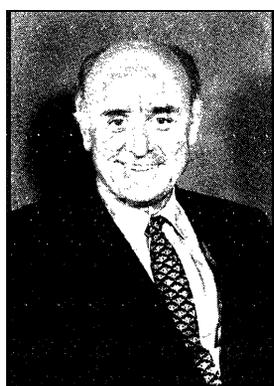

Forum

Efficient energy markets: The ACCC, competition and regulatory issues



The following is an edited version of a presentation given by Commission Chairman, Professor Allan Fels, to the Inaugural Conference of Energy Users' Association of Australia, 19 November 2001.

The effort needed to develop a national energy market must make its

establishment one of the most significant events in Australian policy development.

Yet, now we have a national market for electricity and have started to establish one for gas much of the impetus for reform has evaporated. Not only are there still outstanding issues associated with these markets but there is a growing attitude that perhaps the reforms should be turned back. Thus, after a promising early campaign to implement national markets for energy, we now find ourselves facing various regulatory and policy challenges. Most of us understand that there are unresolved issues and that the benefits of these national markets are not yet fully realised. Most of us understand that this comes at a cost to all consumers.

First, I will talk about the gas market and the regulatory issues associated with developing a national gas market. Then I will focus my remarks on the nation's electricity system and the issues that arise from the operation of the national market for electricity. These include:

- the way the demand side of the national electricity market is enhanced
- the move to a regime of network pricing that encourages efficient network use and which efficiently signals the need for future investment
- improved market design

- the removal of impediments to prudent interconnection between regions.

And I would like to try to answer whether the current arrangements for the governance of the national electricity market are good enough, or whether they are just near enough.

In all of this, the roles of customers and consumers along with associations such as the Energy Users' Association of Australia are critical. We all need to become involved in the debates about the energy market and its future direction. In this I am pleased the Energy Users' Association of Australia (EUAA) has already shown its willingness to become involved and I strongly encourage it to continue to do so.

The Commission's role

The Commission's interest stems from obligations specified in the Trade Practices Act, the broad provisions of which cover the economy as a whole, not just electricity and gas. The relevant sections of the Trade Practices Act are as follows.

- Part IV covering anti-competitive conduct and arrangements.
- Part IIIA which sets out a general framework for businesses to obtain access to the services of essential infrastructure facilities—access to the electricity transmission and distribution networks in the national electricity market (NEM) and access to gas pipelines is addressed in this way.
- Part VII dealing with authorisation and providing protection from action by the Commission for potential breaches of the Act. It has been one of the more used provisions of the Act covering a wide range of market arrangements from airlines, grape growers, to newsagents and of course electricity and gas industries.

The gas industry

The gas industry has a way to go before we can say we have a truly national market with a strongly integrated pipeline grid. Governments began to develop this market through the 1994 Council of Australian Governments (COAG) agreement to

address problems such as free and fair trading in gas by tackling, for example, industry fragmentation and monopoly power. For instance, the gas code was introduced to provide a uniform framework for third party access to natural gas pipelines.

The Commission's primary function under the gas code is to assess proposed access arrangements, or proposed changes to them. It must be satisfied that the terms and conditions contained in an access arrangement are reasonable. The most critical and contentious aspect of an access arrangement is the reference tariffs (price) that access seekers pay to the pipeline owner.

While the regulatory framework has been established to facilitate access to gas pipelines by competing gas suppliers and retailers, there are still matters that need to be attended to urgently.

Upstream reform and joint marketing of gas

It has long been recognised in the gas industry that without more competition between gas producers much of the potential gain from downstream gas reform may not be realised. Issues of particular concern are:

- acreage management—granting and relinquishment procedures for exploration and production permits
- access to gathering lines and/or processing plants whereby smaller producers can take advantage of existing production and extraction infrastructure
- the practice of joint marketing of gas by producers.

Gas exploration and development is usually carried out under joint venture arrangements in which costs, risks and benefits are shared by various companies. Typically, joint venturers seek to market their gas on common terms and conditions, including price. While joint marketing can have its place, it can severely inhibit intra-basin competition developing when producers compete for customers according to price and product quality. Removing such competition effectively reduces the number of competing producers and the incentives to explore and market gas products to consumers.

While the Commission has authorised joint market arrangements from time-to-time based on public benefits associated with the development of new gas fields, governments too have helped shield such arrangements from the scope of competition law.

