

# Risk mitigation considerations and the impact on the pricing of renewable energy projects

[www.ati-aca.org](http://www.ati-aca.org), <http://www.fs-unep-centre.org>



## Introduction

- With a history of underinvestment in the power sector, there is a need for the deployment of large amounts of capital in Africa. However, the limited financial viability and erratic track-record of the off-taker in many African countries is a fundamental concern for investors and poses a large risk.
- The role of Government in the power sector is key to ensure that the projects are economically viable and that they balance the needs of investors with those of the country.
- Whether a project can be realised depends on how and by whom the different risks are managed.

Due to historical underinvestment in the power sector, less than 35% of Africa's population has access to power. To address this imbalance, there is a need for a large amount of investment in the power sector, and most governments cannot do this by themselves. The private sector can assist governments and deploy capital as Independent Power Producers (IPPs), but they will only do this if they find the risks acceptable.

One of their major issues is the limited financial viability of utilities. There are many reasons for this, and they vary from country to country. For instance, in most cases, the tariffs at which the energy is sold are subsidised and do not reflect the real costs. The infrastructure is often obsolete and causes leakages. Government owned clients systematically don't pay their bills. There is illegal tapping from the transmission line.

The result of these challenges is that many utilities are in a precarious situation and do not pay their suppliers in line with the Power Purchase Agreements (PPAs) that they have signed, or they change the PPA conditions unilaterally. The management of a default under a PPA is a costly business for all parties as they often end in litigation or international arbitration.

If the defaults under PPAs occur with enough frequency or severity, new power projects become un-bankable. Even if there is a change in the management of the utility or in the government policy, the reputation will continue to haunt the country for a long time. The result is that many promising power projects never reach financial close.

Governments have a critical role to play in addressing this situation. The key is to find a balance between the interests of the country and the financial viability of a project for the investor. One of the options they have is to reduce some of the risks related to the off-taker, by offering guarantees or strong letters of comfort. However if the Government itself is perceived as one of the key risks they are not in the best position to address the concern of the investors – and the investors' banks.

The off-taker risk, the direct risk on Governments and the risk of loss due to political events can be covered through guarantee and insurance products. In the end, both the cost of removing part of the risks and the perception of the remaining risks will have an impact on the financing cost and on the return that the investors will expect. The lower the risk, the easier it is to accept a lower return, and in the end the cheaper the power will be for the off-taker.

The choice and the optimal combination of risk mitigation instruments is critical to the project's success. However, there is no silver bullet. It is very case-specific and will largely depend on how the investors and banks will assess a given project in a given country.

## Risks and smart risk allocation

- When projects are developed in new markets without a strong track record, the perceived or actual risks have a major impact on the financing costs, as investors expect a remuneration that is proportional to the risk.
- The main risks that impact a project throughout the IPP's lifetime are counterparty (off-taker), regulatory and political risks. While there are formulas to price country risk into a deal, there is no single methodology to price counterparty risk. The perception can be worse than the reality.
- As markets grow and establish a positive track record, the risks will be reduced and therefore the related financing costs will decrease.
- Multilateral institutions are in a strong position to manage these risks given their relationships and the leverage they have with utilities. They can reduce the overall costs of electricity generation.

Generally, smart allocation allows the most cost-efficient management of risks related to IPPs. The private sector is best able to manage, for instance, development and technology risks. Other risks, like political risk, can be more efficiently allocated to the public sector. There is another category of risks like Force Majeure or resource risk which can neither be managed by the public nor the private sector in an efficient manner. In other words, even if the private sector is willing and able to absorb the risks listed above, it would not be the most cost-efficient allocation and would ultimately increase generation costs unnecessarily.

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While projects face many risks throughout the project life cycle, the ones that occur post-financial close, when large amounts of capital have been deployed, have the biggest impact.

While some risks during the construction and operation of a project are more efficiently managed by the private sector, the ones that are outside the control of the project are the most significant.

- The off-taker may not meet his contractual obligations (counterparty risk)
- Changes in the regulations, taxes and other parts of the government policy can make the project less profitable (regulatory risk)
- The IPP can be confronted with nationalisation, expropriation, currency inconvertibility and transfer restrictions, war, civil war and social unrest (political risk)

Governments – usually the Ministry of Finance – can in principle, take care of the off-taker risk by issuing guarantees that move the risk from the utility to the national government, which is usually seen as more reliable and creditworthy. Governments are increasingly reluctant to do this however, and even when they do there remains a risk that the government guarantee will not be honoured. Regulatory risk too can only be (partially) mitigated through strong Government pledges. The political risk events can only be mitigated by a third party outside the country.

