



# Competitive Neutrality Complaint Investigation

Final report

Water market intermediary services  
provided by Watermove Pty Ltd

23 August 2011

Victorian Competition and Efficiency Commission

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## Key points

- In August 2010, the Victorian Competition and Efficiency Commission (the Commission) received a complaint alleging that Watermove Pty Ltd (Watermove) is not compliant with Victoria's competitive neutrality (CN) policy.
- Watermove's water market intermediary service competes with private sector providers to facilitate water trades in Victoria. Watermove is a fully owned subsidiary of Goulburn-Murray Water (G-MW), a Government-owned water corporation responsible for water supply, storage and delivery services in northern Victoria.
- The CN complaint directed at Watermove mainly related to the alleged lack of full cost-reflective pricing of its water market intermediary services, as well as non-pricing concerns about its access to information arising from its governance and staffing arrangements.
- The Commission has concluded that:
  - The business protocols and procedures between G-MW and Watermove governing the types of information that Watermove may request, or have access to, from G-MW, do not fully address risks in Watermove's access to G-MW information.
  - There is no evidence to suggest that Watermove gains a competitive advantage in water trade approvals or approval times resulting from its government ownership.
  - Watermove has not accounted for the cost of capital in its costing and pricing models.
- The Commission is satisfied that Watermove has absorbed the costs of hardware and software development; and the costs of its incorporation and other legal documentation.
- The Commission recommends the following actions be taken within three months from the issue date of this report:
  - Watermove and G-MW revise the business protocols and procedures governing their exchange of information to identify transparently the types of information and documents that Watermove may request from G-MW, consistent with its CN obligations.
  - Watermove and G-MW finalise the business protocols and procedures governing the relationship between G-MW and the Watermove Chair.
  - Watermove review its costing and pricing models to ensure all costs attributable to the operation of its water market intermediary business have been correctly identified and calculated, in particular, the cost of capital and insurance costs.

## 2 Competitive neutrality policy

Victoria's *Competitive Neutrality Policy Victoria* was released in October 2000. The policy integrates rigorous financial principles with a strong public interest test and transparency in decision-making.

The objective of competitive neutrality (CN) is set out in Clause 3(1) of the *Competition Principles Agreement* as:

... the elimination of resource allocation distortions arising out of the public ownership of entities engaged in significant business activities: Government business should not enjoy any net competitive advantage simply as a result of their public sector ownership. These principles only apply to the business activities of publicly owned entities, not to the non-business, non-profit activities of these entities. (COAG 1995)

CN is achieved by removing unfair competitive advantages that result solely from government ownership of a business activity (Government of Victoria 2000).

In Victoria, it is the responsibility of government agencies and councils to determine if their business activities fall within the scope of CN policy. If the policy does apply, then the government agency or council must put in place CN measures for its business activities if it is in the public interest to do so. The CN policy provides for three measures to implement CN—corporatisation, commercialisation, and full cost-reflective pricing (appendix 1 provides a further description of these measures).

CN policy recognises that it is common for private businesses to exist with competing government business and that these do not always compete on equal terms: 'Such inequalities arise from a variety of circumstances and it is the goal of competitive neutrality policy to offset these where appropriate' (Government of Victoria 2000, p. 4). The policy states further:

Competitive neutrality measures will be required where the expected benefits of introducing such measures outweigh the costs, and where there are net benefits from implementing such measures having regard to public policy objectives other than competitive neutrality. (Government of Victoria 2000, p. 6)

Under CN policy, prices should reflect the full cost of producing a good or service, after any adjustments for competitive advantages or disadvantages associated with government ownership. There should also be equalisation of non-price related competitive advantages.

Government businesses within the scope of CN policy are required to document the steps they have taken to ensure that they operate consistently with the policy, and make this documentation public on request (Government of Victoria 2000, p. 11).

Should CN measures jeopardise other public policy objectives, options for achieving all policy objectives, including CN, must be explored through a fully documented public interest test process.

## 2.1 Role of the Commission in the CN process

The Victorian Competition and Efficiency Commission (the Commission) carries out three complementary functions:

- (1) undertaking inquiries into matters referred to it by the Victorian Government
- (2) reviewing and advising on the economic impact of significant new legislation and regulation
- (3) operating Victoria's Competitive Neutrality Unit.

The CN policy states:

It is the role of the Complaints Unit to determine the extent to which an agency's actions comply or do not comply with competitive neutrality policy. (Government of Victoria 2000, p. 12)

The Commission has investigated this complaint consistent with CN policy, and the *Competitive Neutrality Guide to Implementation* ('Implementation guide') (DTF 2000). It has no authority to investigate other concerns of complainants, for example, those relating to the *Competition and Consumer Act 2010* (Cth).

Compliance with CN policy is about achieving CN or justifying departure from CN, and the Commission makes recommendations to achieve this end only. Commission reports are not intended to form the basis of, or contribute to, compensation claims.

## 2.2 Investigation methodology

The Commission received a complaint against Watermove Pty Ltd (Watermove) on 13 August 2010. As part of its pre-investigation process, the Commission requested additional information from the complainant. After considering the facts and issues, the Commission wrote to the relevant parties on 23 December 2010 to advise that it had received and accepted a complaint for investigation, and requested that Watermove and Goulburn-Murray Water (G-MW) respond to a range of questions by 4 February 2011.

On 3 February 2011, the Commission received Watermove's response to the allegations made by the complainant. The information provided assisted the Commission but was not sufficient to finalise the investigation as Watermove had not provided the necessary supporting evidence to demonstrate that it complied with CN policy. Subsequently, the Commission requested further information and clarification from Watermove and G-MW, which it received in March 2011 and April 2011.

The Commission prepared a confidential draft investigation report which was issued to the complainant, Watermove, G-MW and the Department of Sustainability and Environment (DSE) on 31 May 2011. Responses to the report from these parties were received in June 2011 and considered in the preparation of the final report. In response to additional queries received from the complainant the Commission requested further clarification from Watermove which it, in turn, supplied in July 2011.

### 3 Scope of complaint

The CN complaint directed at Watermove related to the pricing of its water market intermediary services and other non-pricing concerns. The complaint was lodged by a private business operator who requested that their identity be kept confidential. The complainant alleged that Watermove is not complying with Victoria's CN policy.

