RENEWABLE ENERGY FINANCE

SOVEREIGN GUARANTEES
Renewable energy projects in fast-growing markets are often constrained by real or perceived investment risks.
Less than two decades remain for countries around the world to make drastic cuts in carbon-dioxide emissions. This is necessary to realise the goals of the Paris Agreement, which calls for limiting the increase in average global temperature to well below 2 degrees Celsius (°C) and ideally within 1.5 °C above pre-industrial levels. The International Renewable Energy Agency (IRENA) has estimated the total energy investments needed to fulfil the Paris Agreement amount to USD 110 trillion by 2050, or USD 3.2 trillion per year (IRENA, 2019a).

Sovereign guarantees – long seen as essential to make renewables bankable – are increasingly hard to obtain. Yet lesser-known risk mitigation instruments offer viable alternatives.

While public funds could be used in a more efficient manner, they will not be be enough to meet climate goals.

The need for the private sector to invest more is widely recognised. Moreover, the necessary private this capital is available in principle.

Still, it is not coming through. Why not?

The private sector follows its own logic and mechanisms, which are not always easy to understand.

Through these finance briefs IRENA tries to explain in simple terms and in a limited space some of the key concepts, including obstacles that so far have prevented the capital inflow from the private sector, and the key instruments that can be used to attract private money into the renewable energy sector.

The present document on sovereign guarantees refers mainly to less-developed countries where investors either avoid investing, ask for higher risk premiums, or require additional safeguards that are not needed in more mature economies.

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1 The Paris Agreement, which was adopted by countries worldwide in 2015 and forms the basis for subsequent Nationally Determined Contributions (NDCs) to reduce the emissions of carbon-dioxide (CO₂) that are recognised as the primary contributor to global warming, aims to limit the rise in average global temperatures to “well below” 2°C and ideally 1.5°C in the present century, compared to pre-industrial levels.
As renewables have become a compelling investment proposition, global investments in new renewable power have grown from less than USD 50 billion per year in 2004 to around USD 300 billion per year in recent years (Frankfurt School-UNEP Centre/BNEF, 2019), exceeding investments in new fossil fuel power by a factor of three in 2018 (RENEW21, 2019).

While hydropower still accounts for the largest share of the total renewable power capacity (50% of the 2018 total), solar and wind power have accounted for the largest shares of both annual capacity installations and annual investments in recent years (IRENA, 2018). Solar photovoltaics (PV) and wind power accounted for 90% of total renewable power investments in 2018 (Frankfurt School-UNEP Centre/BNEF, 2019).

A forthcoming report from IRENA and the Climate Policy Initiative (CPI) further examines the breakdown of capital flows, first between private and public sources, and then by institution type.

Another defining trend of renewable energy investments has been a geographic shift towards emerging and developing markets, which have been attracting most of the renewable investments each year since 2015, accounting for 63% of 2018 renewable power investments (Figure 1). Besides China, which attracted 33% of total global renewable energy investments in 2018, other top emerging markets over the past decade include India, Brazil, Mexico, South Africa and Chile (Frankfurt School-UNEP Centre/BNEF, 2019). Nevertheless, many developing and emerging countries in Africa, the Middle East, South-East Asia and South-East Europe still have a largely untapped renewables investment potential.

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**Figure 1** Global renewable energy investment (excl. large hydropower), in USD billion, by region, 2004-2018

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Source: Frankfurt School-UNEP Centre/BNEF, 2019

Note: The figure shows investment in renewable power excluding end-use and large-scale hydropower (since data are from the BloombergNEF database, which does not include large-scale hydropower as “new energy”), which amounted to USD 273 billion, plus renewable energy investments through public markets, venture capital/private equity, and research and development. These investments together totalled USD 288 billion in 2018. Separately, large-scale hydropower investment in 2018 was around USD 16 billion, bringing the renewable energy power investment total to USD 289 billion and renewable energy investment (excluding end-use) to USD 304 billion.
In addition to the growing technological and geographical diversity, the renewable energy investment landscape is also witnessing a proliferation of new business models and investment vehicles, which can activate different investors and finance all stages of a renewable asset’s life. Examples include the rise of the green bond market, growing interest in corporate procurement of renewable power and new business models for small-scale renewables such as the pay-as-you-go model.

