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1 November 2021.

Sent by email to: ESOPerformance@ofgem.gov.uk

Dear Maryam,

Call for evidence on ESO's six-month performance 2021-23

Thank you for the opportunity to respond to the above call for evidence. This is a non-confidential response on behalf of the Centrica Group.

The Electricity System Operator (ESO) has performed well in some areas of its roles and activities during the first half of 2021-22. We highlight that, in its role as the Electricity Market Reform (EMR) Delivery Body (DB), the ESO has engaged well with market participants, promptly responded to queries, held bilateral workshops and improved processes and documentation. The ESO convened the EMR Portal Workshop and has worked collaboratively with market participants to identify requirements for development of the Portal. Also, we appreciate the support provided by the ESO relating to the interpretation of the rules for applications for secondary trading.

The main points of our response are:

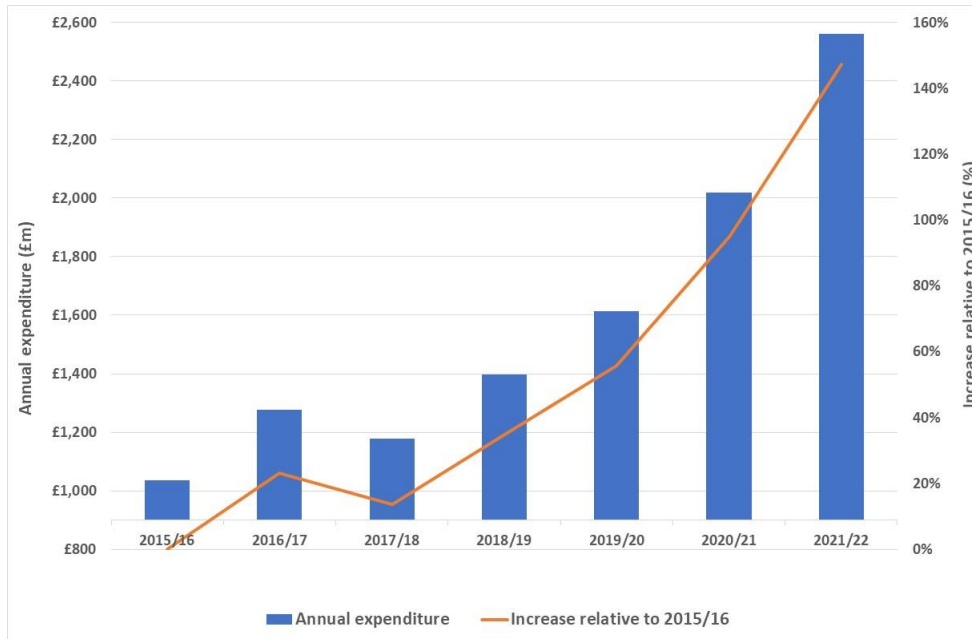
- **There has been a significant increase in system management costs. Contributing factors may be:**
 - **The design of some system management products may unnecessarily stifle the growth of competitive markets.**
 - **Inefficiencies in the operation of some markets exist.**

There has been a significant increase in system management costs:

Costs incurred to balance the electricity system have been steadily increasing over several years. Expected costs for 2021/21 are about two and a half times what they were in 2015-16 (see Figure 1) and have increased by, on average, 22% year-on-year since 2018-19¹. These increases are significant. The historic increases may well have delivered consumer value given the challenges the ESO faced managing the electricity system over that period.

¹ Costs for 2015-16 to 2019-20 were taken from SF settlement run data and expected costs for 2021-21 can be found at: <https://data.nationalgrideso.com/balancing/bsuos-monthly-forecast>.
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Figure 1: System balancing costs 2015-16 - 2021-22



The historic sustained cost increases place an even greater onus on the ESO to continually assess whether its current activities deliver optimum consumer value and address those areas where improvement can be made. During the first half of 2021-22, we identified some areas in which the ESO’s actions could have inadvertently contributed to costs potentially being higher than needed:

- the design of some system management products may unnecessarily stifle the development and growth of competitive markets, and
- inefficiencies in the operation of some markets exist.

These issues are explained below.

The design of some system management products may unnecessarily stifle the growth of competitive markets.

