

Operating Margins Incentive – customer consultation

National Grid
Gas Transmission

August 2017

In May 2017, we sought views from customers on the general principle of reintroducing a financial incentive around the costs of Operating Margins. Feedback at the groups and forums we consulted indicated that many customers recognised our rationale for an incentive in this area and were supportive of the proposal.

We would now welcome views on the details of the scheme we have proposed to Ofgem. We urge customers, and interested stakeholders, to provide their views as this will help ourselves and Ofgem develop a scheme that is both fair and effective. **Please send responses by 8 September 2017.**

We received one view that did not support the general principle of reintroducing an incentive in this area on the basis that a good performance has already been achieved and that National Grid should not need financial incentivisation. In this document we set out why we believe financially incentivising monopoly businesses is an effective and efficient way to minimise costs to customers, and why we believe incentive regimes should recognise proactive good performance. We also set out why we believe that it is important that the procurement of the Operating Margins service is financially incentivised at this time.

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Introduction

1. National Grid operates the gas National Transmission System (NTS) in Great Britain. It is monopoly organisation, regulated by Ofgem under the RIIO regulatory framework model (Revenue = Incentives + Innovation + Outputs). RIIO was introduced in 2013/14, and covers eight years. Incentives deliver benefits to both customers and National Grid by driving focus on cost minimisation and innovative solutions and ongoing improvements in the gas transportation services we provide to customers.

The principals of financial incentives

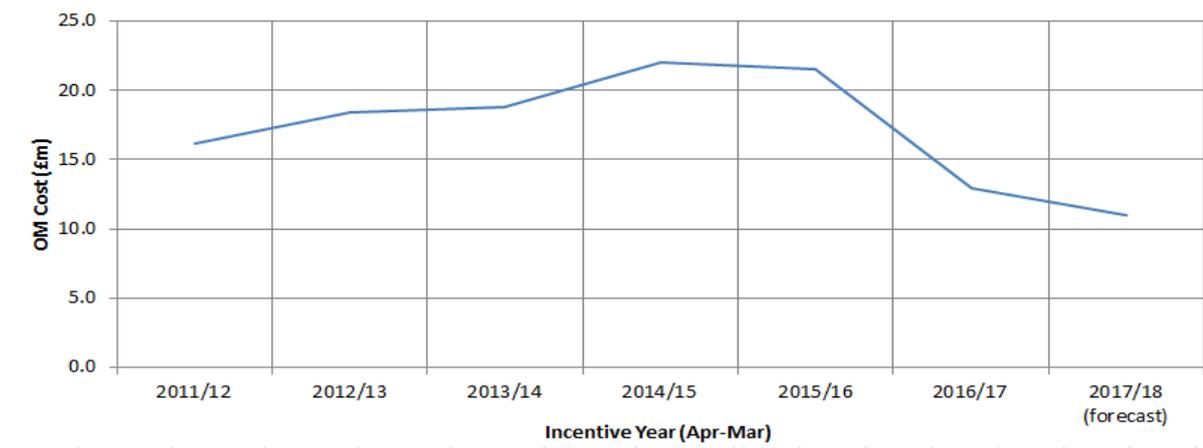
2. Through imposing financial incentive schemes, the RIIO framework aims to imitate the commercial pressures that would normally apply in a fully competitive market. In a fully competitive market, the benefits of reduced operating or production costs would be shared between customers, through reduced prices, and the business, through increased profits. Equally, any cost increases would also be shared. This motivates the business to improve its performance for its customers.
3. In monopoly businesses however, customers must absorb the whole cost of price increases and because customers also take the whole of any cost savings, the typical drivers that motivate competitive business to perform better are absent; there is no shared interest between the customer and the business. Monopoly regulators therefore impose incentive schemes to imitate these shared interests and business drivers, thereby driving better value for customers.

Operating Margins costs

4. As can be seen in Diagram 1, overall Operating Margins service costs reduced by around 50 percent between 2015/16 and 2017/18¹. Part of this reduction is attributable to a 23 percent reduction in the volume of the Operating Margins gas we were required to buy. However, following our extensive work to bring new providers in to this market, average prices over this period also reduced by 34 percent. Our restructured Gas Contract Service team has provided more focus for this area, promoting the service opportunity to a more diverse provider base, resulting in the number of tenders doubling in this period. Since 2015/16 we have also received tenders from 10 new facilities and 6 new companies (either offering new facilities, or increasing the competition at facilities where we have existing companies tendering).

