

**ENERGY EFFICIENCY —
PRODUCTIVITY COMMISSION DRAFT REPORT**

SUBMISSION BY ORIGIN ENERGY

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Executive summary

Origin Energy welcomes the opportunity to make a submission to the Productivity Commission Draft Report on Energy Efficiency. In Origin's view the Draft Report fulfils on the Inquiry terms of reference and makes an important contribution to the energy efficiency policy debate in Australia. The approach adopted by the Commission is considered rigorous and comprehensive.

Origin concurs with the Commission's finding that information problems and split-incentives are the most important barriers to higher levels of energy efficiency. Clearly mandatory minimum energy performance ratings and standards (for energy appliances and residential and commercial buildings) have a role to play in overcoming market failures. The challenge for policy makers is to determine the appropriate level of regulated minimums to ensure privately cost-effective energy efficiency investment occurs.

Origin is however concerned about the implication of the Commission's recommendations for the momentum (and potential benefits) of the National Framework on Energy Efficiency (NFEE). While Origin considers the objective and content of most the Commission's recommendations appropriate, it does not consider 'deferment' of NFEE a necessary or desirable consequence. Review of the regulatory impact assessment procedures used to determine regulatory standards for energy efficiency and evaluation of energy efficiency programs performance should occur as a matter of good policy. However they should be integrated into the NFEE as an ongoing component designed to drive continual refinement, feedback and policy improvement as opposed to being conducted outside of the NFEE process.

Indeed it would be irresponsible, and potentially costly for society, if policy makers were to expand energy efficiency programs without proper review and evaluation, but equally so if development of the NFEE was halted and the potential benefits of proposals remained uncaptured as a result. The NFEE has taken substantial time and political will to evolve into a foundation for national policy coordination in what has been a highly fragmented policy environment. Policy certainty is critical to optimal private decision-making and energy efficiency investment decisions being taken over the next few years will determine, and 'lock-in' in some cases, the energy efficiency potential for consumers and businesses for decades to come.

Origin urges the Commission to recommend review and evaluation processes that are integrated into the NFEE as opposed to being administered independently of it. Moreover these processes should be conducted as swiftly as possible, eliminating the need to 'defer' NFEE Stage One Proposals. It is understood that NFEE Stage One Proposals may be amended to reflect the outcome of review and evaluation but policy uncertainty and the potential for loss of momentum may be minimised via an integrated approach.

As far as the overlap between energy efficiency and greenhouse gas (GHG) abatement objectives are concerned, Origin is firmly of the view that independent application of policy in these areas is critical to ensuring least cost outcomes in terms of energy efficiency and for the economy overall. The public good inherent in GHG abatement clearly warrants some form of policy intervention but it does not follow that energy efficiency policy should be used to target emissions abatement objectives *per se*. Higher levels of energy efficiency are one of many potential sources of abatement with uncertain and varying costs over time. A comprehensive GHG abatement policy and associated mechanism for valuing carbon, such as emissions trading, is the most appropriate policy tool to value the externality and enable the market to determine a least cost mix of abatement alternatives.



Energy efficiency policy is most appropriately targeted at information failures inherent energy efficiency investment decisions. The inclusion of the cost of carbon in the price of energy will ensure that the greenhouse gas abatement benefits of energy efficiency are valued in the process. Implicit in this approach is the requirement that regulatory impact assessments, used to determine appropriate regulated minimums, factor in the likely cost of carbon in the future (which is particularly important in the case of long lived assets such building stock). If information failure did not exist and regulation was not required one might well argue that the price mechanism would ensure an appropriate weighting of expected carbon price in expectations about energy prices in the future. However, in the presence of information failures, if the expected costs of carbon are ignored in the analysis energy consumers are likely to be unhedged in the face of substantial carbon constraints in the longer term.

Origin looks forward to the Commission's Final Report.