In our response to the call for evidence on the ESO’s performance during 2020-21, we explained that the final design of the Dynamic Containment (DC) product restricted competition. For example, geographical aggregation was restricted: aggregation of assets was limited to each Grid Supply Point (GSP) instead of by GSP group. This restriction limits aggregation of demand-side providers (both domestic and non-domestic providers of flexibility) because GSPs cover only relatively small geographic areas. The DC product was formally implemented in March 2021.

Following the implementation of DC, the ESO previously signalled that limitations on geographical aggregation would apply to all new Frequency Response products (DC, Dynamic Moderation (DM) and Dynamic Regulation (DR)) and new Reserve products (Quick Reserve (QR) and Slow Reserve (SR)). The ESO has since indicated aggregation by GSP group will be permitted for DM, DR and negative SR, instead of being restricted by GSP (the development of these products is discussed later).

We welcome the change in approach for DM, DR and negative SR. The relaxation of the limit on geographical aggregation means greater volumes will be eligible to provide these services, which

should increase competition and deliver greater consumer value. We welcome the ESO's engagement with market participants on this matter. The ESO's collaborative approach facilitated product designs that fully satisfied all relevant technical requirements while allowing aggregation by GSP group. It is for these reasons we continue to be concerned that the DC product design still unnecessarily limits aggregation by GSP. The design of the DM, DR and negative SR products proves that relevant technical requirements can be satisfied while allowing aggregation by GSP group. We encourage the ESO to be fully transparent about the reason(s) why it has been reluctant to allow aggregation by GSP group for DC and to work collaboratively with market participants to refine its design to satisfy all relevant technical requirements while allowing wider aggregation.

Inefficiencies in the operation of some markets exist:

We have identified some ways in which market arrangements can contribute to market distortions and/or inefficiencies, which are described below. We encourage the ESO to address these issues.

The full suite of Dynamic Parameters for some Balancing Mechanism units is not populated in the Balancing Mechanism Reporting Service:

Dynamic Parameters are defined in the Grid Code and are technical parameters that describe how an asset that has been made available for instruction via the Balancing Mechanism (BM) can be operated. For example, the 'Run Down Rate Export' is the rate of decrease in power output for a given BM unit and governs how quickly that unit could stop producing power if instructed to do so by the ESO. The ESO necessarily holds this information, which is made publicly available via the Balancing Mechanism Reporting Service (BMRS). However, the full suite of parameters for some BM units is not populated on BMRS. This appears to apply mainly to wind generation BM units.

It is necessary that the full current suite of declared Dynamic parameters of each BMU is published on the BMRS in order that market participants can use this information to either directly understand or infer the scope of NG instructions on BMUs. As an example, the Minimum Zero Time (MZT) is the minimum time that a BM unit must operate at zero output before resuming power flows if it was instructed by the ESO to curtail output. If the MZT for a given BM unit was made available, market participants would be aware of how long system support would be needed if that BM unit was instructed to stop exporting. Without being aware of the duration of other system actions, other market participants might act inefficiently in their own scheduling or trading decisions. This, in turn, could result in unit prices that are higher than necessary and consumers being required to fund costs that could be considered to be inefficient.

We estimate that, since January 2018, approximately 2TWh of Bids and 17GWh of Offers were made against BM units for which the full suite of Dynamic Parameters does not exist on BMRS. We made the ESO aware of this issue in early 2019 but it has not yet been resolved.

The EMR Portal is cumbersome to use:

The EMR Portal continues to cause operational difficulties. We acknowledge that the Portal has been improved and some functionality requested by market participants (such as application cloning) has been implemented. However, the Portal continues to deliver a poor user experience. For example, it does not provide meaningful information to the end user such as dashboards to

manage pending obligations. Navigating through the various sections of the Portal is inefficient and the interface is slow. The most significant issue experienced with the Portal during the first half of 2021-22 is that it became almost unusable for managing secondary trades during the prequalification window. We are aware this issue is known to the ESO but it remains unaddressed. This created the risks of market participants not being enabled to complete secondary trades and focus on prequalification. It is for these reasons we consider that the ESO's performance in relation to improvement of the Portal has not met our expectations.

Sufficient lead time to facilitate system development is needed ahead of product implementation: The ESO has delayed implementation of DM and DR to March 2022, to allow complexities associated with their design to be resolved. Implementation of QR has also been delayed, but without a revised date, to allow potential interactions between QR and the future response product suite to be investigated. The ESO has indicated it will consult on the design of the DM and DR products later this year but has not yet indicated when it is likely to consult on the design of the QR product.