While this is understandable during early development of the gas industry such exemptions will provide few sustainable benefits as the market matures and we want to encourage further development.

The reform of access to prospective areas also needs to be addressed. It could be expected that the gas market will develop as parties become more adept at secondary market trading in gas and pipeline capacity—that is, between parties other than those that originally entered into the contract—and through greater pipeline integration. However, much of the opportunity for market development will be lost if there are no initiatives to encourage greater exploration and gas processing competition. Reform initiatives in areas such as acreage management and access to gathering and processing facilities are essential.

Access to pipelines can deliver only limited reform benefits. If a national gas market is to evolve then upstream reform is essential.

Rates of return and incentives

Some argue that gas industry reform has not gone far enough, while industry interests claim that regulatory reforms have gone too far and are discouraging an integrated pipeline system necessary for the creation of a national gas market from developing. The return on investment and the approach to new investment is often cited as examples of the failure of the regulatory framework. I note that Mr Rod Sims, a director of Port Jackson Partners Ltd, made an interesting observation recently in a speech on transmission and distribution. Mr Sims' research, in our view, suggests more than healthy returns for the regulated returns compared with the unregulated returns.

Similarly the Commission has commented that it believes that the returns it sets for regulated businesses are more than adequate to encourage investment in pipelines, transmission wires and so on. To determine how we compare with the returns allowed by other regulators, the Commission asked National Economic Research Associates (NERA) to undertake a study of regulated rates of return in the gas and electricity transmission and distribution industries in North America and the United Kingdom.

While such international comparisons must be interpreted carefully, the NERA study did not provide any evidence that the Commission was setting relatively lower rates of return. In assessing its findings, NERA concluded there was little evidence from the decisions surveyed that Australian regulators are offering lower investment incentives

than North American and UK ones. Furthermore there were reasons to suggest that Australian regulatory decisions may be relatively more generous than is implied through a simple comparison of declared rates of return across jurisdictions. However, it is important to understand that the Commission in its regulatory role does not directly control the returns that regulated businesses can earn. If a business is able to outperform its forecasts it can exceed the benchmark returns for the regulatory period.

Incentive regulation, as applied by the Commission, works on two levels. First, it encourages service providers to reduce their costs in any given regulatory period. If the provider realises cost savings in that period, it retains them. Second, when price caps operate, a service provider who is able to increase volumes above the forecast level is able to retain the benefit of that market growth. The overall effect is to encourage service providers to maximise returns by making efficiency gains and growing the market. These gains can then be shared with consumers in the medium to longer term.

Regulation of greenfields (new) pipelines

The Commission is well aware of the arguments that greenfield pipelines should be treated differently to established ones for regulatory purposes. It is argued that new pipelines face greater uncertainties than more established ones.

In the access arrangement for the central west greenfields pipeline the Commission addressed various greenfields issues. In addition to a return on equity at the high end of the feasible range, this decision provided for losses to be carried forward into future recovery. The access arrangement review period was extended to 10 years to allow any upside from volumes above those forecast to be retained by the service provider. Addressing greenfields risk in the gas sector is a major challenge facing the Commission, and one to which we are giving careful consideration.

The Commission is currently preparing a guideline on regulatory options for greenfields pipelines. One purpose is to provide potential investors with some certainty of the approach that the Commission will take in regulating greenfields pipelines, and thus alleviate perceptions of regulatory risk. The Commission recently held roundtable discussions with key industry participants to canvass their views on several Greenfield pipeline issues. Information and viewpoints gained from these will help the Commission in drafting the guideline.

The national electricity market

Australia's national electricity market was born during the 1990s out of special premiers' conferences, and meetings of COAG. At these, governments concluded that a national electricity market would lead to:

- a more rational use of generation capacity
- the more efficient timing of new plant construction
- the more flexible use of different fuel types
- potentially cheaper electricity
- environmental benefits perceived to flow from lower greenhouse gas emissions.

Governments then developed a set of principles that are now reflected in the national electricity code. These include an open and non-discriminatory access to the electricity transmission and distribution network, free trade in wholesale electricity, coordinated dispatch of generation and demand management, competitive sourcing of generation capacity, and the progressive introduction of competition.

