



Review of transmission pricing underway

The Commission's Market Development Programme (MDP) is now well established, with the industry engaged in extensive consultation on priority areas, including a review of transmission pricing.

How best to price transmission services has long been a difficult issue in New Zealand and overseas. It is generally accepted that there is no 'right' answer to the design of transmission pricing. The most appropriate arrangement is one where transmission services are priced as efficiently as possible, given historical, political and practical considerations.

In New Zealand, in the absence of an industry-agreed option, the Commission has prescribed a process for the development of a transmission pricing methodology (TPM).

The purpose of a TPM is to ensure that the full economic costs of Transpower's services are allocated on a principled basis. The TPM has evolved over the last 15 years, but the fundamental design has remained the same. The current TPM, which has been in place since April 2008, relies largely on a 'postage stamp' approach, where there is one cost for all generators, regardless of location and distance from demand. The one exception to the postage stamp approach relates to the costs of the HVDC (High Voltage Direct Current) link between the North and South Islands and any upgrades to it, which currently fall to South Island generators.

The HVDC charge provides a simple locational signal and arguably has been effective, with over 80 per cent of new generation being built in the North Island over the last decade. However, a more finely structured locational signal may better encourage long-term savings in transmission costs, especially in the Upper South Island and Upper North Island. In this, a degree of compromise is needed between the theory and what is practicable.

Both the postage stamp approach and particularly the HVDC exception have proved controversial. Several industry participants have requested a review. This is particularly timely because:

- the Commission has approved significant transmission investment (in excess of \$2.6 billion) and the commissioning date of a number of these projects means that their costs will be received from 2012 onwards;
- power flows may change due to investment in transmission, generation and location of demand;
- there is a need to reconsider whether the current TPM and the grid investment test are resulting in the efficient location of generation investment; and
- there is increased emphasis on security of supply.

The transmission pricing review is expected to take two years. A high level options paper is currently out for consultation.

See www.electricitycommission.govt.nz/consultation/tpr/view



Improved guidelines for protecting vulnerable and medically dependent consumers

Over the last six months the Commission has spent a significant amount of time engaging with retailers, social agencies and the health sector to improve the guidelines covering the protection of vulnerable and medically dependent consumers.

How the electricity industry treats its medically dependent and vulnerable consumers is a highly emotive area that traverses both commercial and social considerations. How does a retailer reconcile delivering value for its shareholders with the provision of electricity for necessities such as heating and cooking? Where vulnerable consumers don't have power for heating, lighting, cooking and hot water, the consequent costs are potentially borne by the health sector. But where power continues to be supplied even though payments are not being made, there is the risk that the bad debt borne by the electricity sector will escalate and all customers will end up paying for that cost.

Of course, retailers don't like disconnecting customers. They do what they can to assist people who are genuinely having financial difficulty, while trying to balance such assistance with a process which discourages electricity being seen as a soft option for the non-payment of bills. Each retailer has its own operational process for the treatment of vulnerable and medically dependent customers. And, there are always exceptions and one-off cases, requiring judgement to be exercised.

Guidelines – and they are only guidelines – can only be successful if a wide range of stakeholders buy into their development. We are pleased to report that this has been the case and that good progress has been made.

Acknowledging the inevitable tension between commercial and social considerations, the proposed updated guidelines have been split carefully into processes which apply to vulnerable consumers generally and those processes which apply specifically to medically dependent consumers.

Consultation on the proposed updated guidelines has recently been completed. We will continue to keep stakeholders informed.

See www.electricitycommission.govt.nz/opdev/retail/lowincome

No-one likes being reviewed. But in an area as complex and important as electricity it makes sense for a new government to satisfy itself that regulatory responsibilities and institutions are appropriate. Hence the review of electricity market performance foreshadowed in National's election manifesto and announced in April.

An expert advisory group worked with officials and produced an interim report in August. Many groups, including the Commission, responded with submissions and a final report is currently on its way to Ministers.

In its interim report the review largely endorsed the programme of market development work on which the Commission has been engaged for some time. This involves a combination of pricing which would increase when water is scarce, constraint payments to help retailers manage price differences between regions, changes to make it easier for customers to respond to the market, and a review of the basis for transmission charges.

These proposals are all designed to make the electricity market more competitive and hence more efficient. The Commission has set them out in a series of inter-related discussion papers which the industry is currently considering.

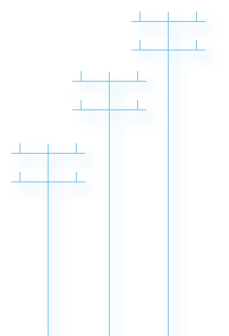
In combination these proposals would have a considerable impact on the way the electricity system operates. They are not just a change in the rules that govern the system. They will also change the way in which companies – both suppliers and customers – manage their risks.

The review also recommended that the Commission be replaced by a new, more independent, Electricity Market Authority. The Commission itself argued in its submission for greater independence. So it is hard to read this proposal as a criticism of the Commission.

These proposals are yet to be considered by the Cabinet. Meanwhile the Commission is continuing with its market development programme and with its responsibilities in relation to grid upgrades. For example, the Commission recently approved \$44 million to renew the line between Wanganui and Stratford (in addition to the \$2.6 billion approved by the Commission in the last five years).

Whatever the outcome of the review, the Commission will work as hard as it can to ensure that electricity is delivered reliably and cost-effectively. If a new authority is established to regulate the sector we will work co-operatively to ensure a smooth handover. We will also continue in the meantime to review transmission investment proposals on behalf of consumers to ensure that the grid is expanded where it needs to be.

