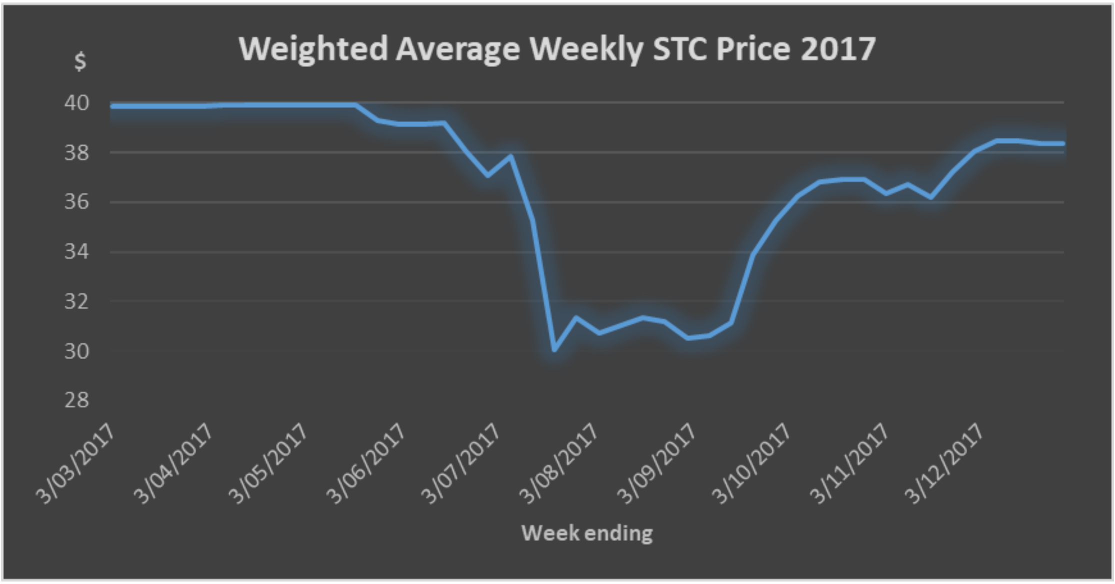
2018 Environmental Certificate Outlook

This report provides a forecast of certificate price movements in the four major markets – STCs, LGCs, ESCs and VEECs - for 2018. This advice is general in nature and does not take into account the specific needs of your business. Businesses should not rely on this information as investment advice and should undertake their own analysis prior to making critical business decisions.

Small Technology Certificates



Looking backwards, 2017 saw a marked increase in the creation of STCs from rooftop solar systems. In the words of the Clean Energy Regulator, growth in solar installations was "exponential".

Whereas the Small Technology Percentage (STP) for 2017 forecast the creation of approximately 15 million STCs, actual creation will be in the order of 20 million. Thus, there will be a surplus carried forward of approximately 5 million certificates from 2017.

Creation numbers in January this year suggest a run rate of around 500,000 STCs will be created per week, although it is too early to tell if this trend will continue. The key question will be whether the reduction in customer rebate at December 31 provided a short-term sugar hit to the industry, or whether there is a bigger structural growth in solar installations. Most likely both factors are at play.

Anecdotal discussions with solar installers suggest business is continuing to boom and 2018 installations will top that achieved in 2017 – potentially up to 2GW of installed rooftop solar.