Introduction

Origin supports the approach adopted by the Commission primarily because it addresses the fundamental policy questions relevant to energy efficiency policy:

- Is there a gap between the current level of energy efficiency in Australia and the optimal level?
- Why is government intervention required to encourage more energy efficiency if individuals and businesses stand to gain benefits as a result?
- What forms of government intervention are most cost effective in targeting given policy objectives?
- What changes to energy efficiency regulation are required to enhance economic and social welfare overall?

In Origin's view the logic of this approach is designed to result in a sound policy prescription for policy makers to follow. By contrast, an alternate presumption might be that current levels of energy efficiency in Australia are too low and government policy measures that raise this level must be in the community's interest. Starting with such a presumption could result in inefficient policy prescriptions if adhered to. The challenge for the Final Report is to elucidate the approach adopted sufficiently to overcome similar presumptions about energy efficiency policy. Prior to the release of the Draft Report the energy efficiency policy debate had been guided, somewhat, by a set of presumptions that have been identified as invalid (or at least qualified) in the Draft Report.

Australia's relative energy efficiency performance is lagging compared to trading partners and is therefore too low.

The reality is that improvements in energy efficiency save resources on the one hand and use additional resources on the other. The additional upfront cost of energy efficiency appliances, building materials and equipment effectively reduces the capacity of individuals and businesses to purchase and consume other goods and services of value. Because the cost of energy can vary significantly across countries the savings (and potential net benefit) created by improvements in energy efficiency also tend to vary by country. In Australia, where energy costs are among the lowest in the world, a relatively low level of technical energy efficiency is to be expected and entirely appropriate. Indeed it may be irrational to pursue (and bad policy to mandate) levels of technical energy efficiency that match world's best practice.

Individuals and businesses that ignore energy efficiency investments with positive pay back calculation results must be myopic and irrational.

Decision makers' true cost of capital is not always adequately reflected in the discount rate assumed in pay back calculations for assessing energy efficiency projects. There is likely to be a wide range of capital costs applicable across decision makers especially when factors, such as risk and effort, are appropriately factored in. Conservative discount rates can explain a degree of what only appears to be irrational behaviour. It is acknowledged that information problems are also likely to explain a degree of this behaviour which may justify higher levels of energy efficiency be pursued.

Higher standards of energy efficiency regulation are justified on the grounds of environmental benefits.

Underlying policy issues are sometimes collapsed and Origin and environmental benefits often used as the underlying impetus for energy efficiency policy. In Origin's view there

are two relevant sources of market failure driving a wedge between current levels of energy efficiency and optimal levels (those that fully satisfy the community's private and social valuations):

1. information problems — where decision makers face less than full information about the costs and benefits of energy efficiency investments; and
2. environmental externalities — where decisions makers face a price for energy that fails to reflect the consequent impact on the environment.

Amelioration of either market failure via policy mechanisms is likely to increase the adoption of energy efficiency investments and the allocation of resources across the wider economy. If both sources are addressed the improvement will be even greater. However, it does not follow that the most effective and efficient overall policy response is to use energy efficiency policy to target both sources of market failure. Taken in isolation both sources have an optimal policy response which is likely to involve using a specific policy tool to mitigate a specific market failure. In the case of energy efficiency the optimal policy tools are likely to be different because information problems associated with energy efficiency have little if anything to do with the environmental externality associated with energy supply. That is, it would be a coincidence if the same policy tool happened to be the most appropriate for targeting both sources of market failure (even though the objectives of both policies clearly linked).

The space in Chart 1 describes the potential energy saved (indicated by the vertical axis) from the full range of energy efficiency investment projects. The solid line represents the *actual* savings available from all investments with a given *privately* economic payback period (say 3 years for example) at different energy prices (with the number of projects with a 3 year payback period and the value of energy saved by these projects increasing as the price of energy increases). The dotted line represents the privately *perceived* savings available from all investments with a 3 year payback period (which is lower than the actual because of information failure). The region to the upper left of the investment payback curve(s) represents projects with uneconomic payback periods and the region to the lower right of the investment payback curve(s) represents all projects with economic payback periods (between 0 and 3 in this example). As the price of energy increases (indicated by the horizontal axis) more energy efficiency projects are implemented as investment payback periods reduce for all projects (all other investment variables assumed constant).

