

Contents

1. Why divide the PV market into tiers?	1
2. Definitions	1
3. Criteria	1
4. How do I access the tier list?	2
5. How can manufacturers improve their ranking?	2
6. How does a manufacturer know if they will be on the next tier 1 list?	3
7. Appeals	3
About us	4

BloombergNEF Tier 1 Solar Module Maker Methodology

BloombergNEF has developed a tiering system for PV module products based on bankability, to create a transparent differentiation between the hundreds of manufacturers of solar modules on the market. Since this basic categorization has been used as an advertisement by certain manufacturers, but should never replace a proper due diligence process in product selection, this document explains the tiering criteria and its limitations.

1. Why divide the PV market into tiers?

BloombergNEF is frequently requested by clients for a list of 'major' or 'bankable' suppliers - in common industry parlance, tier 1 suppliers - for use in manufacturing forecasts, preliminary competitor analysis, and other internal comparisons. It is very common for industry players to refer to 'tier 1' players, but these terms are seldom defined or described, which is unhelpful for firms outside the solar industry trying to get a basic overview.

We strongly recommend that module purchasers and banks do not use this list as a measure of quality, but instead consult a technical due diligence firm such as **RINA, ATA Renewables, RETC LLC, Wood Plc, PVEL, Black & Veatch, TUV, E3, STS Certified, Clean Energy Associates, PI Berlin, Pvbuyer, Enertis, Leidos Engineering, the Austrian Institute of Technology (AIT) or Phoventus**. These would usually consider what factory the module comes from and the bill of materials, and probably conduct accelerated degradation tests on a sample, and give an informed opinion on whether the modules will perform as expected.

2. Definitions

'Bankability' - whether projects using the solar products are likely to be offered non-recourse debt financing by banks - is the key criterion for tiering. Banks, and their technical due diligence providers, are extremely unwilling to disclose their whitelists of acceptable products. BloombergNEF therefore bases its criteria in what deals have been closed in the past, as tracked by our database - 40,000 photovoltaic financings worldwide as of January 2024.

We reserve the right to change these criteria at any time - particularly by requiring more information to consider a manufacturer tier 1. The companies will be reviewed every quarter based on information added to BloombergNEF's database. Only project financings for over 5MW of capacity are relevant to tiering (this is a change first applied in 1Q 2024). Portfolio financings count for tiering only for projects with defined locations, and where the debt is secured on all the assets together, ie, if one project in the portfolio underperforms the bank has a claim on the rest of the portfolio.

We only tier manufacturers which actually own production facilities and sell under their own brands. Companies which outsource production under brand names are not tiered.

3. Criteria

Tier 1 module manufacturers are those which have provided own-brand, own-manufacture products to at least **six** different projects, which have been financed non-recourse by **six** different

Solar Tiering Team
solartiering@bloomberg.net

This classification is purely a measure of industry acceptance, and there are many documented examples of quality issues or bankruptcy of tier 1 manufacturers.

commercial (ie not development, not export-import) banks, in the past two years. The earlier of financing or commissioning date counts for tiering, ie refinancings of old projects do not count.

These 5MW+ deals must be tracked by our database, ie the project location (sufficiently to identify the project uniquely, ie street address), capacity, developer, bank and module maker must be in the public domain. Manufacturers which have filed for bankruptcy or a form of insolvency protection, or are in default of major financial obligations as stated in court documents, are removed from the tier 1 list until further notice.

From October 2020, we require additional evidence that a deal in China, India, Poland, Austria, Hungary, Switzerland or Turkey is non-recourse, in order to include it in our database. This is because non-recourse financing is not the norm in these markets, and a bank may not require technical due diligence on modules if the financing is not secured on the project. Non-recourse financing is where the bank has agreed to take the risk of the modules failing, and will not be repaid from the balance sheet of the developer or equity holder if the project does not service the debt. Lease financing may be considered non-recourse.

This evidence must be in the form of either a public document like a press release from one of the companies involved, or an article about the project published by a recognized media firm, or a copy of the agreement with the bank. The agreement with the bank will be kept strictly confidential and only used to confirm the non-recourse nature of the financing to ensure database accuracy. Emails or statements from developers are no longer be counted as sole evidence that finance is non-recourse. We reserve the right to reject any deal because there is no public evidence that it exists.

This classification is purely a measure of industry acceptance, and there are many documented examples of quality issues or bankruptcy of tier 1 manufacturers.

3.1. Tier 2 and 3

We do not publish a tier 2 or 3 list.

4. How do I access the tier list?

To get a quote for a Bloomberg subscription, which includes the quarterly tier 1 list, please contact sales.bnef@bloomberg.net. There is no other way to legally obtain the tier 1 list. Pirate versions released on the internet may have been doctored.

The list of tier 1 manufacturers is available to Bloomberg subscribers as part of the quarterly BloombergNEF PV Market Outlook and [here](#). Note that a tier 1 listing is not a recommendation for the company or its products.

A company may be removed from the Tier 1 list at any time, so only the list for the most recent quarter is valid. Press releases, and claims from the company, do not constitute evidence that a firm meets BloombergNEF's tier 1 criteria.

5. How can manufacturers improve their ranking?

Since a tier 1 ranking is not a recommendation, we advise manufacturers against spending much energy pursuing it. On the other hand, one of the characteristics of a tier 1 manufacturer is transparency and good data availability.