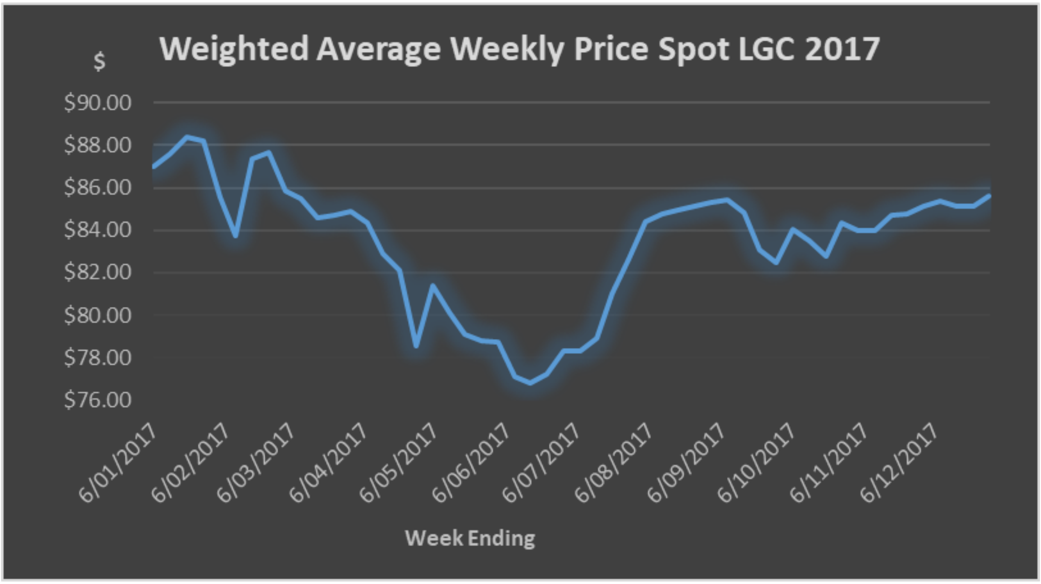
Assuming a 500,000 per week run rate, plus the 2017 surplus would give a 2018 STP surrender target of 31 million certificates, more than double that for 2017, and an additional impost of approximately $800 million on embattled electricity consumers.

The STP must be announced by the Government by the end of March 2018. A number below 30 million would be seen by the market as leading to a continuation of surplus conditions and rule out the Clearing House coming into play. In this event selling in the brokered market should see the price drop to the mid to low $30's as installers seek to cash in their certificates. Some participants may elect to wait in the Clearing House but there would be no guarantee that the CER numbers for 2019 would result in a shortage. A number under 25 million could see prices drop into the $20's if the current creation numbers continue.

Facing this substantial rise in the cost of the scheme there is an outside chance that the Government could reduce the Clearing House price for 2018 – a move which does not require a vote in the Parliament. While it is unlikely given how close we are to April 1 (the date they must announce such a change by for it to have effect this year), a move to adjust the price for future years could still have a significant impact on prices.

Recommendation: in Demand Manager's opinion, current spot ($38.70) and forward ($39) prices do not reflect the potential risks associated with a lower than expected 2018 STP, a change to the Clearing House Price, nor continued exponential growth in installation rates. Considering the very low downside risk of locking in forward contracts ($1), we would recommend businesses exposed to STC price volatility should lock in forward contracts to insure against potentially large downward movements in price.

Large Generation Certificates



LGC creation in 2017 was just under 20.8 million and the number of certificates in the registry at the end of the year was approximately 31 million. The statuary surrender target for 2017 is 25 million with another 1.3 million required to meet Greenpower and voluntary surrender obligations. This will see a surplus of around 4.7 million carried over into 2018.

Demand Manager estimates that creation in 2018 will be around 25 million certificates as new generators start coming online. A surrender target of 28 million coupled with 1.3 million Greenpower etc. will see the surplus at the end of the year shrink to around 1 million certificates.

The CER has announced that there is sufficient generation capacity commissioned, pending construction and financed to meet the 2020 RET target and that the supply of certificates should remain in surplus until 2020. Barring any further announcements of major projects that will add to the supply of LGCs, it seems that they expect the supply and demand for certificates to remain balanced.

Outlook for LGC prices:

Calendar 2018 Current Price $87.50. There will be a surplus of approximately 4.7 million certificates at the end of 2018, depending on the commissioning schedules of new generation not slipping too much. In the face of this level of supply it is unlikely that the price will appreciate much more from here but the projected surplus is skinny enough that a major fall from here is also unlikely.

Calendar 2019 Current Price $80.20. We project the surplus of certificates at the end of 2019 to be smaller than in 2018 so we see potential for the price to advance closer to the 2018 level, especially as obligated retailers can take advantage of any major price differential by surrendering 90% of their 2018 target and carry the balance forward to 2019 without penalty.

