Comment on Fitzroy River Water pricing for irrigation medium security water

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Fitzroy River Water (FRW) though the Rockhampton Regional Council (RRC) is proposing increases in water charges for irrigators with allocations from the Fitzroy Barrage.

It is appropriate that water prices for irrigators in Queensland are cost reflective, where the Queensland Government's water pricing policy is to '*recover the irrigation share of the scheme's operating, maintenance and capital renewal costs but do not recover a return on, or of, the scheme's initial asset base (as at 1 July 2000*)' (Queensland Competition Authority 2022, page iii[1]). However there are two major issues with the structure of the current water charging system.

A. The level of variable charges for Medium Security and High Security water

1. Most agricultural water supply systems in Queensland have a two-part tariff to charge for water prices. The Part A tariff is an access charge that provides the entitlement to the water security, while the Part B tariff is typically a volumetric tariff that provides a charge per unit of consumption. Normally the Part A tariff is applied to the full entitlement that is held, while the Part B tariff is only levied on the volume that is accessed or used. Typically the Part A tariff is much higher than the Part B tariff.

2. Currently FRW relies almost exclusively on the fixed charges (equivalent to a Part A tariff) to recover costs from agricultural users. This effectively lumps together the operating costs together with indirect costs, fixed costs and depreciation to establish total costs to be covered by the tariff. If the charges were shifted to a two-part tariff, then a share of the operating costs for the Barrage would be shifted to the Part B tariff (QCA 2020 recommends a minimum of 20%).

3. One of the challenges for Fitzroy River Water is that there is extensive use of the Barrage pond by license holders from Eden Bann and Rookwood water where no charges can be levied. This is an outcome of relying on a Part A tariff, as this can not be easily levied on entities that do not hold entitlements in the system.

4. It would be better to establish a two tariff system in the Barrage area, where:

    a. The Part A charges are levied on the current entitlement holders, including the 11,610 of Medium Priority water and 100ML of High Priority water held by irrigators, and
    b. The Part B charges are levied on all water extracted from the Barrage system, including licence holders from Rookwood and Eden Bann. This would extend the tariff to approximately an additional 40,000ML of water supplies that will pass through the Barrage each year.

[1] Queensland Competition Authority 2022. *Rural Irrigation Price Review 2020-4, Part A: Overview*. Queensland Competition Authority, Brisbane.

c. The cost shares would need to be allocated within the two-part tariff to account for the additional coverage of the Part B tariff and to maintain the overall cost recovery for FRW.

B. The level of fixed charges for Medium Security water as compared to High Security water

1. The ratio of fixed charges (normally termed Part A charges) between High Reliability and Medium Reliability is much lower than in most other water schemes in Queensland, and places a high burden on Medium Security holders.
    a. The ratio of Part A charges between High and Medium Security holders is[2]:
        i. $344/$21.21 = 16.2 for the Rookwood Weir
        ii. $41.73/$7.25 = 5.8 for the Nogoa Mackenzie system
        iii. $56.91/$23.13 = 2.5 for the Dawson system

2. The current proposal from FRW is to use a ratio of 1:1.5 to equate the charges for High and Medium Security water. While this is convenient in that it uses the conversion rate for water security allocations, it is a much lower ratio than would be calculated under different approaches. For example:
    a. Urban and industrial users have much higher requirements for reliability than do agricultural users
    b. Urban and industrial users have much higher investments in water offtake and distribution systems than do agricultural users.
    c. The Queensland Competition Authority (2020) preferred to allocate costs between users on the basis of asset costs than service costs, using a 'headworks utilisation factor' for this purpose.

3. If a higher ratio is used for the Part A charges, it will reduce the share of the cost burden for those holding Medium Security licences. The hypothetical example below shows how moving from a ratio of 1.5 to a ratio of 5 has a major impact on cost shares. (While the ratio of 5 is hypothetical, it is still lower than is currently being used in the Nogoa Mackenzie and Rookwood systems).
    a. At the current ratio of 1:1.5, the Total Equivalent HP Allocations are estimated as 11,610ML of MP water / 1.5 (= 7,740ML) + 50,383ML of RRC HP water and 100ML of irrigator HP water = 58,233ML. The RRC share is 50,383ML/58,233ML = 86.5%, and the irrigators share is 13.5%.
    b. At a ratio of 1:5, the Total Equivalent HP Allocations are estimated as 11,610ML of MP water / 5 (= 2,322ML) + 50,383ML of RRC HP water and 100ML of irrigator HP water = 52,805ML. The RRC share is 50,383ML/52,805ML = 95.4% and the irrigators share is 4.6%.

Recommendations

A. It is recommended that Fitzroy River Water review the potential adoption of a two-part tariff structure with a Part B tariff to be levied on all water extracted from the Barrage System.
B. It is recommended that a review should be undertaken of the ratios of fixed charges for High Security and Medium Security licence holders.

[2] Fees and charges information is available from https://www.sunwater.com.au/customer/fees-and-charges/