A manufacturer can help us tier them accurately by sending us (at solartiering@bloomberg.net) data on the projects they have provided modules for, and the financing used to support these projects. This data must include enough information to identify the project uniquely - project size, location (street address or coordinates), developer name, bank which provided financing, type of

Please do not send us confidential information for tiering purposes except to clarify that a deal is actually non-recourse – then we will keep it confidential! We need to include the basic deal details, including bank name, in our database.

financing, construction and financing dates. This information will be published by BloombergNEF in its subscription database. The template [here](#) can be used (downloads in excel).

We strongly prefer well organized and complete information. Where confirmation is required in the form of a bank document, please try to send the confirmation with the full project details. It is not helpful to send large amounts of incomplete or inaccurate project details and may result in your entire submission being rejected without notice. Lying may result in blacklisting.

Emails with data received before the first day of a calendar quarter (1 January, 1 April, 1 July, 1 October) will definitely be processed for the tier 1 list appearing in the PV Market Outlook about 50 days later. Data received in later emails may only appear in the database and be used for the tier 1 list for the following quarter.

6. How does a manufacturer know if they will be on the next tier 1 list?

For legal compliance reasons, we cannot disclose any substantial information about upcoming research prior to publication. Consequently we cannot confirm whether a manufacturer will or will not be on the tier 1 list in the next quarter until the list is published.

BloombergNEF clients have access to the full database, so can look at the deals in the database [here](#) and count the banks themselves. If you are a BloombergNEF client, please ask your client service representative for details of how to do this.

7. Complaints about tier 1 solar manufacturers

We are not responsible for the operations of tier 1 solar manufacturers. However, if you have public evidence that a tier 1 solar manufacturer is in default of significant financial obligations, this may be grounds for removing it from the list. Anonymous complaints are much less likely to be investigated than ones from known companies operating in the solar market.

8. Appeals

The Bloomberg solar tiering team's ruling on tiering for each quarter is final and will not be influenced by taking a subscription, visiting our offices, buying us lunch, pleading, or sending us specification sheets, testimonials, or confidential information. The only thing that will influence the decision is on-the-record data about financed projects. Please read this text carefully before asking us questions already answered here, as we receive a high volume of queries and cannot enter into detailed correspondence. A Chinese translation of this document is available [here](#).

About us

Contact details

Client enquiries:

- Bloomberg Terminal: press <Help> key twice
- Email: support.bnef@bloomberg.net

Solar tiering team

solartiering@bloomberg.net

Copyright

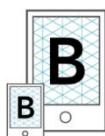
© Bloomberg Finance L.P. 2024. This publication is the copyright of Bloomberg Finance L.P. in connection with BloombergNEF. No portion of this document may be photocopied, reproduced, scanned into an electronic system or transmitted, forwarded or distributed in any way without prior consent of BloombergNEF.

Disclaimer

The BloombergNEF ("BNEF"), service/information is derived from selected public sources. Bloomberg Finance L.P. and its affiliates, in providing the service/information, believe that the information it uses comes from reliable sources, but do not guarantee the accuracy or completeness of this information, which is subject to change without notice, and nothing in this document shall be construed as such a guarantee. The statements in this service/document reflect the current judgment of the authors of the relevant articles or features, and do not necessarily reflect the opinion of Bloomberg Finance L.P., Bloomberg L.P. or any of their affiliates ("Bloomberg"). Bloomberg disclaims any liability arising from use of this document, its contents and/or this service. Nothing herein shall constitute or be construed as an offering of financial instruments or as investment advice or recommendations by Bloomberg of an investment or other strategy (e.g., whether or not to "buy", "sell", or "hold" an investment). The information available through this service is not based on consideration of a subscriber's individual circumstances and should not be considered as information sufficient upon which to base an investment decision. You should determine on your own whether you agree with the content. This service should not be construed as tax or accounting advice or as a service designed to facilitate any subscriber's compliance with its tax, accounting or other legal obligations. Employees involved in this service may hold positions in the companies mentioned in the services/information.

The data included in these materials are for illustrative purposes only. The BLOOMBERG TERMINAL service and Bloomberg data products (the "Services") are owned and distributed by Bloomberg Finance L.P. ("BFLP") except (i) in Argentina, Australia and certain jurisdictions in the Pacific islands, Bermuda, China, India, Japan, Korea and New Zealand, where Bloomberg L.P. and its subsidiaries ("BLP") distribute these products, and (ii) in Singapore and the jurisdictions serviced by Bloomberg's Singapore office, where a subsidiary of BFLP distributes these products. BLP provides BFLP and its subsidiaries with global marketing and operational support and service. Certain features, functions, products and services are available only to sophisticated investors and only where permitted. BFLP, BLP and their affiliates do not guarantee the accuracy of prices or other information in the Services. Nothing in the Services shall constitute or be construed as an offering of financial instruments by BFLP, BLP or their affiliates, or as investment advice or recommendations by BFLP, BLP or their affiliates of an investment strategy or whether or not to "buy", "sell" or "hold" an investment. Information available via the Services should not be considered as information sufficient upon which to base an investment decision. The following are trademarks and service marks of BFLP, a Delaware limited partnership, or its subsidiaries: BLOOMBERG, BLOOMBERG ANYWHERE, BLOOMBERG MARKETS, BLOOMBERG NEWS, BLOOMBERG PROFESSIONAL, BLOOMBERG TERMINAL and BLOOMBERG.COM. Absence of any trademark or service mark from this list does not waive Bloomberg's intellectual property rights in that name, mark or logo. All rights reserved. © 2024 Bloomberg.

Get the app



On iOS + Android
about.bnef.com/mobile