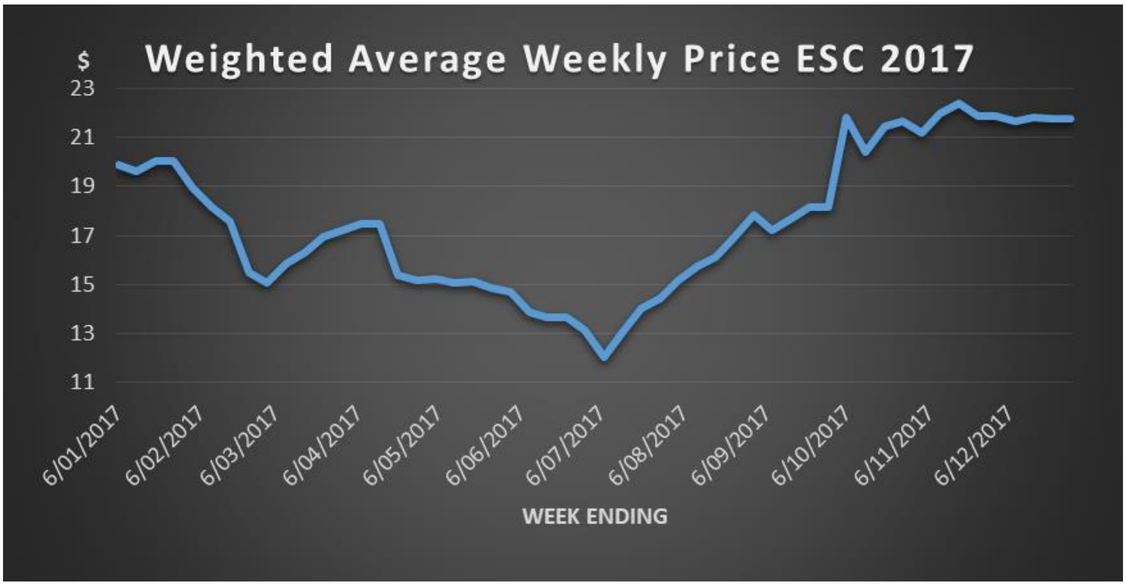
Any such behaviour would see the gap between the two contracts narrow considerably and could see the 2019 price go higher than 2018, as has happened with the 2017-2018 gap.

Calendar 2020 Current Price $56.00. As with the 2018-2019 trading gap, we forecast the spread between 2019 and 2020 will narrow as the year progresses. Retailers will need to buy certificates to hedge contracts with customers that increasingly will include 2020 and this demand will impact on the price. As we get closer to the end of the year and retailers look at their surrender obligations for 2018 and beyond, the potential to move some of their obligations to subsequent years will also see the spread to the 2018 and 2019 contracts narrow.

Calendar 2021 Current Price $48.50. Prices for 2021 and beyond will rely on announcements about further renewable generation projects. At the moment the CER is forecasting sufficient capacity to meet the target for 2020. If construction is constrained to this level then there will be no flood of new certificates into the market and the price should settle near the upper end of the price band. We see the Cal 20 price rise which should see Cal 21 rise along with it.

Recommendation: the current forward markets for Cal 18 and 19 appear fairly priced considering the finely balanced nature of newly committed generators versus the RET target of 33,000MWh. At present, Cal 20 and beyond appear under-priced – probably as a result of a lack of retailers looking to hedge customer contracts and policy uncertainty around the proposed NEG. The large discrepancy of prices for Cal 18 and 19 (in the $80's) versus Cal 20 and beyond (less than $60) cannot hold in the longer term, so any strategy which exploits this unnatural spread should be profitable.

Energy Saving Certificates



In 2017, ESC creation was approximately 4.7m (of which commercial lighting represented 3.4m or 73% of the total). Since the 2017 surrender target is 4.1m, approximately 0.6m ESCs will be added to the surplus. Thus, the surplus carried forward into 2018 will equal approximately 2.4m.

Considering the 2018 surrender target is approximately 4.35m, it would appear over half of the 2018 target is already met.