The efficiency and effectiveness of policy may be compromised if one policy tool is used to redress both information problems and environmental externalities. Referring to Chart 1, the normal level of energy efficiency investment undertaken (in the absence of any policy intervention) is indicated by number 1. The level of energy efficiency investment induced by energy efficiency policy alone is indicated by number 2 (and involves a shift in the energy efficiency investment payback curve). The level of energy efficiency investment induced by greenhouse gas policy alone is indicated by number 3 (and involves a movement along the energy efficiency investment payback curve). The optimal level of energy efficiency investment undertaken in response to the combined effect of both energy efficiency policy and greenhouse gas policy is indicated by number 4.

Either policy tool could be used in isolation to achieve the energy savings equivalent to number 4 but the cost is likely to be considerably higher. Greenhouse gas regulation could be used to increase the price of energy until the level of energy efficiency investment indicated by number 4 was undertaken (that is, as energy price increases the payback period of projects shortens and more investments become privately perceived as viable). Conversely, energy efficiency regulation could be used to reduce energy supply

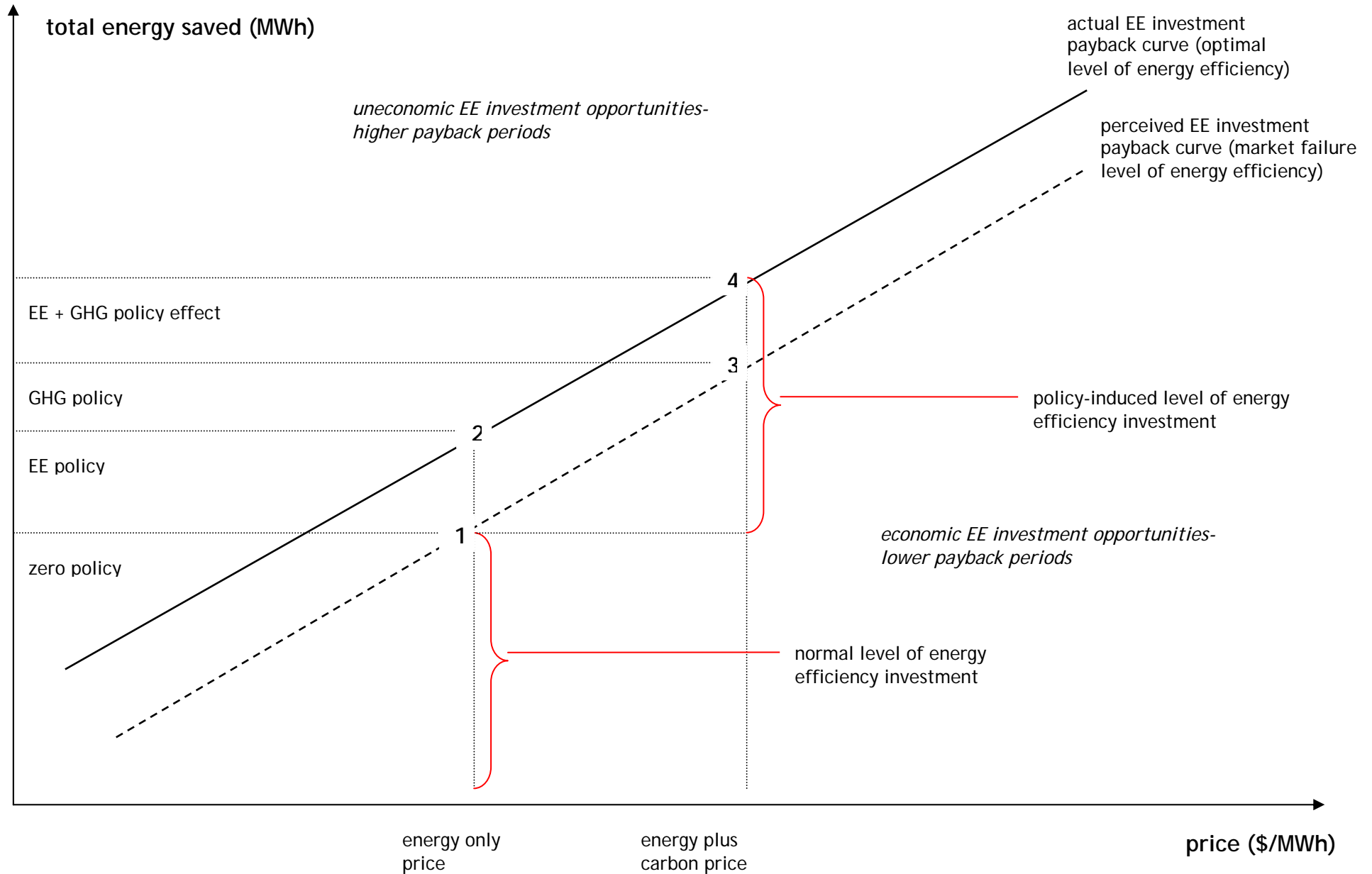
until the desired level of greenhouse gas abatement had occurred (that is, as the demand for energy declines so do emissions). In both cases the costs of achieving these policy objectives are likely to be higher than necessary. In practical terms this is because energy efficiency policy does not target the full range of greenhouse gas abatement options across the economy and, similarly, because greenhouse gas regulation does not target the information failure associated with energy efficiency investment decisions.

