Tel: 02 9921 2999
Fax: 02 9921 2552

AGL Energy Limited
ABN 95 052 167 405

72 Christie Street
St Leonards NSW 2065

Locked Bag 1837
St Leonards NSW 2065
www.agl.com.au

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Dr. John Tamblyn,
Chairman,
Australian Energy Market Commission
Level 5, 201 Elizabeth Street
SYDNEY NSW 2000

By email to submissions@aemc.gov.au

Victorian Government Rule Change Proposal – Advanced Metering Infrastructure Rollout

AGL Energy Limited (***AGL***) welcomes the opportunity to comment on the "Victorian Government Rule Change Proposal – Advanced Metering Infrastructure Rollout" issued on 3 November 2007 by the Victorian Minister for Energy and Resources (***Rule Change Proposal***).

AGL understands that the Victorian government has made a decision to implement its advanced metering infrastructure (***AMI***) policy and that this will require a jurisdictional derogation to the National Electricity Rules (***the Rules***). We understand the object of the derogation is to make the distribution business (***DB***) the responsible person (***RP***) for metering and to re-assign related responsibilities for type 4 metering services, which, under the current Rules, are the obligations of the retailers. Further, AGL believes that the proposed derogation will give the DBs the right to rollout AMI in accordance with recently amended Victorian legislation[1] and published Orders[2].

A detailed response to the Rule Change Proposal is annexed. In summary, AGL's position is as follows:

- AGL believes that AMI has the potential to improve market and investment efficiency and provides the platform for developing innovative products and services that will benefit the customers in the medium to long term.

- AGL supports a nationally coordinated approach to the rollout of AMI based on a single set of rules and procedures. We are concerned that inconsistency in market structure and regulatory framework across jurisdictions would increase the complexity and cost of delivering retail services.

- In AGL's view, competition in the provision of AMI services is more likely to maximise long term benefits for the electricity market and customers. AGL supports a competitive market with open communication standards, low cost of entry and switching with guaranteed service performance.

- AGL is concerned that the proposed derogation and associated regulatory instruments are likely to reduce competition and increase the retailer's risk and cost relating to service performance. Specific concerns include:
  - Cost recovery approach could delay the development of a competitive AMI market;

[1] Electricity Industry Act 2000 Act No. 68/2000, August 2006
[2] Victoria Government Gazette No. S 200 28 August 2007; No. S 286 November 2007.

- High exit and restoration fees could increase barrier to switch;
- Proprietary and jurisdictional constraints could stifle competition;
- Lack of incentive to achieve service performance targets; and
- Transparent and segregation of costing of AMI infrastructure and services would encourage competition.

- AGL believes that the proposed derogation is inconsistent with the considerations outlined in section 88 and 89 of National Electricity Law.

AGL estimates that the implementation of a minimum level of AMI services would require an investment of $3 to $4 billion[3] in the National Electricity Market (***NEM***). This figure does not include the potential cost associated with risks and disruptions of retail businesses and customers. The roll out of AMI services represents a very significant investment and substantial risks. AGL encourages the AEMC to carefully consider the implications of the determination in relation to the proposed derogation on the long-term development of an efficient and effective market structure and regulatory framework for AMI.

AGL would be pleased to discuss this position with you in further detail. Should you have any questions regarding this submission please contact Kong Min Yep on (03) 8633 6988 or kongmin.yep@agl.com.au.

Yours sincerely

PP
Elizabeth Molyneux
General Manager Energy Regulation

[3] Rollout cost associated with distribution businesses.

Annexure

Detailed Response to the Rule Change Proposal

AGL is Australia's largest retailer of gas and electricity with around 4 million customer accounts in New South Wales, Victoria, South Australia and Queensland (including ActewAGL). AGL has significant investments in upstream energy markets. We own and operate 645 MW of hydroelectric power generation assets, the 1280 MW Torrens Island Power Station and the Somerton gas-fired power stations. AGL also has a 32.5% equity investment in the Loy Yang A power station.

Smart meters may deliver customer benefits and market efficiency

AGL believes that the rollout of smart meters has the potential to improve the efficiency of market operation and investment in electricity infrastructure. In an environment where retail price signals allow for time varying supply cost through smart meter technology and services, the advanced functionality of AMI can facilitate the development of:

- innovative prices, products and services that may deliver significant benefits to customers and the market over medium and long term; and
- an electricity market that supports the rationale for improving price signals to customers and encourage efficient use of energy and investment in supply infrastructure.

