

Total Energy Management

Ministry of Economic Development
By email
Attention Janet Humphris

28th Sept 2007

SUBMISSION ON REVIEW OF SECTION 62 OF THE ELECTRICITY ACT 1992 'CONTINUANCE OF SUPPLY'

INTRODUCTION:

Section 62 of the Electricity Act provides that lines companies are to continue to supply line function services to places supplied as at 1 April 1993, unless certain circumstances apply. This provision remains in place until 1st April 2013, when it will be deemed to be repealed.

The Ministry of Economic Development has published a discussion paper that identifies a number of options for continuance of supply after 2013 and seeks feedback from stakeholders on preferred options.

This feedback has been prepared by SmartPower on behalf of a number of its clients, in this instance TelstraClear New Zealand Limited. TelstraClear manage a network of communication sites, some of which are in remote areas of New Zealand

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1. What does uneconomic supply mean and who does it affect.

There is no one clear definition of uneconomic supply and we suggest ***this must be decided upon upfront.*** Without a definition of uneconomic supply, it is impossible to

know how many users will be affected and what level of costs and cross subsidies are involved. The document gives two possible definitions which are:

- i. When the revenue generated from the consumers connected to the line is insufficient to meet the costs of maintaining the line, including asset renewal. In a business sense, this means the asset (the line) generates a negative return and network assets used elsewhere must generate a higher return to cover the full cost of supply across the line company's network; or
- ii. When it would be a lower cost to supply the same area by an alternative means (i.e. not by long distribution lines). This concept of 'uneconomic' is used by the Commerce Commission in its direction to lines companies on how to value their network assets.

The document goes on to discuss the lines companies' requirements under ODV as it relates to uneconomic lines. It makes note of the fact that to date it appears that no company considers that more than 1% of their lines fall into that category, as none have made any Economic Valuation adjustments for it.

This gives the impression that the issue of uneconomic supply is only an issue for a very small proportion of customers i.e. less than 1%. However the paper contains definitions of uneconomic which it considers to be the main ones (this implies that there would be others). If the first definition is applied then this would cover a much wider range of customers. The possible extent of this is shown in the graph of the proportion of lines built in each network area with a RERC (Rural Electrical Reticulation Council) subsidy.¹ In some cases this is up around 40%.

It is imperative that a firm definition of uneconomic supply is established and in our view it should cover no more than the customers who would be picked up by the ODV methodology.

2. Identification and quantification of cross subsidies

Once the method of establishing the definition of uneconomic supply is decided then we consider the next step should be to identify which customers (potentially in broad geographic areas) are being subsidised by the different lines companies and the extent of any subsidy. Without that information we do not consider that it is possible to have a meaningful discussion of section 62, except in very broad principle based terms.

We consider that it is vital that these first two points are addressed before any final decisions on section 62 are made. If it is not possible to address them within a very short period, e.g. 12 months, then we suggest that an extension be put in place to allow that to happen without shortening the term that customers will have to adapt to any changes once they are made. In our view, lines companies should be bound to maintain lines to their current standard in the interim.

¹ The Rural Electrical Reticulation Council, which administered a fund to subsidise lines construction mainly to farmers in remote areas, was disbanded in 1997. The fund was created by a levy on all Electrical Supplier Authorities of the time.

3. Conflict with Government policy if section 62 is removed.

A: Conflict between removal of section 62 and other Government Policy on electricity supply.

The spirit of Government policy both past and present appears to have been to keep rural customers supplied at an affordable cost. How this is done could change, e.g. through the advent of new technology, but the general principle has been to maintain supply where it currently exists.

We also consider that there is an unintended effect of Government policy since 1992, which results in larger numbers of consumers potentially falling into the uneconomic supply category and facing uncertainty of supply. It has been Government policy since 1992 to cap the rate of any line charge increases to 15% per annum. Further, the current Government policy statement (2006) states that “The Government expects distribution companies to keep any changes to rural line charges in line with urban line charges. The Electricity Commission should monitor developments in rural charges”.

These policies make it clear that it is a current Government objective to ensure that electricity is provided at affordable prices to rural consumers. However, the effect of both of these policies is to widen the range of customers who face uncertainty of supply (depending upon the definition used for uneconomic). It also removes the opportunity for marginally uneconomic customers to be charged a higher rate and change their status and maintain supply, which may well be a cheaper option for them than alternative supply.

