Abstract

The 2016 renewable energy tender in Argentina is placed in a disruptive macro-economic environment. After many years of market intervention and scarce investment in new energy capacity on the one hand, and isolation of the country from international financial markets on the other, the new authorities face multiple challenges in their quest to deploy new capacity.

In order to achieve the target of the renewable energy law 27.191 from October 2015, to generate between 8% and eventually 20% of the energy consumption from renewable sources, the government launches the public tender for renewable energy PPA RenovAr in July 2016.

A strong pipeline of renewable energy projects promises a quick deployment of new capacity with high capacity factors and competitive capex and opex; particularly wind projects will represent 60% of the overall capacity. Local and foreign investors consolidate their confidence in the Argentinian market and specifically in the energy sector.

The investors prepare their technical and economical bids based on a solid yield estimate and thorough cost analysis, in a context of high capacity factors and relatively straightforward capex and opex budgeting on the one hand and a complex fiscal incentive structure and challenging definition of cost of capital on the other.

Estimate of cost of debt

Our research analyzes the cost of energy using a financial model adjusted to the conditions of the RenovAr tender. The cost of capital is the most important unknown in the equation. The new government has started defining conditions which aim at attracting international investors, e.g. solving long term debt with holdout bond holders from Argentina’s 2005 debt restructuring.

The successful issuing in April 2016 of new long term debt at 7.5% proves that the country has effectively returned to international debt markets. The mid-term target of the government is 2.6% below that figure. We have assumed in our economic project evaluation a cost of debt of the 10 years yield, plus a project spread of 100 bps.

Results

The following analysis illustrates the cost of energy of a wind energy project with capex=1,800 kUSD/MW, opex=60 kUSD/MW/yr and a capacity factor of 50%, for different discount rates. The equivalent tariff is the value that the Bidder can offer in order to obtain the same NPV from retribution as if he offered the cost of energy without the incentive factors.

<table>
<thead>
<tr>
<th>Discount rate</th>
<th>Cost of Energy USD/MWh</th>
<th>Equivalent tariff USD/MWh</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>62.0</td>
<td>68.7</td>
<td>7.4</td>
</tr>
<tr>
<td>12%</td>
<td>57.4</td>
<td>63.1</td>
<td>5.7</td>
</tr>
<tr>
<td>15%</td>
<td>-7.3%</td>
<td>-8.1%</td>
<td>-9.2%</td>
</tr>
</tbody>
</table>

A Bidder with a higher cost of capital will of course offer a higher price than a Bidder with a lower cost of capital - given all other project conditions equal - but the impact of the incentive formula on a reduction of the offered price for a project with the same cost of energy is higher.

We have analyzed the different cost contributors capex, capacity factor and interest rate to the cost of energy, using reasonable assumptions for the base case project variables and computing for each of the variables a variation of 10% from the base case. In the base case scenario, the equity return was 15% with a PPA retribution of 70 USD/MWh. When applying a variation of 10% to either of the analyzed variables, the equity return was between 11.8% and 14.5%

Conclusions

The Bidder’s cost of capital is decisive for the competitiveness of a bid in the public tender RenovAr in Argentina. However, our research shows a relatively low sensitivity of the interest rate of debt on the equity return.

The incentive factors defined in the RenovAr tender allow the Bidder to offer a tariff below the cost of energy. The potential to reduce the offered tariff increases with higher discount rates.

References

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