The complainant made allegations against Watermove in five areas.

- (1) *Governance*: concern that a lack of director independence arising from the Managing Director of G-MW being a Director of Watermove gives Watermove access to information about G-MW's management, policy and corporate direction that advantages Watermove over its competitors. (Discussed in section 6.1.1)
- (2) *Access to information*: the allegation that Watermove has access to information about licence holders that, due to privacy laws, is unavailable to private third-party competitors. (Discussed in section 6.1.2)
- (3) *Secondment of staff*: which may give Watermove an advantage over its competitors through the transfer of intellectual property and operational information, including policy and account information, and irrigators' private details. (Discussed in section 6.1.3)
- (4) *Cross-promotion of Watermove through the G-MW website*: through links to pre-2007 media releases that refer water licence holders to deal directly with Watermove, and imply that licence holders can only trade their water entitlements through Watermove. (Discussed in section 6.1.4)

(5) *Pricing*: that Watermove fails to implement full cost-reflective pricing, including:

- the costs of software and hardware development (discussed in section 6.2.1);
- legal documentation and legal structures (discussed in section 6.2.2);
- commercial insurance costs (discussed in section 6.2.3);
- the cost of capital (discussed in section 6.2.4) and
- staff secondment costs (discussed in section 6.2.5).

Following the Commission's draft investigation report, the complainant raised additional concerns about Watermove's settlement of trades (discussed in section 6.1.5) and access to G-MW's premises by Watermove staff (covered in section 6.1.3).

Under CN policy, prices need to reflect the full cost of producing a good or service, including any cost adjustments that allow for competitive advantages or disadvantages that solely result from the government's ownership of the business activity. There needs also to be consideration of non-price related competitive advantages. Government businesses within the scope of CN policy are required to undertake and document the steps they have taken to ensure that they are operating consistently with the policy and make this documentation public on request (Government of Victoria 2000, p. 11). The Commission examined each of the issues raised by the complainant to determine whether a CN advantage exists, and if so what, if any, measures had been taken by Watermove to offset these advantages. Where required the Commission made recommendations to assist Watermove to comply with CN policy.

## **4 Background**

This section outlines background information to the complaint regarding:

- Water trading arrangements in Victoria.
- The functions of Watermove and G-MW.
- A summary of the Commission's investigation of a CN complaint directed at Watermove in 2006-07.
- Watermove's water market intermediary services.

### **4.1 Water trading in Victoria**

Water trading has been allowed in Victoria since 1991. Trading of water in Victoria and interstate generates net benefits by facilitating transfer among water users of the right to access water, revealing water's value and encouraging its best use. Most water trade in Victoria is in the regulated water systems in northern

Victoria, the Goulburn and Murray river systems. Water can be traded as a trade of allocation available in a given season, or through a permanent trade of ongoing entitlement (Office of Water 2009).

Water market participants often use the services of a water market intermediary to facilitate the trading of a water access right. Water market intermediaries is a general term used to refer to water brokers and water exchanges. Water brokers perform a number of roles for their clients, such as finding a trading partner for their client and advising their customer on price and water trading rules. Water exchanges operate as a trading platform, matching buyers and sellers through an automated process or a bulletin board (ACCC 2010).

Water trades require approval from the relevant water authority. In Victoria, water authorities register trades among parties; set rules that limit some trades; monitor compliance with allocations and account balances so that users only use what they have paid for; and provide information about the availability of water.

## **4.2 Goulburn-Murray Water**

Trading as Goulburn-Murray Water, the Goulburn-Murray Rural Water Corporation is a statutory Corporation constituted by Ministerial order under the provisions of the *Water Act 1989*. G-MW supplies, stores and delivers water to irrigators and urban water authorities over 68 000 square kilometres in northern Victoria.

G-MW has been delegated authority by the Minister for Water to determine applications to trade water allocations (G-MW 2011). One of G-MW's roles is to approve or refuse the trade of a water access right. G-MW checks that the application/paperwork submitted by the seller is complete, that the trading zones are consistent and that the seller has the entitlement/allocation to sell. It also checks that the buyer's documentation is complete and correct, and that the buyer is able to have the water delivered. All transfers of ownership of a water access entitlement are registered on the Victorian Water Register, administered by DSE.

## **4.3 Watermove Pty Ltd**

Watermove Pty Ltd (Watermove) commenced operations as a corporatised entity on 1 November 2009. Watermove is a wholly owned subsidiary of G-MW and operates an intermediary service that facilitates water trading in the Victorian water market.

Watermove was initially established in 2002 as an internal business unit of G-MW. Funding of \$625 000 was provided under the then Victorian Government's *Water for Growth* initiative. The majority of this funding was used



in the development of information technology (IT) systems for water trading, in particular, the 'pooled exchange' (see section 4.5.1).

Watermove has the following objectives:

- To support a fair and open water trading market.
- To conduct trades in an open and transparent manner.
- To provide open and transparent water trade information to the market.
- To ensure confidentiality of traders.
- To continually improve business processes.
- To provide choice to consumers in how they trade water.
- To operate a financially viable business.
- To become the market leader.

Watermove operates within the following guiding principles:

- Private trades and trade conducted via water brokers must continue to be facilitated.
- Exclusive access should not be granted to one water exchange or water broker.
- Improved processes and turnabout times should be provided to all trades including private trades, trades via water brokers and trades achieved by private and public water exchanges consistent with the technology available.
- Access to water trading and market information should be open and transparent.
- Confidentiality of traders must be respected.

#### **4.4 Prior CN complaint directed at Watermove**

In 2006-07, while Watermove was still an internal business unit of G-MW, the Commission investigated a CN complaint that was directed at Watermove. The complaint involved non-pricing issues that would not be resolved by Watermove applying full cost reflective pricing principles alone. The Commission's investigation examined commercialisation and corporatisation options for Watermove and discussed how corporatisation could directly address the issues relating to conflicts of interest.