¹ subject to final confirmation of 2017/18 costs

Diagram 1: Overall Operating Margins Service Costs



5. While National Grid has been successful in increasing competition, leading to reduced prices, this continues to be a bespoke market place and so ongoing low prices cannot be assumed. Operating Margins providers will be well aware of market conditions, meaning that particular events could significantly impact tendered prices.
6. A further risk is that, as prices reduce resulting in some bids being declined, the appeal of tendering for Operating Margins could also reduce and it could discourage providers from participating. Again, this is where National Grid could make a significant difference; we need to ensure the processes and contract terms remain straightforward and avoid unnecessary burdens, and we need to maintain high levels of ongoing engagement to keep customers' focus on this service.
7. Our clear aim going forward is to maintain, and further increase, competition through ongoing engagement. There is scope to attract additional, more diverse, market participants as well as continuing to work with existing providers. Introducing more diverse provider types will require careful evolution of our service requirements to balance network needs against provider's capabilities. Continued dedication of resource to this area will allow us to target additional providers and communicate early to overcome any obstacles to tender.

Incentivising Operating Margins

8. Generally, where costs of operating the network are passed through to customers, Ofgem use incentive schemes to ensure that those costs are minimised - such as the costs of operating compressors or the cost of balancing the network². However, the pass through costs of Operating Margins are unusual in that they are not currently financially incentivised. Prior to RIIO, Operating Margins had been subject to a financial incentive. However, in 2013/14, the market for Operating Margins was small, so National Grid had limited ability to influence the costs. It was therefore agreed that, at that time, a financial incentive was not appropriate and so a reputational incentive was agreed instead.
9. The RIIO framework recognises that the situation can change over an eight year period and so the framework allows for periodic reconsideration of the incentives including

² Details on existing incentives are available on our website -

<http://www2.nationalgrid.com/uk/Industry-information/gas-system-operator-incentives/>

Operating Margins. Following our intensive customer engagement, National Grid has successfully increased the competitiveness of this market. We therefore believe that our proposed Operating Margins financial incentive is a now strong fit with the RIIO framework. Introducing a financial incentive will mean that National Grid is penalised if it fails to deliver good value to customers. In return, National Grid will be rewarded with a share in any customer value it creates.

10. We have demonstrated what can be achieved with the right focus; our strong customer engagement work has achieved average price reductions of around a third in just two years. However, we need to retain this high level of focus in order to maintain these reduced costs and continue to grow a more diverse market. There is a real risk that tenders for Operating Margins could revert to their previous high prices. We believe that National Grid sharing in both the potential reward, and the potential risk, will ensure that sufficient focus is maintained on the high levels of customer engagement that will be needed to prevent costs to consumers increasing.
11. We strongly believe that a reputational incentive is no longer appropriate for Operating Margins. We believe that reputational incentives can be effective in areas where the need for improvement is stark. However, where more marginal, difficult to achieve, savings are needed the effectiveness of reputational incentives may be limited because there is little incentive to invest the resource needed to make those marginal improvements.
12. We also strongly believe it is very important to recognise proactive good performance that has been achieved in non-incentivised areas. Being rewarded for these initiatives with a financial opportunity enables the regulatory regime to drive strong performance beyond those areas directly targeted and avoids perversely incentivising businesses to only focus on financially incentivised areas.

National Grid's Proposed Incentive

13. We believe that the scheme we are proposing is simple to administer whilst effectively targeting the right behaviours. It simply compares the overall availability cost for Operating Margins against a pre-agreed target. No complex calculations or adjustment mechanisms are included. Overall, we feel our combination of parameters provides a fair balance of risk and reward between National Grid and customers.
14. We do not propose to include utilisation costs as Operating Margins are rarely used, and when they are it can be in an emergency situation. Nor do we propose to include gas re-profiling costs, as this is a separate process to the main tender and costs are spread across different financial years, which in our opinion would add unnecessary complexity and little value. Appendices (page 8-10) gives more detail on these costs.

Incentive duration

15. Our proposal is for the new scheme to run for three years; from 1 April 2018 to 31 March 2021, which coincides with the end of the RIIO-T1 period.