Despite generally positive investment trends, however, far more needs to be invested in renewables in order to meet sustainable development and climate goals and to realise the many benefits of the energy transformation.

IRENA has estimated that investment in the energy system that puts the world on the path to limit global temperature increase to below 1.5 degrees Celsius (the “Energy Transformation” path) would focus on renewables, energy efficiency and associated energy infrastructure, and needs to reach a cumulative USD 110 trillion for the 2016-2050 period.

Of this amount, around 20%, or USD 22.5 trillion, will be needed for new renewable power capacity generation alone in the 2016-2050 period (IRENA, 2019a). This implies an annual renewable power investment of around USD 662 billion, i.e., at least a doubling of annual renewable power investment compared to the current annual level.

_De-risking renewable energy assets and creating a bankable project pipeline are crucial to attract more capital_
Bringing a project to financial close requires all risks that the project bears to be allocated, mitigated or transferred in a way that makes all stakeholders comfortable. This is no less true for renewable energy projects.

Yet for projects in emerging countries, the main “residual” risks that few investors are able or willing to take are often related to the country itself. The buyer of the power may not be creditworthy, there is a risk that the legal and tax environment will change over time, or a new government may want to change the tariffs, among others. The “one size fits all” solution that most financial institutions asked for in the past to deal with country risks was a “sovereign guarantee”.

A sovereign guarantee is a government’s guarantee that an obligation will be satisfied if the primary obligor defaults. Usually sovereign guarantees relate to payment defaults, but they can cover all kinds of obligations and commitments.

In the renewable energy sector, sovereign guarantees are mostly used to attract investments in generation by independent power producers (IPPs), in countries that suffer from a negative risk perception. They can cover:

- Non-payment by the off-taker (insofar as it is a state-owned enterprise),
- Any other obligation of the utility as stated in the power purchase agreement (PPA),
- Unilateral changes in the tax treatment,
- The termination clauses,
- Currency inconvertibility and currency transfer restrictions.

These risks are deemed under the control of the government, and thus a commitment of the government seems to reflect a fair allocation of these risks. For example, there can be a risk that off-takers (i.e., public utilities) may not be creditworthy. In some countries, the central government is directly or indirectly responsible for setting retail prices for electricity and/or fuel (which may be subsidised) and for making infrastructure investments (the lack of which results in transmission losses of 20% on average in Africa, and up to 50% in some countries). In addition, in some countries government institutions do not pay for the electricity that they consume, and utilities’ staff may sometimes be underqualified due to political interference.

Sovereign guarantees are usually issued by the Ministry of Finance (or equivalent) and reviewed by the attorney general to ensure that the guarantee does not contradict any legislation. This process can significantly delay a project.

IPPs that intend to invest in a country, and (even more) their lenders and insurers, have thus “routinely” requested a sovereign guarantee. This way investors have recourse to the central government, a more “creditworthy” counterparty, in case investors face payment problems or other challenges and would like the government to be responsible.

In recent years, the sovereign guarantees have been more difficult to obtain, for several reasons:

- Disputes where the IPP invoked direct (or implicit) sovereign guarantees that were brought to arbitration and the IPP received an (at least partial) award. This has made governments more aware of the risk that comes when they issue a guarantee.
- In some countries, the off-taker (primary obligor) has to pay a significant amount to the Ministry of Finance in order to obtain the guarantee.
- Sovereign guarantees are (or can be) treated by the International Monetary Fund (IMF) as a contingent liability that may have to be added to the national debt in the assessment of the level of indebtedness of a country (as percentage of the GDP). This ratio in turn defines the capacity of a country to take on additional debt without losing potential IMF support.

Additional problems come as sovereign guarantees have lost their “cure all” status. Some countries do not have the means to honour the sovereign obligations or have demonstrated that Ministry of Finance commitments are not always respected. A sovereign obligation default can, in turn, trigger a host of negative secondary effects. This has to be seen in the context of PPAs, which are typically valid for 20 years and thus have to cross several election cycles that will trigger challenges on commitments made by previous governments.
CURRENT ALTERNATIVES TO SOVEREIGN GUARANTEES

1. Guarantees are replaced by “letters of comfort” and “letters of support”

The Ministry of Finance can still issue a document that does not have the same strength as a formal guarantee but that provides sufficient comfort to the stakeholders of the project. Some of these documents include strong commitments that can be legally enforced and are reviewed by the Attorney General, while others are more vague.