If Section 62 is removed, we consider that it would create a clear conflict between legislation and current Government policy.

Conflict between removal of section 62 and the Civil Defence Emergency Act 2002

Further conflict would result between the spirit of the Civil Defence Emergency Act 2002 and the Electricity Act, if section 62 is removed. The spirit of the Civil Defence Emergency Act is for lifeline utilities to be maintained in rural areas. In fact, the Act states that: “[t]he economic viability of communities and of the nation as a whole depends upon the continued operation of lifeline utilities”. If lines are removed to rural areas then a whole range of services will also disappear that are vital to Civil Defence. Primary amongst those are telecommunications facilities, which are often in very remote areas. While many areas will totally lose facilities, there will be another group that is less remote that will suffer a serious downgrading of facilities where they are maintained but without the security of supply that comes with lines.

Vital services such as Police are likely to be adversely affected by a degradation of telecommunications and their own performance will be affected if Police sites do not

have the security of supply afforded by lines. For the emergency service in particular to have any site fail is significant, as the sites are linked and communications will switch from one to another. This is extremely important in the case where Police are moving about as if one site goes out then they will lose large areas of coverage.

4. Original Reasons for including the Sunset clause support an extension.

When the Energy Sector Reform Bill 1992 was formed it included provision for maintaining universal supply to all existing lines, meaning that lines would be maintained in perpetuity. However, when the Bill was discussed at Select Committee a 20-year sunset clause was added. The reasons for including the sunset provision were valid; however the changes envisioned have not occurred. Therefore, if the sunset clause were to take effect it would not meet the Government objective for all classes of consumer to have access to electricity that is delivered in an efficient, fair, reliable and environmentally sustainable manner.

The reasons for including the clause were:

- An open ended (i.e. in perpetuity) obligation would make it difficult for companies to value it. *This remains true and an extension should be given rather than supply being in perpetuity.*
- The need not to restrict the environment for change. *This is still necessary - while changes have occurred these have not necessarily been in the direction anticipated. The environment for change would not be restricted provided that the commitment is not in perpetuity.*
- The prospect of new technologies being developed that would substitute for electricity supply by lines. *This has not yet happened to any degree that makes new technologies a viable alternative for most customers. An open-ended obligation could stifle the development of new technologies, but an extension would not have the same effect. In addition, we suggest other means later in this submission that could assist with the development and uptake of new technologies.*
- The obligation to serve distant consumers and to charge them no more than other customers involved a subsidy that would be difficult to maintain in the face of competition. *This comment was made when the lines companies still had retail interests. This is no longer the case and lines companies are natural monopolies. Smart Power works with many customers of various sizes throughout the country and in almost no cases is there any threat of competition for lines companies.*

The paper states that the Government's objective is for all classes of consumer to have access to electricity that is delivered in an efficient, fair, reliable and environmentally-sustainable manner. The key reasons why that Government objective will not be met if clause 62 takes effect are that:

- It will not be Efficient. *While it may appear inefficient to cross subsidise lines other inefficiencies are likely to be created if lines are removed. Those inefficiencies are not all in the energy sector, but also relate to the performance of the rural sector and Civil Defence organisations that will face considerable costs or a reduction in services if lines are removed. Some parties may have the financial resources to put in place alternative means of supply, probably diesel generation; however the costs of these alternatives should be weighed against the cost of cross subsidising lines.*
- It will not be Fair (e.g. assess whether remote, rural users will continue to have access to electricity at reasonable prices, comparable with supply to other users.) *This cannot be met at present with existing technology. In addition, rural users may lose other services at the same time i.e. Telecommunications and Broadcast Transmission Sites and suffer a downgrading of Civil Defence assistance and the emergency service.*
- It will not be Reliable (e.g. assess whether the option leads to enabling sufficient, reliable supply; assess the change in level of involvement required of the consumer). *At present technology has not advanced to the stage that other options will provide the same level of security at similar prices. In the case of some very remote sites, e.g. at some telecommunications sites, there is no way for alternative supply to be as reliable as current supply. These sites already have backup, generally via diesel generators, however some sites are inaccessible for months at a time and in that situation fuel could not be brought in. Further, providing N-1 security by means of another generator is not good practice since a generator backing up another generator is not as reliable as a generator backing up lines. For some sites, there may also be a much higher level of consumer involvement often informal (i.e. fix it yourself, especially in very remote areas), which has a propensity for accidents.*
- Environmentally sustainable (e.g. assess whether the outcome is consistent with climate change considerations). *Some alternatives could be more environmentally-sustainable, i.e. wind power or solar, however in general diesel generation would be the replacement supply with its attendant carbon emissions. In some very remote locations, which run 24/7, there would also be considerable road miles to be covered by tankers bringing in diesel to keep generators running.*

