System Management (Markets) allowable revenue 2013/14 to 2015/16 public submission – determining efficient costs

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Contents

1 Determining System Management (Markets)'s efficient costs

System Management (Markets) submits this paper in response to the Authority's 20 December 2012 issues paper[1]. It responds to the Authority's invitation for discussion on:

"System Management's building block approach to revenue determination, the inclusion of the return on investment based on estimated real post-tax weighted average cost, and key assumptions indicated by System Management to have been applied in deriving its proposed Allowable Revenue for the third Review Period."

Key messages

- The approach used to develop System Management (Markets)'s revenue requirement is commonly referred to as the 'building blocks' method. The approach calculates the efficient costs System Management (Markets) will incur when providing system operation services during the AR3 period. Efficient costs include operating costs, depreciation, tax and the cost of capital.
- The building blocks approach is similar to the method adopted by the Authority in its AR2 determination.
- The only variations from the approach adopted by the Authority for AR2 are the treatment of tax and the debt funding assumption for System Management (Markets).

Discussion

The building blocks method calculates all efficient costs that will be incurred in providing system operation services during the AR3 period. These efficient costs include operating costs, depreciation, tax and the cost of capital.

Figure 1 shows the key building blocks (the orange boxes) that comprise the allowable revenue for AR3.

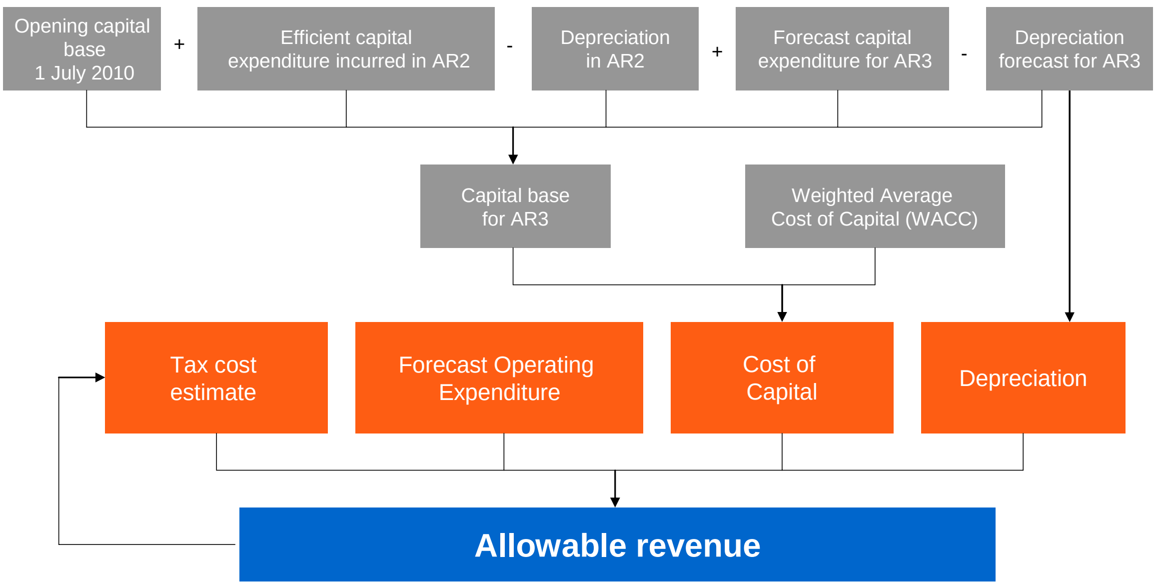

Figure 1: System Management (Markets) revenue building blocks

[1] Economic Regulation Authority, *Issues Paper: Allowable Revenue and Forecast Capital Expenditure for the Independent Market Operator and System Management*, 20 December 2012.

The building blocks method is similar to the approach the Authority adopted in its AR2 determination. Table 1 shows a comparison between the 'building blocks' used by the Authority in its AR2 determination and those proposed by System Management (Markets) for AR3.

Table 1: Comparison of the AR3 building blocks approach with the Authority's AR2 approach

Building Block	AR2	AR3	Comment
Operating expenditure	✓	✓	Operating expenditure forecasts were included in the AR2 and AR3 allowable revenue forecasts.
Depreciation	✓	✓	Depreciation forecasts were included in the AR2 and AR3 allowable revenue forecasts. However, AR3 assumes a four year life for IT assets, compared to 2.5 years in AR2.
Weighted average cost of capital	✓	✓	The AR2 determination assumed that the capital program was 100% debt funded and provided for interest costs associated with the capital investment. The AR3 submission assumes the capital program is funded through a mix of debt and equity. The Authority adopted a mix of debt and equity in its recent AA3 determination for Western Power.
Tax	×	✓	The Authority adopted a pre-tax modelling approach in AR2, meaning the tax cost was implicit in the allowable revenue. The Authority adopted post-tax modelling in its AA3 determination. Western Power understands that this is the preferred method going forward.[2] The AR3 proposal adopts the post-tax approach consistent with the assumptions in the AA3 revenue modelling.

The treatment of operating expenditure and depreciation is essentially the same as in AR2. The main differences for AR3 relate to the weighted average cost of capital (WACC) and tax costs. These are discussed in the following sections.

1.1.1 WACC is a cost

The regulatory framework requires that the allowable revenue recovers the costs of providing system operation services. The Authority recognises that there is a financing cost to System Management (Markets) of undertaking capital projects as it included financing costs in the AR2 allowable revenue determination.

