



EMC^a

energy market consulting associates

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*Leaders in advising on the successful
implementation of smart metering / AMI*

www.emca.com.au

EMCa's expertise in smart metering / advanced metering infrastructure (AMI)

EMCa is a leading provider of advice on planning for the successful implementation of smart metering. This includes providing major advice to the Australian government and to the Victorian state government, including detailed cost benefit assessment, advice on rollout policies and assessment of the electricity networks' rollout programs and costs. EMCa has advised a UK electricity and gas network company, helping it to provide consultation input to the UK government on the planned rollout of 47 million smart meters. EMCa has provided advice to the New Zealand energy regulator on policies to improve the effectiveness of the smart metering rollout and is regularly called on to advise on a range of AMI program issues.

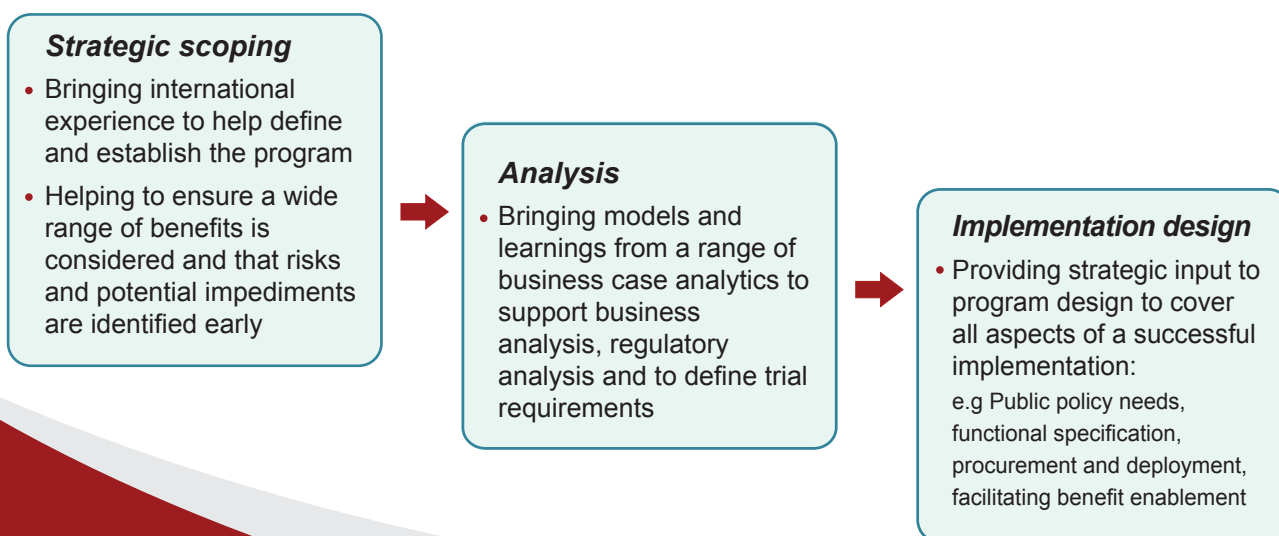
How EMCa can assist your organisation

EMCa can help electricity utilities, governments and research and regulatory agencies to plan for a more effective smart metering rollout. This includes advice on:

- **Getting the greatest benefit from a smart metering deployment** – understanding and quantifying the range of benefits smart metering can provide, including network operational (smart grid) benefits, demand response, conservation, billing and collection benefits.
- **Understanding the costs of a smart metering deployment** – including meter costs, installation, program management, communications and information systems options and their costs.
- **Developing effective regulations and removing regulatory impediments** – through the right measures, the benefits of smart metering can be achieved and smart metering can be deployed in a cost-effective way and with advantages for consumers and utilities.
- **Specifying the functionality of smart metering** – defining what functionality is important to achieve the optimal range of benefits from smart metering. This helps to future-proof the program and to ensure that the smart meters can be operated to their full potential and at low cost over many years.

