STOP SMART METERS AUSTRALIA INC
Reg. No. A0059190N ABN 14 717 028 504

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Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600

Dear Sir/Madam

Inquiry into the performance and management of electricity network companies

Thank you for the opportunity to submit comment to the above Senate inquiry. The points which we have addressed are contained in the boxes.

Stop Smart Meters Australia (SSMA) is a volunteer-based advocacy group which incorporated as an Association in April 2013 in response to widespread community objection to the State Government mandated Victorian Advanced Metering Infrastructure rollout. Victorian media reported in December 2011 that "Almost 90,000 of the more than 900,000 customers approached by [smart meter] installers so far have turned them away."

Serious concerns about the passing of runaway costs on to consumers have been raised, in conjunction with a growing public awareness of smart meters' dubious energy merits. These concerns, along with increased reporting of adverse health effects[i] alleged to be the result of exposure to smart meters' pulsed microwave emissions, and emerging data privacy, fire and security issues, has led to an Australia-wide questioning of the management of electricity network companies. In Victoria, it has also led to the formation of a political party ('People Power Victoria – No Smart Meters') which contested the November state election.

a) The manner in which electricity network companies have presented information to the Australian Energy Regulator (AER), and whether they have misled the AER in relation to:

(ii) the necessity for the infrastructure proposed

The dysfunctional nature of monopoly regulation is exemplified in the disastrous rollout of smart meter technology in Victoria. The rollout was a Victorian government initiative, although a staged approach to the national rollout of electricity smart meters had received endorsement by COAG in 2007 "where benefits outweigh costs".

According to Deloitte's advanced metering infrastructure (AMI) cost benefit analysis, submitted to the Victorian Department of Treasury and Finance on 2 August 2011, over the

2008-28 time-period the "Victorian AMI Program will result in net costs to customers of $319 million (NPV at 2008)" .[ii] If this net cost of the rollout to customers was expressed in current dollars, and if the figure was updated to incorporate subsequent cost pass-throughs approved by the AER, the cost to consumers would blow out to even greater proportions.

SSMA contends that even this amended result would understate the magnitude of costs. Deloitte's cost-benefit analysis was fundamentally flawed as it overstated the value of customer benefits whilst downplaying the economic ramifications of escalating adverse health outcomes and other emerging issues.

The Victorian Auditor-General stated in 2009 that the risk management approach taken by the Victorian government was to "rely on the electricity industry to address and bear technology risks. However, the regulatory regime does not give the industry enough incentive to manage risks and associated costs that consumers are likely to pay".[iii]

Victoria's electricity network companies were responsible for the choice of technology underpinning the Victorian AMI rollout. Although the electricity network companies derive significant financial advantage from operating in a protected environment, the AER's role in the economic regulation of network companies appears to have been confined to fine-tuning minor details, rather than addressing the overall factors which have led to the transfer of economic benefits from consumers to industry.

Communications technology expert, Dr. Timothy Schoechle, author of *Getting Smarter About the Smart Grid* contends that smart meters have become “confused and conflated with the much broader concept of the smart grid” pointing out that smart meters and their dedicated networks are primarily for the benefit of power distributors. Dr Schoechle goes on to say that smart meter rollouts essentially do “nothing to advance what should be the real goal of the smart grid: balancing supply and demand and integrating more renewable sources.” [iv]

The lack of benefit for consumers who transition to smart meters is succinctly detailed by NSTAR Electric Company and Western Massachusetts Electric Company in the USA, whose filed response to an investigation into the modernization of the electric grid in Massachusetts states that “For customers who will pay the price of this system [AMI], there is no rational basis for this technology choice.” [v]

(f) whether the AER has actively pursued lowest-cost outcomes for energy consumers;

The AER appears to form its assessments of electricity network company efficiency using an overly narrow scope, to the significant detriment of energy consumers. As an example, in the AER's December determination on the Victorian Advanced Metering Infrastructure 2015 revised charges, the AER confined itself merely to comparing outcomes between the five Victorian electricity distributors, rather than considering on a broader canvas. This narrow focus appears to be have given rise to systemic adverse outcomes for consumers.

As a result of this approach, the wireless mesh network technology deployed by four of the five Victorian distributors has come to be viewed by the AER as the benchmark for

determining costs. However, this narrow focus ignores the possibility of benchmarking costs against technology in use elsewhere in the world. Casting the net wider gives the opportunity for considerably better outcomes for customers.

Similarly, in the AER's determination on Victorian Advanced Metering Infrastructure 2015 revised charges, the AER fully accepted all of the fees proposed by distributors to recover manual meter reading fees on the basis that "they represent efficient cost and service delivery previously determined by us".[vi] The AER provided no comment on arguments raised by SSMA which contended that the magnitude of the proposed fees failed to pass the AMI rollout's prudency test.

