Transitional issues relating to the proposed opex incentive scheme

In our expenditure incentive issues paper we proposed two forms of the EBSS. One to be applied if opex is forecast based on a single base year and another if an exogenous forecast is used. The form of the EBSS to apply depends on how opex in the following regulatory control period. However, the current EBSS assumes opex will be forecast based on a single year of actual expenditure. Consequently incentives to reduce expenditure in the current regulatory control period may be impacted if an NSP believes its opex forecast for the following period will be forecast another way.

The attached spreadsheet attempts to model these impacts. Cells highlighted green can be adjusted to model the impact of efficiency gains under different scenarios. The benefit to the NSP and network customers at the margin, and in total, is summarised at the top right of each sheet. The marginal and absolute (or total) sharing ratio is also at the top right.

1. **Background – Current incentive arrangements for opex**

- Under our current incentive arrangements for opex, if a NSP underspends in any one year, the NSP will keep the benefits of the underspend during the regulatory period. Similarly it will wear the costs if there is an overspend.
- In the next regulatory period, forecast opex is typically set based on actual opex in year 4 ('the base year'). The NSP will receive an additional benefit through the EBSS if there was an incremental underspend in any year of the current regulatory period, or it will receive a penalty if there is an incremental overspend.
- Under this approach, the NSP retains the benefits of any underspend, or wears the cost of any overspend for five years before gains or losses are passed onto consumers.
- Thus under the revealed cost approach with the current EBSS, the marginal benefit/loss to an NSP of making an efficiency gain/loss is a function of the underspend within the regulatory control period, whether that efficiency gain/loss is reflected in the following periods opex forecast and any carryover amount received in the following period.
- It can be shown that for any efficiency gain, NSPs retain approximately 30 per cent of the benefits. This approach is designed to provide NSPs with a continuous incentive to pursue efficiency gains.
- Figure A illustrates the benefits to a NSP that makes a permanent and a non-recurrent cost saving under the current arrangements.
- The example assumes the following:
    - Prior to year 1, steady state opex is $100m.
    - In the case of a permanent cost saving assume an ongoing efficiency saving of $1m, leading to ongoing opex of $99m per annum.
    - The corresponding calculation in Figure A is the marginal benefit to the NSP depending on the year in which the gain was first made.
    - In the case of a non-recurrent cost saving, the cost saving is $1m in one particular year.
    - In the next regulatory period year 4 is used to set future opex.
    - Benefits are calculated based on a NPV over two five year regulatory periods using a discount rate of 6 per cent.

- The marginal benefit is in real dollar terms in the year in which the underspend in made. For example, if the underspend is in year 3, the benefit is in year 3 dollars.

- Because the incentive arrangements are symmetric the inverse result applies if there is equivalent overspending.

Figure A – Marginal benefit to NSP of an underspend in the current regulatory control period if base opex is used to forecast opex for the following period ($m, real)

	1	**2**	**3**	**4**	**5**
Permanent cost saving of $1m per year	5.21	5.21	5.21	5.21	5.21
Non-recurrent cost saving	0.30	0.30	0.30	0.30	0.30

2. Transitional issues under new incentive arrangements for opex

- In the future we may use other opex forecasting techniques to set opex. As outlined in our Expenditure Incentives Issues Paper our preliminary position is that NSPs will retain exactly 30 per cent of the net present value of the benefit of any future underspend, and exactly 30 per cent of the net present value of any future overspend.
- However, while this arrangement will apply to future underspends and overspends, there are some transitional issues which would impact the benefits and costs associated with underspending and overspending in the current period.
- Without transitional arrangements, NSPs may receive different benefits and costs than they otherwise would have anticipated at the time of the previous regulatory determination.
- Figure B illustrates the equivalent benefit of the underspending examples outlined in Figure A if we do not continue to apply the current EBSS, and forecast opex is based on exogenous data.
- The marginal benefit/loss to an NSP of making an efficiency gain/loss is a function of underspends and any carryover amounts received in later periods. Because forecast opex is exogenous it does not impact the incentive.