EMCa's smart metering services

EMCa can provide the following types of services to assist with the assessment of smart metering / AMI programs that are under consideration, and with planning for their successful implementation:



Selected smart metering advisory projects

- **Australian federal and state governments – Cost benefit review of smart metering:** Members of the team played a major role in developing the Australian government's cost benefit analysis for smart metering. This work also included developing the core functionalities that smart metering should provide.
- **Victorian government – Advice on smart metering program costs and regulatory implications:** Major assessments and policy advice on the costs and benefits of smart metering.
- **UK electricity and gas network operator – Smart metering rollout advice:** Review of UK government's assessment of smart metering costs and benefits and advice to define the best implementation plan.
- **Australian federal and state governments – Consumer impact analysis of smart metering:** Analysis of meter data from smart metering and from customer tariff trials to identify the true cost to the utility of supplying customers according to their load characteristics, and customers' demand response to time-related tariffs.
- **New Zealand energy regulator – Advice on measures to better realise benefits from smart metering:** Advised on potential government-led and/or industry co-ordinated measures that can enhance the benefits of an AMI program. Included measures relating to consumer protections, market efficiency, smart grid network operational efficiencies and future challenges such as widespread electric vehicles and rooftop solar.
- **Major Australian electricity utility – Strategic advice on smart metering:** A member of the team helped this utility to define the national policy framework for the successful deployment of smart meters.
- **New Zealand energy regulator – Developing smart metering rules and metrology processes:** A member of the team has played a major role in developing government guidelines and requirements for smart meters and associated metrology processes.
- **Industry co-ordination – Functional specification for smart metering:** A team member chaired a state working group for developing the minimum functional requirements for smart metering.

In addition to metering experience, the EMCa team brings a sound understanding of electricity utility businesses. Relevant experience includes developing electricity tariffs, assessing cost structures, asset management planning, advice on power pools and market rules development.

Contributing to international discussion on smart metering

- **Utility conferences:** EMCa team members are frequent contributors to international metering conferences. This includes presenting at the European Metering Conference (Barcelona, October 2009), at Metering China (Beijing, May 2009), at Smart Electricity (Singapore, April 2010 and November 2008) and at metering conferences in Stockholm, Kuala Lumpur, Bangkok, Mumbai, Wellington, Sydney, Melbourne and Brisbane.
- **Publication:** Smart Metering: Smart policy or expensive folly – Article published in Metering International (Q4, 2008)

Company overview

Energy Market Consulting Associates (EMCa) specialises in providing policy and strategic advice on energy sector reforms. EMCa brings 30 years' experience which includes advising on restructuring the electricity sector, electricity pricing and regulation, establishing electricity markets, establishing retail competition and the introduction of smart metering.

EMCa brings only senior personnel, who have the strategic insights necessary to make reform successful based on their many years of experience in the electricity sector.

Profiles

EMCa's Managing Director, Paul Sell is an experienced energy economist, specialising in energy markets and market reforms. Paul was previously a consulting Partner in Ernst & Young, based in Sydney Australia, and a Vice President in Capgemini with responsibility for energy sector reform consulting in Asia-Pacific. Paul has led EMCa's advice on smart metering to the Australian, New Zealand and Victorian state governments, and in the UK.



Paul Sell

Energy economics, electricity tariffs, electricity reforms, metering program and associated business case analysis, AMI program costs, international AMI developments, policy and regulatory advice



Phil Perry

Metering functionality, network smart grid benefits of AMI, metering manufacture and AMI supply chain, technical aspects of AMI design, international AMI developments



Simon Orme

Energy sector reforms, AMI policy and regulation, AMI distributor and retailer impacts, designing jurisdictional AMI implementation programs



David Prins

Energy sector reforms, AMI policy and regulation, AMI business case analysis with a focus on retail and customer-facing impacts, demand response and electricity tariff structuring



Robert Reilly

Engineer, metering policy, metrology processes in energy markets, metrology rules and protocols

EMCa works in association with the following firms;



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