NSW GOVERNMENT | Office of Water

File ref: CW10/268

Mr Colin Reid
Director Water
IPART
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4th May 2010

Dear Mr Reid

Attached is a submission from the NSW Office of Water concerning the proposal for a metering service charge. It is noted that IPART in its draft determination for State Water has supported the application of such a charge for regulated river customers.

The Office foreshadowed in its 2009 December submission that a metering service charge should also be applied to users on unregulated rivers and groundwater systems who are metered under Government funded programs. With the commencement of the metering rollout programs in some areas, the Office is now seeking IPART's determination of a charge for the unregulated river and groundwater metered users.

Yours sincerely

David Harriss
Commissioner, NSW Office of Water

NSW Office of Water

Additional Submission on Metering Service Charge

Introduction

NOW in its pricing submission foreshadowed the introduction of a water metering service charge. As outlined, the NSW Office of Water (the Office) will be responsible for the installation of meters for surface water users in the Hawkesbury-Nepean River system and groundwater and unregulated river users in the Murray Darling Basin under externally funded programs (eg. the Commonwealth Water for the Future Program and Hawkesbury-Nepean River Recovery Program).

Generally under these schemes, metering will apply to the holder of the approval for a pump, bore or other water extraction work. It will not apply to:

- water supplied by town water supply schemes, irrigation corporations, or other rural water supply schemes to their customers downstream of bulk offtakes
- extraction under Basic Landholder Rights
- extraction by small diameter pumps (minimum size to be determined)
- extraction by small volume licence holders (minimum size to be determined)
- farm dams not on rivers
- works approvals that are not of an extractive nature.

From a practical perspective meters will also not be installed where the Office determines that it is not practical or cost effective because of site conditions, with alternative arrangements for the capture of extraction data negotiated with the water user. The level of Commonwealth funding will also preclude the installation of meters where water extractions are minor – this will be determined on a water source basis, but the broad principle will be to meter 95% of water extraction from a water source.

Where the approval holder has an existing water meter that the Office considers to be compliant with the national metering standards and appropriately reliable, this meter will not be replaced, however, it may be necessary to add data capture technology e.g. telemetry to the meter to gather the required data.

The metering system will be latest technology, tamper proof and low maintenance, meeting the requirements of the new national metering standards and where appropriate and cost effective, providing immediate real-time information on water use.

The expansion and improved quality of water metering will:

- improve water resource management
- enable flow event sharing to be established where appropriate
- enable the protection of environmental flows passing down rivers
- improve river operation by enabling more precise management of flows
- improve the ability to detect any non-compliance of approval holders with the conditions of their licence
- improve public and investor confidence in the management of water and the integrity of the water entitlements systems
- support on-farm investment and operational enhancements to achieve more water and energy-efficient water extraction and distribution
- improve the capacity to identify and obtain river system water savings
- support water plan development, implementation and review
- open up water allocation trading in unregulated river and groundwater systems
- reduce meter downtime, thereby reducing costs of estimating missing information and the associated errors.

Installation of new meters in the Hawkesbury-Nepean has already commenced and will commence in some areas of the Murray-Darling Basin by the second half of 2010.

The Commonwealth Government funding will cover the initial capital cost of the meter purchase and installation including the following services:

- Replacement of existing meters to meters compliant with national water meter standards (where needed)
- Installation of meters where none currently exist
- Installation of telemetry equipment onto existing meters that meet the Office's requirements for an appropriate meter
- Certification of meters to the national water meter standards by accredited certifiers
- Establishment of Information systems.

The Commonwealth funding, however, will not cover the ongoing operation and maintenance of the meters and data systems once they are installed. The Office proposes to recover on-going operation and maintenance costs of the meters from water users who are metered. The benefits of the Government managing the operation and maintenance of the meters and then recovering this from users are:

- Efficiency of large scale operation

- Minimisation of the type and range of meters, in order to minimise operation and maintenance costs
- Confidence of all stakeholders with the accuracy and transparency of the collected data
- More-efficient contracts with suppliers for operation and maintenance activities
- Consistency with other utility providers which in general operate and maintain meters.

Since the lodgment of the Office's pricing submission in December 2009, the Office has completed the tendering for the installation of the meters in the Hawkesbury-Nepean River system and work has commenced on meter installation; is about to commence an initial first stage project for the upper Murray; and significantly progressed the overall business case for the entire Murray Darling Basin metering scheme. The information in this supplementary submission is based upon this additional information.