5 Likelihood of extreme hardship

Although the clause has been in legislation since 1992 and if publicised well next year customers would still have 5 years to prepare, if clause 62 was to take effect as it stands now we consider that it could cause extreme hardship in some rural areas. Depending on what definition of ‘uneconomic’ is used by lines companies, in some areas of the country this could affect very large numbers of users.

Most customers are unaware of this legislation and we consider that it is unfair to expect that they would be up to date with a specialist area such as this. To our knowledge, it has not been publicised by the lines companies and it has come as a surprise to large

commercial and Government customers and will be equally a surprise for smaller rural customers. (Note the exception to this is those people in very remote areas, e.g. high country farmers, who are probably aware that they are vulnerable. Federated Farmers has done some work in this area). If alternatives to lines were readily available at an economic cost, then provided that there was extensive publicity next year, the current date of 2013 would be reasonable. However, economically-viable alternatives do not exist at present and we do not consider that it would be reasonable to assume that these will become available by 2013.

If lines are removed, then many other services to rural communities will also be removed and organizations such as Police and Civil Defence will be compromised in their ability to maintain the same level of service that exists at present. In the case of Police services to rural communities, which are already difficult in terms of it not being feasible to station police permanently in rural areas, servicing those areas will become more difficult as communications are degraded.

Emergency services also use remote telecommunications sites. The sites are in very hard to access, remote areas, some being accessible only by helicopter or four wheel drive and then only in good weather. For those sites security of supply is essential and they currently have battery or diesel backup but, as in the case of other telecommunications sites, supply by lines is a major step up in security of supply from just having two generators. It is essential for these sites to be maintained and removal of lines should not be an option. The only question here should be who is to pay. At present a cross subsidy spread amongst all electricity users would seem to be a fair and equitable way of paying for the sites.

6. Users connected since 1993.

While in theory these users should be well aware that they do not have security of supply, in practice it is likely that many are not. For instance, it may have been made known to the person building the house that there was no ongoing commitment to supply but a subsequent purchaser may not be aware.

For the small minority of customers whose supply would fail the ODV measurement of economic, it is unlikely that they would have been connected in recent times. However, if the other definition of 'uneconomic' given in the paper is used, then there could be a large number of people affected.

We believe that it is unfair to these customers not to have ongoing security of supply, as there has been no publicity about it.

7. Potential options given in discussion document.

Continuance of obligation to maintain line function services with no expiry date and Continuance of supply, using lines or alternatives, with no expiry date.

- a) Should access to electricity supply for pre – 1993 connections be maintained with no expiry date? What issues could this raise?

The two options should be separated for this question.

We do not consider that the option of a continuance of obligation to maintain lines with no expiry date is a good option. While it could be good for those customers supplied by uneconomic lines, we do not consider that it is a practical solution and would be counterproductive if suitable (i.e. effective and affordable) alternatives were to become available. We believe that this would dampen the market for alternatives and perpetuate an economically inefficient method of supply. Legislation should be aimed at the end result, i.e. getting energy to people at an affordable cost not at picking which technology should do it.

We consider that no expiry date and continuance of supply using lines or alternatives is a good option, as it would encourage the lines companies (i.e. those with the knowledge and capital to assist with the development of alternatives) to do so. It does not attempt to pick a particular technology and gives certainty to users. There is always the option for users to disconnect and once disconnected there is no obligation for the network company to reconnect them. Hence, there would be the option for network companies to encourage disconnection once acceptable alternatives were up and running.