Corporatisation would address ... CN concerns related to potential conflicts of interest, by removing commercial incentives for G-MW's decisions, rules and regulation to favour Watermove. Watermove could still contract support staff services (information technology, human resources etc) from G-MW on a commercial basis, but operational staff should be separate and appropriate protocols regarding disclosure of information and other interactions are in place. (VCEC 2007, p. 39)

The Commission examined cost and price advantages, and found that G-MW had put in place some elements consistent with CN costing. However, the Commission also found further measures should be considered to achieve full compliance with CN policy, including:

- Auditing Watermove's processes to identify where changes are needed to bring them into line with CN policy.
- Developing CN procedures and a costing model (including an appropriate return on the total assets employed to undertake the business activity and other competitive advantages and disadvantages) to annually review and assess the pricing of significant business activities.

In response to the recommendations of the Commission's report, the Board of G-MW decided in 2008 to formally establish Watermove as a separate corporate entity with a separate Board of Directors, with G-MW as the sole shareholder.

## **4.5 Watermove's intermediary services**

Watermove's water trading intermediary services compete directly with the private sector. Watermove offers trading through a pooled exchange and an on-line trading room.

### **4.5.1 Pooled exchange**

Watermove conducts water exchanges in water trading zones in Victoria where trading rules have been defined. Traders may submit offers by mail, facsimile or on-line, and eligible offers are included in an exchange for the relevant trading zone. Watermove's pooled exchange has historically provided public reference prices and other market information for water trades.

Watermove conducts an exchange each Thursday which matches buyers and sellers through a double bid auction system and determines a 'pool price' for each trading zone where trade has occurred. Successful sellers receive a price greater than or equal to their offer price and successful buyers pay less than or equal to their offer price. That is, the 'pool price' for the trading zone will be less than or equal to the buy price offered by successful buyers. An independent auditor, who is not permitted to be an owner or trader of water, supervises the integrity of the exchange and individually checks that each offer submitted in an exchange had an equal chance of success (Watermove 2011(a)).

### **4.5.2 On-line trade room**

Watermove recently launched an online trade room, which facilitates one-to-one trades. Registered traders are able to independently negotiate individual water trades in a secure online environment. This 'trading room' also allows registered

traders to trade numerous different products, that is, water allocation and water access entitlements in regulated systems, and water access entitlements in groundwater and unregulated systems. The new system allows trades to be negotiated between different trading zones (which was not previously possible under the pool system) (ACCC 2010).

## 5 Does competitive neutrality policy apply?

The threshold issue in any CN investigation is establishing whether the government activity subject to the complaint is a significant business as defined by the CN policy.

The CN policy requires that:

An agency or local government should document its determination as to whether a business activity is, or is not, within the scope of the Policy. This documentation should be defensible and will be subject to scrutiny in the event that an investigation is triggered by a complaint. (Government of Victoria 2000, p. 5)

The Commission previously considered whether Watermove is a significant business when it investigated the complaint against Watermove in 2006-07. At that time the Commission found that:

... the water exchange business operated by Watermove is a significant business activity, particularly in terms of temporary water trades, having regard to its presence in the Victorian market, and is therefore within the scope of the Victorian Government's CN policy. (VCEC 2007, p. 18)

The question of the business status of Watermove is not in contention given that both G-MW and Watermove have accepted that Watermove is a significant business activity. This is evidenced through the recent corporatisation of Watermove by G-MW.

## 6 Assessment of the complaint

In this section, the Commission considers each of the allegations made by the complainant. The following standard framework is used to investigate each allegation:

- The allegation is outlined.
- The allegation is examined in the context of the Government's CN policy and other relevant policies and studies.
- Watermove's response is outlined.

- The Commission assesses whether:
  - an actual CN advantage exists, and if so, a recommendation is made to address this advantage and ensure compliance with the Government’s CN policy; or
  - a CN advantage may exist and a recommendation is made to mitigate this risk and ensure compliance with the Government’s CN policy; or
  - no CN advantage exists and thus no further action is recommended.

## 6.1 Alleged non-price advantages

This section examines the alleged non-price advantages raised by the complainant.

### 6.1.1 Governance

The complainant expressed concerns about a conflict of interest arising from Watermove’s corporate governance arrangement. Specifically, the question of director independence was raised because the Managing Director of Watermove, at the time the complaint was lodged, was also a Director of G-MW.

Limited guidance is available from the Government’s CN policy regarding appropriate governance arrangements for corporatised entities. The policy notes ‘Government businesses should not enjoy any net competitive advantage simply as a result of their public sector ownership’ (p. 4). Governance arrangements may contribute to such an advantage, particularly where conflicts of interest arise. The State Services Authority’s (SSA) *Good Practice Guide on Governance for Victorian Public Sector Entities* notes that a Board member should assume there is a conflict of duty wherever there is a real, perceived or potential conflict between:

- the member’s duty to the public entity and his or her duty to another organisation; or
- the public entity’s interests and the member’s interests.

The SSA’s guidance also notes that a Board of a public entity must implement a process to deal with conflicts of interest for financial and non-financial interests.<sup>1</sup> This involves the Chair:

- Asking for full disclosure of interests at the beginning of meetings of the Board.
- Recording the disclosure in the minutes of the meeting.
- Asking the Board to decide whether the conflict is material or real.

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<sup>1</sup> s.81(1)(f) of the *Public Administration Act 2004* (PAA) for entities governed by Division 2 of Part 5 of the PAA

- Enabling the Board to ask the member to leave the room while the matter is considered.
- Prohibiting the member from taking part in any Board decision on the matter.

In its response to this complaint, Watermove advised the Commission that when it commenced operation as a corporatised entity on 1 November 2009, it operated under the governance of an interim Board of Directors. This Board included two members of the G-MW senior management team and the Managing Director of Watermove. The governance arrangement stayed in place until the recruitment and appointment of appropriately skilled independent directors.

On 1 November 2010, a five person board was appointed, with only the Chairman of G-MW holding a directorship on the Board of Watermove as the sole representative of G-MW. In February 2011, Watermove advised the Commission that no other member of the Watermove Board, including the Managing Director, performs a role within G-MW (Watermove 2011(b)). In June 2011, Watermove subsequently advised that its inaugural Chair had since resigned, and that the current Watermove Chair is not a member of the G-MW Board.