2. Use of the preferred creditor status of multilateral banks and insurers

Multilateral financial institutions that are majority owned by member countries and that have a development role include multilateral banks (e.g., the World Bank, the Asian Development Bank, the African Development Bank) and multilateral insurers (e.g., Multilateral Investment Guarantee Agency (MIGA), Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), African Trade Insurance Agency (ATI)).

To facilitate their mission and increase their impact, some of these institutions have received a “preferred creditor status” (PCS) from their member countries. This is a formal commitment made by a country that if there is a risk that the beneficiary of the PCS will suffer a loss that is directly or indirectly caused by the government, the government will take all measures to resolve the issue in good time; or, if that is not possible, the government has to compensate the beneficiary of the PCS for the loss.

This commitment can be given as a “blanket”, covering all transactions of the multilateral institution. Often, there is an agreement, either formal or informal agreement between the multilateral institution and the government. In such cases, whenever the multilateral makes new commitments (for example, gives a loan or insures an investment), it informs the government in advance, giving the government the chance to object.

This way:
• The government is assured that the multilateral will not support projects for transactions that are not part of the national priorities, and
• The multilateral has evidence, in case of subsequent losses, that the government was aware of (and supported) the deal.

3. Put and call option agreement (PCOA)

Specifically, for PPAs, some countries have sought for a replacement of the traditional termination clauses that explicitly describe the responsibility of the government. Termination clauses come into effect if the IPP, the off-taker or the government fail to honour their obligations under the PPA. The party that is not responsible for the breach of contract can then terminate the contract and ask for compensation for the loss. In the case of a breach of contract by the off-taker, usually the national utility that is owned by the government, then the government will have to pay the compensation. This is a contingent liability, and potentially it accrues to the national debt.

A PCOA replaces such a termination clause and transforms it into a commercial transaction. If the off-taker/ government fails to meet its obligation, the IPP that has been wronged has the right to sell the whole project (which is normally set up as a stand-alone company – a “special purpose vehicle” or SPV) at a price that is defined in the PPA. This way the government does not face debt, but enters a commercial deal. The reduction in perceived risk that is given to the IPP is the same as with a normal termination clause.

Sovereign guarantees are not always the best option available to mitigate risks
4. Bilateral treaties

Bilateral treaties are agreements between two governments where the parties promise that transactions made by a company from one country will not suffer from political risk events that are caused by the other government. Contrary to the system described under the PCS, the treaty covers all transactions and there is no notification to the government.

In practice, such a treaty is mostly used by the export credit agency (ECA) in the country of the investor, lender or supplier. ECAs insure the political risk of transactions that otherwise would be hard to insure. ECAs, which are typically government owned, will use their ties to the government and its embassies to resolve the problem.

In practice, bilateral treaties are mostly effective when the home country of the company has significant bargaining power and good relationships with the government that benefits from the investment, loan or supply.
ADB’s Pacific Renewable Energy Program

In 2019, the Asian Development Bank (ADB) initiated its Pacific Renewable Energy Program for the issue of guarantees and the provision of loans benefiting renewable energy projects in Pacific Island countries. The programme has an overall budget of USD 100 million. The programme aims to provide a financing structure to support the power payment obligations of power utilities where governments are unable to guarantee a utility’s offtake obligations under PPAs, due to fiscal constraints.

The programme envisages four areas of support:

1. A partial risk guarantee (PRG) covering standard political risk and breach of contract under the PPA, which includes coverage of failure by the utility to make a termination payment in the event of full default by the power utility, as set out in the PPA. Payment for breach of contract is made under the PRG upon arbitral award.

2. A direct loan provided to support a private sector IPP borrower; or, where the ADB cannot fund a loan in local currency, then an ADB partial credit guarantee benefiting one or more local lenders to the project may be made available to the IPP instead of a direct loan.

3. A letter of credit (LC) facility to cover short-term liquidity risk, to be drawable by the IPP in an amount covering payment due under the PPA for a specific period. The LC for each project will be in an amount covering up to 24 months of power payment from the utility. Where practical, the first three months of power payments in cash collateral for the LC will be obtained from the utility to take the first loss on the LC if it is called.