Specifically, SSMA's submission stated:

- SSMA contends that the special meter read charges provide distributors with an inflated rate of return on meter reads. The special read fee is appropriate for once-off, isolated instances of meter reads which occur outside of the scheduled meter reading cycle, and does not reflect the economies of scale which are available to electricity distributors in the current circumstances due to the number of meters which will require manual reads on account of refusals, inability to access, inability to install or technical barriers preventing communications.
- In addition to the significant numbers of consumers who have refused a smart meter, in rural areas, in particular, there are many smart meters which are unable to be remotely read for technical reasons. Given this situation, it is unfair that consumers who have refused a smart meter should be cross-subsidising the meter reads of people who have smart meters that are incapable of being remotely read for other reasons and who are not being subjected to a meter read fee.
- None of the electricity distributors who are proposing to introduce meter read fees have given any thought, whatsoever, to meeting commercial best practice standards observed elsewhere in the world for reducing the cost of meter reads. For instance, in some areas of Germany, customers are mailed a form on which the customer is required to enter the reading, thus only necessitating occasional visits by a meter reader to verify regular readings. Elsewhere, in France, meter readers only visit on an annual basis, with interim readings being based on estimates. SSMA contends that Victorians should also be given a viable option by which they can reduce meter read fees, if they so choose. As it stands, consumers' interests are not being served if the distributors continue to take a 'business as usual' approach in regards to meter read fees.

It appears that the AER, in fully accepting the manual reading fees which four of the five Victorian electricity network companies proposed to introduce, is complicit in not serving the public's best interests. The lack of consideration evidenced by the AER on this matter suggests that the AER is of the opinion that customers who have refused a smart meter are 'fair game' when it comes to the extortion of fees by electricity network companies.

(g) whether network monopolies should have the right to recover historic overspending that has delivered unwanted and unused infrastructure;

It is unacceptable that consumers should be paying for the poor decisions of electricity distributors. In normal commercial practice, poor investment strategies lead to a reduction in profitability.

In the case of the Victorian rollout of smart meters, consumers, despite being significant stakeholders in the project, were not consulted.

SSMA believes it is unacceptable that the five Victorian electricity distributors continue to hide behind the state government's decision to mandate AMI. The distributors were responsible for choosing the technology upon which their AMI rollouts are based. The distributors should therefore be held directly accountable for the deployment, as stated by the Victorian Auditor-General in 2009, of "unproven technology not yet proven to be sufficiently mature for installation on a mass scale in the technical environment present in Victoria."

(h) how the regulatory structure and system could be improved;

In consequence of the fundamental dichotomy between the interests of shareholders, who control the privately owned electricity network assets in Victoria, and consumers' interests, the AER needs the framework in place to enable it to better scrutinize the claims of network companies.

Inevitably, such claims will be heavily skewed in favour of the network companies. The AER also needs to develop greater transparency in its process, such that consumers, who lack the expertise and muscle to plead their case, can have some degree of assurance that their interests are being served.

(j) whether the current system provides adequate oversight of electricity network companies;

Patently, the current system does not provide adequate oversight of electricity network companies. The overall lack of governmental accountability and cohesive policy across state and federal agencies has resulted in electricity customers' interests being seriously compromised.

Had appropriate measures been in place, the Victorian rollout of smart meters would never have commenced. As stated by the Victorian Auditor-General in 2009 "The cost-benefit study behind the AMI decision was flawed and failed to offer a comprehensive view of the economic case for the project."

What is increasingly concerning, is the emergence of unforseen risks consequent on Victoria's rollout, and the manner in which these risks are being addressed. To-date all levels of state and federal government have denied responsibility, or claimed that other agencies have the responsibility for dealing with these issues.

This has enabled electricity network companies to exploit the lack of governance by continuing to install wireless technology, with no consideration given to the deployment of safer technology which also would have the added benefit of greater longevity. It is SSMA's opinion that the economic cost of emerging risks associated with the rollout of wireless smart meters in Victoria will dwarf the costs which have been established to-date by the AER as being recoverable from customers.

As an example of the lack of regulatory accountability in respect of protecting the public from adverse health outcomes as a result of electricity network companies' deployment of wireless technology, the AER's December determination on Victorian Advanced Metering Infrastructure 2015 revised charges states that:

"We received a number of submissions from parties that insisted we not approve any charges until the impact on consumers health from smart meters are fully investigated. However, we have no legal discretion to consider this issue in our review. **It is a question for Victorian government policy**. Our role is to determine the budgets and charges of meter provision—in accordance with the Order" (emphasis added).

Again on this issue, in a reply of 18th June 2014 to SSMA from the Hon Russell Northe MP, the former Victorian Minister for Energy and Resources, states:

"The Australian Communication and Media Authority (ACMA) are responsible for regulating the exposure standards that are designed to protect against all known adverse health effects. **Should you have concerns with regard to the use of the ARPANSA standard, you should direct your queries to ACMA.** The agency can be contacted on 1300 850 115 or via info@acma.gov.au. More information can also be found online, at www.acma.gov.au" (emphasis added).