Watermove advised the Commission that three board meetings have occurred since the appointment of the new Board, and that it is protocol that at the commencement of each meeting, the Chairman calls for any declarations of interest and conflicts that are required to be made. Watermove advised that ‘occasion has not yet risen where potential or actual conflict of interest has occurred’ (Watermove 2011(c), p. 1). Watermove also advised that ‘all Watermove directors and staff have signed binding confidentiality agreements and have completed declarations of interest which have been noted and recorded’ (Watermove 2011(b), p. 6).

The Commission considers that the arrangements applied by G-MW and Watermove on the appointment and composition of the Watermove Board do not constitute a CN advantage. Following the transition to corporatisation, Watermove now has a majority of independent directors. The Managing Director of G-MW no longer sits on the Watermove Board, and the Chairman of Watermove no longer sits on the G-MW Board. In addition, satisfactory conflict of interest policies and confidentiality policies for Board members and staff have been implemented.

While these protocols and procedures for managing actual or perceived conflicts of interest are consistent with CN policy, governance protocols related to the exchange of information between Watermove and G-MW also need to be examined.

## 6.1.2 Access to information

The complainant expressed concern about Watermove having access to licence holder information from G-MW, which its competitors do not. The complainant stated that such information was only available to Watermove's competitors after obtaining Privacy Act releases from their clients and providing such releases to G-MW, and that this inhibited potential buyers and sellers from appointing a competitor water trader to Watermove.

Relevant information received from Watermove in response to this complaint includes:

- All customer information is sourced directly from the entitlement water holder and no information which G-MW may hold on its customers (irrespective of whether or not they are clients of Watermove) is made available to or accessed by Watermove. (Watermove 2011(b), p. 6)
- Watermove is unable to access information that is held by G-MW and protected by privacy laws. In this regard, Watermove is treated the same as any other water broker in its dealings with G-MW. (Watermove 2011(b), p. 6)
- Watermove has instituted its own document management system and although hosted by G-MW's IT department it has secure access on a separately designated server. (Watermove 2011(b), p. 5)

However, Watermove advised the Commission that it does:

... access relevant publicly available information from G-MW as part of its services of providing its clients with trading information, and that this information is available to all water brokers. (Watermove 2011(b), p. 5)

The question of Watermove having preferential access to information held by G-MW was considered by the Australian Competition and Consumer Commission (ACCC) in 2010. The ACCC reported that water market intermediaries had expressed concern over Watermove having access to G-MW records to check that the seller of a water entitlement had sufficient water to complete the transaction, and that the parties details on the trade approval application form were correct. However, the ACCC also recognised that Watermove no longer had exclusive access to G-MW's records. Rather, DSE had developed a free auto-lodgement system allowing intermediaries to submit trade approval applications with DSE for pre-approval, or rather a feasibility check, before they are sent to the relevant authority for approval (ACCC 2010). This service is available to intermediaries with large numbers of allocation trades who have entered into a legal agreement with DSE (DSE 2011(a)). This provides an alternative method of submitting allocation trade applications to relevant water authorities (ACCC 2010). Watermove use this system which may also be used by other intermediaries.

The ACCC also recommended that approval authorities and state governments develop policies and procedures to identify and appropriately manage potential or perceived conflicts of interest of approval authorities, and consider structural separation of water market intermediaries and approval authorities (ACCC 2010).

Watermove provided the Commission with the formal protocols governing the interactions between the G-MW Board, the Watermove Board and the G-MW appointed director on Watermove's Board. The business protocols include directives on confidentiality and privacy and when information or documents may be exchanged between G-MW and Watermove.

The business protocols also indicate that documents created by G-MW may be requested by the Watermove Chair or Managing Director and that the G-MW Chairman or Managing Director will determine the provision of the documents. However, the types of information and documents that Watermove may request from G-MW is not transparent, and it is unclear whether Watermove's competitors also have the right to request the same information and have their request considered equally.

The Commission has found that the business protocols do not adequately describe the types of information that Watermove may request, or access, from G-MW and they do not mitigate risks — actual or perceived — to Watermove complying with CN policy. The Commission notes that the business protocols between G-MW and Watermove are reviewed annually. In the next review, Watermove needs to take action to mitigate the risk that it gains a commercial advantage over its competitors from having access to information from G-MW that is not available to its competitors.

In its draft report the Commission also noted that protocols and procedures have not been finalised regarding the relationship between G-MW and the Watermove Chair to address the issues of:

- The nature of G-MW Board information and decisions to be shared with the Watermove Board by the Watermove Chair, as a then director of G-MW.
- Effective confidentiality and privacy protocols.

In its response to the draft report, Watermove advised that a review of the protocol document relating to the interaction of the Boards of G-MW and Watermove will be brought forward from November 2011, with the view to approval of both Boards in August 2011.

### 6.1.3 Secondment of staff — access to information

The complainant expressed concerns about a conflict of interest arising from the secondment of G-MW staff to Watermove. The complainant was concerned that the secondment of staff gives Watermove an advantage over its competitors through the transfer of intellectual property and operational information, including policy and account information, and irrigators' private details.

Watermove responded to this complaint by advising the Commission that:

- It seconds five full-time staff members from G-MW to Watermove and that this staffing resource is not shared with G-MW (Watermove 2011(b)).
- Prior to their secondment, the same staff worked in Watermove when it operated as a business unit within G-MW. As a result, the information that the staff brought from G-MW was largely operational knowledge about the Watermove exchange, not information that would obviously give Watermove a commercial advantage over its competitors. (Watermove 2011(h))

The roles and responsibility of the staff are:

- Managing Director—Overall management responsibility including oversight of all business functions, financial accountability, promotional and commercial activities and reporting.
- Supervisor—Manages the day-to-day running of the office and the supervision of staff.<sup>2</sup>
- Pooled Exchange Officer—Administers operation of the weekly pooled exchange.
- Traderoom Officer—Supervises the electronic traderoom and administration and processing of trades including testing of website enhancements.
- Finance Officer—Administers functions required for accounts receivable and payable and general ledger.

