar panels. We are unique in this commitment but feel it is vitally important for the growth of solar energy and to ensure a safe, reliable supply chain for the future.

Thank you.

Debra DeShong, VP and Head of Corporate Communications  
Qcells North America

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## REC Solar

March 13, 2023

[in response to request for supplier information from Alan Crawford]

Good Afternoon;

Please see the attached document that lists the declarations from our suppliers. Let me know if you need any more info on this.

Best regards,

George McClellan

George McClellan | Senior Technical Sales Manager | REC Americas LLC

[Document included on report website under Evidence Base]

**July 4, 2023**

Dear Laura,

We just would like to point out that the TwinPeak 4 product which you have in the draft supply chain charts is no longer produced.

Thanks,  
Agnieszka

Agnieszka Schulze | Head of Global PR | REC Solar EMEA GmbH

**July 4, 2023**

**[in response to a request for information regarding when REC discontinued the model and whether it is still for sale]**

Hi Laura,

it was discontinued in Q4 2022.

Kind regards,  
Agnieszka

Agnieszka Schulze | Head of Global PR | REC Solar EMEA GmbH

**July 19, 2023**

**[in response to information showing the continued sale of the TwinPeak 4 online and a request for a response to the finding that it is exposed to the Uyghur Region]**

Dear Laura,

As already answered to you, we would like to point out that the TwinPeak 4 product which you have in the draft supply chain charts is no longer produced. Production was discontinued in Q4 2022 and as such, the product has been taken down from our website.

Best regards,  
Agnieszka

Agnieszka Schulze | Head of Global PR | REC Solar EMEA GmbH

**[SHU provided the official REC Solar URL where the Twin Peak 4 is advertised as well as information about e-commerce sites where it is still available for sale in the US and elsewhere. No response followed.]**

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# Tongwei Solar

July 8, 2023

Dear Prof. Murphy,

Please see the following reply which we sent you on July 5th.

Thanks

发自我的手机

Dear Prof. Murphy,

Greetings! Your previous correspondence is greatly valued. Unfortunately, regarding the specific questions you raised about our supply chain, we are unable to provide the requested details due to the regulatory requirements placed on listed companies in relation to information disclosure and data security, as well as the protection of proprietary business secrets.

Tongwei Co., Ltd. is a large tech company operating in the private sector and listed on the public stock exchange in China, possessing a history of over forty years. With the vision of "For Better Life", it has been engaged in green agriculture and green energy industries closely linked to human life. We adhere to the utmost integrity in operating our business and strictly comply with all applicable laws and regulations in both China and each country/region where we have operations.

Tongwei always strives to fulfill its corporate social responsibility at the highest standards. Our photovoltaic manufacturing bases are mainly located in Sichuan, Yunnan, Inner Mongolia, and other regions. We use a significant amount of clean energy in the production process and produce low-carbon products that feature high-efficiency, contributing to global carbon reductions and the transition to clean energy. Furthermore, through the use of advanced and proven technological means, we continually upgrade our enterprise system management and enhance the management capabilities of our suppliers. We have a well-established supplier management system together with a strict supplier code of conduct, reflecting our responsibility and commitment as a world-class producer of advanced photovoltaic products. In the future, Tongwei will continue improving its Environmental, Social, and Governance (ESG) management system by deepening its corporate governance, employee management, and supply chain management, in addition to taking other compliance initiatives, as a part of its efforts to promote the company's sustained globalization.

Climate governance is an important issue facing the whole world, and achieving carbon peaking and carbon neutrality is a historical mission that is critical for human development. An international consensus on this matter has been reflected in both the United Nations Framework Convention on Climate Change and the Paris Agreement. We are pleased to see the United States and the European Union leading the way in facilitating carbon neutrality, and driving global energy transition and climate control. We are also delighted to see that after nearly 20 years of development, the Chinese photovoltaic industry now has the capability and conditions to be an active player in the global energy transition, climate change governance, and carbon neutrality efforts. We are furthermore glad to see that universities and research organizations across the world, including those in the United States and the European Union, and of course your own center, attach great importance to and continuously exchange ideas on this historical mission. This aims to propel

humankind's forward momentum toward these common goals. Tongwei is more than willing to contribute in any way possible to achieve such endeavors.

