Committee Secretary
Senate Select Committee on Electricity Prices
PO Box 6100
Parliament House
Canberra ACT 2600

SUBJECT: Factors and solutions for electricity price inflation

Dear Secretary

I am writing in response to the request for submissions from interested parties regarding the pricing of electricity.

I trust that the Committee will establish the key cause for price increases recently and in the near term to be primarily related to addressing the growth in peak power across the network. Certainly the shift in fuel mix away from coal coupled with the linking of the domestic market for coal and natural gas to the international markets has had and will have a material impact. However, the greatest cause and also the cause to which there is the greatest potential for policy to impact, is the so called 'gold-plating' of network infrastructure.

I cannot continue without at least acknowledging the role renewables have had on the wholesale revenues of generators. The perverse nature of the market that is designed to operate at a loss most of the time to then be offset by excess profits at times of peak demand is now being destabilised by the effect of peak-aligned renewable generation. This creates a need to raise the baseline price for the wholesale market and cause an unjustified proportional trickle through to retail pricing.

Finally, the approach to imply a cost of capital and "reasonable" rate of return in accessing retail pricing, while reassuring to the capital markets, does not reflect the specific nature of each market participant and trends towards ensuring the least efficient operator is commercially sound, the rest of the industry is more than rewarded, all at the expense of the community's best interest.

I suggest however that, while policy may seek to address how retail pricing is linked to the wholesale price and further seek a more appropriate approach to assure commercial viability for generators and their bond holders, the greatest opportunity rests with addressing the investment in transmission and peak load generation capacity.

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There are good and proven methods for addressing peak load for parts of the network. Improving efficiency at the consumption point has worked extremely well in containing overall consumption and has possibly curtailed peak use, however once LED lighting has become the standard, there are few additional leaps for this approach to take to add value in respect of small-scale consumer demand.

Demand management co-operation with large industrial and commercial consumers has much to add and may eliminate the need for additional generational capacity for a period, but does not address much of the transmission network issues. The requirement to upgrade capacity occurs street-by-street. The advent of the wealth effect accelerating the peak demand in residential areas will continue to drive capacity upgrades for the link from the house to the generator.

The challenge is in finding a pathway to address the inherent waste that exists in building expensive infrastructure that is only used for short periods of peak demand. This has been the focus of our research for more than five years. Finding a solution became a target three years ago, and co-incidentally, we registered the core patent for the solution in the first week of August, a solution we call Crowd Power.

Deployment of our technology as a solution brings many benefits including: giving consumers more control over their use of energy and energy costs; greater support for distributed energy; support for greater deployment of renewables in the grid mix (both centrally and distributed); and does so without the investment needed to create a smart grid. Deployed at scale, Crowd Power delays or removes the requirement for investment in expanded capacity to address peak demand and lowers the average price per kwh to the consumer whilst maintaining the integrity and stability of the National Electricity Market.

For the consumer, installation of Crowd Power enables immediate bill reductions. Bills are further reduced through greater energy efficiency; and reduced again by containing the network charges through the avoidance of unnecessary infrastructure investment. On the latter, the committed investment exceeds $18B over the coming five years, Crowd Power resolves the issue, provides all these extra benefits at half the cost or less.

I would welcome the opportunity to discuss in more detail the potential of our technology, the capacity and approach to address the drivers for energy price inflation.

Yours faithfully

Kym Lennox
Chief Executive Officer
14 September 2012

CROWD POWER

A Renaissance Energy Initiative

HOW CROWD POWER WORKS

SENATE SELECT COMMITTEE ON ENERGY PRICES

SEPTEMBER 2012

Crowd Power is a distributed solution for offsetting the infrastructure requirements in responding to the growth in peak demand. It is specifically designed to remove the socially uneconomic investment infrastructure that is utilised for only hours a year.

The transmission infrastructure is a complex network of thousands of transformers and millions of kilometres of cable. Every time the peak demand rises in a street, the numerous components of the part of the network linking the consumption to the generation eventually need upgrading. Collectively, the growth stresses the capacity of generation and due to the extreme prices electricity can reach in the wholesale market results in the justification and development of 'peaker' generation capacity.