Watermove also advised the Commission that its current staff are the same as at incorporation (Watermove 2011(b)). Given their continuity of employment at Watermove, and because seconded staff do not come from a communal pool of employees that rotate in and out of G-MW, there is no evidence that conflict of interest—resulting from any ongoing flow of intellectual property or operational knowledge from G-MW to Watermove—can arise. Furthermore, appropriate procedures have been implemented to manage the risk of staff conflict of interest (see section 6.1.1). However, as noted above, while Watermove has cited privacy laws as preventing it from accessing irrigators' private details from

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<sup>2</sup> In July 2011 Watermove advised the Commission that the position of Supervisor no longer exists (Watermove 2011(h))



G-MW, there is some lack of clarity in the arrangements governing Watermove's ability to request information from G-MW. This is discussed below.

#### *Service Level Agreement*

At the time of finalisation of its draft investigation report, the Commission was awaiting information from Watermove about the service level agreement (SLA) governing secondment arrangements. Watermove subsequently provided a copy of the SLA to the Commission. (Watermove 2011(f)) The Commission considered the SLA with particular focus on:

- The arrangements governing disclosure of information between Watermove staff seconded from G-MW and G-MW.
- The concern about Watermove staff having access to G-MW premises.

The Commission found that there is lack of clarity in a clause in the SLA which deals with disclosure of information. This matter is technical rather than one that would materially advantage Watermove. The Commission will raise this matter directly with Watermove as part of its follow up to this investigation report.

#### **Recommendation One**

**To mitigate the risk that Watermove receives information from G-MW that provides it with an advantage over competitors, Watermove and G-MW need to revise the protocols and procedures governing their exchange of information to identify transparently:**

- **The types or categories of information and documents that Watermove may request from G-MW.**
- **The decision criteria used by G-MW to determine whether a document can be released by G-MW to Watermove.**
- **Whether Watermove's competitors are permitted equivalent access to information from G-MW. If not, the reasons why need to be explained, including why the provision of information and documentation solely to Watermove would not give Watermove a commercial advantage over its competitors.**

**Watermove and G-MW also need to finalise procedures and protocols governing the relationship between G-MW and the Watermove Chair regarding:**

- **The nature of information and decisions that can be shared between G-MW and the Watermove Chair.**
- **Confidentiality and privacy of customer information.**

#### **6.1.4 Cross-promotion of Watermove**

The complainant expressed concern about the cross-promotion of the Watermove business through links on the G-MW website to pre-2007 media releases referring water licence holders to deal with Watermove.

Watermove advised the Commission that, following the previous CN investigation concerning Watermove, G-MW sought to remove references and linkages to Watermove from its website (Watermove 2011(b)). This was consistent with recommendation 4 of the Commission's CN investigation report (VCEC 2007).

Further, Watermove advised that it will request that G-MW remove old media releases from the G-MW website, although it observed that it is unlikely that a potential customer would refer to media releases as old as 2007 (Watermove 2011(b)).

The Commission recognises that this may not be a CN issue, as people that access old media releases are likely to be seeking historical information about Watermove, rather than looking to engage a water intermediary.

While not necessary to ensure compliance with CN policy, the Commission acknowledges that Watermove will request G-MW to remove old media releases, which will remove any residual reference to Watermove left on the G-MW website.

#### **6.1.5 Water trading administrative arrangements**

The complainant considered that due to commonality of staff and management between Watermove and G-MW that there is a perception (perhaps mistaken) in customers minds that:

- it is more likely that a trade conducted by Watermove will be approved by G-MW; and
- approvals for trades facilitated by Watermove will be quicker.

The Commission has reviewed data regarding approval of water allocation trades by G-MW facilitated by Watermove and its major competitors. Only trades conducted within G-MW's authority were examined, given the data shows that Watermove only facilitates trades within this authority. As well as facilitating trades that require G-MW's approval, the data shows that Watermove's competitors also facilitate trades which require approval from different authorities.

Three seasons of water trading were examined, 2008-09, 2009-10 and 2010-11 (to 14 April 2011). Due to confidentiality requirements, only high-level conclusions drawn from analysis of the data are included in this report.

## Approval and rejection of trades

G-MW (2011) advised the Commission that generally most applications for water trades are approved. However, under some circumstances an application will be refused, for reasons that include:

- Payment not provided with application form.
- Allocation bank account (ABA) of buyer or seller does not exist.
- Seller's ABA number does not match name provided on application form.
- Seller does not have sufficient volume available to trade in nominated ABA.

The data showed that over time:

- The rejection rate across the six largest water intermediaries ranged from 0 per cent to up to 12 per cent. In some cases, higher rejection rates may be explained by relatively low volumes of water trades.
- The rejection rate for trades undertaken by Watermove's major competitors has been decreasing, while Watermove's rejection rate has increased slightly.

In regards to trade approvals, there is no evidence to suggest that Watermove gains a competitive advantage as a result of its ownership by G-MW.

## Approval times

The Commission also considered data on approval times for water trades facilitated by Watermove and its major competitors over the three seasons. The Council of Australian Governments (COAG) has agreed intended service standards for the processing of water trades. In 2008-09, COAG tightened service standards for processing allocation trades, requiring 90 per cent of interstate trades to be processed in 10, rather than 20 business days, and 90 per cent of intrastate trades to be processed in 5, rather than 10 business days (DSE 2011(b)). DSE's Victorian Water Register website shows that from 1 July 2010 to 31 March 2011 across Victoria:

- 96 per cent of intrastate water allocation trades were processed within 5 business days, exceeding the intended service standard of 90 per cent; and
- 80 per cent of interstate water allocation trades were processed within 10 business days, below the intended service standard of 90 per cent.

Overall, the data showed that while approval times for Watermove facilitated trades are some of the lowest in the industry, there is little difference between approval times across the largest water market intermediaries. For example, average approval times across the 6 largest intermediaries varied from 1.8 business days to 2.7 business days in 2010-11. The data also showed that approval times have been reducing for all water market intermediaries across seasons.

In regards to approval times, there is no evidence to suggest that Watermove gains a competitive advantage as a result of its ownership by G-MW.

### **Other trading-related matters**

In response to the draft report, the complainant also raised concerns about:

- whether different fee arrangements were applied by approval authorities to Watermove facilitated trades and private broker facilitated trades; and
- exclusive access for Watermove to a trading account administered by DSE's Water Register.