4. Technical assistance (TA) for transaction advisory support and a streamlined process to reduce the high transaction cost associated with relatively small transaction sizes, and to assist with capacity building in environmental and social safeguards.

Figure 2 Structure of the ADB’s Pacific Renewable Energy Program

Based on ADB, 2019a.
For a further example, see ADB’s April 2019 news release on financing for renewable power in the Pacific (ADB, 2019b).
1. Initiatives to improve the creditworthiness of the off-taker

In some countries, the fundamental problem is that the off-taker does not have a strong balance sheet for structural reasons. The logical solution is to improve the creditworthiness of the utility by recapitalising it, improving its management and operations, and ensuring that its revenues match its expenses and enable it to make investments in its infrastructure. This requires significant resources and a full commitment from the government. Several initiatives to achieve this exist in Africa, spearheaded by the World Bank, the African Development Bank and the Millennium Challenge Corporation.

2. Renovar

In this initiative of the Argentinian government, the payment obligations for all renewable energy PPAs are taken over by Renovar, a government institution, taking thus the risk away from the national utility. The payment obligations of Renovar are in turn guaranteed by MIGA, a part of the World Bank Group with an AAA rating. By removing the payment risk this way:

- The government effectively removes the credit risk;
- Transaction costs are reduced as all the IPPs are covered under one single contract between MIGA and Renovar.

This has helped the government of Argentina negotiate low feed-in tariffs.

3. The Regional Liquidity Support Facility (RLSF)

One of the major challenges for an IPP is to guarantee to its lender that even if the off-taker delays payment, the loan (principal plus interest) will still be repaid on time. The related risk is named “liquidity risk”.

Historically, liquidity risk has been managed in different ways:

- **Debt service reserve account (DSRA):** The SPV puts enough money aside specifically to repay the bank during a given period (usually 6 to 12 months) in case the IPP does not generate enough income. As this money cannot come from the loan, the shareholders have to fund the DSRA and that reduces significantly the return of equity (ROE), unless it is compensated by an increase in revenue, and thus the feed-in tariffs. This is the least-preferred option. For operating IPPs, the DSRA can also be funded by the project cash flows.

- **Stand-by letter of credit (LC):** The off-taker instructs a bank to issue a stand-by letter of credit (SBLC) that can be called if the off-taker does not pay in time (e.g., 15 days after the due date). The off-taker usually pays for the costs charged by the LC bank. Although this seems a reasonable mechanism, in practice the following problems make its implementation difficult:
  
  1. The bank that is proposed by the off-taker may not meet the rating criteria of the lender to the IPP. Usually this lender will request that the LC is issued by an **investment-grade** bank (BBB or better), and a local bank in a developing country may not have such a rating.
  2. The LC bank will ask the off-taker for collateral, and this collateral can be as high as 100% of the LC amount. Many off-takers either do not have that amount in cash to pledge, or they do not want to use it for this purpose.

- **Escrow account:** The off-taker puts money (the equivalent of the amount requested by the bank of the IPP) in a bank account that is jointly controlled by the off-taker and the IPP. This solution, however, encounters the same objections as the LC.
The RLSF is a joint initiative of the German development bank KfW and African Trade Insurance (ATI), a multilateral insurer of credit and political risks that is active in 15 African countries. The RLSF provides the collateral (part cash, part as an on-demand guarantee) to a bank that issues the SBLC. As a condition, the RLSF operator requests the Ministry of Finance, the Ministry of Energy and the off-taker to acknowledge that this LC benefits from the preferred creditor status of ATI, so that the recourse mechanisms can be activated at short notice in case an LC is called.

4. The Transparency Tool

This tool was developed as part of the RLSF. All the IPPs of a given country are invited to inform their invoices and their payment records to a web-based platform. The consolidated information is shared with all participating IPPs and with the off-taker. The tool also produces trendlines and other reports that make it possible to assess the experience of an IPP in comparison with other IPPs. The information can be made public from time to time. The objective is to demonstrate that, over time, the off-taker is a reliable payer and thus there is no need for a guarantee.

The Transparency Tool is not a direct alternative to government guarantees, but it can help to gradually reduce the perceived risk of non-payment by the off-taker. Thus, it can eventually help to avoid the need for a guarantee.