Meters to be installed

The Office's updated estimates of the number of meters to be installed under the Commonwealth funded capital programs are as follows:

	2010/11	2011/12	2012/13	2013/14	Total over the price determination period	2014/15
Hawkesbury Nepean	1,300	100			1,400	
NSW area of MDB	340	1,100	1,100	2,180	4,720	400
Total	1,640	1,200	1,100	2,180	6,120	400

The Office has identified four main types of meters that will be installed in the following proportions:

Type of Meter	Estimated proportion of fleet of meters
Mechanical meter - with data logger	7.5%
Electromagnetic meter – with data logger	7.5%
Electromagnetic meter – with data logger and mobile data modem	80%
Electromagnetic meter – with data logger and satellite data modem	5%

The Office proposes that, during the period of the price determination for which this submission is made, that it will provide water meters to all new approval holders in the

areas proposed to be metered namely, the NSW portion of the Murray Darling Basin or Hawkesbury Nepean River system areas based upon the same parameters as set out as for existing licence holders.

During the price determination period the Office may also install meters in other areas and these meters will also be subject to the same framework as outlined in this submission.

Legislative Framework

Under section 372A of the *Water Management Act* 2000, the Ministerial Corporation may install, test and remove metering equipment.

Further provision is made for the Ministerial Corporation to undertake functions such as the maintenance, repair, modification and replacement of metering equipment (whether or not that equipment was installed by the Corporation), and operation of metering equipment, if a regulation is made. Responsibility for maintenance could also be achieved by amending the *Water Management Act* .

The Office is not currently resourced to undertake meter maintenance. It is proposed that a metering service charge be introduced so that it will be in a position to assume responsibility for meter maintenance.

Operating and maintenance activities

During the determination period

During this period meter maintenance will involve:

- Annual maintenance visits, including routine replacement of consumables such as batteries
- Two-yearly validation inspections to certify compliance with national water metering standards
- Repair of faults, detected via telemetry, site visit or water user report.

This maintenance work will be undertaken by qualified persons selected by competitive tender. Meter readings will be collected via telemetry systems where available or by site visits. Where telemetry equipment is in place, no site visits solely for meter reading will occur. Remote monitoring will, to the extent feasible, report information on instrument status (e.g. battery levels) in addition to water extraction to enable rapid detection of faults. A single annual reading will be taken in conjunction with the maintenance visit. In addition, contractors will take site meter readings during annual meter validation inspections and maintenance visits. Information will be supplied to the Office with visit reports.

The Government will manage and store meter readings and meter performance information for the purposes of water systems operation, trading transactions, water user compliance with allocations, billing, reporting and asset management of metering equipment. New metering information systems will be needed to manage the continuous time-series information that will be available from the new meters being

installed, and for the purposes of asset management. The cost of developing such information systems will be included in the capital project costs funded by the Commonwealth, but the on-going cost of entry of metering data, and management of the systems, will need to be recovered from users.

Under the Commonwealth programs, it is expected that most meters will be equipped with telemetry in order to promptly and efficiently collect meter readings. However, if telemetry is not an economic or feasible option for collecting water extraction readings for some meters, the Office will put other processes in place to record and collect the readings.

The above activities will also apply to existing meters that are assessed by the Office as being compliant to the new national water meter standards and reliable and hence will not be replaced under the program, although telemetry may be installed.

Approval holders are able to relocate their pumps subject to providing advice to the Office. The Office proposes that, the approval holder be responsible for the relocation of both the pump and meter however the relocation must be undertaken by an appropriately accredited person. The Office proposes that it validate the relocation of the meter.

The Office anticipates other meter related activities will be required including:

- Meter removal.
- Repairs to meters currently in place that are deemed by the Office to be compliant.
- Repairs to meters for which the manufacturers' warranty has expired.

However at this stage the extent of these activities is unclear.

Cost of the new water metering scheme

The initial capital costs for the purchase and installation of the meters and telemetry will be funded by the Commonwealth Government. The Office proposes that the on-going operating, maintenance and replacement costs be recovered from users through an IPART-determined Metering Service Charge.

The Office has negotiated with suppliers a three year warranty on meters at no additional cost. This warranty will cover the costs of repairing a component failure attributed to faulty manufacture or materials used. This warranty will expire for some of the meters during the current determination period. The Office will then become responsible for the repairs of such meters. However the costs associated with such repairs are, at this stage, unknown. Given that, over the period to 30June 2014 this will apply to approximately 800 meters (13% of the fleet) the Office proposes to bear the costs of such repairs for the price determination period.

The table below summarises the estimated marginal cost for each cost activity and type of meter, based on a report prepared by Nayar Consulting for the Hawkesbury Nepean Metering Scheme.

