# DOMESTIC ENERGY USERS' NETWORK



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Age Concern NZ
Child Poverty Action Group
Grey Power Federation
Public Health Association
Rural Women NZ

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Submission, Decision-making and economic framework for distribution pricing methodology review, consultation paper

22 June 2012

#### **SUMMARY**

DEUN does not with the Authority's interpretation of the statutory objective, and considers that network pricing is now allowing over-investment in assets (as is the case for generation). The consultation paper does not address preferences of domestic consumers, or impacts of pricing on them. Our preferred solution is for network companies to offer consumers choice between price-responsive tariffs, and flat-charge bundled tariffs based on the postage-stamp principle. DEUN calls for funded research on how current pricing is impacting on domestic consumers, and how adverse impacts might be mitigated. We believe it appropriate to partly fund this through the Electricity Levy, as domestic consumers contribute substantially to it.

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#### **Answers relating to the Statutory Objective**

Q 1. Do you agree with the Authority's interpretation of its statutory objective with respect to distribution pricing?

DEUN does not agree for the following reasons:

The statutory objective aims to "expand the economic pie", that is, to maximise the total consumer surplus without regard to different classes of consumers. The classic price discrimination graph (Competition and Regulation Times Nov 2011 page 3) says "societal benefit is represented by the total shaded area ..." that is, the total consumer plus producer surplus.

DEUN rejects that interpretation, of total economic surplus being a proxy for total societal benefit. Different classes of consumers face different risks and benefits as illustrated in Figure 1. We would identify and measure societal benefit separately for different classes of consumer, and different businesses that invest to provide reliable end-use energy. Classic microeconomics ignores the many externalities, both social and environmental, that we believe are of critical importance in setting out proper objectives of regulation.

DEUN rejects the Ramsey pricing principle that lies behind pricing principles (a) and (b) because it does not take account of the social costs of high and rising prices, especially to low-income consumers and most particularly those on fixed incomes, who cannot rationally budget for their total household expenditure.

DEUN rejects the proviso in principle (c)iii, "where network economics warrant", because that gives priority to consideration of the suppliers' costs and risks, over and above those of the end consumers. It strongly biases investment in electricity assets, in preference to assets owned by end users, suppliers of alternative fuels, and in practice, to small-scale local electricity generators.

We consider that there is already over-investment in networks, and that investments in enduse efficiency and local generation and alternative fuels are now the overwhelming priority.

We do recognise that the Authority's policies on dynamic (investment) efficiency are largely driven by the Commerce Commission's 2002 decision that electricity markets exclude markets for energy services that might compete with electricity.

This exclusion enables the electricity Industry Participants to influence regulatory decisions to maximise benefits to the negotiated aggregated benefit to their own companies, at the expense of the myriad smaller companies for which the Electricity Code creates risks far out of proportion to risks faced by Industry Participants.

Household consumers are therefore offered extremely limited choice – to use Powerswitch to choose between a number of gentailers that face similar costs and risks. A choice to install home insulation is now facilitated by significant subsidy. Approximately \$1 billion has been spent on warm homes/ clean heat over an approximately 4-year period. This compares to expenditures on the order of \$10 billion already spent or planned in large-scale electricity assets in recent times.

Q2 a: application to the "competition" limb:

DEUN disagrees that there is workable competition in either retail or generation markets, as Industry Participants are able to skew provisions of the Code to reduce risks to themselves. And networks are by definition monopolies, so any reference to "workable competition" would appear to be through analogy rather than actual competitive business models.

Where competition is possible is by way of non-electric alternatives – energy efficiency and use of alternative fuels, both of them to reduce peak as well as energy demands.

Distribution alternatives available to householders are now extremely limited, with subsidy money for home insulation and clean heat running out, and the costs of high-capital-cost equipment making such investments inaccessible to the customers who could most benefit from them. Clean air regulation (not a part of electricity regulation) has put the whole firewood market at risk, and solar electric retrofits are denied the guaranteed economic return from feed-in tariffs that are very common overseas.

We have noted a significant desire of householders to disconnect from the grid, enabled perhaps by the improved economics of distributed generation, - but driven mainly by anger about high and still-rising power prices.

### Q2b) Reliability

DEUN agrees that distribution pricing should support reliability investments – but these investments should available at end-use as well as within the distribution network. We believe in the benefits of the so-called "smart grid" developments, but recognise that these require highly complex and coordinated technical, financial and social systems to realise their aim of improved reliability.

