
Macquarie River Food & Fibre Comments on

CIE Review of Consumption Forecasts – Analysis to support 2006 Bulk Water Price Determination

March 2006

Macquarie River Food & Fibre (MRFF) thanks IPART for the opportunity to make comments on the above noted report. There are several instances of implications arising from CIE's recommendations that are specific to the Macquarie Valley, but which have not been documented in CIE's report. Therefore MRFF has also made comments on Macquarie-specific implications of CIE's report, in addition to commenting on CIE's recommendations.

General Comments:

Macquarie Demand is Also Driven by Risk Management

CIE has described the fundamental features that impact on forecasting bulk water consumption (CIE, p3) and MRFF is concerned that for the Macquarie there is an additional factor not considered by CIE that drives demand for water in the Macquarie. This is the self imposed limit on demand for water, based on a longer-term, conservative approach to water extraction by Macquarie irrigators. By this we mean that due to water allocation and storage rules, Macquarie irrigators do not have a 'use it or lose it' approach to water that is allocated. Instead, they have a self imposed risk management mechanism of opting not to use all the available water in the current year, so as to provide some surplus water for the next year and so on. This translates into a self imposed cap of around 60% of full allocation levels being used in any one year (except when there has been a period of very low allocations in which case irrigators are making up for previous years of low income).

The above point noted, MRFF does not believe that the characteristics of demand in the Macquarie significantly impact on the general recommendations CIE makes with respect to consumption forecasting.

SWC Approach to Risk Management is key issue rather than Consumption Forecasts

CIE's terms of reference and consequently a significant part of its report and recommendations are related to analysing alternative approaches to consumption forecasting. From (CIE, p1) "The determination is intended to set charges at a level that provides the agencies with adequate revenue to ensure reasonable service delivery.... This approach requires assumptions regarding the quantity of water SWC and DNR will sell during each year"... hence "the forecast of consumption is a key input into the price determination".

MRFF has several concerns with the above statement and assumptions:

- DNR does not ‘sell’ water; it is a regulatory Government agency. MRFF does not support the inclusion of DNR in IPART’s determination of DNR’s revenue requirements as a driver in setting water prices, as the majority of DNR activities (and hence its revenue requirements) are expended in meeting Government and community requirements (as outlined in all of MRFF’s submissions to IPART and most recently in our response to the CIE Report to IPART reviewing Cost Sharing Ratios). Consumption forecasting is also irrelevant to DNR, as its activities and its current charges to irrigation customers are not linked with volumes of water extracted / ‘used’.
- SWC has proposed adjusting long run average use by 1 standard deviation, as a risk adjustment factor. Therefore the driver of SWC’s proposed revenue requirements and hence water prices is its desire to manage its income volatility based on the nature of volatility in supply of water, not SWC’s accuracy or otherwise in forecasting supply; hence consumption. SWC knows prior to any consumption forecasting, that supply, hence consumption will be variable. So even if SWC had a crystal ball and could predict water consumption over the pricing determination period to 100% accuracy, it still has the problem of income volatility in times of low supply, presumably exacerbated by its operating licence specifies that 60% of its revenue should be generated from variable (usage) charges.
- Related to the above dot point, SWC argues that much of its cost base is fixed, rather than variable and driven by amounts consumed. Whether this can be improved or altered is another issue, but the fact remains that the volume of water SWC has available to sell during each year is currently not the key driver of its revenue requirements.

Therefore MRFF questions the relevance of IPART’s requested focus on a review by CIE of consumption forecasts, based on the points made above. Perhaps a more relevant focus would have been a review of various options for minimising income volatility across the utilities sector. Despite the above comments, MRFF still takes the opportunity to make comments on various approaches to forecasting consumption, as outlined below

Approaches to Forecasting Consumption:

Integrated Qualitative & Quantitative Model

MRFF and irrigators across the state have had long-held concerns with the accuracy of the IQQM model, particularly when it is used as a decision tool in WSPs or as a forecasting tool. The components of the model that estimate development, crop types, storage capacity and associated assumptions regarding water use would certainly be inaccurate.

Actual Extraction Data:

MRFF accepts the assessment made by CIE regarding the inappropriateness of using actual extraction data to forecast consumption at this point in time.

Autoregressive and Moving Average Model

As to the consideration of ARMA as an alternative to the IQQM model for forecasting consumption, MRFF does not make comment on the conclusions CIE has drawn, as this is clearly a technical area of speciality that MRFF is not in a position to review.

Implications of Adjusting the Mean by 1 Standard Deviation

MRFF strongly supports CIE's findings (p23) that the 'less than average use' approach SWC is proposing for managing its risk "appears arbitrary and unnecessarily conservative." MRFF has previously demonstrated to IPART, that this approach by SWC means that Macquarie customers would be charged a 53% risk premium. (Average use is 386,311 ML verses 208,177 ML).

We note that CIE has made a similar alternative suggestion to that made by MRFF in our submission and at the Dubbo hearing; (CIE, p23) "The costs of hedging in the financial markets against the increased revenue risks arising from the move towards 'user pays' should be made explicit and transparent...." MRFF's position is that SWC should manage the risk of variable income from water sales due to variable supply internally. Whether the costs of managing this risk are passed on to users is a separate question. MRFF would suggest this cost should come off the return on investment payment to Government before it is added to customer bills, as it is a cost (before profit) of SWC's business operations.

Concluding Comments

As stated earlier, the drivers behind prices with respect to revenue requirements appear to MRFF to be connected with the nature of SWC's business being weighted towards fixed costs and how it manages income volatility based on variable water use and its operating licence.

MRFF believes SWC must find a cost efficient means of managing its income volatility and suggests this cost should be recovered from the dividend being charged by Government, as it is a Government Operating Licence requirement that is driving SWC's increased exposure to the risks of income volatility.

DNR should not be considered in the same category as SWC, in having 'revenue' requirements and having a right to place pricing proposals before IPART, for consideration in bulk water pricing determinations. DNR is a Government agency with costs, not revenue requirements and it appears largely due to Government reductions in funding DNR costs and activities that DNR is now seeking to recover so much of its cost base from irrigation customers.