Table: Estimated annual operating and maintenance costs for each meter type ($09/10)

Type of Meter	Meter Reading		Meter Maintenance			Meter Information System	Dispute Resolution	Total Direct Cost
	Manual	Remote	Planned Maintenance		Unplanned Maintenance			
			Validation	Consum-ables				
Mechanical meter - with data logger	$75	$0	$60	$10	$12	$56	$17	$230
Electromagnetic meter – with data logger	$75	$0	$78	$10	$60	$56	$17	$296
Electromagnetic meter – with data logger and mobile data modem	$75	$60	$78	$20	$75	$56	$17	$381
Electromagnetic meter – with data logger and satellite data modem	$75	$360	$78	$20	$90	$56	$17	$696

The estimated costs identified in the Nayar Consulting report identified market based operating and maintenance costs for a fleet of meters. The market costs were based upon the Office establishing efficient costs through outsourcing all identified activities with the exception of metering information systems and dispute resolution activities. In assessing cost levels, consideration must be given to internal resources to manage the outsourced contract; it is probable that this could be managed with only a small number of additional resources. It is therefore inappropriate to include an additional cost component for overhead activities.

Given the profile of the differing meter types the average per annum cost of these activities across the proposed fleet of meters is $379 ($09/10). The Office anticipates that the annual costs associated with meters in other areas will be of a similar level.

The Office currently incurs costs associated with reading a number of groundwater meters in the Murray Darling Basin and unregulated meters in the Barwon Darling, these activities are currently undertaken by State Water under contract. These costs

currently form part of the water resource management charges. The costs included in the Office's pricing submission total $1.3m ($09/10). As the metering program is rolled out these activities will become redundant.

The estimated number and of meters to be installed in areas where the current meter reading activities are undertaken is 3,500 in the inland groundwater area; and 250 for the Far West unregulated river areas. The proposed metering service charge will therefore need to be reduced in these areas by $346 pa for these meters to offset the current metering costs in these areas.

Approval holders may require the relocation of pumps and associated meters. The Office proposes that the approval holder should be responsible for the costs of such work however the accuracy of the re-located meter will need to be validated. The best estimate of the costs of such validation work is identified by Nayar Consulting as $306 per meter based on the range of meters to be installed by the Office.

Charges

Proposed charges

The Office is proposing that during the life of the determination customers will be required to fund planned maintenance, unplanned maintenance (not covered by meter warranty), remote meter reading and data information processing. The Office is proposing that a common charge be levied against all approval holders with a meter. This proposal complements the Office's proposal for a fixed water resource management charge, socialises telemetry costs where it is the Office's decision as to which meters are telemetered and finally is a simple pragmatic approach. For the determination period these costs exclude capital replacement costs and the costs of component failure.

In the case where a licence holder relocates a meter the Office is proposing a charge to cover the costs of validating the appropriate functioning of the meter after its relocation.

The Office proposes the following charges ($09/10) for the price determination period for each meter relevant to this submission:

1. Full metering service charge in areas where there is currently no meter reading activities $379 pa
2. Reduced metering service charge in areas where there is currently meter reading activities (Inland groundwater and Far West Unregulated) - $33 pa
3. Relocation of meter at customer's request - $306 for validation following each relocation
4. Cost of installing a new meter – $0
5. Removal of meter - $0.

Criteria for charging users

Meter servicing charge

In principle the annual meter servicing charge will be charged to approval holders for the financial year following the meter's installation. A meter will be deemed to be installed on the date a notice is sent to the approval holder that the meter has been installed or, in the case of existing meters deemed to be compliant. The annual metering service charge is to be raised against approval holders with an "installed" meter on 1 July.

For approval holders in the Hawkesbury Nepean area the metering service charge is to commence from 1 July 2013. The Hawkesbury Nepean area was selected as the first trial area for a metering rollout, during negotiations with landholders in respect of issues relating to this rollout, commitments were given that charges would not be levied in the Hawkesbury Nepean until 1 July 2013.

Relocation of a meter

Licence holders are required to advise the Office if a pump is relocated. The licence holder will be required to pay the direct costs of relocating the meter plus a fee of $306 for revalidation of the meter.

Charges foreshadowed for the next determination period

The annual operating and maintenance charges proposed in this submission reflect estimates of the costs that will be incurred by the Office. At the next determination period it is anticipated that the charges will be based upon the Office's actual costs.

As noted in this submission, costs for the following identified activities have been excluded due to the uncertainty of their costs:

- Removal of a meter
- Replacement of meters
- Installation of new meters
- Costs related to component failure.

In its pricing submission at the next price determination the Office may propose charges for these and any other meter related activities that it identifies based on its experience with the meter program.