

Contents

- 1. Why divide the PV market into tiers? 1
- 2. Definitions 1
- 3. Tier 1 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 PV Module Tier 1 List Methodology

BloombergNEF has developed a tiering system for PV module makers based on bankability, to create a transparent differentiation between the hundreds of manufacturers of solar modules on the market. Since this basic categorisation 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 **Edif ERA (formerly OST Energy), ATA Renewables, Sgurr Energy, DNV GL, Black & Veatch, TUV, E3, STS Certified, Clean Energy Associates, Solarbuyer, Pvbuyer, Enertis, Oravia, Leidos Engineering or Phoventus**. These would usually consider what factory the module comes from, as well as the brand, 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 – 26,300 photovoltaic financings worldwide as of December 2018.

We reserve the right to change these criteria at any time - particularly by requiring more information to consider a manufacturer tier 1. These tiers will be reviewed every quarter based on information added to BloombergNEF's database. Only project financings for over 1.5MW of capacity are included in the database. 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. Tier 1

Tier 1 module manufacturers are those which have provided own-brand, own-manufacture products to **six** different projects, which have been financed non-recourse by **six** different (non-development) banks, in the past two years.

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.

These 1.5MW+ deals must be tracked by our database, ie the project location (sufficiently to identify the project uniquely), capacity, developer, bank and module maker must be in the public domain. One exception is manufacturers which have filed for bankruptcy or a form of insolvency protection, or experienced a major default on bond payments; these are removed from the tier 1 list until further notice.

From February 2017, we will require additional evidence from a developer or bank that a deal in China, India or Turkey is non-recourse, in order to include it in our database. This is because non-recourse financing is rare in these markets, and a bank may not require technical due diligence on modules if the financing is not secured on the project. Essentially, 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. Lease financing may be considered non-recourse. We reserve the right to reject deals because there is no public evidence that they exist.

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 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.

A list of module makers in each tier is available to BloombergNEF's Solar Insight subscribers as part of the quarterly BloombergNEF PV Market Outlook. Note that a tier 1 categorisation 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 - project size, location, developer name, bank which provided financing, type of financing, construction and financing dates. This information will be published by BloombergNEF in its subscription database.

We strongly prefer information in the form of a formal document with company branding, which can be cited as a source in the case of a data dispute.

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 40 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.

Please do not send us confidential information for tiering purposes (unless requested, eg to clarify that a deal is actually non-recourse – then we will keep it confidential!)

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 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. Appeals

The Bloomberg Solar Insight team's ruling on tiering for each quarter is final and will not be influenced by taking an Insight 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 and a Korean translation are available on request.

About us

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- Bloomberg Terminal: press [<Help>](#) key twice
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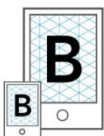
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