The Commission sought advice on these matters from DSE, who advised that:

- There is a single application fee payable to an approval authority when a holder of a water allocation (the seller) applies to assign the allocation to another person. There is no rule as to whether the buyer or the seller must pay the fee. Where an intermediary is involved in facilitating the trade, the intermediary often pays the fee to the approval authority, and then this fee is recovered from the parties to the trade.
- Trades facilitated via a pooling system follow the principle above, with some refinements due to the nature of the pool. A pool involves a group of buyers selling to a group of sellers at a common price. DSE's Water Register manages this process by creating an administrative clearing account through which water is moved. An application fee is payable by each seller.
- Watermove is currently the only intermediary with a clearing account, as it is the only intermediary that uses a pooling system. Any other party running a pool could be provided with a similar service.
- The pool administrative account does not allow Watermove to purchase in its own right – water entitlements only pass through the account and do not transfer into the ownership of Watermove.

Accordingly, the Commission considers that the matters examined above do not constitute a competitive advantage for Watermove, given that:

- Fees payable are identical for trades facilitated through a pooled exchange and other methods of exchange (for example, a one-to-one exchange facilitated by a public or private broker). That is, a single fee is payable for each trade.
- If a private entity set up a pooled exchange, it would be subject to exactly the same fees (that is, a single fee for each trade) and administrative clearing account arrangements as Watermove.

## 6.2 Alleged costing and pricing advantages

To comply with the CN requirement of full cost-reflective pricing, any cost advantages that arise solely due to government ownership of Watermove have to be identified, costed and factored into Watermove's cost structure and pricing model.

The complainant alleged that Watermove's prices are not set to be fully cost-reflective. By way of supporting this allegation, the complainant informed the Commission that Watermove's pricing structure sets an absolute minimum and a maximum fee schedule. The complainant advised the Commission that this is at variance to other water market intermediaries who do not set a vendor minimum fee and who have no absolute maximum fee. However, CN is not concerned with differences in fee structures. How a business wishes to structure its fees is a matter for the business to determine. Furthermore, in setting the price for its services, CN policy permits Watermove to have regard to a number of economic factors, including, but not limited to:

- The level of demand for its service.
- The level of competition between service providers.
- Short term pricing strategies, involving the use of 'loss leaders' or cross-subsidisation, subject to the prohibitions of certain pricing behaviour under the *Competition and Consumer Act 2010* (Cth).

What CN is concerned with, and what the complainant is correctly concerned with, is whether Watermove's prices are set to be fully cost-reflective. For the purpose of CN policy, the key requirement of full cost-reflective pricing is that government agencies should aim to recover the full costs of their whole business activity over the medium to long term (Government of Victoria 2000). Full cost-reflective pricing should take into account:

- all of the costs that can be attributed to an agency's services;
- the cost advantages of public ownership; and
- the cost disadvantages of public ownership.

The complainant has alleged that Watermove has not adopted a full cost-recovery model in relation to: software development and upkeep costs, legal systems development and documentation costs, commercial insurance costs and the cost of capital. In response to queries from the Commission on its pricing model, Watermove stated:

Watermove's pricing is based on budgeted input costs and expected value of water trading based on volume and price. All indirect costs are accounted for in the budgeting process. (Watermove 2011(b), p. 4)

### **6.2.1 Software and hardware development**

As discussed in section 4.5, Watermove operates an electronic trading platform that offers two methods of trading—a pooled exchange and an on-line trade room. Watermove advised the Commission that as the pooled exchange existed prior to the corporatisation of Watermove, the cost of the development was borne by G-MW. This development cost was part of the original funding of \$625 000 to establish Watermove, its operational software and trading rules.

When it operated as a business unit in G-MW, Watermove was charged depreciation relative to the cost of the IT systems that were developed from the \$625 000 establishment funding. Watermove advised that the value of this system has been written down to zero in accordance with the appropriate depreciation methods for IT software over five years.

A second IT development project commenced while Watermove was still a business unit of G-MW. Following its corporatisation, the value of the system was transferred to Watermove ‘in the form of equity in exchange for shares issued’ (Watermove 2011(b), p. 4).

Watermove further advised the Commission that subsequent costs of system development have been borne by Watermove and that it continues to apply depreciation to all of its listed assets (Watermove 2011(c)). The Commission reviewed Watermove’s budgeted accounts, which verify that depreciation of the IT system was taken into account in calculating budgeted net profit.

Watermove’s budgeted accounts also indicate that its pricing model reflects the costs of hosting its trading, document storage and financial systems. Watermove stated that this hosting service is provided by G-MW at commercial rates (Watermove 2011(b)).

The Commission is satisfied that Watermove has absorbed the costs of its software and hardware development.

### **6.2.2 Legal documentation and structures**

Watermove advised the Commission that the cost of incorporation and further trading system development since Watermove’s incorporation have been borne by the company (Watermove 2011(b)). Costs associated with the legal documentation were part of this cost borne by Watermove. Watermove also advised that no other legal costs were incurred, including by G-MW on behalf of Watermove (Watermove 2011(d)).

The Commission is satisfied that Watermove has absorbed the costs associated with its incorporation and legal documentation.

### 6.2.3 Commercial insurance costs

In regards to its insurance arrangements, Watermove advised that: ‘As a wholly owned subsidiary of G-MW, Watermove falls under the definition of insured in G-MW insurance policies’ (Watermove 2011(b), p. 3). The insurance, which is provided at commercial rates, includes: industrial special risks, contract works and third party liability, public/products liability, marine hull commercial, and personal accident/corporate travel.

For CN purposes, Watermove needs to examine whether the insurance available through G-MW is on the same terms and conditions as would be available to the private sector. If Watermove has access to insurance rates that are more favourable than would be available to a private provider operating in a similar business structure, then Watermove is obligated to identify the difference between what it currently pays and what it might otherwise pay if it were a privately-owned business. The amount of any difference identified is a competitive advantage, which Watermove should record as a cost adjustment when preparing its costing and pricing models.

In response to the draft report, Watermove has indicated that it will:

... seek quotations from private insurers for comparison purposes and apply those costs if a CN advantages exists. (Watermove 2011(e), p. 2)

The Commission will follow this matter up with Watermove as part of its post-investigation report processes.