Lastly, please kindly be advised that if anything mentioned in your center's reports causes any direct or indirect damage to our company, we reserve the right to seek legal remedies to safeguard our legitimate interests.

Tongwei Co.,Ltd.

2023/7/5

亲爱的 Murphy 教授：

您好！我们非常重视你的来函。但针对你提出的关于公司产品供应链相关的具体问题，因涉及上市公司信息披露和数据安全的相关监管要求，以及相关企业商业秘密，我们无法向你提供详细的信息。

通威股份是一家中国境内上市的大型科技型民营企业，发展历程已有四十余年。公司以“为了生活更美好”作为企业愿景，长期从事与人类息息相关的绿色农业与绿色能源产业，秉承“诚信正一”的经营理念，在经营发展中严格遵守中国及业务开展适用国家与地区的各项法律法规，依法合规开展所有经营活动。

通威始终以更高标准践行企业社会责任，公司光伏产品生产基地主要位于四川、云南、内蒙等地，生产过程中大量使用清洁能源，并生产出高效、低碳绿色产品，为全球低碳减排，清洁能源转型做出贡献。同时，通过使用先进的、科学的技术手段，升级企业系统管理并提高供应商的管理能力，公司制定了严格的供应商管理制度与供应商行为准则，体现出通威作为一家世界级先进的光伏产品供应商的责任与担当。未来，通威将一如既往始终坚持环境、社会责任和治理 (ESG) 管理体系的建设，深化公司治理、员工管理、供应链管理及其他合规建设，为企业的国际化提供有效保障。

气候治理是世界各国共同面对的重要议题，实现双碳目标也是人类发展的重要历史使命，《联合国气候变化框架公约》和《巴黎协定》对此早已形成国际共识。我们很高兴看到以美国、欧盟带头推动碳中和并牵引全球能源转型和气候管控；我们很高兴看到中国光伏产业经过近 20 年的发展，有能力、有条件参与全球能源转型、气候变化治理及碳中和的实现；我们也很高兴看到包括美国、欧盟国家在内的高校、研究机构及贵中心高度重

视、共同关注，充分沟通交流此历史使命话题，促使我们全人类的共同目标早日实现，通威非常愿意在此活动中奉献绵薄之力。

最后，敬请贵中心注意，若贵中心相关报告中提及的内容对公司造成任何损失，公司将保留后续诉诸于法律救济的权利维护我们的合法利益。

公司

通威股份有限

5 日

2023 年 7 月

**July 25, 2023**

**[in response to a request for more information regarding exposure to Uyghur Region sourcing and a request for sharing a list of all suppliers]**

Dear Prof. Murphy,

Thank you for your correspondence and attention to our enterprise!

As mentioned previously through e-mail, adhering to the corporate tenet of “Striving for Excellence, Contributing to Society” for better life, Tongwei Co., Ltd. has always been focusing on agriculture and new energy. We regard cooperation with neutral research institutions and civil organizations as an important support to our implementation of ESG strategy, hoping very much to jointly promote social and environmental sustainable development with these institutions and organizations.

As mentioned in your correspondence this time, you hope that we can help you acquire some supply chain information inaccessible from public channels, and our reply will be publicized as an attachment to your report. Objectively speaking, for your inquiries in the e-mail, such as inquiries for information on our clients, suppliers and partners, as a listed company, we shall obey regulatory requirements regarding information disclosure and data security, and shall keep confidential propriety business secrets related to enterprises concerned. Therefore, our reply shall follow legal regulations and meet public interests.



Explicitly, we have consistently attached importance to compliance with China's laws and regulations regarding labor management as well as standards of the International Labor Organization. As for Xinjiang region in your inquiry, we do not exploit, produce or manufacture products there at present. For the remaining issues, our financial report, report on social responsibility and public information disclosure terms can help you better understand our enterprise and complete this study.

Moreover, as a Chinese enterprise, we have proposed compliance requirements for suppliers based on Labor Laws, Core Labor Standards of the International Labor Organization and Ten Principles of the United Nations on Global Compact. Strict supplier management systems and supplier behavior standards have been formulated by sequentially incorporating environmental and social factors into the supplier management mechanism to foster a supply chain for sustainable development.