These risks exist over the projects' operating lifecycle. They can, to some extent, be insured in the private sector. In developing markets they are mostly insured by Export Credit Agencies (ECAs) and by multilateral institutions.

ECAs may support the exporters of their country against some of these risks as part of their national mandate. Multilateral banks can issue guarantees and multilateral insurers can offer insurance to cover part of these risks as well. Multilaterals have governments as shareholders and through a number of mechanisms they have direct contact with them. As a consequence they are in a better position to anticipate and resolve problems before they become acute conflicts. They have developed a number of products to mitigate these risks. Lenders and equity investors can receive cover for longer periods – up to 15 years – so that they are assured of the viability and profitability of their project.

An IPP project will try to control or minimise each of these risks. The expected return on equity and the cost of finance will reflect the amount and quality of risks that remain once all the mitigating factors have been put in place. For lenders, the off-taker risk will be key as it directly affects the capacity of the IPP to service the debt.

In practice, the stakeholders will compare the cost (and the quality) of the protection that is offered and the increase in yield / Internal Rate of Return that they would need to get the same comfort level. That in turn will be reflected in the feed-in tariff (usually expressed in \$c / kWh) that can justify the investment and the risk.

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## Impact of risk mitigation instruments

- For IPPs, the use of risk mitigation instruments is frequently a requirement of lenders. It can make the difference between a project reaching financial close or falling away.
- From the promoter's perspective, the use of risk mitigation will make it easier to find equity investors.
- IPPs that use risk mitigation will get better financing terms (lower interest rates, longer debt tenors etc.) which will have an impact on the feed-in tariff they request.
- A lower tariff, as a result of the IPP using risk mitigation, has a positive impact on the utility and how much they are required to pay under a PPA. It will also benefit the end consumer as the cost is generally passed through.
- A low tariff will make it easier for the utility to honour its commitments throughout the PPA duration.
- For Governments, a coherent and robust sector strategy is the best way to remove the perceived risks. For Governments with a poor or limited track record, the involvement of insurers such as ATI can add significant value and ultimately lower costs.

IPPs will ask for a higher risk margin in developing markets and / or with new technologies where there are many uncertainties. In some cases, political and credit risk cover will be an absolute precondition before the investors and lenders agree to step in.

As positive experience in the market increases, the risk margin will decrease over time with a reduction of the perceived high risk. In countries where the utility has no or a poor track record of reliability under PPAs and projects have ended up in litigation or arbitration, the use of risk mitigation instruments becomes essential to make a project bankable and at the same time affordable for the country in the long run.

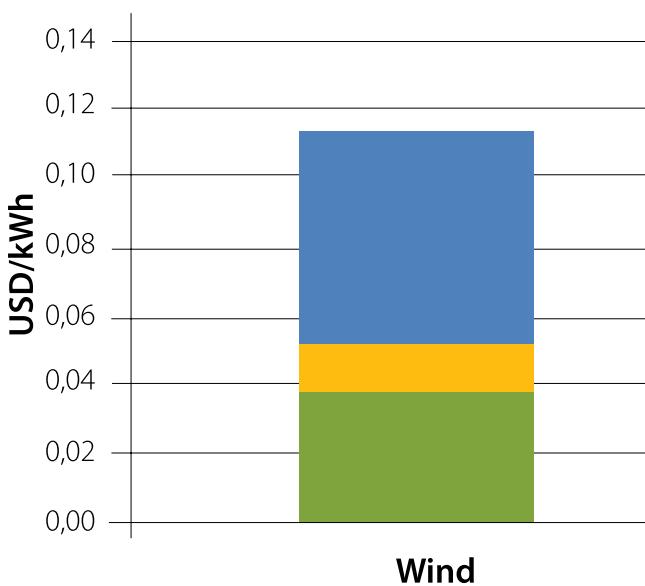
As the figures below show, the impact of higher financing costs on the Levelized Cost of Electricity (LCOE) and therefore the tariff due is significant. Risk mitigation instruments reduce the risk margin that investors and lenders have to ask for.