AGL notes that retail price deregulation is likely to be necessary in order for there to be adequate retail price signals to customers to achieve these benefits.

National Approach to Smart Meters

In order to maximise the benefit of AMI investment, AGL believes that the AMI rollout should adopt a national approach that is based on a single set of nationally consistent rules and procedures. As the largest retailer operating nationally, AGL believes that significant benefits can only be realistically achieved when there is a seamless procurement, delivery and processing of AMI data and services across state and jurisdiction boundaries.

The development of a nationally consistent set of metrology procedure and rules was significantly progressed when National Electricity Market Management Company (***NEMMCO***) and AEMC determined a National Electricity Market Metrology Procedure[4] (***NEM Metrology***) and Metrology Rules[5] for metering services respectively in 2006. This would be further improved under the current submission by NEMMCO for the harmonisation of rules for the metrology of first and second tier customers[6]. AGL strongly supports an AMI rollout that is based on NEM Metrology and Metrology Rules to assist the delivery a cost effective and efficient AMI services nationally.

AGL believes that the proposed derogation is inconsistent with the progress towards a harmonised national procedure and rules for metering services.

A national approach to metering regulations is consistent with the move by Governments and regulators in creating a nationally consistent regulatory framework for the energy market since 2003. AGL notes the recent transfer of economic regulation of distribution network to a national framework in January 2008 and the expected transfer of retail regulation by 2009[7].

[4] National Electricity Market Metrology Procedure – Final Determination December 2006
[5] National Electricity Amendment (Metrology) Rule 2006 No. 17, November 2006.
[6] Proposed changes to National Electricity Rules – First Tier Metering Installation Requirements by NEMMCO, April 2007.
[7] Ministerial Council of Energy Communique, Perth 13 December 2007.

AGL also notes that the Ministerial Council of Energy (***MCE***) is conducting a study on a national rollout of AMI[8]. AGL supports the approach taken by this study to define and mandate a nationally consistent metrology that provides a uniform platform for stakeholders to develop their systems and processes. It provides more certainty in metrology rules and procedures and consistent meter functionality that will give the industry the confidence to undertake investment in metering data and services. This allows the retailers to focus their resources on developing, offering and supporting innovative products and services that best meet the customer and business requirements.

AGL is particularly concerned that infrastructure provision and data/service delivery could be implemented in jurisdictions with multiple jurisdictional and proprietary constraints that are likely to impede the development of a competitive market for AMI. An example of potential inconsistency can be found in the separately approved National and Victorian minimum meter functionality. The data and event recording and retrieval functionality for the former is a functionality specific to the meter, but is an "AMI System" function for the latter. The latter approach results in the potential bundling of meter, communication and IT services for data and event recording and retrieval that makes it difficult to provide metering as a stand-alone competitive service, particularly if the "AMI system" is proprietary.

The lack of national consistency is likely to impose complexity and cost on retailers through requiring the accommodation of varying requirements for multiple jurisdictions, service providers, functionality and performance levels. It goes against the economic principles of scale, portability and simplicity that underpin the market efficiency and reform over the last few years.

AGL strongly encourages the AEMC to take into account the findings of the MCE study before making a determination on the Victorian proposal.

Competitive Market for Metering Services

AGL believes that competition for the provision of AMI services is a necessary condition for maximising the benefits of AMI rollout. Where a competitive market does not yet exist, then the market structure and regulation should be set up to promote the development of future competition.

A report commissioned by the Victorian government, on which the decision to rollout AMI was based[9], expressed a similar view. The report suggests that the introduction of a competitive market structure around the AMI rollout meant that retailers "could then choose whether they wished to use the distribution businesses' metering and communications or appoint other providers"[10], and that by providing this choice, there "would continue to be a level of competition in metering"[11]. However, the report goes on to specifically note the issues that would be caused by removing this competitive tension, saying that by derogating the rollout of AMI, it would "reduce competition for the vast majority of the metering."[12]

A competitive market for AMI services is more likely to stimulate the growth and competition in the retailing of energy in the mass market. In our view, the quality, value and growth in the provision of AMI services are best achieved when there is competition with low barrier to entry. This is particularly important for AMI services, which rely heavily on technology with short to medium product life cycle. By locking-in with existing technology for significant length of time does not allow the industry to capitalise on improvement in technologies. Furthermore, the deployment of AMI has been taking place in other countries, which provide opportunities for the development of a competitive global market for AMI services.