Always committing ourselves to green sustainable development, Tongwei Co., Ltd. hopes to join social forces in jointly promoting the transition to green energy and speeding up the realization of carbon peaking and carbon neutrality goals in the world. It is expected that more and more countries and regions can have access to cleaner, highly-efficient, safe and economical green energy through our concerted efforts, so that we can build greener global environmental and human civilization for our future generations.

Tongwei Co.,Ltd.

2023/7/25

亲爱的 Murphy 教授,

谢谢您的再次来函和对我们企业的关注!

如之前邮件回复所述, 通威股份以农业和新能源为双主业, 以“追求卓越、奉献社会”为宗旨, 始终致力于成为让生活更美好的绿色能源企业。公司已把同中立研究机构和公民组织合作视作公司 ESG 战略的关联支撑, 我们非常希望能和这些机构和组织共同推动社会和环境的可持续发展。

本次您在来函中提到，希望我们帮助您了解一些公开渠道无法获知的供应链信息，但我们的回复内容会作为您的报告附件予以公布。客观来讲，您在邮件中问询的问题，例如您希望获取我们的客户、供应商和合作伙伴的信息，作为上市公司，我们需要符合信息披露和数据安全的相关监管要求，以及相关企业商业秘密。因此，向您回复的内容我们要确保是符合法律规则和公共利益的。

可以明确的是，我们一贯关注企业是否满足中国劳动管理相关法律法规及国际劳工组织（ILO）的标准。关于您问询中关注的新疆地区，我们目前不在该地区开采、生产或制造产品。其余问题，您可以参考我们上市公司的财务报告、社会责任报告和公开信息项下披露等，可以帮您更好的了解我们企业和完成本次研究。

另外，作为中国企业，我们已对供应商提出了基于中国劳动法和国际劳工组织（ILO）核心劳工标准和联合国全球契约十项原则为基础的合规要求，制定了严格的供应商管理制度和供应商行为准则，将环境和社会因素有序纳入供应商管理机制，旨在打造可持续发展供应链。

通威股份将始终致力于绿色可持续发展，并希望能与社会各界一同推动人类绿色能源转型，加快全球双碳目标进程。期待在我们的共同努力下，越来越多的国家和地区能使用到更加清洁、高效、安全、经济的绿色能源，期待我们能为子孙后代创造一个更绿色的地球环境与人类文明。

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通威股份有限公司

2023 年 7 月 25 日

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**Wacker Chemie**

March 30, 2023

[in response to request for supplier information from Alan Crawford]

Dear Alan,

Thank you for your request. Please understand that we cannot answer your question in all detail for a range of reasons.

Wacker Chemie sources its silicon metal from its Norwegian plant in Holla (about one third of or needs) with a very low CO2 footprint (hydro or renewable power) and from a portfolio of suppliers in North America, Brazil, Europe, Malaysia and Africa.

Hope that helps.

Best Joerg

**March 30, 2023**

**[in response to a suggestion about a public disclosure of all suppliers]**

Dear Alan,

We take your idea/suggestion under advisement. It is a complex topic.

Best, Joerg

**Joerg Hoffmann, CFA**

Senior Vice President

Investor Relations

**Wacker Chemie AG**

**March 30, 2023**

**[in response to a request for confirmation if the supplier list can be publicly shared]**

Alan, this is what we communicate to investors upon request. So, yes you may use the list. You may want to substitute Holla with Norway (own production).

Best, Joerg

**July 5, 2023**

Dear Laura,

Thank you for contacting us in the context of the planned revision of the Solar Supply Chain report and for allowing us to update you on WACKER's position. You can find our answers to this topic below. We appreciate your initiative and commitment to the issue and wish you and your work continued success.

Many thanks and best regards,

Markus

**Dr. Markus Richter**

Head of Corporate Communications

**Wacker Chemie AG**

Over the last couple of years the Chinese solar industry has acquired market shares > 80 % across each step of the solar value chain starting from polysilicon to ingot/wafers, cells and finally modules. For ingot/wafers 97 % of the global capacity is located in China and is thus the only market for solar polysilicon manufacturers. Our customers appreciate the quality of our material but also that our polysilicon is based on a sustainable supply chain back to quartz. The US Customs and Border Protection (CBP) has established thorough traceability protocols for solar products with a special focus on polysilicon, silicon metal and quartz. CBP's process based on a detailed analysis ensures that solar products entering US are free of forced labor. Wacker's polysilicon meets CBP's requirements and we have established supply chains to meet CBP's requirements.