While risk mitigation instruments come at a cost, their benefits far outweigh their impacts on a project's cash flow. The main benefits of utilising risk mitigation instruments for projects can be fourfold:

1. A more attractive risk profile can attract a higher lender appetite thereby increasing the amount of debt in the overall capital structure of the project
2. Lenders will be more willing to extend the loan tenor of the project
3. The lower risk margin will reduce the overall interest rate
4. Equity investors should potentially reduce their equity return expectations

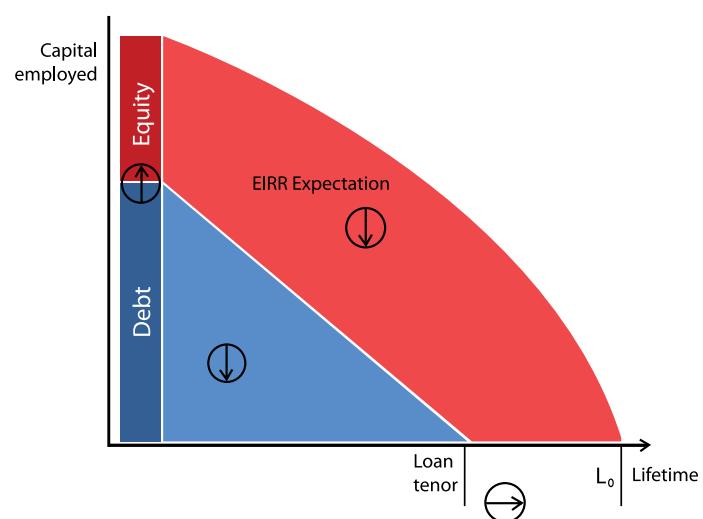
When the IPP can reduce the costs there is a positive impact on the mid-term tariff set by the utility and ultimately the consumer. In the medium term, this can create a virtuous circle, especially in an Emerging Market, as lower consumer tariffs are more sustainable, and reduce the probability of future disputes over the PPA. This stability generates a positive track record which in turn reduces the return expected by future investors.

**Figure 1: LCOE Breakdown**



Credit: FS-UNEP Collaborating Centre for Climate & Sustainable Energy Finance

**Figure 2: Exemplary LCOE Breakdown in a high interest and less mature financial market**



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## A win-win situation facilitated by ATI

- ATI was set up in 2001 by member countries to support the economic development and attract investment in its member countries by offering political and credit risk insurance. What has been successfully implemented by ATI in other sectors (where ATI has supported over US\$ 21.5 bn in transactions) can be replicated for the power sector.
- Given ATI's structure and experience, they can help governments to develop stronger relationships with the private sector, and support the least cost sector development strategies in the power sector.
- For small-to-medium scale IPPs, the transaction costs and length of time it takes to get insurance can be a burden. ATI understands the importance of these projects and is creating solutions to meet their needs as such projects will play a critical role in the future development of Africa's energy sector.

ATI's ownership structure (owned by member countries) places it in a strong position to manage risks faced by IPPs in member countries. The shareholding contract grants ATI direct leverage with the host governments through a Preferred Creditor Status, which is particularly crucial when it takes political risks. Given ATI's strong relationships with the respective governments, they are well placed to manage potential the risks before they become an actual claim.

ATI is well positioned to engage all parties in a transaction. It is in ATI's best interests to ensure the best outcome for all parties. By helping their clients to resolve payment defaults and breaches of contract they avoid the claim and thus protect the interests of their shareholders. IPPs in developing countries often require protection against credit and political risks (both offered by ATI).

The traditional insurers typically take a long time to finalise the cover, the cost can be prohibitively high and the amount of protection offered does not always meet the needs of an IPP. In the end the lack of cover can kill a deal.

ATI wants to insure small-to-medium scale projects, it can finalise the cover in less time and, in the end, reduces the transaction costs for IPPs. IPPs are then able to sell power at a lower tariff under the PPA. This way ATI also shows its added value to the government and will be an effective mediator if needed.

### Learn More

To learn more, please visit our website at [www.ati-aca.org](http://www.ati-aca.org). We invite you to call and speak to our ATI underwriting experts today:

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## Risk mitigation instruments offered by ATI

The main insurance products that ATI can potentially offer for IPPs are as follows:

### For equity investors:

- Confiscation and related risks
- Physical asset protection against the risks of war, terrorism and political violence
- Non-honouring of an arbitration award in favour of the project (Arbitration Award Default)
- Breach of contract insurance (covering non-honouring of the PPA and other essential contracts)

### For lenders to projects:

- Comprehensive non-payment insurance
- Non-honouring of an arbitration award in favour of the project (Arbitration Award Default)
- Breach of contract insurance (covering non-honouring of the PPA and other essential contracts)

### For utilities and governments:

- ATI works with international partners such as the Frankfurt School and, through these partners, it is able to provide advice on best practice with regards to PPA wording and the tariffs. It is in ATI's interest to support projects that have a sustainable and medium-term viability.

## Products

ATI is also developing products in conjunction with other multilaterals and ECAs that would cover the immediate liquidity needs of a project in the event of a default by the off-taker under the PPA.

ATI's underwriting team will assess the coverage terms and conditions that they are able to offer on a case-by-case basis.