The result has been the dismantling of state-owned, state-based, vertically-integrated monopolies. The functions of generation, transmission, distribution and retailing were made separate, corporatised and in some cases privatised.

Since 1998 the national electricity market has allowed for trading between generators and customers in New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory. Once Basslink is built, Tasmania will be linked to the market.

This is reasonable, we think. Theory and our own corporate experience show that markets that are not competitive generally work to the detriment of the public and disadvantage of consumers. Competitive markets encourage the efficient use of resources and signal the need for investment.

Issues arising out of the operation of the national electricity market

The performance of the national electricity market and its future direction have provoked considerable comment. You will be aware that COAG recently set in train various initiatives to address energy and electricity issues. These include:

- a new Ministerial Council on Energy
- a NEM Ministerial Policy Forum
- an independent review of energy market directions.

Still to be addressed are the structure, competitiveness, and effectiveness of the NEM and a thorough examination of the market could give further impetus to reform.

Demand-side issues

Although we have successfully created a market, it is predominantly a supply-side one; that is, activity in the wholesale market is dominated by generators, or portfolio groups of generators. Most of the market activity relates to the activity of generators, and the way generators are loaded onto the market through the pool. There is little to do with active demand side, and the regulated sector of the market, the wires businesses, is not necessarily influenced by what is happening in the wholesale market.

Supply-side

In states other than Victoria, portfolios of generators, as compared to individual power stations were created. The use of the portfolio umbrella in New South Wales, in Queensland and in South Australia strengthens the position of these businesses. Hence, in these states the generator sector retains market power, which is in itself a cause for price volatility. This is an issue that deserves closer and more detailed scrutiny.

As well as the structure of generation portfolios, demand-side participation and full retail contestability are major issues to be addressed in the creation of a fully functioning market. Bolstering the demand side is important, because it makes for a fully functioning market. Consumers will then have the best possible combination of price and service.

Full retail contestability has been on the agenda of the NEM for a while now. It is a way to deliver price signals to the market and incentives to provide efficient consumption decisions. Such signals will indicate to retailers what services consumers want, as well as what consumers are willing to pay.

When fully developed, demand-side management will result in a choice of electricity plans, to some extent analogous to those in the telephony market. For example, agreements between retailers and customers may sometimes result in lower prices.

I realise that the step to full competition needs a commitment by governments to appropriate market structures. Governments need to understand that competitive markets can deliver better outcomes for all consumers.

Preventing competition is not the same as protecting business and consumers. In fact, the stifling of

competition results in losses, which are invariably borne by consumers including business as consumers.

The best way to protect customers in an electricity market is to give them market power. Full retail contestability and demand-side management gives consumers choice and leverage in a market for which such choice has never existed. For these reasons, demand side issues deserve greater prominence and real attention by governments.

Network pricing and efficient network use

As well as improving the demand side of the market, there also exists the opportunity to align network services so that they take into account their impact on the energy market.

The marked changes to the generation sector have increased competition and significantly increased productivity and efficiency. As retail competition is introduced in stages, it will also become a driving force in generating further benefits.

However, finding the optimal system for pricing access to the network has always been difficult.

The Commission recognises the history behind the code's development and the adoption of compromises on network pricing that are embedded in the code. We understand that a tension exists between pricing that reflects the full costs of using the transmission system and prices that are averaged so that all users pay about the same regardless of how much of the network they use. However, we have never been convinced that the debate about the best form of network pricing has been exhausted, nor have we thought that the benefits of reform would be maximised if we were to decide not to explore the possibility of introducing prices that better reflect usage of the network and location.

From its current assessment of the transmission network pricing code changes, the Commission learnt that it needed to consider such changes in the context of future market developments.

We recognise that change needs to be made in context. At present the pricing system for regulated transmission and distribution networks works independently of the prices generated in the deregulated wholesale and spot market for energy. This is a significant issue. Even though transmission is around 10 per cent of the final cost of delivered energy, it does not follow that pricing signals in transmission do not matter.

In most other markets, the cost of transport markedly influences price. As a result the cost of transport also influences the decisions on where to source product and what markets to serve. In these markets, transportation costs are directly determined by distance travelled, amount of capacity needed and market conditions—scarce capacity resulting in higher charges and surplus capacity leading to lower costs. Similarly, in electricity transmission, pricing signals can directly influence decisions on where new power plants and loads may be sited. Pricing signals also influence decisions on whether new investment in transmission can be justified when compared with measures to manage demand-side and supply-side alternatives, such as constructing new generating capacity.

