

# Mind the MLFs – a warning for Australian renewables

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The release this month by of the Australian Energy Market Operator (AEMO) of its Draft Marginal Loss Factors (MLFs) for FY 2019/20 forewarns that many renewables projects could face revenues rather lower than their models. The MLFs are for projects in operations or approaching it, and market feedback is that in many cases the magnitude of MLF reductions has been a surprise.

The renewables developers that have been the intrepid first movers in Australia's energy transition have found themselves exposed as the masses rush in.

Alexander Austin, CEO and founder of debt fund manager Infradebt, says, "While most projects obtain MLF forecasts prior to construction – the usefulness of these forecasts is pretty low."

The draft curtailment figures for the National Electricity Market (NEM) are looking materially lower than in FY2018/19 especially for wind and solar assets in certain parts of New South Wales and Victoria. The largest decline in MLF is -25.9% for, the unfortunately named, Broken Hill Solar Farm in NSW. For solar, the average change in MLF across all four states in the NEM is a -5.54% decline. For wind the average decline is -2.13%.

As one renewable energy advisory banker tells *IJGlobal*, "Assumptions have probably not been conservative enough. Assumptions are usually close to 100%, so projects are mostly exposed to downside risk."

Austin would argue the impacts could be very material: "Typical fully contracted projects have debt sized based on target debt service coverage ratios (DSCRs) of 1.25-1.35x and debt covenants at 1.1-1.15x. This usually provides a 15-20% buffer between expected revenues and debt covenants. Clearly some of these changes are big enough to potentially tip projects into default/lockup."

## Some surprise

The draft figures for FY 2019/2020 are more salient than in previous years, as each year ever more renewables projects are online.

The AEMO summarised in its draft figures on 8 March 2019: "The key driver for these changes is a large increase in generation connections to the NEM, particularly in Victoria, New South Wales and Queensland. The modelling for the 2019-20 MLFs includes 47 new connections providing approx. 5,600 MW of new capacity."

The MLF is a measure of marginal transmission losses for a generator on the NEM. The MLF directly impacts a generating asset's revenues, which are equal to the MLF multiplied by the regional reference price (RRP) multiplied by output (measured at the plant gate before transmission losses).

MLFs can change rapidly as new generation comes online in particular locations. First movers to an underserved area can see their initially attractive MLF (often above 1) decline sharply as that region's generation exceeds local usage and transmission losses kick in for exporting the energy further to the load centres - such as cities and towns.

According to Austin, MLFs typically have been between 0.95 and 1.05, where at 0.98 MLF the generator would receive 98% of the state pool price per MWh for each MWh generated.

Projects in development stages coming up may well be queued up to compound the problem in later years, if they are situated in the areas where generation assets are proliferating faster than local demand growth.

The costs of electricity transmission are shared between generators and electricity consumers in Australia, as the users have their demand scaled up or down by the MLF at the local substation. But it is generators baulking at the latest figures.

And even projects that are fully contracted are affected by the MLF changes.

In most cases MLF risk sits with the project, and its revenues as a result, not with the offtaker. Austin says: "Most power purchasing agreements are drafted as contracts for difference, where the offtake counterparty pays the difference between a fixed price and the regional reference price (or pool price) and the project is assumed to earn the RRP in the spot market for its own generation."

### Heaviest hits

The final report is due to be published on 1 April 2019.

But based on the draft, the top five most heavily impacted solar projects are:

- [Broken Hill Solar Plant](#) (-25.9%)
- [Karadoc Solar Farm](#) (-17.38%)
- [Bannerton Solar Farm](#) (-13.46%)
- [Wemen Solar Plant](#) (-13.46%)
- Griffith Solar Plant (-13.13%)

Meanwhile for the wind sector:

- [Silverton Wind Farm](#) (-20.59%)
- [Kiata Wind Farm](#) (-13.12%)
- [Challicum Hills Wind Farm](#) (-10.48%)
- [Ararat Wind Farm](#) (-8.87%)
- [Crowlands Wind Farm](#) (-8.12%)

Some assets have seen their MLFs rise, modestly, for example [Sapphire Wind Farm](#) and [Taralga Wind Farm](#).

The most detrimentally impacted renewables assets are in remote areas particularly solar projects in Western and South Western NSW, North Queensland and North West Victoria, according to Herbert Smith Freehills partner and head of infrastructure in Australia David Ryan. "There has been less impact elsewhere, but some of these "lucky ones" were materially impacted by last year's MLF re-set."

### Wider questions

The reality for projects could be serious. A renewables advisory banker said that those projects with a tightly wound financing are most at risk, or projects with challenges in other respects.

Those wishing to dispute the draft MLF figures ahead of 1 April 2019 have to challenge the AEMO's calculations.

Ryan says: “Actions of AEMO in determining MLFs are potentially subject to challenge under the disputes provisions of Chapter 8 of the National Electricity Rules. However, this will not assist participants where AEMO has correctly applied the relevant MLF methodology.”

Investment into transmission infrastructure enhancement and expansions would offset against potential ongoing downward revisions of MLFs in the geographical areas where the trajectory looks tricky. But of course the question is who should, and would, bear that cost and how?

While the MLF re-sets are an annual reality, many investors have been surprised by the magnitude of the changes. The industry is likely to seek to avoid any more surprises, with greater consideration of the risk of future MLF changes for projects.

Ryan points out: “It also brings into focus the need for investors to look at sharing MLF risks with project offtakers where possible.”

Austin suggests: “One policy idea out there is a for renewable energy zones, where strong transmission networks are constructed to areas with attractive wind/solar resources, and where generators who connect to that part of the network would be guaranteed a MLF floor. This would remove a key risk for generators – which is a positive – but it is important to remember the other side of this for consumers. Putting a floor on MLFs would inevitably shift the burden of transmission losses onto power users.”

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