### 6.2.4 Cost of capital

In a public sector context, the opportunity cost of capital reflects the opportunity cost of funds provided to government agencies. CN policy states that government agencies are expected to earn a rate of return to cover the opportunity cost of capital. An addition to the cost base should be made to account for the cost of capital. The real (before tax) rate of return on capital for the purposes of CN pricing is 8 per cent (DTF 2000).

Watermove advised the Commission that ‘as an independent organisation Watermove operates in a commercial environment and must achieve a commercial return on its investment’ (Watermove 2011(b), p. 3). Watermove issued share capital to G-MW, reflecting working capital provided by G-MW and the written down value of the IT system. Watermove also advised the Commission that it has factored in a commercial return on investment to its shareholder—G-MW. However, to date a formal dividend policy has not been established (Watermove 2011(b)).

After reviewing the information provided by Watermove, the Commission has concluded that Watermove is non-compliant with its CN obligations to account for the cost of capital. No CN adjustment has been made to its cost base and subsequently to its pricing model to account for a commercial return on the assets transferred from G-MW.

In its response to the draft report, Watermove stated that it will:

... continue to monitor cost inputs from a CN perspective and to strive through its pricing models to provide commercial levels of return on capital to its sole shareholder, G-MW (Watermove 2011(e), p. 2).

To facilitate compliance with CN policy regarding full cost-reflective pricing, Watermove needs to adjust its cost base and pricing model to account for the cost of capital. The Commission will follow this matter up with Watermove as part of its post-investigation report processes.

### **6.2.5 Secondment of staff — costs**

A potential source of CN cost advantage relates to the benefits that Watermove may enjoy from its staff secondment arrangements with G-MW. These may include not incurring direct and indirect labour costs such as staff recruitment costs, training and development costs, salary costs, occupational health and safety expenses (for example, WorkSafe contributions) and other human resource costs including payroll administration.

In this regard, Watermove has advised that the commercial service level agreement (see section 6.1.3) includes:

... provision for recovery of direct labour costs and workcover plus a commercial fee paid on a per employee basis for the management of HR services and payroll functions. (Watermove 2011(b)), p. 5)

In its draft report, the Commission found that Watermove had not made a one-off CN advantage adjustment to its cost base to account for its ability to not incur staff recruitment costs by sourcing staff directly from G-MW. This opportunity is not available to Watermove's private sector competitors. The Commission acknowledged that given that the seconded staff have been with Watermove for some time, this would make little difference to the current cost base. However, should future secondments occur, the Commission stated that Watermove would then need to make a CN advantage adjustment to account for its ability to avoid staff recruitment costs.

In its response to the draft report, Watermove advised that the four current Watermove staff were all recruited through a formal vacancy and recruitment selection process, and that all costs related to the recruitment were borne when Watermove was a business unit of G-MW (Watermove 2011(e), p. 1).



## **Recommendation Two**

**To ensure compliance with CN policy regarding full cost-reflective pricing, Watermove needs to review its cost base and associated pricing model to ensure all costs attributable to the operation of its water market intermediary business have been correctly identified and calculated. Undertaking this CN costing exercise requires Watermove to:**

- **Examine whether Watermove has access to insurance on similar terms as would be available to a private provider operating in a similar business structure. If not, then Watermove needs to make a CN advantage adjustment for any difference in insurance costs.**
- **Adjust its cost base and associated pricing model to account for the cost of capital, that is, a commercial return on the assets transferred from G-MW at the time of its incorporation (and any other assets it holds).**

**If Watermove seconds staff from G-MW in the future without undertaking a formal vacancy advertising and recruitment selection process, it will need to make a CN advantage adjustment to its cost base to account for its ability to not incur staff recruitment costs.**

## **6.2.6 Other price-related matters**

### *Payment practices*

The complainant queried Watermove's practice of paying the seller of a water entitlement prior to receiving payment from the buyer. Specifically, the complainant raised concerns as to whether these payments were underwritten by G-MW or by the Victorian Government. Watermove responded that it:

- Does guarantee payment to sellers in its pooled exchange. Trading terms are 7 days for debtors and 8 day payment to creditors (sellers) if bank details are provided, or 30 days for cheque payment.
- The payments are not underwritten by G-MW or sourced from funding provided by any other government agency. The operation of the pool is self funding (Watermove 2011(g)).

The Commission is satisfied that no CN advantage arises from Watermove's payment practices.

## 7 Conclusions and recommendations

In its investigation of the allegations made against Watermove and its operation of its water intermediary services, the Commission considered:

- The specific allegations raised by the complainant about governance, pricing, secondment of staff, access to information, cross-promotion of Watermove through the G-MW website, and water trading administrative arrangements.
- Victoria's CN policy and other relevant policies, studies and data.
- Watermove's response to the complainant's allegations.

The Commission reached the following key conclusions:

- The business protocols and procedures between G-MW and Watermove governing the types of information that Watermove may request, or have access to, from G-MW, do not fully address CN risks in Watermove's access to G-MW information.
- The business protocols and procedures governing the relationship between G-MW and the Watermove Chair have not been finalised. As a result of the Commission's draft investigation report, Watermove advised that a review of the protocol document relating to the interaction of the Boards of G-MW and Watermove will be brought forward.
- There is no evidence to suggest that Watermove gains a competitive advantage in water trade approvals or approval times resulting from its government ownership.
- In regards to staff secondment arrangements, there is no evidence to suggest that a conflict of interest arises from any ongoing flow of intellectual property or operational knowledge from G-MW to Watermove.
- The Commission is satisfied that Watermove has absorbed the costs of hardware and software development; and the costs associated with its incorporation and other legal documentation.
- Watermove has not accounted for the cost of capital in its costing and pricing models, and may also need to make a CN advantage adjustment to its insurance costs.

To assist Watermove to comply with CN policy, the Commission recommended that:

- Watermove and G-MW revise the business protocols and procedures governing their exchange of information to identify transparently the types of information and documents that Watermove may request from G-MW.
- Watermove and G-MW finalise the protocols and procedures governing the relationship between G-MW and the Watermove Chair.

- Watermove review its costing model to ensure all costs attributable to the operation of its water market intermediary business have been correctly identified and calculated, in particular, insurance costs and the cost of capital. Depending on the outcome of this review, Watermove may have to adjust its pricing model (fee structure) to achieve full cost-reflective pricing.
- If Watermove seconds staff from G-MW in the future without undertaking a formal vacancy advertising and recruitment selection process, then it will need to make a CN advantage adjustment to account for its ability to not incur staff recruitment costs.