However, it would be very important for alternatives to be acceptable, i.e., either have the same level of service or a lower level of service at a cheaper price. In our view, the take-up of alternatives would need to be driven by customer choice. As long as the base level of service is set at what they received previously with lines supply this could be a very good option. Customers could for instance be given a one off payment to encourage them to 'leave' once they were happy with the alternative arrangements. This option would need some work, but could be one that suits all parties and provides the sort of gradual transition that does not create a large amount of hardship for users, assists the development of the market for alternatives, eventually removes cross subsidy and also eventually removes the issue for lines companies. For some users e.g. Police with their emergency services we do not foresee the replacement of lines with any of the existing technologies, as we do not consider that they would provide the same level of security of supply which is the major driver. However if such technology did exist in the future, it could also apply to these sites.

- b) What expectations should there be from consumers around price, quality, reliability and capacity for continuance of supply (either by lines or by alternatives)?

In either instance, the expectations would be for a continuance of status quo in all areas i.e. price, quality, reliability and capacity. For most customers the possibility always exists for a trade-off of price against quality, but in the case of Smart Power customers providing Telecommunications and Broadcast Transmission services or essential services

such as Policing and the emergency Service then there is not generally room for trade off and quality is the main driver. As stated above, we do not see any of the existing alternative technologies being able to replace lines but do not wish to see the legislation block the possibility that something may exist in the future.

- c) What scope is there for remote rural consumers to be supplied using alternative supply methods or for example, the method outlined in paragraph 47?

It would depend upon the customer. The starting point should be that the existing level of service with the price-pegged to urban consumers should be maintained. Any drop in the level of service should be agreed to by the customers on a line and should be matched by a corresponding drop in price; otherwise the service will gradually be eroded away with consumers bearing the brunt of the change. We believe that for a large number of customers change is possible over time as alternatives develop, but any change should be gradual and the costs should be borne by all users, as is the case at present, until it is possible either through improvements in technology and negotiated compensation to remove any subsidies from those customers. For some customers, such as those with Telecommunications and Broadcast Transmission sites and Police's emergency services, removal of lines without a corresponding drop in service is not possible with existing technology and a drop in level of service could not be compensated by a drop in price.

- d) To what extent should there be a subsidy from other network users to those in remote, rural areas? (E.g. domestic urban consumers to domestic rural consumers).

For domestic and small business users (e.g. farm buildings) in the medium term (i.e. until comparable alternatives are available), we consider that the subsidy should remain. As stated by a lines company, on a per connection basis the level of subsidy from urban to rural consumers is not significant. Further, as noted above, lines companies are currently natural monopolies and do not have retail businesses so the efficiency impacts of any cross subsidisation should be minimised.

For commercial services, such as telecommunications and transmission services, our initial view is that there are good arguments why the subsidy should also remain. There is a significant 'public good' in having good communications throughout the country and the benefit of nationwide telecommunications and transmission exists not just for those living in the area, but also for those doing business with, holidaying in or travelling through rural areas. Telecommunications also plays a large part in Civil Defence and as such a small cross subsidy on lines to ensure that those services are in place and effective seems a sensible way to achieve this. Again, as noted above, lines companies are currently natural monopolies and do not have retail businesses so the efficiency impacts of any cross subsidisation should be minimised.

In our view, the key first step is to put in place a mechanism to clearly identify the level of the cross subsidy. Until this is known, any discussion on this issue can only be made in very general terms.

- e) If the continuance of supply is by lines or alternatives, should lines companies be able to cross-subsidise alternative-supply customers from lines-connected customers?

Yes, as this would enable lines companies to prompt the market for alternatives at this difficult early stage and if the subsidy was no more than they were subsidising the lines then it would appear to be to everyone's benefit. As mentioned earlier, it should also be possible for lines companies to negotiate a one-off payment to users of alternatives to continue without lines company involvement. This could be via a capitalisation of the cross subsidy. This would require further investigation, but appears to be one of the best solutions.

- f) What terms and conditions for continuance of supply do consumers that were connected after 1993 have in their contracts?

This is very unclear for consumers, and retail contracts are vague. The only area that we have seen conditions re continuance of supply is in the force majeure section of contracts and these conditions indicate that supply may be discontinued in times of emergency not just because the lines are considered to be uneconomic. The model interpose agreement also does not canvass the possibility of disconnection, it just states (page 6) that all installations that comply are to remain connected. Nowhere is uneconomic supply mentioned. We have not done a comprehensive search of lines companies' web sites but the few we have looked at appear to be silent on the subject.

This reinforces our argument that most customers will be unaware of their vulnerable position given clause 62.

