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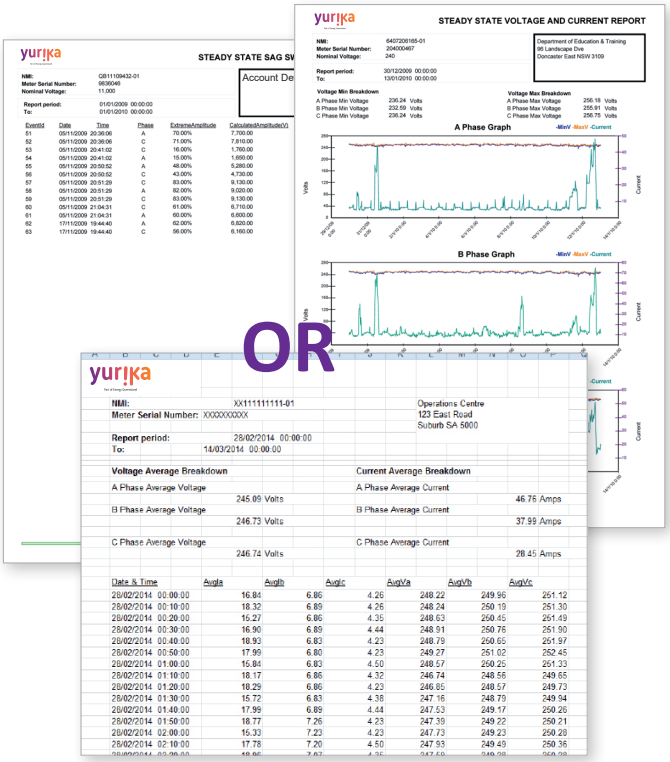
Part of Energy Queensland

Power quality reporting



Yurika power quality reports should be used as an indication of possible issues.

If you think you are experiencing power quality issues, we suggest you talk to a power quality expert (at your local electricity network provider) for a detailed explanation and further information.

What is power quality?

Power quality is measured by the variation in voltage at your premises, effectively measuring the quality of supply. Quality of supply is not about whether supply is available but rather, if electricity supply is suitable and compatible for use by customer equipment.

Why do you need a power quality report?

Technological advances have resulted in a dependence on power for computers, office equipment and other high sensitivity equipment, all of which can be affected by short-term or momentary disturbances.

Steady state voltage levels in networks are constantly changing in response to variations in load on the network. Networks use voltage regulation equipment to compensate for longer term variations, but these are not designed to react to short-term or momentary disturbances.

A power quality report can identify any power supply issues allowing you to rectify them before extra damage is done. Poor power quality can result in;

- Temporary fluctuations possibly resulting in dimming lights and sub standard performance of electrical products
- Possible premature equipment failure
- Noncompliance with standards and regulations.

What power quality reports are available?

Yurika currently offer two variations of Power Quality reports;

- Steady State Volt and Current Graph/s and Sag swell log - PDF
- Tabulated PQ Data - XLS

Reporting length will be standardised regardless of meter type or internal memory to the following default time frames;

- Volt and current data - previous 2 weeks
- Sag swell data - previous 1 year

Power Quality Report explained

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PDF: Power Quality Report

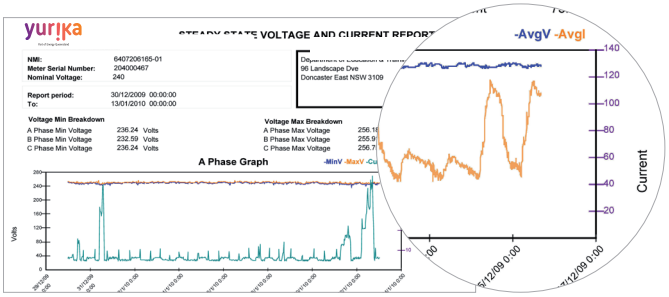
Steady state voltage and current

The steady state voltage and current report displays a graph per phase of power enabling you to visually recognise discrepancies in voltage by displaying short term sag/swell events or longer term supply fluctuations.

The example below is a three phase meter, the report therefore contains three graphs. The performance of each phase should be similar, If not this could indicate an issue with your power.

Depending on your meter type the graphs will display different traces. Your report will show either;

- AvgV and AvgL
- MinV, MaxV and
- Current



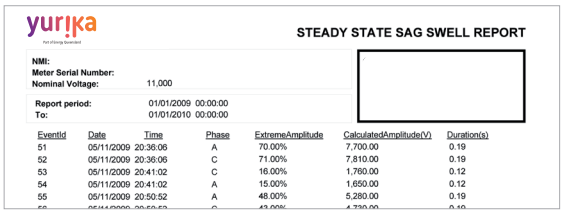
The voltage axis is auto scaled to 15% of nominal, if your voltage exceeds this scale it will appear on the sag swell log in more detail.

To benefit from this service, you need to nominate Yurika Metering as your meter provider.

Sag/swell

The sag swell log allows you to pinpoint the exact day and time of any issues displayed in the graph/s and identify any issues that weren't significant enough to be picked up in the graph.

The sag/swell report records all sags and swells which exceeded 0.1.s during the reporting period. The sag swell list allows you to easily see which of your phases is not performing well and at what time/s events occurred.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STEADY STATE SAG SWELL REPORT

NMI:
Meter Serial Number:
Nominal Voltage: 11,000

Report period: 01/01/2009 00:00:00
To: 01/01/2010 00:00:00

EventId	Date	Time	Phase	ExtremeAmplitude	CalculatedAmplitude(V)	Duration(s)
51	05/11/2009	20:36:06	A	70.00%	7,700.00	0.19
52	05/11/2009	20:36:06	C	71.00%	7,810.00	0.19
53	05/11/2009	20:41:02	C	16.00%	1,760.00	0.12
54	05/11/2009	20:41:02	A	15.00%	1,650.00	0.12
55	05/11/2009	20:50:52	A	48.00%	5,280.00	0.19

Sag swell events are recorded when duration exceeds 0.1s. The previous threshold was 0.01s, this level of resolution was only available in some meters and typically produced a higher number of nuisance events.

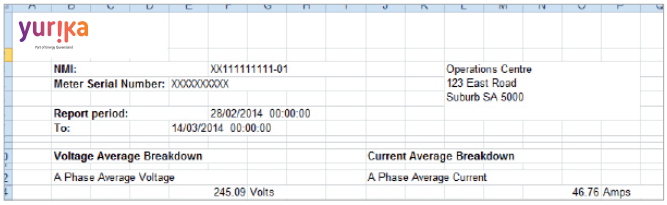
XLS: Tabulated PQ data

The tabulated data report provides a column per phase of power. Data is presented down the page with a row per measurement interval.

The load profile for LS2 data is generally 10 minutes for Yurika's meters, however this may vary based on the configured meter template.

The example below is a three phase meter, the report therefore contains six columns of data. The performance of each phase should be similar, If not this could indicate an issue with your power.

The benefit of the tabulated data report is the ability to import it to other programs of analyse the data in programs such as Microsoft Excel.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NMI: XX1111111111-01
Meter Serial Number: XXXXXXXXX
Operations Centre
123 East Road
Suburb SA 5000

Report period: 28/02/2014 00:00:00
To: 14/03/2014 00:00:00

Voltage Average Breakdown		Current Average Breakdown	
A Phase Average Voltage		A Phase Average Current	
	245.09 Volts		46.76 Amps

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Serving customers across Australia.
Staff in Brisbane, Melbourne, Sydney, Hobart, Adelaide and across regional Queensland.

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