There is a range of models for transmission pricing. Some are more efficient than others. Moreover some of them highlight variable energy costs between different regions. That is, some pricing schemes will result in higher prices for those users a long way from generation, or where the network is congested. For some governments a move away from price uniformity across regions is of concern.

I know some believe networks should be considered as separate from competitive markets in generation and retail supply. Such a view would argue that pricing should reflect the desire to minimise price differences rather than objectives of economic efficiency. I would point out that the desire to minimise price differences is not necessarily incompatible with a market that works efficiently, provided it is handled transparently. For example, price uniformity could be supported through the payment of direct subsidies.

Improved market design

We need to consider how the use and pricing of other services suits an energy-trading market. It makes no sense to have network pricing detract from the efficient operation of the spot electricity market and the pricing signals created in that market by distorting the behaviour of generators and other network customers.

Transmission networks need incentives to operate in a way that takes account of the networks' influence on the energy market. Providing transmission networks with these incentives will help prevent price spikes and brownouts similar to those seen recently. However, under the current regulatory stance, networks have capped revenue. To maximise profit, operators of networks rationally choose to minimise cost. To maximise profit the operators of transmission network carry out network maintenance and other work when the cost of labour is cheaper—which may well be during peak demand times.

But the consequence of such rational behaviour may be to restrict transmission capacity and reduce supply—thus leading to aberrant price behaviour in the spot market.

Because, in this instance, the incentive structure faced by transmission operators is not balanced between revenue and cost, and because this structure drives the sort of rational but perverse behaviour I've just outlined, the decisions made affect the national electricity market disproportionately. Yet the transmission operator does not necessarily face any consequences for the impact of its decisions on the spot market. This is an issue that needs to be addressed. The Commission is starting to develop service standards that will link back into the revenue cap determined by the Commission. However, in the longer term, I believe we seriously need to look at more market-oriented pricing of network services if we are to achieve a sensible alignment of incentives between transmission networks and the competitive electricity market.

The second issue arising from the current market design is the operation of the spot market. Often you will hear proposals for price caps on the spot market, controls on generator bidding or suggestions for fast tracking interconnection. While any or all of these may have their place very few commentators have thought about how they suit the current market design.

Indeed, if you restrict the manner in which generators offer the price and quantity of their supply then presumably you need other mechanisms to compensate generators, such as payments for making their generation capacity available. Consequently, these issues are often more complex than they first appear.

Unfortunately, in Australia, we do not have the same level of debate as in, say, the United States about the theory and practice of electricity and electricity markets. As with network pricing, the Commission finds itself attempting to address difficult design issues through general authorisation powers. In other countries, specific regulatory powers provide the regulator with a sounder basis on which to evaluate these types of proposals.

I believe the existing market design can be improved. And that this is a considerable part of achieving a least-cost, best-outcome option.

Prudent interconnection

The NEM was designed in part to facilitate prudent interconnection through coordinated planning of network investment. Interconnectors provide a

means of interregional trade, and therefore facilitate greater competition in both generation and retail markets. Indeed, the scarcity problems that were experienced during the 2000–01 summer appear to have encouraged proposals for interconnectors.

The current code determines access to networks and grids, and encompasses market rules, and administrative arrangements. If a party wishes a new interconnector to be granted regulated status, which determines how costs are recovered from customers under a regime of regulated prices, then the National Electricity Market Management Company, NEMMCO, must apply a regulatory test. The test is whether the proposed project maximises the net present value of the benefit to the market, having regard to alternative projects, timings and market development scenarios.

In this, the Commission maintains this regulatory test. We undertook this task because the previous test incorporated in the code generated unpredictable results and was found to be unworkable by NEMMCO. As a consequence, the Commission was asked to formulate a solution—which we did.

There are various aspects to this. The process for approving interconnectors, particularly the time taken, has been criticised by some commentators. Another issue is the relationship between regulated links and unregulated links. Also, whether the right agencies are involved in the processes of approval has been questioned.