1. Who are your suppliers for the primary material(s) used in your company's manufacturing process for solar-grade products (quartz, MGS, polysilicon, ingots, wafers, cells, etc), and how much/what percentage of the relevant material does each company provide?

The below table shows the countries from where we are sourcing silicon metal. The silica mine column refers both to (i) the origin of quartz sourced by WACKER for WACKER's silicon metal production in Norway and (ii) the quartz source used by our silicon metal suppliers. We produce approximately one third of our silicon metal demand in-house in our plant in Holla in Norway. In case of requests from relevant authorities, we are able to provide the corresponding traceability data/documentation as acknowledged by the US Customs and Border Protection (CBP) for all of our silicon metal sourcing transactions

	Polysilicon Plant	Silicon Metal Plant / Sourcing	Silica Mine
Wacker Chemie AG	Burghausen and Nuenchritz, Germany	France, Norway, Germany, Iceland, Brazil, Canada, South Africa Australia	France, Norway Spain, Germany, Austria, Czech Republic, Poland, Brazil, Canada, South Africa, USA, Australia
Wacker Polysilicon North America, LLC	Charleston, Tennessee, USA	Brazil, USA, Norway	Brazil, USA, Norway, France, Spain

Please understand that our purchasing contracts for the raw material "Si-Metal" contain confidentiality clauses which do not allow us to share individual company names and/or details about the business with them (e.g. share in our supply portfolio). Furthermore, the sourcing ratio between the companies/countries can vary depending on the negotiation results.

2. If your company makes several products across the value chain (e.g. polysilicon and cells, or ingots, wafers, and cells), please list the suppliers (including your own manufacturing facilities) for each product.

Within the solar PV supply chain WACKER is only producing and selling solar polysilicon.

3. Who are your solar-grade product customers, and how much/what percentage of your production is each of those customers contracted procure?

Our customer Jinko has published the execution of a supply agreement with Wacker Chemie due to capital market requirements some time ago. In all the other cases we cannot disclose specific company names as our contracts would not allow for that due to confidentiality clauses. However, you can assume that we are supplying many of the big ingot/wafer companies. That said, we can disclose the countries to which we are supplying our solar polysilicon and their share in our total supply volumes:

WACKER Solar-Polysilicon Volumes (tons): Distribution by Country	
China	>75%
Vietnam	<15%
Taiwan	<5%
Malaysia	<5%
USA	<5%
Europe	<5%
Rest of World	<5%

4. If your company makes several products across the value chain, please list the customers (including your own manufacturing facilities) for each product.

n.a.

5. If your company makes several product lines (e.g. several cell models), please answer the above questions for each individual product line.

n.a.

6. If your company has several facilities for the production of any one product/stage of the supply chain, please separate out suppliers and customers by facility.

We have a silicon metal production site in Holla (Norway), two polysilicon production sites in Germany and one polysilicon production site in USA. Regarding information on our suppliers and customers, please refer to the tables above.

July 19, 2023

[in response to a request for more detailed information regarding customers]

Dear Laura,

Thanks a lot for your mail and your inquiry. We appreciate your work very much and therefore try to support you in the best possible way.

Regarding your inquiry, we can confirm that WACKER, as the largest poly producer outside China, supplies almost all major wafer manufacturers in the world as well as some smaller wafer producers. Due to confidentiality commitments and competition law concerns, we ask for your understanding that we cannot provide any further details on specific customer names. It should also be noted that wafer manufacturers never have a single source of supply. WACKER supplies most of its customers with only a limited share of their total demand. This is why CPB's due diligence/traceability process looks at individual shipments of PV products and their supply chains.

WACKER has developed a detailed and reliable process to provide governmental authorities with documentation transparently showing the whole supply chain of its polysilicon shipments. This information then can be linked to individual PV wafers, cells and modules – most of which are today shipped to the US.

We wish you much success in finalizing your report. And: You can contact us at any time - also during summer holidays.

Thanks and best regards,  
Markus

**Dr. Markus Richter**  
Head of Corporate Communications

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*Over-exposed: Uyghur region exposure assessment for solar industry sourcing*

CRAWFORD, Alan and MURPHY, Laura

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