The result in New South Wales is that $7.63 is committed per watt of extra peak capacity. That is, every typical split-system air-conditioner is justifying over $10,000 in infrastructure. Clearly this is a broken system. There is no one solution, but part of the suite of addressing this socially regressive challenge is Crowd Power.


Photo: (CC) Paul Chernikhowsky 2009


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HOW TO SAVE $8 BILLION IN UNNECCE

Key to Diagrams & Symbols

Household Power Usage Circles

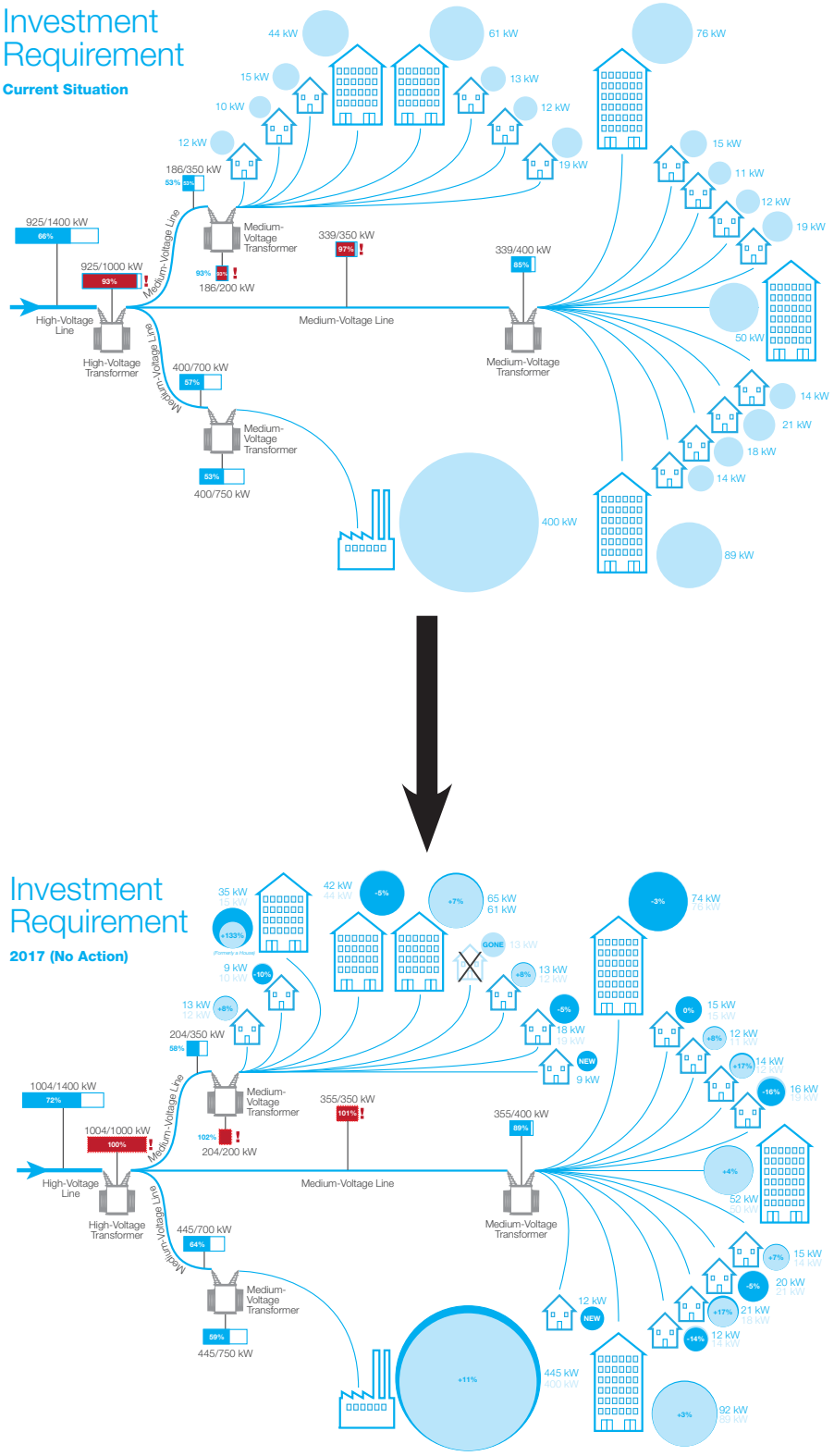
- 2012 Power Usage
- 2017 Power Usage
- Power Usage with Crowd Power
- Power Usage without Crowd Power
- 32 kW Power Usage in Kilowatts