David Caygill



Electricity
Te Kōwhiri Hiko
Commission

Electricity Commission
Level 7, ASB Bank Tower, 2 Hunter Street
PO Box 10041, Wellington 6143, New Zealand
Tel +64-4-460 8860
Fax +64-4-460 8879
Email info@electricitycommission.govt.nz
www.electricitycommission.govt.nz

newzealand.govt.nz



Efficient road lighting resource developed for local authorities

New Zealand's 330,000 road lights run for over 4,000 hours each year at a cost of around \$30 million. To

help local authorities tap into potential savings from more efficient road lighting and reduce electricity consumption, the Commission has worked collaboratively with New Zealand Transport Agency, Local Government New Zealand (LGNZ), street lighting experts and others, to develop a comprehensive online resource for efficient road lighting.

Energy-efficient road lighting has multiple benefits beyond the obvious energy and maintenance cost savings. These benefits include appropriate lighting levels and visibility (which can lessen the need for additional security lighting), greater safety (through improved visibility), and indicatively a reduction in crime. The greater security that people feel from improved visibility flows through to social and economic benefits, including overseas reports of an improved tourism experience.

The online resource provides practical support for local authorities to improve the efficiency of existing networks and reduce operation and maintenance expenditure. The resource also includes an Infrastructure Design Standard which sets standard specifications for new developments that encourage the best practice installation of newer and more efficient road-lighting technologies.

Tariff structures have been identified as a potential barrier to the uptake of efficient road lighting with there being significant variations in fixed and variable electricity cost between local authorities around the country. The Commission and LGNZ are looking at options to address this issue.

The Commission's focus on peak load reduction and end-user electricity saving is proving a successful complement to EECA's broad approach to energy conservation and efficiency in areas such as transportation. The Commission worked with EECA and other parties to identify potential barriers to the uptake of efficient lighting and options to overcome these barriers.

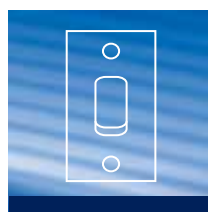
To date, the Commission's programmes have realised around 460 GWh of electricity savings per annum. This is roughly equivalent to the annual electricity usage of 52,000 New Zealand homes, or a city the size of Rotorua. The reduction in demand at peak times is 200 MW to date.

Valuing savings at the long run marginal cost of new generation, or put more simply, the estimated cost of building a new power station, the electricity savings realised by the Commission represent a \$317 million net present value to the New Zealand economy. The cost of savings is around 0.8 cents per kWh – well below the cost of new generation.

The road lighting initiative is part of the wider RightLight efficient lighting programme that is set to deliver over 100 GWh/annum after three years – equating to over \$23 million savings per annum.

The road lighting online resource will be rolled out to local authorities from December in a series of workshops and will be available online at www.rightlight.govt.nz/roadlighting.

See www.electricitycommission.govt.nz/opdev/elec-efficiency/programmes/lighting/current/index.html



Commission supports Powerswitch upgrade

Powerswitch.org.nz is the website for consumers to work out which power company and pricing plan best suits them. It has recently been given a significant upgrade with the help of financial

assistance from the Commission.

Powerswitch is run by Consumer NZ with support from the Ministry of Consumer Affairs. It's a real success story – a totally free and independent service for New Zealand energy consumers to compare electricity and gas prices and find the cheapest deal. The site also includes quick tips for saving energy, information for vulnerable consumers, and price trends.



The upgrade has enhanced the site's functionality. Results are easier to read and include price as well as other comparison information such as customer service measures. The site also includes historical data on electricity pricing in the main centres on easy-to-read graphs.

Further, the site now incorporates pricing for reticulated gas and dual fuel as well as electricity, so consumers can work out the best deal for their total energy needs. There is also a 'switch now' button that links directly through to the relevant retailer's sign-up page.

The provision of accessible, comparative information is vitally important to New Zealand's energy consumers. It fits well with the Commission's objectives of increasing market competition and promoting the more efficient use of electricity. It is also interesting to note how closely Powerswitch hits and retail switch trends mirror each other.

Further enhancements coming soon to Powerswitch include the addition of pricing for LPG gas, access to historical data on electricity pricing for all areas, and inclusion of price comparisons from Powershop.

See www.powerswitch.org.nz



Ancillary services under the spotlight

The Commission is facilitating a major project for the industry to implement an automatic generator control system to modify the frequency keeping market, a vital ancillary service.

Consumers may view electricity simply as a commodity that they pay for through their electricity bills, but the production of electricity is supported by a series of ancillary services which are essential to system reliability and stability. There are five ancillary services, with frequency keeping and instantaneous reserve being the two key services. They support minute-by-minute system operation and event management respectively.

Minute-by-minute differences between generation and demand cause system frequency to fluctuate. Frequency keeping is carried out by particular generators that can quickly change output to match any fluctuations. System fluctuations must be kept within limits so that plant, such as manufacturing machinery, is not damaged. Instantaneous reserve is spare generation that sits in reserve to cover the largest potential event, such as the loss of a large generation plant or the HVDC link between the North and South Islands.

Transpower, as system operator, contracts with generators, retailers and distributors for the provision of these ancillary services. Together with the industry and the system operator, the Commission has been looking at ways to improve the provision of ancillary services, with the objective of making the services more competitive and cost-effective. Encouraging more service providers to offer ancillary services will increase competition and lead to lower costs overall.

Technology has a major role to play in the provision of ancillary services. Automatic generator control systems are an example of technology that can support ancillary services and is being used successfully in other parts of the world. Introducing such technology is a big undertaking, requiring significant industry involvement and downstream rules development. But this will help us maintain a more secure system and provide electricity efficiently, while integrating increasing levels of intermittent generation into the power system.

See www.electricitycommission.govt.nz/opdev/comqual/multiple-freq-keeper/index.html