5. Partial Risk Guarantees (PRG)

PRGs are on-demand guarantees that are issued by investment-grade multilateral institutions such as the World Bank and the African Development Bank. They can be triggered in case an event that is described in the guarantee letter takes place. In most cases the institution that issues the guarantee requests a back-to-back guarantee from the government (Ministry of Finance).

This is a powerful instrument. In practice PRGs have rarely been called (if at all). Rather, the guarantor will use the back-to-back guarantee and its overall bargaining power (as governments need support from multilateral institutions on multiple fronts) to move towards a solution for the problem at hand.

6. Africa GreenCo

Africa GreenCo is a private initiative that develops an alternative to the off-taker risk in countries covered by the Southern African Power Pool (SAPP). Its objective is to become the official off-taker of renewable energy IPPs. As an official off-taker, it would have the right to sell the power to other participants in the SAPP if the national utility fails to pay. Its creditworthiness would be provided through a mix of strong capitalisation and guarantees issued by investment-grade institutions. In such case, the non-payment becomes a commercial rather than a political risk for the IPP.

This project is not active yet, as its implementation requires the formal approval of many stakeholders and changes in multiple contracts. However, the approach is interesting and could be replicated in other parts of the world if successful.

7. Push for PPAs in local currency

In many developing countries, the IPPs want to be paid in hard currency (usually US dollars or euro), since their source of funds and their capital expenditure (“CAPEX”) are usually denominated in these currencies. On the other hand, the off-takers generate their revenue in domestic currency. The depreciation of the domestic currency can thus create a major problem for the off-taker and affect its ability to pay for the power that it purchases. If the PPA is expressed in hard currency but the actual payment is made in domestic currency, but at an agreed exchange rate, the supplier has the risk that it will not be able to make the conversion in the hard currency. The additional risk is that the IPP will not be able or allowed to transfer its hard currency to a bank account outside the country.

This scenario results in potential treasury problems for the off-taker, while at the same time the supplier encounters and must mitigate currency risks.

Recent attempts to resolve this situation include the proposal to issue PPAs in domestic currency. This way the off-taker resolves a major problem. This could be acceptable for shareholders and lenders that already operate in the country – for example, pension funds and insurance companies. Studies on this topic have not been conclusive.
RISK ASSESSMENT AND MITIGATION PLATFORM (RAMP)

RAMP is a database of providers of risk mitigation (insurers, guarantors, banks) that have products that can be an alternative to sovereign guarantees. The platform provides an overview of the geographical scope and the risks that each covers. It also gives details about the products, the eligibility criteria and the processes of all the companies that are hosted in the database. RAMP is available free of charge to all registered users of the IRENA project facilitation interface (ramp.irena.org).

IRENA AS KNOWLEDGE CENTRE

IRENA collects information on developments and initiatives that can help to make projects bankable by removing the credit and political risks. News and insights are shared with governments and the private sector alike. IRENA also develops tools and instruments that IPPs can use to help their projects achieve financial close. All the information is freely available through the project facilitation interface. IRENA analyses current and emerging renewable energy finance trends, including the rise of innovative financing instruments, risk mitigation instruments and business models, along with the progressive fulfilment of Nationally Determined Contributions (NDCs) under the Paris Agreement (IRENA, 2016, 2017, 2019b; IRENA and CPI, 2018 and forthcoming).

This Renewable Energy Finance brief forms part of a series that explains, in plain terms, the main barriers to investment in renewables along with the best available solutions. The series can be downloaded from IRENA’s website.

TRANSPARENT PROCUREMENT

IRENA has taken initiatives to improve the procurement of renewable energy projects and the allocation of the risks between the different parties.

For procurement, IRENA has developed a set of guidelines for the organisation of auctions (www.irena.org/policy/Renewable-Energy-Auctions).

Procurement of power projects through auctions can be more transparent than single sourcing or a feed-in tariff mechanism and can reduce the risk of challenges by future governments. IRENA has provided key analysis on auctions since 2012, supporting auction design, implementation and the sharing of best practices, as well as helping policymakers to stay abreast of the latest developments (IRENA 2013, 2015, 2018b, 2019c).