For example, an energy efficiency target for the economy is likely to imply GHG costs well above current expectations about GHG costs. Inefficiency arises because GHG abatement alternatives costing less than the implied costs would not be capitalised on (assuming there was no economy-wide carbon signal in place).

The least cost policy prescription would be to set both policy tools to the level required to mitigate the market failure they are being targeted at which in turn balances efficiently their respective roles in achieving energy efficiency policy objectives (and greenhouse gas abatement objectives). The balance would occur because it is via the price signal that these policy tools interact and because consumers have the necessary information to interpret this price signal.

Some Inquiry participants have expressed concern about the Inquiry terms of reference being too narrow and focussing only on the private benefits of energy efficiency. Origin takes the opposite view. This distinction actually aids in the policy design process by ensuring an appropriate separation of policy issues (as discussed above). Clearly both energy efficiency policy and greenhouse policy are required to ensure optimal energy efficiency outcomes. The Australian Government has acknowledged the need for deep cuts in emissions and jurisdictional Governments' have agreed to an inter-jurisdictional policy framework to create a carbon signal and address emissions abatement nationwide. In Origin's view the combination of this policy process and a sound NFEF will deliver the full environmental and private benefits available from energy efficiency.

Chart 1: Effects of policy on the level of energy efficiency



General

Behavioural and organisational limitations on the adoption of energy efficiency improvements do not of themselves warrant government intervention. Understanding these limitations may, however, be helpful in designing efficiency programs that address environmental externalities, information failures and other sources of market failure (Draft Finding 5.1)

Other barriers and impediments that are not market failures (for example, high transaction costs, risk and uncertainty in implementation) may provide rational reasons for the non-adoption of energy efficiency improvements that appear (to an outsider) to be privately cost effective. The role of governments in addressing these issues may be quite small (Draft Finding 5.2)

In Origin's view it is not the role of government policy to target behavioural and organisational limitations *per se* which tend to be symptomatic rather than causal in the matter of investment in energy efficiency. Nor is it the role of such policy to encourage individuals and businesses to ignore barriers and impediments not related to market failure but a function of real resource costs and therefore a valid part of rational decision-making.

Numerous case studies have found that producers and consumers fail to adopt some energy efficiency improvements that appear to be cost effective for them. These case studies, however, are based on many debatable assumptions, including:

- *the criterion for cost effectiveness*
- *business-as-usual improvements in energy efficiency*
- *extrapolation of audit and best-practice study results to a whole sector*
- *representativeness of simulated producers and consumers (Draft Finding 6.1)*

Assumptions such as those referred to the Report are likely to explain a portion of the purported gap in cost effective energy efficiency investment. This gap refers to the difference between observed levels of energy efficiency in Australia and current upper technical limits adopted in other countries. In Origin's view observable market outcomes will, in the absence of market failure, reflect the true underlying economics of energy efficiency.