Incentive target

16. Operating Margins' costs were £21.6m in 2015/16; in 2016/17 we reduced costs to £12.9m, a reduction of £8.7m. We believe that there could be some more savings that could be gained; however, on the back of the significant progress that has already been made, driving out these more marginal savings will be very challenging.
17. As discussed earlier in this document, there is also a very real risk that prices could increase again. For example, economic challenges may lead to overall storage price increases, or market events could trigger a misperception that higher prices will be accepted. Also, increased competition could actually discourage some providers from tendering. High levels of customer engagement will be needed to avoid price increases and we believe that National Grid can therefore have a significant impact.
18. Given the significant cost reductions already achieved, we believe the breakeven target should be set at a level that maintains current performance. We therefore propose a breakeven target of £12m, which is the average cost following the reductions in 2015/16 (i.e. between 2016/17 actual costs and 2017/18 anticipated costs). We propose that the breakeven target of £12m should continue for the three year period, which means that in real terms the target becomes more challenging each year.

Volume requirements

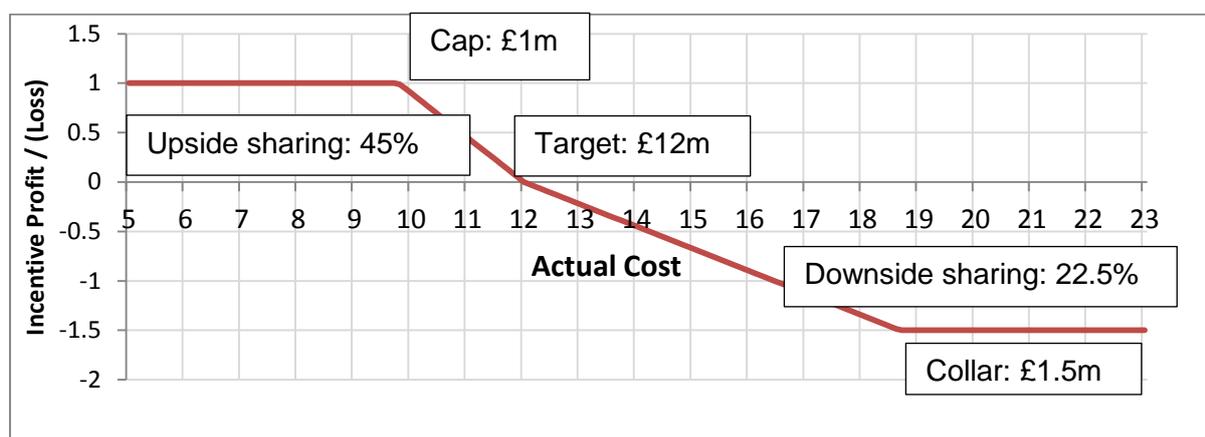
19. National Grid has limited control over volume requirements. Therefore, a scheme could be designed that factors in volume changes (for example, a significant change in volume could be a review trigger). However, a simple scheme, with the risk and reward of uncontrollable elements shared, may represent a clearer and more concise option at this stage.

Value

20. To reflect the amount of effort that National Grid are committing to driving down the cost for customers of Operating Margins service, we believe that the maximum reward for this incentive should be an upside sharing factor of 45 percent with a cap of £1m. This seems to be a sensible figure in relation to the scale of Operating Margins costs. The sharing factor is in-line with the other existing System Operator incentives, and a £1m cap applied when Operating Margins was last incentivised in 2011/12 and 2012/13. It provides sufficient incentive for National Grid to invest additional effort to achieve an attainable target.

21. The proposed penalty for this incentive is a downside sharing factor of 22.5 percent with a collar of £1.5m. We have proposed a shallower downside slope and higher penalty than reward so that the collar is not reached too quickly, which would remove the incentive to retain focus in order to minimise further losses. We believe the higher collar than cap (£1.5m versus £1m), combined with the higher upside sharing factor than downside sharing factors, gives a fair balance of risk and reward for both consumers and National Grid. Diagram 2 summarises our proposed parameters.

Diagram 2: Proposed scheme showing incentive slope



Questions:

- 1) Do you believe our proposed incentive scheme will provide the right motivations to ensure costs of Operating Margins are minimised?
- 2) Do you feel that the proposed parameters of the scheme reflect fair risk and reward sharing between National Grid and customers?

We would welcome your views on our proposals, sent to the email addresses below **by 8 September 2017**. We'd also be very happy to discuss any of our proposals in more detail.