Householders are recognised as being able to respond to electricity system stress, both on a planned (day-ahead) basis, and automatically through "smart appliances", at lower cost than most industrial and virtually all commercial consumers. The insistence by the Authority and its predecessors on "voluntary" mechanisms for distribution companies to offer "smart tariffs" has held up the development of householders' price-responsive demand, for decades.

## Q2c) Efficiency

The emphasis of this section on transaction and compliance costs is curious. If such a concern over transaction costs had been applied in the late 1980s, the wholesale electricity market would never have been launched – the transaction costs of that were massive, but were returned as efficiencies in both investment and running of the electricity system.

However over-investment has reappeared with the profit-maximising incentive to increase shareholder value, and the effective guarantee of return on such investments through increasing domestic power prices.

Applied to distribution investment – efficient investment is much more strongly influenced by asset management plans than by pricing methodologies. As costs appear to be considered sunk as long as a Board approves distribution plans, the finer points of cost allocation amongst classes of consumers appear to be matters of wealth transfer rather than efficient use of assets.

Since the Statutory Objective requires the Authority to be indifferent to wealth transfers, the pricing principles should state that any pricing relating to sunk-cost assets should be decided only through consultation between the lines company and its community. Principles should apply only where use of existing assets, and investment in new assets, have significant influence on system costs and reliability.

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# **General comments:**

The proposed economic framework for distribution pricing methodology is almost identical to that for transmission pricing methodology. It takes little account of the fact that customers of lines companies – in general, retailer-generators – do not negotiate the lines pricing with its consumers, but just pass the prices on, fairly or unfairly (and, efficiently or inefficiently).

The whole discussion of pricing methodology leaves out the preferences of and impacts on, the final consumer. And the development of both pricing methodologies has so far failed to take account of submissions of domestic consumers, who have called for critical peak pricing options that might offer genuine reward for price-responsive demand.

Therefore it would seem that lines companies should set pricing methodologies more in line with our comments below, and require that all retailers pass these on in a clearly defined form.

Apart from the general comments above relating to the statutory objective, our comments on the specific questions are only provisional, because we have little understanding on how retailers bundle the methodologies into their retail tariffs. We think it might be better that lines charges be passed through directly, mostly in a very simple low-risk form to the bulk of consumers, but where special tariffs can lead to more efficient investment or use, then separately offered. The specific comments are based on that assumption.

We must say that in the one company, The Lines Company, that does charge separately, domestic consumers face very high risks indeed; we are hoping to work with that company, and also with the Electricity Authority, to learn of the social impacts, and try to devise ways to mitigate those.

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## Answers to further specific questions, in light of general comment above

Q3. Do Market-based methodologies promote efficiency in network use and investment and more generally?

From DEUN's viewpoint, the key requirement is to give all consumers genuine choice, between a regulated price that reflects actual costs, and a market price that invites them to "beat their bill" through willingness to adapt to system costs and stresses.

Effective demand response from willing consumers will definitely provide efficiencies within some or all the sectors of the electricity industry.

Q4. Are market based methodologies more durable and stable than administered charges?

DEUN considers that this is the case only where they are offered as a genuine choice, between market-based and regulated (administered) charges. Market based charges are likely to lead to consumer revolt as is now happening in the areas served by The Lines Company.

- Q5. Previous answers cover this
- Q6. Which of the ranked preferences is preferred to any administrated pricing?

Only "alternative approaches", namely, that consumers who do not choose to be price-responsive should be charged an averaged cost that reflects actual cost to that consumer class and location, as described in section 5.4.16. Such costs would be disclosed in asset management plans and open to effective and practical consultation.

Q7. Exacerbators should be identified by the network company, and approached by the company as to whether their investment and/ or actions could reduce system expansion/ operation costs, and how such investments might be facilitated. The asset management plan should incorporate options for end-use vs network investment.

### Q8. Answered above

Q9. Price charged to exacerbators should be negotiated, consistent with this being an option not a regulated price, or at least set in consultation with representatives of the relevant customer classes.

Section 5.5.18 is an understatement – "not straightforward in practice"! The sunk-cost influence on efficient pricing is not sufficiently addressed in the consultation document. In practice in networks that are not undergoing forced expansion should in our view be charged by a simple broad-based charge as described in 5.4.16.