Obligation to maintain line function services expires but lines companies provide advance information on intentions. An Obligation to maintain line function services expires but lines companies assist in transition to alternative supply.

- a) If an advance notice period is used, what length of time should it be?

An advance notice period would have to be long enough for practical and cost effective options to be developed. Depending on the definition of 'uneconomic', we do not consider that alternative options exist for the majority of rural customers at the moment. Therefore it is difficult to suggest an appropriate timeframe, as this would depend on how long such options take to eventuate. It would also be important to clarify whether there would be a permanent reprieve for those lines not notified or whether notice could be given at a later date.

- b) What other requirements could or should be placed on lines companies if continuance of supply expires?

Lines companies should have to be able to provide at all times an up to date register of how much any ICP is being cross subsidised by and whether or not that meets the criteria of uneconomic supply. There should also be a policy that is clear enough for any

individual customer to ascertain whether they are considered to be uneconomic and if so what the plan for their site is, e.g. removal of lines in event of a natural disaster causing significant damage or that the lines company has no plans to remove their lines. There would also need to be a requirement for a significant, e.g. 5 year, notice period if there was to be a change in a site's status.

- c) What role would you expect the retailer to take as the continuance of supply expires and a change in supply is signalled?

We expect that the lines companies would generally want to advise their customers via retailers. We consider that lines companies should pass on information directly where possible, to avoid any miscommunication. Therefore, we do not see that retailers would have a role.

However if a group of customers takes over the lines and forms a community owned network then they may have difficulty getting retailers to supply them. Currently retailers are reluctant to supply on established embedded networks and it is likely to be worse for owners of small community networks. There are issues with agreements and in our experience retailers' systems are not set up to deal with one offs.

- d) At what point after a lines company has assisted a transition should its responsibility cease?

We do not consider that this is a good option. Lines companies should have an obligation to supply either via lines or alternatives for an extended period of time. This could be negated by negotiation with the customer whereby the customer is now being supplied via a lines company owned alternative and they agree to go it alone (probably with some compensation). This should be reviewed at some point in the future but at present alternatives to lines cannot generally provide the same level of service at the same cost as the lines with the current levels of subsidy.

Continuance of obligation to maintain supply, using lines or alternatives, for a limited time beyond 2013.

- a) Should the transition period be extended?

We consider that the transition period needs to be extended until there are suitable alternatives to lines. This will be different for different customers. Without other action there is a danger that this would stifle the market for alternatives, but it should be possible to have a scheme that still encourages alternatives. For instance, if the lines companies had the ability to subsidise suitable (and the emphasis here would have to be on suitable) alternatives to the extent that they are subsidising lines and the ability to insist that customers take that option up, market development of alternatives would be assisted. It would be unfair to cut customers off with no suitable alternatives available and just hope that the market develops. It must also be noted that it is a far more complex situation for telecommunications, transmission or emergency sites in extremely remote areas than it is for the majority of consumers and that at present we do not see any suitable alternatives.

It must also be extended to allow time for 'uneconomic supply' to be defined and the extent of cross subsidies to be established.

- b) If so, how long should it be extended for and what should happen at the end of the period?

We consider that it should initially be extended for another 20 years, provided that systems are in place to allow lines companies to assist customers into alternatives. During that time, lines companies should set out what they mean by uneconomic and exactly which of their customers are uneconomic and make cross subsidies transparent. With this in place, it is likely that the market for alternatives will develop further over the next 20 years, customers initially assisted into alternatives will opt (for up front incentives) to go it alone and all customers will have information about whether they are classified as being uneconomic or not. If there is no great change over the next 20 years, then the obligation could be further extended.

We consider that it would be preferable for the appropriate extension period to be set with reference to what must be in place and what options must be available before the obligation can be removed without causing considerable hardship, rather than a set timeframe.

Continuance of supply using lines or alternatives with no expiry date subsidized by all electricity users.

- a) What issues are there with creating and employing a different subsidy mechanism in order to socialize the costs across all electricity users?

Firstly, 'uneconomic supply' must be defined and the amount of any cross subsidy established.

Further, at present the network companies have advised that the cost per individual ICP for subsidising 'uneconomic' lines is low. If this is the case, then it is questionable whether the administrative costs associated with establishing an alternative subsidy arrangement would outweigh the benefits.