The Commission will request Watermove to provide a summary of its actions taken to implement the Commission's recommendations within three months from the issue date of the final investigation report.

## References

- ACCC (Australian Competition and Consumer Commission) 2010, *Water market intermediaries—industry developments and practices*, December, <http://www.accc.gov.au/content/item.phtml?itemId=961283&nodeId=863b487ca2385a3a7ea9848c201bccab&fn=Water%20market%20intermediaries%20-%20industry%20developments%20and%20practices.pdf>, (accessed 27 April 2011).
- COAG (Council of Australian Governments) 1995, *Competition Principles Agreement – 11 April 1995 (as amended to 13 April 2007)*, Canberra, [http://www.coag.gov.au/meetings/130407/docs/competition\\_principles\\_agreement\\_amended\\_2007.pdf](http://www.coag.gov.au/meetings/130407/docs/competition_principles_agreement_amended_2007.pdf) (accessed 16 April 2007)
- DTF (Department of Treasury and Finance) 2000, *Competitive Neutrality Guide to Implementation*, Melbourne.
- DSE (Department of Sustainability and Environment) 2011(a), *Victorian Water Register*, <http://waterregister.vic.gov.au/> (accessed 27 April 2011).
- 2011(b), *Water trade in Victoria 2009/10*, <http://waterregister.vic.gov.au/Public/ReportsOnTrade.aspx>, (accessed 28 April 2011).
- G-MW (Goulburn-Murray Water) 2011, Correspondence, 13 April 2011.
- Government of Victoria 2000, *Victorian Government Competitive Neutrality Policy*, Melbourne.
- Office of Water 2009, *Allocation and Trading—Trade*, <http://www.water.vic.gov.au/allocation/entitlements/trade> (accessed 27 April 2011).
- State Services Authority (SSA) 2009, *Good Practice Guide on Governance for Victorian Public Sector Entities*, [http://www.ssa.vic.gov.au/domino/Web\\_Notes/SSA/ssagpg.nsf](http://www.ssa.vic.gov.au/domino/Web_Notes/SSA/ssagpg.nsf), (accessed 27 April 2011).
- The Treasury 2006, *Australian Government Competitive Neutrality Guidelines for Managers*, Financial management guidance No. 9, Australian Government, Canberra.
- Victorian Competition and Efficiency Commission (VCEC) 2007, *Water trading services provided by Watermove*, Competitive Neutrality Complaint Investigation, Final report, 1 June.

—— 2008, *Competitive neutrality assessment of government activities: Guidance note*, Melbourne.

Watermove Pty Ltd 2011(a), *About water trading*,  
<http://www.watermove.com.au/AboutWaterTrading.aspx#How%20to%20Trade%20in%20the%20Pooled%20Exchange> (accessed 27 April 2011).

—— 2011(b), Correspondence, 3 February 2011.

—— 2011(c), Correspondence, 11 March 2011.

—— 2011(d), Correspondence, 14 April 2011.

—— 2011(e), Correspondence, 21 June 2011

—— 2011(f), Agreement for the Provision of Seconded Staff and Associated Human Resources Support Services between Goulburn-Murray Water and Watermove Pty Ltd, July 2011

—— 2011(g), Correspondence, 12 July 2011

—— 2011(h), Telephone discussion, 28 July 2011

## Appendix 1: Competitive neutrality measures

The CN policy provides three measures for implementing competitive neutrality—corporatisation, commercialisation, and full cost-reflective pricing.

### *Corporatisation*

‘Corporatisation involves the creation of a separate legal business entity to provide the relevant goods and services’ (Government of Victoria 2000, p. 7). The following characteristics of a corporatised entity are described in the CN policy.

- Clear and non-conflicting objectives.
- Managerial responsibility, authority and autonomy.
- Independent and objective performance monitoring.
- Performance-based rewards and sanctions.

Corporatisation is the preferred way to address CN issues when the government agency operates a business in a market in which it has statutory monopoly functions. Full separation through corporatisation ensures the agency does not face conflicting objectives between its statutory monopoly functions and commercial objectives.

### *Commercialisation*

Commercialisation ‘involves organising an activity along commercial lines without creating a separate legal business entity’ (Government of Victoria 2000, p. 7).

CN policy notes that commercialisation is typically achieved by applying a set of ‘commercial practices’ to the business functions of a government agency. These practices may include:

- clear delineation of commercial and non-commercial activities, typically through a business plan
- clearly defined commercial performance targets and financial reporting requirements
- separate accounting for, and funding of, non-commercial activities
- separation of regulatory functions from commercial activities
- an appropriate financial return on the assets used in the commercial activity
- application of a tax equivalent regime
- appropriate financial arrangements for allocating profits from the commercial activity. (Government of Victoria 2000, p. 7)

Commercialisation is less costly than corporatisation. It is, thus, likely to be the preferred model for addressing CN issues when the government agency does not have statutory monopoly functions or decision making powers that significantly affect the profitability of its business and competitors, or when the costs of corporatisation are high relative to the benefits. Examples of where commercialisation can be an effective instrument for achieving competitive neutrality include council operated aquatic and recreation centres.

*Full cost-reflective pricing*

Full cost-reflective pricing takes into account all of the costs that can be attributed to the provision of the good or service (including the cost of capital), as well as the cost advantages and disadvantages of public ownership. The CN policy notes:

The intention of full cost-reflective pricing is to offset any net competitive advantages a government business may enjoy, thereby ensuring that resource allocation decisions are made on the basis of comprehensive and accurate costing. (Government of Victoria 2000, p. 7)

Full cost-reflective pricing, without corporatisation or commercialisation, may be sufficient if the main CN issues relate to cross subsidies between commercial and non-commercial activities of government entities. It does not, however, address non-pricing concerns. It is the preferred model for addressing CN issues when the government business is small and the issue does not warrant taking on the relatively large costs involved in corporatisation or commercialisation. An example of where full cost-reflective pricing may be an effective measure to achieve CN would be the operation of a small cafeteria in a public hospital.