The Authority's AR2 decision included a cost of capital building block. However, the Authority assumed the capital program was 100% debt funded. This assumption is not substantiated by evidence.[3] As a result, the AR2 cost of capital building block provided for interest costs only.

As noted by the Authority: *'The concept of efficient financing costs therefore extends to a consideration of efficient allocation of both equity and debt, and what these imply for the rate of return.'*[4] System Management (Markets) is not 100% debt funded. Capital investment during the AR3 period will be funded via a mix of debt and equity. This is because System Management (Markets) is a part of Western Power (albeit ringfenced), therefore its financing

[2] Economic Regulation Authority, *Final Decision on Proposed Revisions to the Access Arrangement for the Western Power Network*, 5 September 2012, para 1303 -1312
[3] KPMG, Weighted average cost of capital – AR3 submission, October 2012, pg 16
[4] Economic Regulation Authority, *Guidelines for the Rate of Return for Gas Transmission and Distribution Networks*, 21 December 2012, para 37

costs are the same Western Power's. System Management (Markets) assumes 60% debt, the same ratio the Authority adopted for Western Power in the recent AA3 determination.

1.1.1.1 Implications of not receiving WACC allowance

Western Power will have a disincentive to invest in System Management (Markets) functions if not provided with an appropriate cost of capital allowance. Adopting a cost of capital is intended to provide efficient price signals to market participants and customers. Setting the cost of capital below the opportunity cost of capital discourages investment.

System Management (Markets) is a ring fenced business within Western Power. Western Power is responsible for both the electricity network and system operation functions of the South West Interconnected System. As equity is more expensive than debt, System Management (Markets)'s cost of debt is lower than Western Power's cost of capital. If System Management (Markets) is only provided with a debt allowance, Western Power would have a disincentive to invest in System Management (Markets) compared to the networks business.

Further, if the allowable revenue only provides cost of debt, because System Management (Markets) is not 100% debt funded, Western Power would incur the difference between System Management (Markets)'s financing costs and the interests costs provided for by the Authority. This means Western Power would be worse off than intended under the ERA's AA3 determination.

1.1.1.2 Adjustment mechanisms provide for efficient financing costs

When adopting the building blocks method (including a weighted average cost of capital), System Management (Markets) was conscious of clause 2.23.7 of the Market Rules, which requires revenue during the review period to be adjusted to reflect actual expenditure. Sections 2.5.5 - 2.5.12 of *System Management (Markets)'s allowable revenue and forecast capital expenditure application* incorporates three adjustment mechanisms to adjust for actuals at each annual budget submission:

1. $\mathbf{K_t}$ is the adjustment due to differences in the revenue provided for in previous budget proposals and the actual revenue earned by System Management (Markets)
2. $\mathbf{C_t}$ is the adjustment due to differences in the actual capital expenditure and the capital expenditure forecasts in the allowable revenue application
3. $\mathbf{O_t}$ is the adjustment due to differences in the actual operating expenditure and the operating expenditure forecasts in the allowable revenue application

These mechanisms ensure that over time market participants pay no more (or no less) than the actual capital and operating costs incurred by System Management (Markets). In all cases these adjustment mechanisms take into account the weighted average cost of capital, which ensures System Management (Markets) is only remunerated for its efficient financing costs.

1.1.2 Tax is a cost

The only new building block in the AR3 proposal is tax. System Management (Markets) has determined allowable revenue on a post-tax basis with an end of year timing assumption. This approach is based on the recent AA3 determination for Western Power, where the Authority moved from pre-tax to post-tax modelling.

Tax costs arise due to depreciation on the tax asset base differing from the depreciation assumed in the allowable revenue, the inclusion of the cost of equity in the WACC, and the smoothing of the allowable revenue.

The Authority has previously acknowledged that tax is an efficient cost:

> *'In regulating electricity networks in Western Australia, the Authority determines a revenue requirement that is sufficient to cover the service provider's efficient costs of service. The key elements contributing to the estimated regulated cost of service include depreciation of the regulated capital base, a return on the regulated capital base, the operating costs, and the tax liabilities'.*[5]

Under Western Power's ringfencing standard and cost allocation method, tax costs are allocated to System Management (Markets). This is shown in Western Power's *2011/12 Regulatory Financial Statements*.

The Authority and other regulators have acknowledged that the pre-tax approach potentially over-compensates the service provider.[6] The Authority has also recognised that use of an explicit post-tax approach allows for the effective tax liabilities to be estimated more precisely, overcoming shortcomings with the pre-tax approach.[7]

However, should the Authority intend to retain **pre-tax** modelling for the AR3 period, System Management (Markets) requests the Authority provides this advice at the earliest opportunity. This will ensure System Management (Markets) can make the necessary adjustments to the revenue model and appropriately test them within the AR3 review time frame.

[5]Economic Regulation Authority, *Final Decision on proposed Revisions to the Access Arrangement for the Western Power Network*, 5 September 2012. para 1148.
[6] Economic Regulation Authority, *Draft Decision on Proposed Revisions to the Access Arrangement for the Western Power Network* , 29 March 2012, para 625.
[7] Economic Regulation Authority, *Draft Decision on Proposed Revisions to the Access Arrangement for the Western Power Network*, 29 March 2012, para 625 & 628.