Infrastructure Bar Graphs

- Infrastructure Capacity
- Infrastructure Capacity Utilised
- Capacity Utilised Nearing Maximum
- Capacity Utilised Exceeding Maximum
- 75% Capacity Utilised in Percentage
- 1/5 kW Capacity Used vs Available in Kilowatts

Buildings

- Single Dwelling
- Multi-Unit Dwelling
- Industrial



ESSARY INFRASTRUCTURE

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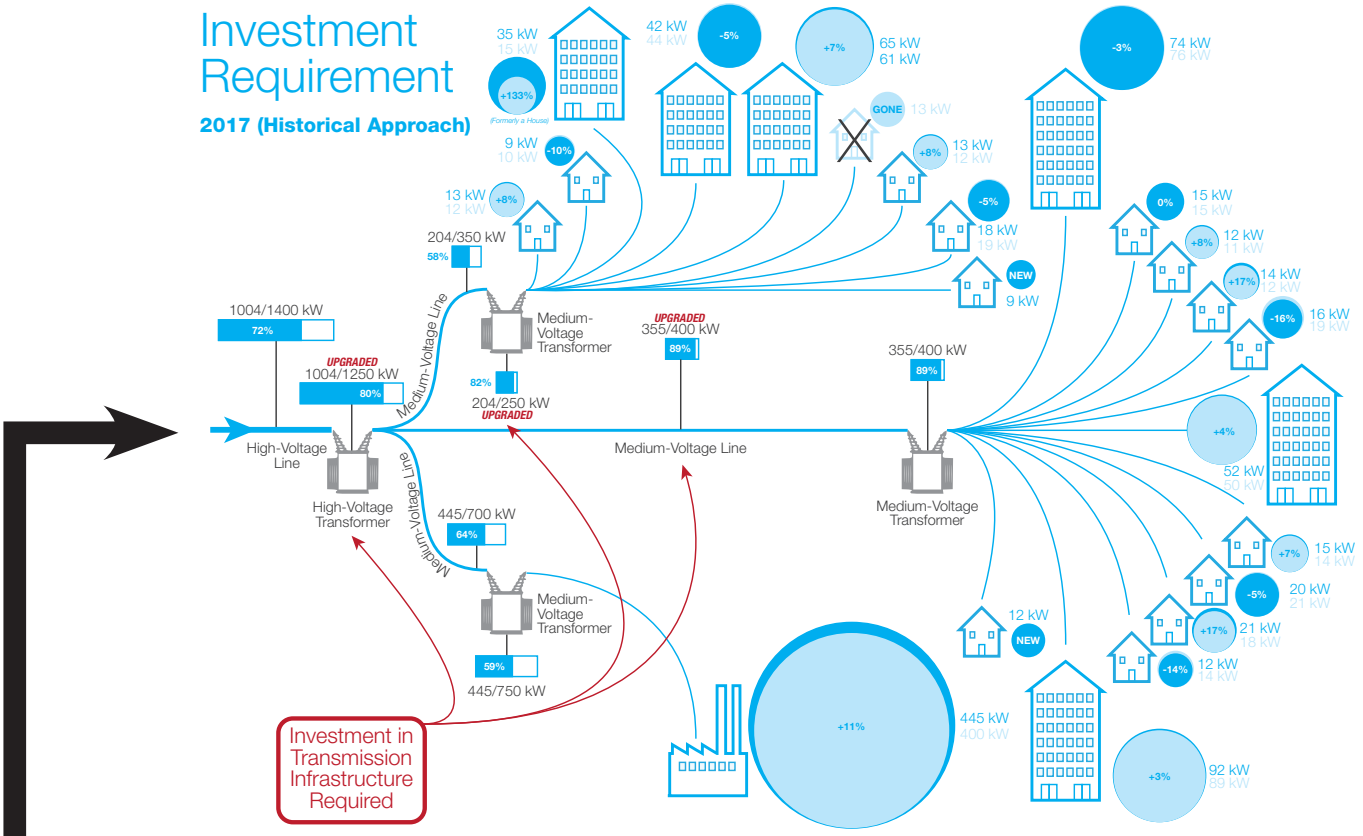