The Commission has considerable regulatory experience, and we approach regulatory issues with diligence and care. I am not able to speak for other agencies, but I know we work to make clear, timely decisions. On the question of the mix and balance of agencies responsible for regulating supply, it is true that the type of market we have invites regulatory complexity. Whether or not this is sensible, and whether or not the cost of such arrangements is too high are questions that I invite you to consider. It may be that moves to a coherent market structure will afford an opportunity to reduce current high regulatory costs.

To expand on the question of regulated links and unregulated links, the code has always provided for unregulated network investment. As it was developed by participating states, unregulated network investment was an intrinsic, albeit undeveloped, part of the code. The thinking was: if an option for network investment is contestable, the revenue and pricing control provisions of the code need not regulate it.

The mixture and balance of unregulated and regulated investment remains debatable. However, any move away from the current code approach raises significant issues for investors in unregulated network investment. And it illustrates, I think, the necessity to consider NEM design issues in context of the whole market. Network investment should not be assumed to be superior to other options. Despite the difficulties during the 2000–01 summer, large scale interconnectors do not have to be built to remove all forms of inter-regional congestion. While interconnection may sometimes be appropriate, it is not sensible to require customers to pay for network capacity they neither benefit from nor need.

Indeed, with surplus generation in NSW and Victoria being consumed as the market grows, interconnection will be of no consequence in the absence of major generation investment in Victoria or NSW. The increasing correlation of summers peaking between NSW, Victoria and SA will accelerate the growing tightness of the market in summer.

I am not arguing that interconnection is not sensible.

I am, however, saying that interconnection is only one of a series of policy, regulatory and market-based options. All need to be considered as linked components that cannot be separated without diminishing the efficiency of the national electricity market and our ability to generate least-cost electricity.

Governance of the NEM

The governance arrangements of the NEM have presented challenges to those administering market arrangements.

Code-change process

The approach taken to changing the national electricity code has been criticised by some parties, including governments. I agree that the code-change process does not permit an holistic development of the market—the involvement of multiple institutions in the market discourages a coherent and integrated approach.

To illustrate this, consider the history of network pricing and its assessment by various reviews, many of which have been initiated by the Commission out of concerns about the adequacy of code changes brought before us. Each of these reviews results in separate recommendations or incremental changes to the code and the Commission considers each of these separately, as they are presented to us.

While we have firm and considered views about the future direction of the market, and about current and emerging issues, the Commission does not have genuine regulatory powers over the electricity market and nor does anyone else.

Consequently, while we have indicated many times that we favour moving towards the most efficient system of network pricing, we cannot impose it. Instead we seek to encourage debate.

That the process whereby the code is changed has not delivered a suitable solution, or even indicated a direction for the integration of network services with energy markets does not surprise us.

However, the costs of not doing so are considerable. Indeed, the current decentralised approach to decision making guarantees a Balkanised approach to market development—one that promotes differences rather than commonality, and imposes costs instead of benefits.

For example, this lack of uniformity may lead to reciprocity rules under which states prevent the sale of electricity by interstate retailers or generators to consumers within state boundaries, unless other states agree to provide access to their own consumers. It is a beggar thy neighbour approach and limits the ability of retailers to compete across state boundaries. Were this to happen then it would be, I think, a retrograde development and one that would work to the detriment of consumers. While the Commission and the NECA have agreed to act concertedly there is little that we can do to address an important reform question for governments: market arrangements.

The role of governments

First, as government business enterprises, governments own electricity supply assets. Second, they want to provide constituents with a secure and reliable electricity supply at reasonable prices. Conflict between these have raised many questions about governance.

In dealing with immediate problems, governments are likely to make decisions that protect their constituents from negative short-term impacts but compromise the ability of the market to deliver long-term benefits. Problems in the market—the lack of a comfortable margin between supply and demand in some regions—manifestly result not from deficiencies in market rules, but from impediments to interconnection and lack of demand-side responses.

Knee-jerk responses by governments to price variability are likely to inhibit the development of the long-term solutions. It is hard to be confident that policy makers will make decisions in the overall interests of the market, of competition, and thus of end-users, when they continue to have vested interests in the market as owners of generation and retail businesses. Consequently, I believe state and territory jurisdictions should set the overall objectives of the NEM, but then leave the market development role to an arms-length process of regulation and market operation. I do not believe it appropriate, for example, for ministers to involve themselves in day-to-day operational issues. Some decisions, while addressing short-term concerns, may have long-term, counter-productive costs.

