

Tariff Analysis

Here is some info on how Ergon is manipulating power prices with demand charges. Ergon has been trialing solar & batteries on their installations for 5 years that I know of and have it all worked out to their advantage. When you consider other states don't have demand charges but flat rates for consumption you have to ask what is going on? Here is how it works.

Solar in Nth. QLD has a factor of 4.2-5 for production. It is different in other areas it depends on the number of sunshine hours per day average over a year. Eg. A 100kW solar system will produce up to 500kwh per day. This size system is used on SMEs, schools, PCYCs etc with larger consumption, (Tariff 20 & 22 large.) Places that use less, up to 275Kwh per day are on tariff 20 business. (See the latest Ergon tariff prices showing 2016 & 2017 prices.)

Eg a Fish Farm we are dealing with at the moment has just received his bill showing half on his old tariff T44 and the other half on the new demand charge T44. The same consumption avg. \$12,000 per month will now cost an extra \$850 per month. On this bill he has been charged 65 times over his spike (65x\$43.84 = \$2,849.60) You have to take Ergon's word for this. demand measurement is taken in any 30 minute period over 24hrs daily during the customers bill cycle (month) etc... that is why it is hard to get rid of or identify when it happens unless you have live data feed... If you want to check on this you have to pay Ergon for interval data avg. \$300 per meter. T44 is up to 30kW spike & T45 120kW spike. Customers are charged when they exceed this limit at any time. This is the demand charge portion of the bill.

Next is the supply charge (whatever that is) T44 is \$54.63 & T45 is \$177.82 per day, this is slightly lower than last year but the kWh charge has risen from 13.5c-16.270c as you will see on the chart, **approx. 20% rise in usage charge, all up 7% rise on T44.** They give with one hand and take it back with the other.

A demand tariff delivers cheaper power, at one school, on T22L the solar would have saved avg. \$50K per year, they have been put on T45 saving \$4.5K but now the solar is not worth installing because it can't take away the very high demand & metering charges and they can't go back to their old tariff. \$45.5K per year is a big difference you will agree. **T20L & T22L will be phased out July 1 2020. What will happen to customers that have cost saving solar on these tariffs now when it becomes redundant?** Even now some businesses on T20 that are exceeding the 275kWh are being forced onto T44 demand. Solar will drop their usage and keep them on T20 but many business people are unaware of this fact, after July 1/20 it will be too late.

In a nutshell power is now being sold as if it was a phone plan, set fee per month whether you use it or not but with penalty rates guaranteeing set income for the provider with less options of saving with renewable energy sources. Ergon is being used by the government as a cash cow and are a law unto themselves by manipulating tariffs & wholesale prices thru their regulators, competition will not work because of these structures.

Rate Number	Tariff Description	Previous Reading 04/12/14	Current Reading 09/01/15	Supply Period	Tariff Description	Days	kWh	Cost per kWh (incl GST)	Cost	Rate (incl GST)
Electricity Charges										
D90603813	Tariff 22	939823	967630	04/12/14 to	7am - 9pm (Mon-Fri)		27807	40.902	\$1137.36	\$12510.98
N90603813	[Small &	389593	406591	09/01/15						
S90603813	Large]	186549	188638		Other Times		19087	14.403	\$274.91	\$3024.01
	General				Service fee	36			\$5.46	\$60.05
	Supply Time Of Use									
Total							46894		\$1217.73	\$15595.04

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Rate Number	Tariff Description	Previous Reading 04/08/14	Current Reading 04/01/15	Supply Period	Tariff Description	Days	kWh	Cost per kWh (incl GST)	Cost	Rate (incl GST)
Electricity Charges										
S90603813	Tariff 45	207269	209477	06/08/14 to						
D90603813	Demand	299924	335960	04/01/15						
N90603813	Medium	565619	582662		All Consumption		55287	10.466	\$577.44	\$5824.58
		23365	23633		Demand Charge(1-120kW)		120.00	0.850	\$102.00	\$120.00
					Demand Charge(1-120kW)		100.00	\$012.474	\$465.86	\$4904.31
					Service fee	29			\$474.31	\$5219.65
Total							55287		\$1497.61	\$14475.85
Other Charges & Credits										
					Metering Services Charge (29 days @ \$0.0069)				\$0.19	\$2.13
Total									\$0.19	\$2.13

A comparison on this bill for a school in Townsville that has been shifted to T45 shows the school is \$37,165.33 better off with solar & T22L than being on T45 demand. Using the same bill as comparison T45 is only 3.413c per kWh cheaper than T22L (This is using this one bill for the year & 55287kWh on both bills.)

This is a quote that was submitted for the whole school (3 bills) at the time.

Option 1 – 230kw String Inverter

Quotation

Energy Saving Calculation

Annual Bill Savings

\$121,548+gst

Solar System Size

230 kw

Project Cost (Installed)

\$299,805+ gst after Rebate

Rent to Own option repayments p.a

\$54,039+ gst

Cash Flow Benefit

\$67,509

Deposit/Out of Pocket

\$0

Investment Payback Period

2.46 years

Demand tariffs

Most large business tariffs are demand-based, but the way demand charges apply can vary between tariffs. Generally, it involves a measure of the largest amount of electricity you use at a point in time, during set hours, days or months.

When you choose a demand tariff, your whole business must be connected to that tariff.

Tariff 44

This tariff has a charge for the total amount of electricity used, plus a demand charge and a daily supply charge.

Demand threshold: 30kW	GST incl. from 1 July 2017	GST incl. from 1 July 2016
Demand charge - dollars per kW	41.539	43.849
All usage - cents per kWh	16.270	13.532
Supply charge - cents per day	5,463.631	5,845.622

Tariff 45

This tariff has a charge for the total amount of electricity used, plus a demand charge and a daily supply charge.

Demand threshold: 120kW	GST incl. from 1 July 2017	GST incl. from 1 July 2016
Demand charge - dollars per kW	31.296	34.812
All usage - cents per kWh	16.270	13.632
Supply charge - cents per day	17,782.609	18,328.384

Tariff 46