Figure B – Marginal benefit to NSP of underspend in the current regulatory control period if an exogenous opex forecast is used for the following period ($m, real)

	1	**2**	**3**	**4**	**5**
Permanent cost saving of $1m per year	9.17	9.41	9.66	9.93	6.00
Non-recurrent cost saving	0.30	0.30	0.30	4.27	1.00

- Figure C illustrates the different between the marginal benefit to an NSP of cost reductions if an exogenous opex forecast is used for the next regulatory control period rather than base opex. The inverse result applies if there are equivalent overspends.

Figure C – Difference between an exogenous and base year opex forecast without transitional arrangements ($m, real)

	1	**2**	**3**	**4**	**5**
Permanent efficiency gain of $1m per year	3.96	4.2	4.45	4.72	0.79
Non-recurrent cost saving	–	–	–	3.97	0.70

- As outlined in Figure B and Figure C there are three potential transitional issues we have identified. They relate to:
    1. Permanent changes to opex
    2. Non-recurrent opex in Year 4
    3. Non-recurrent opex in Year 5
- The attached model provides details about how we have made these calculations.

2.1. Transitional issues relating to permanent changes in opex

Under current arrangements an NSP is able to retain permanent opex savings for five years after making the saving through the ex ante opex forecast and the EBSS. Consumers then benefit from the opex forecasts incorporating those efficiency savings thereafter. The EBSS achieves this by calculating efficiency savings on an incremental basis.

The proposed approach to sharing efficiency gain under exogenous forecasts, however, calculates efficiency gains on a cumulative basis and then shares them according to the determined sharing ratio. Thus if an NSP makes a permanent efficiency gain this will register as a cumulative efficiency gain in each year thereafter (relative to the base case of no gain).

Consequently, if an NSP makes a permanent efficiency saving in the current regulatory control period the current EBSS will allow it to retain that gain for six years (the year of the gain plus five carryover years). This assumes the gain will then be passed on to consumers.

If an exogenous approach is used to set opex for the following period this efficiency gain would not impact the opex forecast for the following period. The proposed new sharing approach under exogenous forecasting would then share the gain 30:70 between the NSP and its customers in each year. Thus the NSP would retain a share of the efficiency gain through both schemes and receive more than 30 per cent of the efficiency gain.

2.2. Transitional issues relating to non-recurrent opex in year 4

Under current arrangements, if there is a non-recurrent decrease in opex in year 4 the NSP receives four years of positive carryovers in the following period. However, forecast opex would also be lower by the same amount in all years of the next period. In this way the NSP retains approximately 30 per cent of the efficiency gain.

If forecast opex for the next period were set exogenously then the non-recurrent opex increase would not impact the opex forecast for the following period. Consequently the benefit to the NSP of the non-recurrent cost reduction would be significantly greater than the value of the efficiency gain.

2.3. Transitional issues relating to non-recurrent opex in year 5

Under current arrangements if there is a non-recurrent reduction in opex in year 5, there is no impact on the forecast opex or carryovers received in the immediately following period (the EBSS assumes an incremental efficiency gain of zero in year 5). However the calculation of the efficiency gain in year 6 captures the non-recurrent cost reduction. Thus the non-recurrent cost reduction results in a single negative carryover of the same value six years later. The net result is that the NSP only bears approximately 30 per cent of the cost of the increase.

However if forecasts were set exogenously and the proposed cumulative NPV sharing approach were adopted the NSP would bear the full cost of a non-recurrent cost increase in year 5.

3. Addressing these issues

Given the identification of these issues, we are reconsidering the approach to be used to calculate carryovers if opex is forecast exogenously for the following regulatory control period.

In designing the carryover mechanism to apply when forecasts are set exogenously, and any necessary transitional provisions, we will aim to provide NSPs with an equivalent marginal reward/penalty for cost savings/increases made in the current regulatory period regardless of how opex is forecast in the next regulatory control period.

Questions

Do stakeholders agree that any transitional arrangements should aim to provide NSPs with the same marginal benefit if we set opex forecasts exogenously or by applying a base year approach?

Do stakeholders agree with the transitional issues identified above?

Are there other issues that stakeholders consider are material if an NSP is transitioned from the current opex forecasting approach and EBSS, to the new proposed exogenous forecasting approach and associated EBSS?