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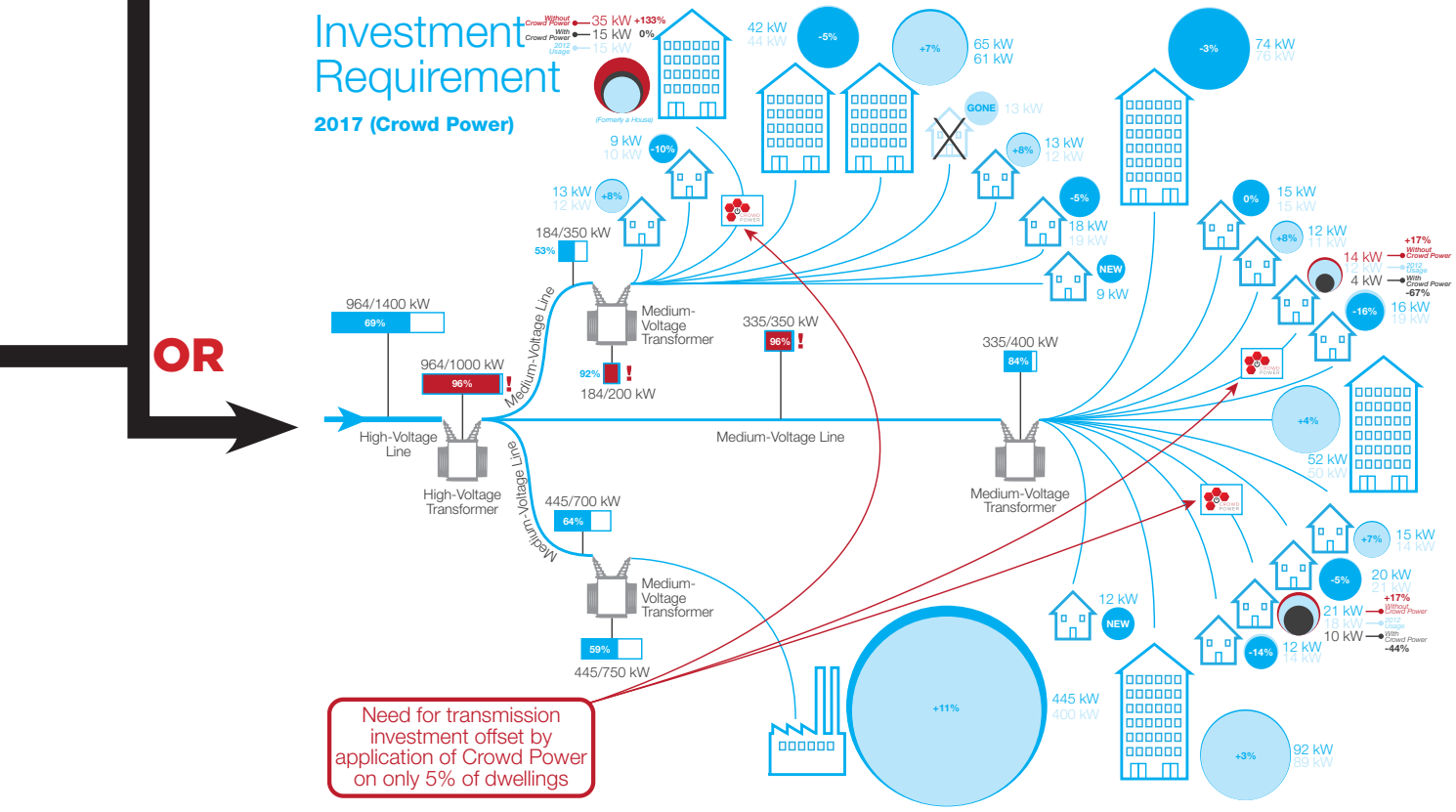

ENABLING THE CONSUMER

CROWD POWER
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Creating control at the point of consumption enables the consumer to learn about their use, manage their use and change their behaviour. In applying trusted technology, the household will use less fuel to generate their energy and use less energy as Crowd Power optimises to their patterns of use.