Larger projects, fewer players:

Is South Africa's solar programme becoming a victim of its own success?

Source: Scatec Solar.

Competitive bidding | Now into its fourth round, South Africa's national renewable energy programme has successfully driven down the price of solar energy. But there are growing concerns that this has been at the expense of fostering a diverse local market, writes Tom Jackson

In April, the South African Department of Energy (DoE) finally announced the selection of six PV projects under the fourth round of its flagship Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). Yet, as prices continue to fall and projects get bigger, there are concerns smaller developers are being shut out of the process.

According to DoE figures the pricing of solar under the REIPPPP has been on a downward trajectory since the first round in 2011. Back then, according to the Department of Energy, solar PV-generated electricity cost ZAR3,288 (US$273) per MWh. This fell 40% in round two to ZAR1,961/MWh, 46% in round three to ZAR1,050 and 25% in round four to ZAR786, an overall price fall of 76%. Prices could yet fall by another 19% in the next round.

The Department of Energy attributes the fall in prices simply to competition. "The REIPPP programme is a rolling window and it attracts continued market interest which induces increased competitive pressure amongst bidders to offer reduced pricing," the department says.

Yet this is only part of the story. Dirk De Vos, chief executive officer (CEO) of QED Solutions, a consulting firm that has advised a number of REIPPPP participants, believes there are two sides to the falling prices.

"I think it is a positive thing, but not as positive as everyone says it is," he says. "The world is looking for yield, so it is less attractive from that point of view. It has pushed the returns right down. But the competition has been good."

Competition has certainly increased. The Department of Energy calls the growth "dramatic", and the figures concur. Whereas REIPPPP round one was 65% oversubscribed, this grew to 306% in round two and a huge 733% in round four.

Some believe this increase in competition can only be a good thing. Former shadow minister of energy Lance Greyling says overall the costs of using solar have come down in South Africa, meaning households and businesses wishing to pursue embedded generation options can now afford to do so.

"In fact in a municipal context, many office blocks are now finding it cheaper to source their electricity from PV than to buy it from the municipality," he says.

But there has been another effect of the fall in prices and the corresponding growth in size of the projects. Five of the six projects selected in round four are 75MW (see table); only three developers feature on the list, and of these two are international firms. Smaller – and primarily local – developers are being shut out of the process.

"As the average size of projects has increased, naturally the number of preferred bidders has dropped. This has also meant that only the participants with strong balance sheets have reached the preferred bidder stage in rounds three and four," says Moeketsi Thobela, chief executive of the South African Photovoltaic Industry Association (SAPVIA).

"Smaller projects cannot compete on the same basis as larger ones. The outcomes are therefore not favourable for investors and project developers that have put forward projects with capacity that is lower than 60MW."

Thobela says though the effect of the REIPPPP in boosting the competitiveness of the PV sector in South Africa is welcomed, it does matter that smaller firms have been left out as the mid-scale market is not sufficiently de-risked.

The Department of Energy admits there has been a drop in the average percentage of local equity participation in the projects since round one, but argues all project companies are required to have a minimum of 40% South African shareholding. Greyling supports these localisation requirements, saying they have ensured big international players partner with local manufacturers. But De Vos believes round two, when companies began to finance projects through their balance sheets, signalled the end of local developer participation, leaving them simply as "glorified estate agents" for bigger firms.

"They funded the whole project themselves. They were able to avoid the whole process of due diligence that local banks require, so their cost of bidding was lower. They could put a lot more in," he says of the large foreign firms that now dominate.

But does it matter if local players are left out of the process, if projects are being completed and the price of solar power is lowering for individuals and businesses? Not in theory, says De Vos, but it does leave South Africa in a potentially risky situation if interest rates were to rise or South Africa were to be downgraded.

"Success is a question of people looking for yield, but if South Africa gets downgraded, a lot of these things will become problematic, and a lot of these guys are going to leave," he says, adding that this would be a scenario where the lack of local capacity would hurt the country.

Thobela is also concerned about the financial viability of projects given the declining prices, even if the sector has been rendered more competitive. "It's not good to the extent that it affects financial viability, and increases the risk that projects may not reach financial close," he says.

Project name	Size (AC)	Lead developer
Sirius Solar PV Project One	75MW	Scatec Solar
Droogfontein 2 Solar	75MW	SunEdison
Dyason's Klip 1	75MW	Scatec Solar
Dyason's Klip 2	75MW	Scatec Solar
Konkoonsies II Solar Facility	75MW	BioTherm Energy
Aggeneys Solar Project	40MW	BioTherm Energy

Winning projects in round four of the REIPPPP.
Source: South African Department of Energy.

"Furthermore, the increase in average project size points to the existence of a gap in the range 5-50 MW, where ready projects are not able to proceed because there is no suitable programme that can accommodate their cost structure."

De Vos says there is another issue, in that the rules allow bidding companies to "game" the system, quite legally. Though energy minister Tina Joemat-Pettersson has said she expects successful bidders to begin commissioning in November next year, precedent suggests this is unlikely, given there was a gap of more than a year between the announcement of the successful bids in round three and those projects reaching financial close, never mind the commissioning stage.

The delays last time were around grid connection constraints, and De Vos does not believe anything is likely to change this time round. With the winning solar PV projects based in the Northern Cape – where the best solar conditions are – he says most of them can only be connected when this part of the grid is strengthened by Eskom, something that is unlikely to happen before 2018. Therefore, companies are in theory able to lock in the 2015 tariff and "sit on their hands while panel prices continue to fall". Delivering as late as 2019 has become a perfectly legal financial option.

"I don't think that is optimum at all," he says. "I'm not saying it is illegal, but it is gaming the system. If they had to deliver it in the next 18 months, would they have bid the same price?"

De Vos says these delivery delays are hurting the renewable energy sector in South Africa, and denying the country electricity it desperately needs given the shortcomings of the grid.

"South Africa is short of generating capacity. When you are short, if there was solar, it would be great. We would avoid having this load-shedding. We need electricity," he says.

"You can say what you like about solar, but it is the quickest of anything else in terms of bringing a project to completion. You can build a power plant in 18 months. That's the value of renewables. It builds capacity, it is clean. But then we have projects that can't even start for three years. It is so bad for renewables."

De Vos also highlights financial wastage in the bidding process, though he notes with all these concerns that the rules have been and will be further amended as the programme goes on.

"What we saw from round two on, particularly round three, was round three had 93 compliant bids. If each bid costs ZAR15-20 million, to the point where you are bidding, and you've got 17 that won it, you've got a one in five chance. All the way down to 50 are very good projects, they just didn't make it in the end," he says.

"You've got all these great projects that didn't make the cut. That's a pity. I think it's quite wasteful in a way. Nobody thinks about how much money is getting lost. I don't think it is being managed as well as it could have been."

Suggestions of revolutionary alternative programmes are few and far between, but most agree tweaks are necessary. De Vos has called for the rules to be changed to allow for only projects that can begin immediately to be considered.

"After round four, you can't say you can build it when Eskom strengthens the grid. When you get the thing, you start building," he says.

For smaller developers, there are possibilities in the programme amendments advanced by Thobela. He calls for the process to be changed to allow smaller developers to participate more than they have in rounds three and four, most likely in projects within the underserved sub-50MW range.

Joemat-Pettersson has already said the bidding process will be redesigned in time for the fifth round next year to allow for various issues, while it will issue a "request for further proposals" from previously unsuccessful bidders in advance. Just how substantial these changes will be, and whether or not smaller and local companies will benefit, remains to be seen. ■

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