



FACT SHEET

What Is ChargeIQ?

An initiative of DiUS Computing, ChargeIQ is a smart charging solution for plug-in electric vehicles (PEVs) that allows vehicle owners to take advantage of variable electricity prices such as Time of Use pricing, to charge their PEVs at the most cost effective time. This will decrease the peak load on the electricity grid, a key concern of the electricity industry.

ChargeIQ & The Electric Vehicle Trial

The Victorian Government recognises that electric vehicle technologies represent an evolutionary step from traditional petrol and diesel vehicle technologies. Cheaper to run, more convenient, less polluting, innovative, and better suited to the way we drive every day: electric vehicles are a natural fit for Victoria.

The Electric Vehicle Trial will run for five years and help Victoria to better understand the process, timelines and barriers for transitioning to electric vehicle technologies. Charge IQ has been selected by the Victorian Government to trial its home charging solution.

Is Smart Charging Important?

With the future widespread adoption of PEVs almost inevitable, the impact that this new load will have on the grid is becoming a key concern across the electricity industry. In particular, whether the existing electrical infrastructure has sufficient capacity to accommodate the addition of thousands of PEVs, especially considering the rising peak demand that is steadily approaching grid capacity today.

As such, the industry requires strategies and solutions to manage this.

Local and international research predicts that by applying intelligence to the charging process and specifically avoiding peak demand, PEV loads can be accommodated within the current Australian grid capacity.

ChargeIQ is a charging solution for plug-in electric vehicles (PEVs) that allows vehicle owners to take advantage of off-peak electricity prices to charge their PEVs and thereby decrease the peak load on the electricity grid.

In addition, the introduction of Advanced Metering Infrastructure (AMI) now enables end devices such as ChargeIQ to form part of the "Smart Grid" and as such can implement behaviour to support both the needs of the consumer and the grid at large.

Importantly, by applying intelligence to the PEV charging process and implementing smart grid behaviour, investment in grid upgrades can be deferred or avoided altogether.



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The Charge IQ Technology

ChargeIQ is an integrated software and hardware solution that solves the emerging challenges for the EV and electricity industry.

The ChargeIQ software is scalable and portable. It has been designed to work with alternative EV charging terminals provided by other EV equipment suppliers and integrate seamlessly with enterprise server systems operated by electricity industry participants.

The ChargeIQ technology is targeted at residential charging needs for smart meter equipped electricity networks.

ChargeIQ Key Features

- ChargeIQ is an intelligent charging engine which balances the PEV owner's preferences with pricing and the demand signals from the grid to ensure optimal charging times for both the PEV owner and the grid
- Built on global industry standards, enabling integration with AMI solutions including the Victorian specification for Zigbee Home Area Networks
- Tested against the Victorian Home Area Network
- Delivers a PEV metering capability that allows the homeowner to view their PEV charging preferences, costs and history
- Minimises the need for expensive electrical infrastructure changes in the home

For more information about ChargeIQ, please visit www.chargeiq.com.au or email chargeiq@dius.com.au

About DiUS

DiUS is an Australian technology and innovation business, is a leader in Advanced Metering Infrastructure (AMI) and the development of Smart Grid solutions. This capability is based on extensive experience in consulting and project delivery across the utilities industry.

This specialised skill set provides a unique perspective on the needs and challenges that will be faced by the emerging PEV market. Indeed it was this perspective in 2008 that led to the insight that the rapid uptake of electric vehicles will cause the peak load on the electricity grid to become unsustainable. Clearly a more intelligent charging solution would be required in order to meet the needs of both the motorist and the energy industry.