OPEN SOLAR CONTRACTS

For the allocation of risks, and in partnership with the Terawatt Initiative and with the support of 11 international law firms, IRENA has developed a comprehensive set of contractual documents that can be used as templates for the negotiations among the various stakeholders of a solar renewable energy project. These model documents provide a balanced allocation of risks and a “bankable” wording, thereby reducing the likelihood of disputes (https://opensolarcontracts.org/).

REGIONAL INVESTMENT FORUMS

IRENA organises regional investment forums that, among others, share insights on trends, developments and solutions that are relevant for investments in renewable energy. The design of such forums is based on the needs expressed by countries themselves. Investment forums can in turn be the starting point for national or regional technical assistance programmes.
REFERENCES


IRENA (2019a), Transforming the energy system – and holding the line on rising global temperatures, International Renewable Energy Agency, Abu Dhabi.


## GLOSSARY

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blanket (cover)</strong></td>
<td>A one insurance or guarantee instrument that covers multiple items or multiple risks.</td>
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<td><strong>Contingent liability</strong></td>
<td>A potential obligation or requirement to make a payment if an uncertain event (e.g., payment default by the electricity utility) occurs in the future. In the context of finance, it refers to the potential obligation to make a payment if an uncertain event occurs. For example, an insurance policy that covers a breach of contract.</td>
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<tr>
<td><strong>Escrow account</strong></td>
<td>An account where funds are held in trust while two or more parties complete a transaction. This means that a trusted third party (usually a bank) will hold the funds in a trust account. The funds will be disbursed to the beneficiary after the conditions that are set in an agreement between the parties have been met.</td>
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<tr>
<td><strong>Export credit agency (ECA)</strong></td>
<td>A financial institution that offers financing for domestic companies' international export operations and other activities. ECAs offer loans and insurance to such companies to help remove the risk of uncertainty of exporting to other countries. ECAs also underwrite the political risks and commercial risks of overseas investments.</td>
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<tr>
<td><strong>Feed-in tariff</strong></td>
<td>A long-term contractual pricing arrangement given to renewable energy producers, typically based on the cost of generation of each technology.</td>
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<td><strong>Financial close</strong></td>
<td>The stage in a financial agreement where the conditions of the financiers have been satisfied or waived and all the contractual documents have been signed, so that money can be released and thus construction can start.</td>
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<td><strong>Investment grade</strong></td>
<td>A rating that is given by a specialised rating agency that reflects a strong capacity to meet its financial commitments. Typically, it falls within the range of Aaa to Baa3 from Moody’s or AAA to BBB- for Standard &amp; Poor’s.</td>
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<td><strong>On-demand guarantee</strong></td>
<td>A guarantee that must be honoured by the guarantor when the beneficiary asks for it, without any prior justification.</td>
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<td><strong>Political risk (event)</strong></td>
<td>This concept covers different risks, mainly: expropriation, impossibility to convert money into another currency or to transfer hard currency to another country; terrorism and political violence; non-respect of contractual obligations by a government entity; embargo.</td>
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<tr>
<td><strong>Power purchase agreement (PPA)</strong></td>
<td>A long-term contract under which a business (public or private) agrees to purchase electricity directly from a renewable electricity generator at agreed conditions.</td>
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<tr>
<td><strong>Special purpose vehicle (SPV)</strong></td>
<td>A legal entity that is created to own and manage a project and to isolate the parent company from financial risk, including bankruptcy.</td>
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<tr>
<td><strong>Stand-by letter of credit (SBLC)</strong></td>
<td>A guarantee that is made by a bank on behalf of a client, which ensures that payment will be made even if their client cannot fulfil the payment.</td>
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Sovereign guarantees help to unlock capital for low-carbon investment. In their absence, other measures can also drive renewable energy uptake.
RENEWABLE ENERGY FINANCE

SOVEREIGN GUARANTEES

About IRENA

The International Renewable Energy Agency (IRENA) is an intergovernmental organisation that serves as the principal platform for international co-operation, a centre of excellence and a repository of policy, technology, resource and financial knowledge, and a driver of action on the ground to advance the transformation of the global energy system. IRENA promotes the widespread adoption and sustainable use of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy, in the pursuit of sustainable development, energy access, energy security and low-carbon economic growth and prosperity. www.irena.org

Other Renewable Energy Finance briefs:

- Institutional capital
- Green bonds

Other titles are to follow.