National uniformity has been achieved in the regulation of energy labelling and minimum energy performance standards (MEPS) for electrical appliances and this is appropriate. If a revised scheme for energy labelling and MEPS for gas appliances is to be introduced, a similar approach to coordination would be desirable (Drafting Finding 11.1)

There does not appear to be an economic justification for treating gas appliances differently to electrical appliances as far as labelling and minimum energy performance standards are concerned. A similar approach would also be entirely consistent with convergence of regulation of these two fuels more generally.

The current state and territory based variations in energy efficiency standards for new houses increase costs for the building and building products industries. The case for such variations appears to be weak (Draft Finding 11.2)

Apart from the question of the appropriate level of standards, there should be no variation in standards purely as a result of jurisdiction. Climate and other factors may result in different standards in some jurisdictions but these ought to only relate to energy

efficiency variables and the cost effectiveness of standards under different conditions (which are also likely to vary within a jurisdiction).

The Australian Building Codes Board should examine ways to reduce the scope for local governments to erode the uniformity of minimum energy efficiency standards for new houses (Draft Recommendation 11.1)

Origin supports this recommendation. The purpose of regulation is not to reflect the many and varied preferences of consumers. Markets perform this function dynamically and far more effectively and efficiently as a result. Regulation that varies from region to region distorts allocation decisions and is likely to impede rather than enhance the markets' ability to reflect consumer preferences (especially where standards are too high).

The National Framework for Energy Efficiency has the potential to improve national coordination and guide the development of energy efficiency programs. At present, however, there is insufficient clarity on the rationale for, and the objectives of, government intervention. There has also been insufficient evaluation of past policies and programs (Draft Finding 11.3)

While there is scope for improvement, the NFEE represents a victory in terms of jurisdictional policy agreement and coordination and participating governments are to be acknowledged for this.

National Framework for Energy Efficiency Stage One proposals (that are not directly affected by other recommendations) should be deferred until independent evaluations of existing energy efficiency programs have been undertaken. The evaluations should determine the effectiveness of these programs in promoting the uptake of cost-effective energy efficiency improvements (Draft Recommendation 11.2)

Evidence to the Inquiry challenges the comprehensiveness of some regulatory impact assessment procedures and the lack of evaluation of post program effectiveness in some cases. There is no doubt that these aspects of the NFEE require urgent review and evaluation, but the imposition of another (independent) process and the consequent deferment of NFEE Stage One Proposals should be avoided if at all possible in Origin's view. Ideally review and evaluation processes are an integral and periodic part of a policy framework. This way policy processes are continually refined and improved while maintaining a degree of regulatory certainty for stakeholders. An integrated policy feedback loop should ensure that changes to policy parameters are relatively minor over time and, most importantly, anticipated by stakeholders because of their integrated nature. External, one off reviews and evaluations that occur without warning are likely to cause stakeholders to lose faith in the policy process and potentially de-rail the process altogether (or at least cause a halting of its momentum).

A national energy efficiency target is a poorly focused policy instrument that would be very difficult and costly to implement in an effective manner. It can not be justified on the grounds of privately cost-effective energy efficiency. It may help to drive investment in energy efficiency, but this would be at the expense of economic efficiency. As a measure to address greenhouse gas abatement, it has serious disadvantages compared to other options such as an emissions trading (Draft Finding 12.1)

Origin concurs strongly with this finding. A national energy efficiency target is an inappropriate and potential costly policy tool for the purpose of targeting market failure impeding energy efficiency. Establishing a target level of energy efficiency implies that policy makers can determine the optimal level of energy efficiency. This level is likely to

change with economic circumstances overtime and is best determined by individual decision makers on a case-by-case basis rather than centrally.