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APPENDICES: Background

1. In order to maintain system pressures in the NTS, National Grid may need to use Operating Margins gas. This is gas bought for use under specific circumstances that can include the time immediately after a major supply loss (before other measures become effective), plant failure (such as pipe breaks and compressor trips), accommodating for large demand forecast errors and the orderly run-down of the system during an emergency.
2. In National Grid's role as the System Operator, the procurement of this gas is a requirement under the Gas Safety Case, Gas Transmission Licence and the Uniform Network Code (UNC) (Section K). The Gas Safety Case places an obligation on National Grid to maintain Operating Margins at levels and locations determined throughout the year.
3. The Operating Margins requirements are split into four key components:

Table 1: components of the Operating Margins requirement

	Component	Description
1	Supply loss	Used to cover large supply loss, in the period before other balancing measures become effective.
2	Locational	Used to support local network pressures for up to 24 hours following a compressor trip, pipe break, or other failure or damage to transmission plant.
3	Orderly Rundown	A quantity of gas kept in reserve for emergency, to manage the orderly run-down of the network following the exhaustion of all other storage gas.
4	Non-Locational Margin	A margin to cover within-year unavailability of contracted Operating Margins sources.

4. The amount of gas that we need is determined through network analysis based on an industry agreed methodology. The annual Operating Margins statement³ gives more information on the requirements and calculation methodology. Volume requirements can change each year, based on a number of factors such as overall demand and the single largest supply point. National Grid calculates the annual volume requirements for the coming year in the autumn of the preceding year using the latest Future Energy Scenarios.

How is the Service Procured?

5. On an annual basis, National Grid runs a single competitive tender to procure Operating Margins. The main requirements are for the providers to have the ability to deliver gas within two hours and provide at least 6 GWh, equivalent to 0.5 GWh/h over a twelve hour period. The contracts with successful providers start on 1 May each year for a 12 month period.

³ <http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/balancing/operating-margins/> (see "General Information" tab)

6. Bids from service providers are received through three different service types:

Table 2: Operating Margins service types

	Service Type	Description
1	Gas Capacity – Gas Storage Capacity	National Grid buys storage capacity from storage facility operators and/or primary capacity holders at gas storage facilities.
2	Gas Delivery - LNG Storage Delivery	National Grid contracts with facility operators and/or primary capacity holders at LNG importation facilities (with storage). The service provider sources and holds LNG in storage and delivers gas from such facilities to the NTS when instructed by National Grid.
3	Gas Delivery – Demand Reduction / Supply Increase	National Grid contracts with shippers and/or facility operators who can offer a guaranteed level of supply increase / demand reduction. The shipper increases the delivery of gas into or reduces their offtake from the NTS when instructed by National Grid.

7. Once the Operating Margins capacity / delivery bookings are made, for gas storage facilities only, National Grid compare the gas-in-store against the new capacity booking for the following year:

- Where capacity increases, existing gas-in-store is carried over to next year and additional gas is bought (either as gas-in-store or at NBP for injection).
- Where capacity decreases, surplus gas-in-store is sold (either as gas-in-store or withdrawn and sold at NBP).

8. It is worth noting that transfers can sometimes be made between facilities.

How are Operating Margins Costs Treated?

Availability / Service Costs

9. All Operating Margins contracts will include an annual service fee that is paid for providing capacity, irrespective of whether the service is utilised or not. The cost is recovered under the Licence (under the 'OMC' term, which feeds into the SO Allowed Revenue) and is for paid by shippers through transportation charges.

Gas costs

10. For Operating Margins capacity at gas storage facilities (service type 1 in table 2), the gas is purchased, paid for and owned by National Grid. The gas is held on National Grid's balance sheet as an asset with a value, for each facility, calculated as the weighted average cost of gas (WACOG).

11. If the Operating Margins service is utilised, the difference between the net revenues (from cashout at the System Marginal Sell Price) and the utilisation cost is passed to shippers via the Daily Neutrality charge under the UNC. This utilisation cost is:
- For gas storage (service type 1 in table 2): the WACOG for that facility.
 - For delivery service (service types 2 & 3 in table 2): the delivery charge payable to the service provider for utilisation of the service.
12. For gas storage, when gas is sold from a facility (i.e. where capacity booking reduces), the difference between the net revenue and WACOG for that facility is passed to shippers after the year as a Closing Margins Adjustment Charge in accordance with the UNC.