Q10-12. The long section on "beneficiaries pay" may be less relevant. For new network investments, both exacerbators and beneficiaries should be invited to take cost-responsive tariffs. For sunk costs, the allocation amongst classes and regions should be simple and only include differentiation on simple views of fairness.

Q13. Charges on an "incentive-free" basis may be perceived as less fair, as one might think charges should be related to the current level of usage. A simple postage-stamp approach may seem fairer, and seems likely to reduce lobbying.

Questions on information disclosure not answered at this stage.

#### Postscript: distribution pricing principles from a domestic consumers' viewpoint

In rejecting the Electricity Authority's interpretation of the statutory objective, DEUN has extensively discussed how electricity might be regulated for a different purpose, namely to provide an essential service at lowest economic cost, "economic" being broadly interpreted.

Below is a first attempt at giving our thoughts on distribution pricing.

Figure 1: Risks and Benefits for Different Classes of consumers

#### **Risks and Benefits for Different Classes of Consumers**

#### **Distributors**

Network built to supply a mix of commercial, industrial and residential users

Need to manage costs and risks



#### **Industrial / Large Users**

Have access to financial resources to mitigate costs

Often can control load by agreement

Can negotiate price

Greater transparency of costs

Can pass costs on

Industrial consumers value reliability so infrastructure upgrades are generally to their benefit

#### Commercial users

Have access to financial resources to mitigate costs

Lack of transparency for smaller users - distribution costs hidden in retailer's bill

However, can pass costs on

Commercial consumers value reliability highly so infrastructure upgrades are generally to their benefit

#### Residential users

Often limited financial resources or non owners of property

Lack of transparency distribution costs hidden in retailer's bill

Load control largely limited to ripple control of water heating, but more could be done

Some government investment in energy efficiency, but barriers to investing in renewables, lack of alternative fuels, and only one electricity retailer in many areas limit competition

Large demands on system at certain times, and lack of responsiveness pose risks to the distributor. These risks are priced in and lead to non optimal investment in infra structure.

Externalities such as climate change, environmental impacts, and social well-being are not taken into account. Cross-subsidisation of industrial and commercial users by residential users is a risk.

#### Distribution pricing is a highly material issue.

These costs represent a third or more, and much more in the case of remote rural consumers, of the total physical cost of electricity supply to domestic consumers.

Householders are almost always responsible for the most variable peak loads, contributing much of the highest peak loads on any system. If they were able to invest in automated appliances, improved insulation, and a range of alternatives to electric heating, many or most could reduce their peak demands on request.

Efficient distribution pricing mechanisms give the biggest bang for the buck – that is, for whatever effort the householder wishes to make in response to disclosed system costs. Therefore efficient distribution pricing should take precedence over pricing mechanisms that reduce energy costs – this was a clear conclusion of the Value-Price Working Party some years ago. It is the lines company, not the retailer, who needs to drive household price-responsive tariffs.

## General principles for distribution pricing

**Choice** Distribution pricing should offer choices between cost-responsive tariff(s) that creates risks of high power bill while allowing corresponding lower overall bill, or a low-risk flat charge that includes a suitable risk premium.

**Reliabillity** is strongly supported by price-responsiveness, with householders undoubtedly the most able to respond to costs.

**Fair pricing** requires that consumers who cannot or choose not to respond are still charged a price that reasonably reflects costs.

A sustainable energy future requires a progressive increase in investment in end-use efficiency and alternative fuels, to create diversity and reduce kWh consumption.

#### Research needed

These principles could be most exactly applied through separate tariffs for energy and lines; however customers of The Lines Company (TLC), who are directly charged, find them extremely risky, causing not only bill shock, but in many cases an unwillingness to use adequate heating in winter, for fear of large power bill increases through the whole following year. Their implementation of "efficient" pricing is simply unacceptable.

DEUN proposes to work with Grey Power members and other domestic consumers in the TLC area, to investigate the impacts, and possible mitigation, of TLC's pricing. This would be part of a larger project on identifying the dilemmas faced by domestic consumers from current electricity regulation.

Given that domestic consumers pay a significant proportion of the Electricity Levy, and that there is a paucity of research on the social impacts of pricing trends, DEUN believes that its proposed research on pricing and regulatory dilemmas should be partly funded by the Authority.