GHG abatement objectives are best delivered by a national emissions trading scheme which would automatically encourage greater levels of energy efficiency in the process (via the internalisation of the cost of carbon into energy efficiency investment decisions). A national energy efficiency target could imply significant GHG abatement costs by forcing uneconomic energy efficiency projects to go ahead.

Residential

Appliance energy-performance labels are not a major determinant of which appliances householders buy. But the labels do have some influence on consumers after they have short listed products on the basis of characteristics such as price, performance, capacity and style. While the benefits of energy-performance labelling may have been overstated in regulatory impact assessments, labelling is likely to have produced net benefits for consumers (Draft Finding 7.1)

Labelling is a relatively low cost regulatory option designed to provide consumers additional information about the energy efficiency dimension of a product (to be assessed in conjunction with other product information). While the value of such information is likely to vary considerably from buyer to buyer and product to product, the overall impact of labelling is more than likely to improve market efficiency.

The National Appliance and Equipment Energy Efficiency Committee should adopt procedures to ensure that future regulatory impact assessments of appliance minimum energy performance standards (MEPS) include a more comprehensive analysis of:

- *why consumers – with guidance from an energy-performance label – are not best placed to judge what is in their best interests;*
- *whether a voluntary standard, such as the Energy Star program, would be more cost effective;*
- *what proportion of consumers would be prevented from buying appliances that are more cost effective for them;*
- *the extent to which consumers would be forced to forgo product features that they value more highly than greater energy efficiency;*
- *the distributional impacts, including the extent to which MEPS are regressive;*
- *whether MEPS would reduce competition and how this would affect prices and service quality; and*
- *whether a dis-endorsement label would achieve a more cost-effective result (Draft Recommendation 7.1)*

Origin supports this recommendation. MEPS is a relatively interventionist form of regulation and as such it is important that any standards are supported by clear and unambiguous benefits. Subject to this statement, it is Origin's view that MEPS can play an important role in eliminating worst practice and encouraging innovation amongst producers to develop low cost improvements in energy efficiency.

Before the States and the Northern Territory mandate energy-performance ratings for existing dwellings at the time of sale or lease, the Ministerial Council on Energy should commission an independent evaluation of the ACT rating scheme that has operated since 1999. The evaluation should include an assessment of:

- *the accuracy of home energy ratings in predicting the actual energy performance achieved by home buyers and tenants; and*
- *the costs, benefits and effectiveness of the scheme, taking account of the diverse preferences and financial circumstances of individual home buyers (Draft Recommendation 7.2)*

Origin supports this recommendation. Insufficient evidence as to the cost effectiveness of current mandatory energy performance ratings in the ACT is available to warrant their expansion without review and assessment. As with mandatory minimum standards, any question of cost effectiveness should be resolved before standards are imposed in other jurisdictions.

Energy efficiency standards for residential buildings are based on computer simulation models – such as the Nationwide House Energy Rating Scheme energy-rating software – that exclude many of the determinants of a building’s actual energy efficiency (Draft Finding 7.2)

A ranking of residential buildings by star rating (using energy-rating software such as Nationwide House Energy Rating Scheme) may be very different from a subsequent ranking based on actual energy consumption or efficiency (Draft Finding 7.3)

New or more stringent energy efficiency standards for residential buildings should not be introduced until existing standards have been fully evaluated. The evaluation should be commissioned by the Australian Building Codes Board to:

- *consider whether defining building standards in terms of simulated heating and cooling loads is an effective way to raise actual energy efficiency;*
- *investigate whether weaknesses in energy-rating software distort the housing market in favour of particular building designs that are not necessarily the most cost effective, particularly over the longer term as innovations are made in building design;*
- *evaluate costs and benefits in a way that takes account of the diverse preferences and financial circumstances of individual home buyers;*
- *assess how effectiveness and compliance costs differ between the deemed-to-satisfy and performance-based standards;*
- *analyse the distributional impacts of standards on different socio economic groups, including first-home buyers and less-affluent groups; and*
- *examine the process used to set the stringency of standards in the Building Code of Australia, including the impact of any increase in stringency by individual States and Territories (Draft Recommendation 7.3)*

Origin supports this recommendation. Biases in measuring the energy efficiency of buildings (using software simulations as a proxy in this case) need to be rectified to avoid the imposition of building requirements that cost more but fail to deliver net benefits to the consumer.