For instance, such decisions may discourage market participants from hedging against the occurrence of future sustained periods of high prices because the government has intervened in the market and changed expectations about the likelihood of high prices. On the supply side, hedging could be investing in peak generation capacity; or, on the demand side, in demand side management. Such hedging arises because price changes provide a strong incentive to both supply and demand sides to adjust quantity. Future changes to the code that deal with the review of the integration of energy markets network services have provoked recent debate. Such changes illustrate clearly the point that governments, in their role as policy makers for the market, can face substantial conflicts of interest.

One outcome is that there will be moves to increase the number of regions in the NEM. This will further integrate energy market prices with a system of network pricing that better signals network congestion costs. As a result, price signals faced by all sectors of the market when they are making investment decisions will be made clearer.

However, some state/territory governments remain opposed to the idea of increasing the number of regions. With such opposition the changes may not eventuate, preventing locational signals associated with congestion and network losses from reaching market participants.

Potentially, the cost of such a course of action is high, and has clear implications for system stability, for the adequate and timely development of capacity and for the maintenance of prices at a level that is reasonable and sustainable. As the Californian case demonstrates, if governments' involvement in development of the NEM actually stifles market

development, partial deregulation is likely to be the worst of all worlds.

I believe that governments should review the outcomes of the NEM and determine its broader objectives and structure, rather than involve themselves in the ongoing development and operation of the market.

The nation's future energy market: a first-best approach

We now need to develop clear, future directions.

Investment responsive to users' needs is vital for developing an interconnected market and systems security in both gas and electricity.

In electricity, greater demand-side responsiveness is urgently needed. That is, extreme inelasticity of demand simultaneously makes wholesale prices particularly volatile and enables generators to wield strong market power, especially when supply and demand is tight.

Price signals need to drive decisions about network augmentation, generation and load location, and interconnection, to have investment decisions made in an integrated, consistent manner. How should that integration be provided? By price signals, not by central planning.

I understand that such developments are seen as threatening by some. Turning energy security and reliability as well as pricing over to the market is perceived by some policy makers as a loss of control, which would still be accompanied by a responsibility for fixing things when they go catastrophically wrong.

Of course, such a scenario concerns energy ministers and treasurers. And to be fair, no-one should expect them to look on such a prospect with equanimity. A greater concern arises because of what has been created now—an electricity market that is only half done.

If the market is working well, then treasurers, ministers and citizens will sleep at night knowing that, as with bread and milk on the shelves of corner shops, there will be electricity in the morning.

What is needed therefore is a comprehensive plan for how we get to a fully developed, well-working market.

Governments will ultimately need to commit themselves to that objective, but they can only be expected to do so once they are convinced it really is achievable—once they are happy with the plan. The plan therefore needs a lot more work.

Conclusion

The coming years are critical and important ones. The operation and governance of the national energy market will continue to be an area of strong interest. So far the process of reform has delivered considerable benefits to users, industry and the economy. But for benefits to continue so must the reforms.

Perhaps the independent review for COAG can be the mechanism detailing how a fully integrated national energy market can work, and outline what is needed to make it work. For instance a starting point could be the role of networks in the NEM and the transition path to a full functioning market which included adequate demand side involvement and full retail competition.

Launch of Australian Telecommunications Regulation

Following is an edited version of a presentation given by Commission Chairman, Professor Allan Fels, at the launch of the Telecommunications Law Centre's second edition of Australian Telecommunications Regulation on 6 December 2001.

This is a timely launch for a book on telecommunications—especially given the continuing strong public interest in the state of competition in this dynamic industry.

In recent times, the sector has changed and grown rapidly. It grew 6.4 per cent (for 2000–01) following on from 12.3 per cent in the year ending March 2001. However, it has slowed notably in recent months with a decrease, the first in 10 years, of 2.7 per cent in the June quarter. The worldwide downturn in the communications sector has led to extensive job shedding and rationalisation on both the international and domestic fronts presenting real challenges for companies and for regulators around the world.

Australian Telecommunications Regulation

As outlined in *Australian Telecommunications Regulation* the competition aspects of the telecommunications regulatory framework are now firmly embedded within the Trade Practices Act.

I want to emphasise the importance of a publication of this type. The overview and detail it provides helps to prevent debate being captured by special interests.