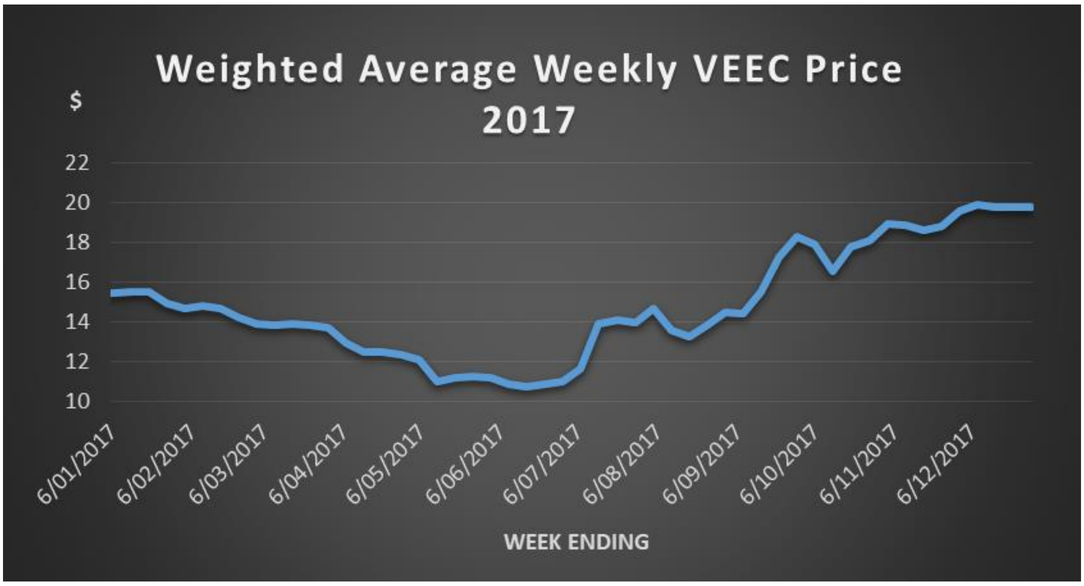
From July 2018 the number of ESCs from commercial lighting will be reduced due to a change in the allowed lifespan of the products installed. Based on historical project characteristics, we estimate that this would result in a reduction of approximately 26% on average across commercial lighting installations. Note this assumes no changes in the pattern of customer or technology type.

As commercial lighting represents circa 73% of the total ESC creation, and the changes only come into effect at the end of July, we estimate a reduction in ESC supply in 2018 of around 8% holding all other variables constant. This would give an expected creation figure for 2018 of approximately 4.3m – approximately equal to the target and thus not adding nor subtracting from the surplus.

However with a 2019 target of 4.6m and a full year's reduction in the supply of Commercial Lighting ESCs we should see 2019 creation dip below 4 million, taking a decent chunk out of the surplus.

Recommendation: we rate forward ESCs as a sell based on current prices in the $25 range considering a surplus of approximately 50% of the target will remain for at least for the next 12 months. In addition, typical seasonal demand from retailers looking to buy ESCs before their April reporting deadline may increase prices at this time of year.

Victorian Energy Efficiency Certificates



VEEC creation in 2017 totalled approximately 7.9m certificates with commercial lighting accounting for the bulk of creation (6.9m, or 87% of total). Considering the surrender target called for only 5.9m certificates, the surplus of VEECs increased dramatically in 2017 – lifting from around 3.3m to 5.3m as at the start of 2018. As the 2018 surrender target is around 6.1m VEECs, the surplus represents nearly 90% of the coming year's demand.

2018 sees a new creation method become available - the Project Based Assessment Method. Based on similar developments in NSW, we don't expect a significant VEECs from this method.

In a similar vein to NSW, Victoria is also reducing the supply of certificates from Commercial Lighting by introducing discount factors for various installation types. The reductions apply in two stages, starting in February with the second round in May. Based on real project calculations, we calculate the net effect of the changes will lead to a reduction in creation of around 22% for the year, or about 1.5m certificates.

Based on 2017 figures, this would see 2018 VEEC creation fall to around 6.4m, still more than the target of 6.1m and swelling the surplus further. Even allowing for an increase in the target in 2019 to 6.3m and a full year's application of the new Commercial Lighting formulae, we should see only a few hundred thousand certificates subtracted from the surplus that year.

For these reasons we see the VEEC price falling from present levels as this overhang of certificates persists. If high creation numbers persist through the year, we may well revisit the prices prevailing in the middle of last year around $11.00.

Recommendation: Demand Manager recommends retailers engaged in commercial lighting activities in Victoria secure forward contracts for the sale of VEECs into 2018 and 2019. The rapid increase in prices from low $ teens to mid $20's more than compensates for a 22% reduction in VEECs and commercial lighting should continue relatively unabated.