Commercial and industrial

There are many reasons why firms might choose not to adopt energy efficiency improvements that appear to be privately cost-effective, but the only two that might warrant government intervention are market failures in regard to information and split incentives (Draft Finding 8.1)

Government should not become involved in accreditation of energy consultants and energy service companies because this function can be adequately performed by an industry or professional association like the Australasian Energy Performance Contracting Association (Draft Finding 8.2)

The costs and benefits of a policy of government facilitation of business transactions with energy service providers should be evaluated against alternative mechanisms which promote the market provision of energy efficiency advice or services (Draft Finding 8.3)

In Origin's view, information problems (including non cost-reflective pricing) are at the source of market failure in energy efficiency and that the only legitimate role for Government policy is to target these areas. Further, policy intervention in these areas must be careful to avoid crowding out alternative private sector responses to information problems (which may be more efficient).

The need for special energy efficiency research and development funds has not been substantiated, given that funds can be sourced from existing more general research and development programs (Draft Finding 8.4)

Origin concurs strongly with this Finding. Support for legitimate research and development in energy efficiency is already available under general government research and development programs.

The Commission does not support provision of direct subsidies to firms to undertake energy efficiency improvements which are privately cost effective for those firms. Subsidies may, however, have a role in encouraging the uptake of improvements that have important spill-over effects (Draft Finding 8.5)

The case for government subsidies to encourage energy efficiency improvements should be separated from the means of funding those subsidies, such as by hypothecated levies (Draft Finding 8.6)

Origin concurs strongly with these Findings. Government policy that targets information problems (as opposed greater energy efficiency *per se*) is a more direct and cost effective way of stimulating the optimal level of energy efficiency investment. If there was a case for subsidies, hypothecation of levies would only be efficient in the unlikely case that a strong nexus existed between the levy and the area of funding.

A policy of mandatory energy efficiency opportunities assessments is not warranted on private cost-effectiveness grounds. There would be no justification for mandating the implementation of Energy Efficiency Opportunities Assessment results (Draft Recommendations 8.1)

Origin agrees that mandatory implementation of energy efficiency opportunities assessment results is unnecessary and potentially costly to the economy (given that information problems and not implementation problems are at the source of market failure in this area). Given the Australian Government's current policy stance it would appear that, at the very least, mandatory auditing will be implemented for large businesses that would then be free to implement the results (or not). While Origin is not against mandatory auditing *per se*, there is a concern about the technical focus of

auditing standards currently used in Australia generally (either directly by Government agencies or indirectly by private auditing firms adopting government standards). They fail to provide decision-makers with practical solutions to achieve energy reductions in the context of their specific circumstances.

Prior to the implementation of mandatory auditing by the Australian Government, auditing standards should be reviewed in consultation with industry to reflect a more holistic approach to identifying and assessing energy efficiency opportunities.

Energy efficiency standards for commercial buildings should not be introduced without a more thorough evaluation of the costs and benefits of such a policy and a comprehensive analysis of the other policy options. In such an evaluation, the Australian Building Codes Board should give greater consideration to:

- *the sensitivity of regulatory impact statement estimates of cost savings to the assumptions used;*
- *the costs of introducing energy efficiency standards, including administration costs and compliance costs; and*
- *the effectiveness of standards in achieving higher actual energy efficiency (Draft Recommendation 8.2)*

Origin supports this recommendation. Insufficient evidence as to the cost effectiveness of current energy efficiency standards for commercial buildings is available to warrant their expansion without review and assessment. As with mandatory minimum standards and mandatory energy performance ratings, any question of cost effectiveness should be resolved before standards are imposed in other jurisdictions.

