



Part of Energy Queensland

# Power Quality Reporting

## 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.

Factors which affect quality of supply include:

- Steady state voltage & current
- Phase angle
- Voltage sags
- Voltage swells
- Voltage transients
- Harmonic distortions
- Radio frequency interference

Many of these factors are difficult to identify and observe, and their measurement usually requires the use of special test equipment with the analysis being carried out by experienced technicians or engineers.

Data from your electricity meter can assist you to understand the Steady State Voltage at your site and in some instances your electricity meters also capture voltage sag and swell data.

**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 your local electricity network provider for a detailed explanation and further information.**

## Why is power quality important?

Variations in supply voltage, frequency and wave shape occur at all installations, these variations are normal and are generally not a problem for customers. Networks use voltage regulation equipment to compensate for longer term variations, but these are not designed to react to short-term or momentary disturbances.

Power Quality has become increasingly vital for commercial and industrial customers due to highly sensitivity equipment, all of which can be affected by short-term or momentary disturbances.

- Motors can become unstable causing overheating, equipment damage and malfunction
- Electronic equipment including computers are prone to problems when exposed to power supply issues, resulting in data error or loss, equipment malfunction and component failure
- Continuous processes operating 24 hours per day, seven days per week with infrequent maintenance shutdowns have a heavy reliance on continuous supply
- Manufacturing & control processes have become more computerised
- Transformers, generators and other electrical switchgear is susceptible to overheating and unstable operation if operating in over or under voltage conditions
- Nuisance tripping of fuses and circuit breakers can be an outcome of poor power quality

A power quality report can assist in the identification of power supply issues allowing you to rectify them before extra damage is done.

## What power quality data can Yurika provide?

Yurika Metering currently offers a standardised report which is compatible with over 90% of our metering fleet;

<b>Data type:</b>	Voltage, Current & Phase Angle
<b>Data interval:</b>	10 minutes
<b>Data history</b>	1 month
<b>Report format:</b>	.xls

**Note:** Availability of power quality data and report format is determined by the specific meter installed and the configuration of the meter. In some instances Sag Swell data can also be provided on request, please contact us to discuss availability of Sag Swell data from your meter.

## Yurika's Voltage & Current report?

The voltage and current report is compatible with both single and three phase meters. The report returns 3 columns of voltage, current and phase angle regardless of the number of phases. Data will populate based on the number of phases available.

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 performance of each phase should be similar, If not this could indicate an issue with your power.

The benefit of the XLS report is the ability to import it to other programs such as Microsoft Excel to analyse the data.

Power Quality: Voltage & Current Report										
yurika Part of Energy Queensland										
5	<b>Customer:</b>	Sample Customer		<b>Extended NMI:</b>	1234567890-1		<b>Period From:</b>	21/12/20		
6	<b>Address:</b>	123 SAMPLE STREET SAMPLETOWN		<b>Meter Serial:</b>	1234567890		<b>Period To:</b>	23/12/20		
7		Queensland		<b>Device Type</b>	EDMI MK7A		<b>Meter/site status</b>	INTERNAL USE ONLY		
8		4000		<b>Tariff</b>	ERIBXT3, EVCXT3					
9				<b>Nominal Voltage:</b>	231.00					
12	Interval End	Avg Voltage 1	Avg Voltage 2	Avg Voltage 3	Avg Current 1	Avg Current 2	Avg Current 3	Avg Angle 1	Avg Angle 2	Avg Angle 3
13	21/12/2020 00:00	244.61			0.95	0.04		40.94	76.77	
14	21/12/2020 00:10	244.01			0.87	0.04		68.19	76.71	
15	21/12/2020 00:20	244.74			0.94	0.04		46.85	76.77	
16	21/12/2020 00:30	244.92			0.96	0.04		37.92	76.77	
17	21/12/2020 00:40	245.07			0.96	0.04		38.22	76.79	
18	21/12/2020 00:50	245.41			0.87	0.04		67.93	76.73	
19	21/12/2020 01:00	244.86			0.93	0.04		51.05	76.75	
20	21/12/2020 01:10	245.1			0.97	0.04		37.96	76.76	
21	21/12/2020 01:20	245.64			0.96	0.04		38.4	76.78	
22	21/12/2020 01:30	245.87			0.88	0.04		65.95	76.73	

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

[yurika.com.au](http://yurika.com.au)

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[metering.sales@yurika.com.au](mailto:metering.sales@yurika.com.au)

Serving customers across Australia.

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

ENERGY | INFRASTRUCTURE | METERING | TELECOMMUNICATIONS

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