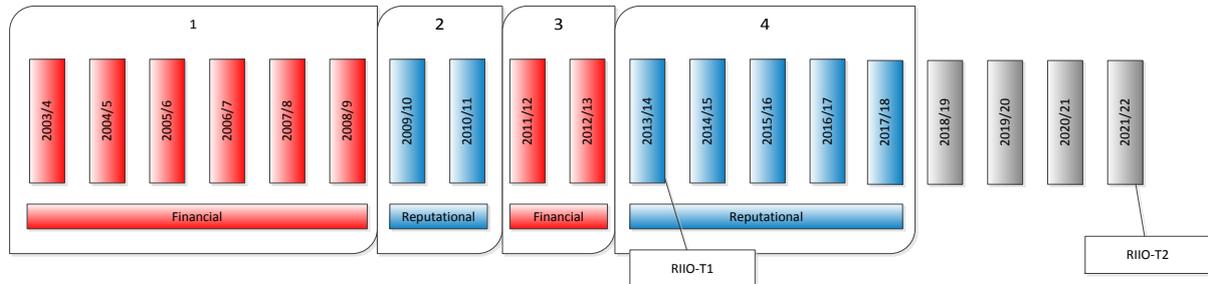
Which costs are we proposing to incentivise?

- 13. We are proposing to incentivise the availability / service costs only**, which constitute the majority of costs that shippers incur for the Operating Margins service.
14. The utilisation, procurement or disposal costs of the gas will not form part of the proposed incentive mechanism, for the following reasons:
- The service is rarely utilised – last used in 2010. Including utilisation costs would add an unnecessary complication and expose National Grid to significant system events (or lack of) that are largely outside its control.
 - The costs of gas re-profiling are split across different financial years, making it complicated to correctly attribute to particular years. Due to movements in the market price of gas, outside National Grid's control, there will be some profits or losses in any one year. Across many years these will flatten out.

APPENDICES: History of the Incentive Scheme

15. Operating Margins costs have been incentivised for over 10 years. The incentive has alternated between financial and non-financial as per the timeline below (Diagram 1). Further details of the schemes are listed in Table 3.

Diagram 3: Incentive scheme timeline



16. The scheme moved to a reputational incentive for the commencement of the RIIO-T1 period. At that time National Grid and Ofgem felt that there was too much uncertainty over Operating Margins costs to develop a fair incentive. However, it was also recognised that there may be need to review, during RIIO T2, whether it should return to a financial incentive.

17. The current requirement is for National Grid to procure Operating Margins gas in an economic and efficient manner (that meets the requirements of the Safety Case), to report on its annual procurement and to promote competition in its provision (Special Condition 8C: Procurement of Operating Margins).