Victoria's former Health Minister, Minister Davis, advised SSMA on 24 August 2014 that:

"**The regulation of health and safety from radiofrequency emissions in the communications sector rests with the Commonwealth's Australian Communications and Media Authority (ACMA)**. The Commonwealth via the *Radiocommunications Act 1992* has reserved such responsibility to itself and the ACMA regulates the health and safety of radiocommunication devices, including smart meters, mobiles phones and baby monitors by prescribing radiofrequency standards that it has determined are protective of health" (emphasis added).

In another instance, Energy Safe Victoria's report of 31st July 2012 on the *Safety of Advanced Metering Infrastructure in Victoria* states:

"**The potential health effects of smart meters – this is the subject of separate regulatory arrangements administered by Australian Communications & Media Authority (ACMA), which incorporates exposure limits developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA**) ...." (emphasis added).

ARPANSA states in its *EME Series No. 1 Fact Sheet* (August 2014 revision): "**The Australian Communications and Media Authority (ACMA) has the regulatory responsibility to protect**

the health and safety of persons exposed to RF EME from radiocommunications transmitters. In order to fulfil this regulatory responsibility ACMA has adopted the ARPANSA limits into the Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2014 and the licence conditions for radiocommunications transmitters" (emphasis added).

The CEO of the ACMA, Mr Chris Chapman, advised SSMA on October 1 2014 that:

"I can confirm that the ACMA's role in relation to EME focuses **solely** on the operation and performance of radiocommunications transmitters. **The ACMA does not have legislative responsibility for investigating the possible health effects of human exposure to EME** and is not qualified to undertake such a role as it is not an expert body in health matters. The ACMA's role in the regulation of radiocommunications transmitters does not preclude other organisations from investigating health matters associated with exposure to EME" (second emphasis added).

This lack of regulatory ownership has also led to the effective nullification of the precautionary aspects of ARPANSA's radiofrequency standard. For instance, it is arguable that Victorian electricity network companies might have arrived at different networking solutions had they ever given serious consideration to clause 5.7 (e) of ARPANSA's standard, which holds that radiofrequency exposure should be minimised, provided this can be readily achieved at reasonable expense.

It is concerning, in view of the magnitude of costs that are likely to be involved, should current adverse health outcomes, as a result of exposure to electricity networking companies' assets, prove to be the tip of the iceberg. However, to-date, no arm of government has been prepared to take ownership of this issue.

The lack of effective oversight of electricity network companies has also allowed these companies, which have formidable financial means at their disposal, to engage in a long-standing campaign of obfuscation in their relations with the Victorian public. As an example, Jemena's website (accessed 17 December 2014) states that smart meters "use a communications network to transmit the half hour meter readings to Jemena six times a day". Other Victorian network companies have claimed "the meter will only transmit data for a total of 30 minutes per year".

Leaving aside the fact that it is impossible in a mesh network to give assurance as to the extent of data transmission time at an individual meter, due to the large number of factors which impact on this, such statements obscure the real issues at play.

According to information which Pacific Gas and Electric (PG&E) was required to file in court, scheduled readings of six times per day results in a median of 9,600 transmissions per day at each meter.[vii] A worst case scenario results in 190,000 transmissions per day. PG&E use the same technology (from Silver Spring Networks) as Powercor, CitiPower, Jemena, United Energy and Western Power.

In summary, SSMA sincerely hopes that our input will be given due consideration and looks forward to seeing how the Environment and Communications References Committee has considered our comments .

Yours faithfully

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References

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[ii] Deloitte, 2011, *Advanced Metering Infrastructure Cost Benefit Analysis report*, Available: http://www.smartmeters.vic.gov.au/__data/assets/pdf_file/0003/138927/Deloitte-Final-CBA-2-August.pdf

[iii] Victorian Auditor-General 2009, *Towards a 'smart grid' – the roll-out of Advanced Metering Infrastructure*, Full report, Available: http://www.audit.vic.gov.au/publications/2009-10/111109-AMI-Full-Report.pdf

[iv] Schoechle, T. 2012, *Getting Smarter About the Smart Grid*, National Institute for Science, Law & Public Policy, Available: http://electromagnetichealth.org/wp-content/uploads/2014/02/Smart-Grid-Report-3-15-13.pdf

[v] NSTAR Electric Company and Western Massachusetts Electric Company, 2014, *D.P.U. 12-76-A – Investigation into Modernization of the Electric Grid,* Filed comments, Available: http://haltmasmartmeters.org/wp-content/uploads/2014/01/NSTAR_R12-76-Comments-7986-POSTED01172014_HIGHLIGHTED.pdf

[vi]Australian Energy Regulator, 2014, *Determination Advanced Metering Infrastructure 2015 revised charges*, Available: http://www.aer.gov.au/sites/default/files/AMI%202015%20charges%20determination%20-%20for%20publication%20%5BPDF%5D_0.PDF

[vii] Pacific Gas and Electric Company 2011, *Pacific Gas And Electric Company's Response To Administrative Law Judge's October 18, 2011 Ruling Directing It To File Clarifying Radio Frequency Information*, Available: http://takebackyourpower.net/wp-content/uploads/2012/04/Smart-Meter-Health-14000-to-190000.pdf