[8] Cost benefit analysis of Options for a National Smart Meters Rollout, Standing Committee Officials of Ministerial Council of Energy.
[9] Advanced Interval Meter Communication Study, CRA International, December 2005.
[10] Page 6 of "Advanced Interval Meter Communication Study, CRA International, December 2005"
[11] Page 6 "Advanced Interval Meter Communication Study, CRA International, December 2005"
[12] Page 70 "Advanced Interval Meter Communication Study, CRA International, December 2005"

AGL supports a competitive market for metering services that is facilitated by measures such as open communication standards and protocols, service performance guarantees and light-handed regulatory requirements with low barrier to entries, flexibility and minimum cost in switching service providers for AMI services.

However, even if the overwhelming conclusion is that the AMI meters and its associated communication equipment can not be provided competitively in the foreseeable future, AGL believes that the provision of AMI data and services should remain as competitive services. This will allow the retailers to appoint the meter data agent, as they currently do with larger or second tier customers, and maintain a regulated relationship with the DBs for the provision of data recording and collection as well as the sending/retrieving of instructions for advanced AMI functionality. This arrangement has the benefits of achieving market efficiency in processing data and service requests through economy of scale and competition.

Potential negative implications of the proposed derogation

AGL believes that the proposed derogation by the Victorian government needs to be considered in tandem with the legislative settings that underpin the rollout of AMI in Victoria.

The Electricity Industry Act 2000 (***the EIA***) was amended in 2006 to mandate a "relevant licence holder" to rollout AMI in accordance with the terms and conditions stipulated in the EIA and orders published in the government gazette[13]. The proposed derogation effectively mandates the rollout of AMI by the Victorian DBs, which are subject to two orders in council[14] and related specifications[15].

AGL is concerned that these arrangements have the potential to reduce effective competition, or impede the development of effective competition, in the provision of AMI services.

Duration of derogation

AGL understands that the proposed derogation provides regulatory certainty for the distributors to rollout AMI meters by providing an exclusive right to supply AMI and services for five years, which, among other things, eliminates the risk of churns in AMI assets. As a result of the derogation, the DBs will be allowed to earn a regulated return on AMI investment over multiple-five years of price determinations which include a depreciation rate of 15 years for meter assets.

AGL believes that this arrangement will make the cost of churning newly installed meters prohibitive, especially with the back-ending of the meter rollout schedule. In AGL's view, this will further delay the development of effective competition not only during the derogation period but from expiry of derogation of up to fifteen years.

AGL considers that this arrangement is detrimental to the long-term interest of the customers and the development of a competitive market for AMI services.

Exit and Restoration Fees

As indicated in the order in council[16], the distributors would be allowed to charge exit and restoration fees should a retailer choose to switch provider of AMI services. It allows the distributor to recover unavoidable cost relating to removal and re-instatement of AMI metering, IT and communication assets.

[13] Electricity Industry Act 2000 Act No. 68/2000, August 2006
[14] Victoria Government Gazette No. S 200 28 August 2007; No. S 286 November 2007
[15] Minimum AMI Functionality Specification and Minimum AMI Service Levels Specification, the Department of Primary Industries, October 2007;
[16] Victoria Government Gazette No. S 200 28 August 2007

AGL is concerned that if such cost is high, it could hamper the development of a competitive market by raising the barrier of entry for third party providers. Such arrangement does not allow for the market testing of switching cost, as would be the case if the AMI services were offered through a competitive process in an open market.

AGL urges the AEMC to include a transparent process that can be market tested in determining fair and reasonable fees.

As a corollary to the decisions on the metering asset life and switching fees, AGL is concerned that the long-term prospect of developing a competitive market for AMI services is somewhat diminished.