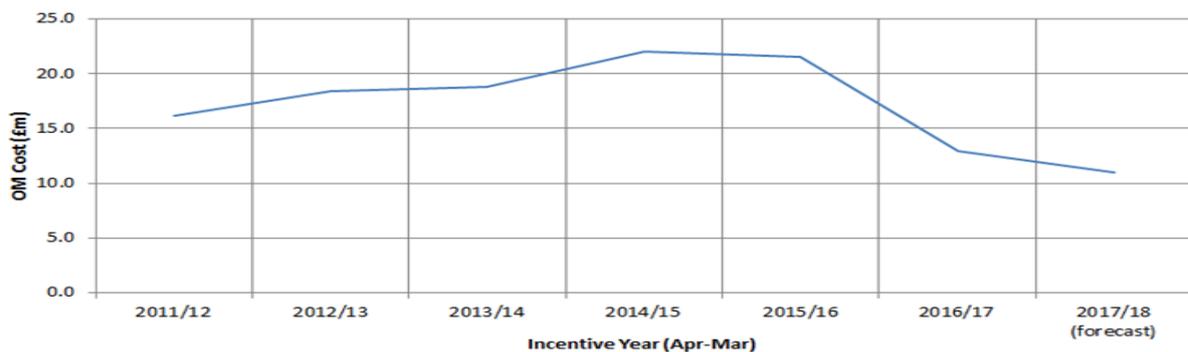
Table 3: Incentive scheme history

	Financial Year	Scheme	Details
1	2003/4-2008/9	Financial	The scheme had an availability target of £16.6m from 2003/4 to 2006/7, which further increased to £25.9m for 2007/8. In 2008/9, a utilisation target was introduced which was £0.27m and the availability target was reduced to £20.5m.
2	2009/10-2010/11	Reputational	Special Condition C25 provided a requirement to promote competition in the provision of Operating Margins gas.
3	2011/12-2012/13	Financial	The scheme had a combined availability and utilisation target of £17.3m for 2011/12, which was then reduced to £16.3m for 2012/13.
4	2013/14-present	Reputational	Under Special Condition 8C National Grid is obligated to use reasonable endeavours to procure its Operating Margins requirements in an economic and efficient manner and promote competition in the provision of Operating Margins.

APPENDICES: Current Performance

18. The overall cost of procuring Operating Margins gas has decreased significantly in the last two years. As can be seen from Diagram 3, costs have reduced by around half from 2015/16. While reduced volume requirements have contributed, a significant proportion of the reduced cost has been due to reduced tendered prices. Following extensive supplier engagement, National Grid has increased the competition within this market; we firmly believe this increase competition has led to those reduced prices.

Diagram 4: Overall Operating Margins Availability Costs

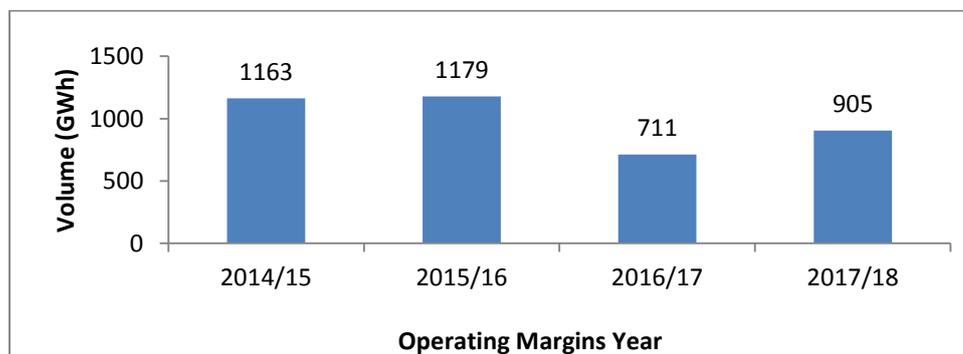


Reduced volume

19. Prior to 2016/17, volume requirements had been around 1100-1200GWh per year for a number of years. As can be seen in Diagram 4, in 2016/17 there was a 40 percent reduction in the required volume, due to a reduction in the non-daily metered demand levels, arising from an update to the Composite Weather Variable⁴. This was a one-off methodology change, agreed with industry.

20. In 2017/18, volume requirements increased again due to a change in the single largest supply point and an increase to the orderly rundown component.

Diagram 5: Operating Margins volumes graph for Operating Margins Year



Reduced Prices

⁴ (as highlighted on p38 of the ['Winter Outlook 2015/16 report'](#)).

- 21. As can be seen from Diagram 5, total costs between 2015/17 and 2017/18 have reduced by around 49 percent. This is partially due to a 23 percent volume reduction. However, average prices (p/kWh) also reduced by 34 percent during this period. This follows our strong customer engagement work which has increased competition in the Operating Margins market.
- 22. Our restructured Gas Contract Services team has provided more focus for this area, promoting the service opportunity to a more diverse customer base, resulting in a doubling of the number of tenders received since 2015/16. As part of this, we have received tenders from:
 - a. 10 new facilities
 - b. 6 new companies – either offering these new facilities, or increasing the competition at sites where existing companies have tendered.
 - c. existing companies who have previously tendered have extended the number of facilities they offer into the tender process.

We also built successful relationships with other potential providers, whom we hope to attract to tender in future years.

- 23. To achieve these strong results, we engaged with customers both to raise awareness of the opportunity and to understand any reluctance to tender. We tailored our service requirements, providing greater flexibility to avoid unnecessarily excluding potential providers. Through this we have successfully enabled interconnectors and more demand side to participate in this market.
- 24. We also undertook an extensive review of the Operating Margins contract forms to simplify the process. Again, we involved the industry and welcomed the opportunity to receive feedback. This resulted in improved contracts, better alignment across the contracts for the different provider types and a reduction in the number of templates from five to three. These have been well received by service providers.

Diagram 6: Operating Margins availability costs by financial year