Transport

Markets provide extensive information to consumers regarding fuel consumption of motor vehicles. Nonetheless, the Australian Government's Fuel Consumption Labelling Scheme and Green Vehicle Guide provide relatively low cost, accessible and comparable information to consumers, and may be justified as part of the more fundamental objective of encouraging consumers to reduce the adverse environmental impacts of motor vehicle use (Draft Finding 9.1)

Fleet-wide fuel consumption targets for new motor vehicles sold in Australia are likely to have had only a limited impact on the fuel efficiency of the new vehicle fleet. Significantly tightening such targets and making them compulsory would be likely to impose additional costs on consumers (Draft Finding 9.2)

Efficient road congestion pricing would lead to increases in energy efficiency by improving traffic flow and diverting some peak-hour journeys to alternative times or to more energy-efficient means of transport. These increases would be cost effective for the community (if tolls are set appropriately) in that costs to those excluded are more than offset by the gross efficiency benefits to those who continue to travel. However, these energy efficiency gains will not be privately cost effective for all road users. Reductions in fuel consumption and cleaner burning of fuel would also provide significant local environmental benefits and reductions in greenhouse gas emissions (Draft Finding 9.3)

The TravelSmart program improves the energy efficiency of transport by providing consumers with information regarding less fuel-intensive travel options and means to reduce the need to travel. TravelSmart simultaneously addresses several policy issues –

greenhouse gases, air pollution, and personal health and fitness – in a way that allows consumers to choose which options are most cost effective for them (Draft Finding 9.4)

There remains some scope for additional regulatory reform in the road and rail sectors, which would improve overall efficiency and would probably lead to some increase in energy efficiency within each sector. Reforms may alter the competitive position of road freight compared to rail, which might change the energy efficiency of the overall freight task, but this would not be an appropriate reason for delaying such reforms. There appear to be few regulatory impediments to a privately efficient modal split in the freight sector that would have any significant impact on energy efficiency (Draft Finding 9.5)

Origin agrees that more cost reflective transport infrastructure and fuel price signals will drive further cost effective energy efficiency in the transport sector in the same way that more cost reflective signals in the residential energy market are expected to.

Government as energy users

The use of energy targets for government operations could result in a deterioration of the overall effectiveness and efficiency of government services. Using energy-intensity performance indicators instead of targets can reduce this risk and help identify opportunities for cost-effective improvements in energy efficiency (Draft Finding 10.1)

Addressing cost-effective energy efficiency in procurement policies, provided there is sufficient flexibility, could lead to environmental benefits and a small increase in the overall efficiency and effectiveness of government operations. There may be some additional benefits through demonstration effects and market development, but these are unlikely to justify procurement decisions which are not cost effective for government operations (Draft Finding 10.2)

Government, as a user of energy, should approach energy consumption and investment decisions in the same way as a large firm would (notwithstanding the demonstration and leadership role it could take on behalf of the community). Government should not be expected or forced to invest in levels of energy efficiency beyond what is privately cost effective, for the same reasons that firms, such as Origin, should not be. Public resources are as valuable to society as private resources.

Role of energy market reform

More cost-reflective pricing has the potential to improve energy efficiency by influencing both consumer and supplier behaviour, particularly in the longer term when consumers have both more information and opportunity to modify their behaviour, and producers have the opportunity to respond to changed market conditions (Finding 13.1).

Any mandated roll out of interval metering devices should be subject to a comprehensive benefit-cost analysis. Mandated roll out of technologies should not preclude choice in the device or competition between service providers (Draft Recommendation 13.1)

Origin supports this recommendation. While Origin supports the move to cost-reflective pricing of energy, which will be facilitated by interval metering technology, it does not support the case for *mandating* the adoption of this technology. With technology costs declining Origin would expect the deployment of this technology by the market when and where there are clear commercial drivers for doing so. Premature adoption of interval



metering technology (forced by mandatory roll out) is more costly than allowing a market- based deployment to occur naturally.