Open Communication Protocols and Standards

AGL acknowledges that the communication protocols and standards for the Victoria AMI rollout has been discussed in an open forum and documented by the Victorian government[17]. It suggests that both ends of the AMI system would adopt open standards, which AGL supports[18]. The report indicates that an open standard that is consistent nationally for other parts of the AMI system[19] may be adopted and/or developed from existing national or international standards. AGL understands that the Victorian government has been reviewing the possibility of such standards being available for the Victorian AMI rollout.

AGL notes the MCE decision on the minimum functionality of a national smart meter rollout acknowledges the importance of open standards to support competition and flexibility, and to reduce future costs and risks. The MCE decision has foreshadowed the development of a supporting framework that promotes the development of open standards and competition as part of any mandate to rollout smart meters nationally[20].

However, it is our understanding that the access standards for Victorian AMI system may be proprietary, localised and unique to each DB. AGL understands that this is due to the lack of a suitable existing standard and/or that the development of a new or modified standard would delay the rollout of Victorian AMI.

AGL opposes the use of a proprietary or "closed" communication protocols and standards in any part of the AMI system. The communication infrastructure forms the backbone of the AMI system in delivering advanced functionality to the meters and customers; and contributes a significant proportion to the capital cost. An open communication protocols encourages the deployment of the most effective communication infrastructure that is capable of delivering optimum value and performance. It improves the scope and opportunity for innovation and technology upgrade that can offer better and cheaper communication solutions.

AGL believes that the use of proprietary communication protocols and standard is not in the long-term interest of delivering the best outcome for the customers and would impede the development of a competitive market for AMI services.

[17] An update on the potential for the adoption of open communications protocols and standards for the Victorian AMI program, Department of Primary Industry, 26 July 2007.
[18] Zigbee AMI for Home Area Network; and MSATS and B2B standards.
[19] LAN and WAN communications.
[20] A national minimum functionality for smart meters, MCE Decision Paper, 13 December 2007.

Service Performance and Standards

AGL is pleased that the performance levels for the proposed AMI services have been defined[21] and published. It covers many performance requirements that AGL supports.

The ability and commitment for the AMI service providers to meet or exceed these performance requirements is paramount to the retailers. Retailers rely heavily on the reliability, security and integrity of data and services interfaces with its providers to service its customers. The risk and loss to retail business in terms of customer churn, higher transaction cost and/or customer complaints caused by service failures can not be understated. AGL has experienced on-going service quality problems relating to current type 5 and 6 metering and data that result in significant amount of manual interventions and billing errors[22]. In some cases, these data and metering quality problems were not discovered and attended to by DBs until they were reported by AGL.

AGL is concerned that a high-volume, time-critical and complex AMI service delivery process could compound the risk of service failures and the potential larger negative flow-on effect on the retail business. This risk could be exacerbated by the reliance on a proposed Distribution/Power Line Carrier (DLC/PLC) communication technology, which is still unproven in Australia. AGL understands that the trials undertaken by the DBs have been inconclusive, with some testings not completed, and may require further work to mitigate risk associated with a large-scale deployment[23].

In a competitive market, there is commercial incentive for an AMI service provider to be accountable for achieving an agreed performance at an agreed price. In the absence of a competitive arrangement, AGL considers that some form of incentive regulation would be appropriate to encourage the service providers to achieve or exceed an agreed performance targets. AGL believes that the cost associated with the risk of service failures should not be borne by the retailer and there should be a transparent process for retailer to resolve issues resulting from persistent service failures.

AGL encourages AEMC to consider carefully the implications of proposed derogation on service performance requirements and provide assurance that enforceable level of service performance can be achieved with appropriate measurements, monitoring and reporting. This may involve a review of the risk premium associated with the provision of leading edge AMI services that are inherently more complex and uncertain in nature compared to the delivery of mature electricity network services.

Cost Recovery and Metering Charges

The proposed derogation, once approved, would allow the DBs to recover the cost of AMI through excluded service charges in accordance with the Victorian order on cost recovery[24].

AGL believes that the AMI cost recovery should be prudent and cost reflective and consistent with the economic principles and approach outlined in the NEL and NER. In particular, the new national regulation for the DB would provide a consistent basis for the determination of regulatory cost and prices across all jurisdictions.

In the interest of transparency and competition, AGL believes that the cost and charges of AMI services should be separated into meter provision, data management and AMI services (eg

[21] Victoria Government Gazette No. S 200 28 August 2007; No. S 286 November 2007; Minimum AMI Functionality Specification and Minimum AMI Service Levels Specification, Department of Primary Industries, October 2007

[22] In one instance, the error rate of data received by AGL from a DB is as high as 60%.

[23] Advanced Metering Infrastructure –Technology Trials Report, Department of Primary Industries, November 2007.

[24] Victoria Government Gazette No. S 200 28 August 2007

remote connections and disconnections etc). This would allow competition in any one or all sectors. It is also important that the cost of regulated electricity network services and related party transactions are ring-fenced to avoid cross subsidisation that may distort competition in the AMI market.

AGL believes that cost relating to elements of AMI infrastructure and service delivery process that facilitates competition should be included.

AGL considers development and implementation cost for an open communication protocols and standards should be included to make sure they are operational before or when the derogation expires. This would reduce the impact of the proposed derogation on competition beyond the intended duration of derogation. The development of competition post-derogation would also be enhanced if an accelerated regulatory depreciation schedule for meters and communication equipment were adopted. It is important that cost for the implementation of a contestable environment for metering and data services is included to enable competition to develop post-derogation.

AGL is of the view that AMI cost should reflect the true cost of providing the services in the interest of maintaining fair competition. This includes rental cost for the use of electricity network assets for AMI purposes and offset derived from AMI services that reduces operating cost of electricity network services.

Considerations for Rule Change under National Electricity Law

AGL is concerned that the proposed derogation may be inconsistent with the requirements of the National Electricity Law (NEL).

Under Section 88(1), AEMC is required to only make a Rule

> "*if it is satisfied that the Rule will or is likely to contribute to the achievement of the national electricity objective*"

Section 7 in the NEL describes the "*national electricity objective*" as to:

> "…*promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—*
>
> *(a) price, quality, safety, reliability and security of supply of electricity; and*
> *(b) the reliability, safety and security of the national electricity system.*"

As discussed previously, the proposed derogation pre-empts the national roll out process and may result in a different process and framework in Victoria compared with the national process. It is difficult to see how this potential outcome would contribute to the national electricity objective of efficient investment in, and operation of, electricity services, particularly in relation to price efficiencies.

In terms of making a Rule under section 89(a) that is a jurisdictional derogation, the AEMC is required to have regard to whether

> "…*the derogation provides for the orderly transfer of the regulation of the electricity industry in a participating jurisdiction under jurisdictional electricity legislation to the regulation of that industry under the national electricity legislation*".

The Victorian Government indicates in section 5.1 of its submission that its proposed derogation is consistent with the consideration set out in section 89(a) of the NEL, on the basis that the derogation will clearly specify the interface between the Victorian and the national instruments.

In AGL's view, the intention of section 89(a) is for a proposed derogation to facilitate the implementation of a national framework, not clarify differences between the national framework and one jurisdiction. The proposed derogation is not consistent with this intention.

Under Section 89(b), the AEMC is required to have regard to whether:

> "*the derogation continues existing regulatory arrangements applying to the electricity industry in a participating jurisdiction …*".

The Victorian Government proposed in section 5.1 of its submission that this reference should be interpreted "*in the context of the continuing development of the national electricity market and progressive transfer over time of regulatory functions*…".

AGL respectfully disagrees with this interpretation of section 89(b). AGL submits that section 89(b) should be interpreted using its ordinary meaning, and the reference to the continuation of existing regulatory arrangements means existing arrangements, and not the further development of those arrangements.

The Victorian Government also notes that the rollout of interval meters is an existing regulatory arrangement in Victoria and that:

> "*distributor exclusivity in relation to relevant metering installations…is an integral part of those existing regulatory arrangements*".

AGL notes that the Victorian Government recently expanded the DB's responsibilities with respect to metering, and that this should be correctly viewed as ongoing development of the individual Victorian regulatory arrangements. This is inconsistent with section 89(b).

AGL submits that the proposed jurisdictional derogation does not meet the considerations set out in sections 88 and 89 of the NEL, which relate to the making of a Rule and a jurisdictional derogation. Accordingly, the AEMC will need to carefully consider whether it may validly make the proposed jurisdictional derogation.