We raise concerns about the possibility of insufficient lead time between confirmation of product design (following formal industry consultation) and 'go-live' to allow market participants to develop their systems to fully reflect the final product design. This, in turn, hampers market readiness and delays consumer benefits that accrue from the operation of competitive markets for the provision of these services.

We raise this concern because this has happened previously and there appears to be the possibility of it happening again. There was insufficient lead time between confirmation of the final design of the DC product and 'go-live'. A 'soft launch' took place in October 2020 and the product was implemented in March 2021. Several changes were made to the product design between the 'soft launch' and 'go-live' and this meant market participants did not have enough time to develop their systems to reflect the final design. As a result, market participants were not able to offer the volumes expected during the first half of 2021-22² and the ESO managed the shortfall in DC volumes by procuring volumes of services such as Mandatory Frequency Response (MFR). We believe the need to rely on MFR volumes has resulted in consumer detriment because, unlike that for DC, the procurement of MFR is not done via open procurement.

The concerns about insufficient lead time and changing requirements also apply to the DM, DR, QR and SR products. As discussed above, the ESO initially proposed to limit aggregation for these products to GSPs but has since indicated that the limitation will no longer apply. We did not believe a clear need for the limitation was explained because of the ESO's changing views on why the limitation was necessary and supporting evidence was not provided. A clear articulation of the need for the limitation would have reduced uncertainty for market participants.

² For example, only 197 MW out of 500MW was procured in October 2020. See: <https://www.current-news.co.uk/news/dynamic-containment-remains-undersubscribed-due-to-pretty-brutal-requirements>.

The quality of some information published to the market has fallen short of baseline expectations:
The quality of some information the ESO published to the market has not met our baseline expectations of an efficient system operator.

BSUoS forecasting

The ESO's view of expected costs for 2021-22 has increased by 25% to £2.2billion between April and October 2021, and by 20% for 2022-23 over the same period³ (see the attached appendix). For comparison, the ESO incurred costs of £1.9billion during 2020-21⁴ (including exceptional costs due to the COVID-19 pandemic). It is unclear whether the increases in expected costs are due to poor forecasting, issues with cost management or a combination of both. We suggest investigation is required.

We accept expected costs may change over time and it is prudent for the ESO to capture those changes in its forecasts at the earliest opportunity. However, the ESO did not provide sufficient explanation for the increases:

- the changes in the underlying system or exogenous factors expected to impact costs were not been fully described or quantified, and
- an indication of how long the ESO expects those changes to persist was not provided.

As an example, expected costs for 2021-22 in the June BSUoS forecast increased by £150m compared to costs included in the May forecast, and by 10% since the April forecast. However, the only new information included in the accompanying commentary in the June forecast was:

“Adjustments have been made to Fast Reserve and Response based on recently observed trends”

and

“The ALoMCP costs have been revised and following the approval of CMP373 the under recovered costs have been profiled in the forecast”.

In some monthly BSUoS forecast, no commentary was provided to explain the month-on-month variance in expected costs. The changes in the supporting commentary the ESO published to the market in its monthly BSUoS forecasts between April and October are shown in Table 1.

The level of information provided by the ESO is inadequate and prevents market participants from developing their own views of the risk of changes in costs and of the potential magnitude of the changes in costs. This hinders market participants conducting informed scenario modelling, which could result in unnecessary levels of risk premia being included in market participants' costs. This introduces inefficiency across the market and could result in consumer disbenefit.

Similar concerns relate to the level of information included in the Monthly Balancing Services Summary reports and the Daily Balancing Services Use of System Cost reports. Some detail is included in the monthly performance reports (which is published about a month after the relevant month) but this is not timely.

³ Expenditure data taken from the monthly BSUoS forecast reports for April to October. The reports can be found at: <https://data.nationalgrideso.com/balancing/bsuos-monthly-forecast>.

⁴ Expenditure data taken from: https://data.nationalgrideso.com/balancing/bsuos-monthly-forecast/r/monthly_bsuos_summary_april_2021.

BSUoS reporting

In our responses to previous calls for evidence on the ESO's performance, we commented on the material differences in the expenditure reported and, by extension, the rates between the BSUoS II and SF settlement runs⁵. Relative to 2020-21, performance during the first half of 2021-22 appears to have deteriorated:

- the absolute percentage variance exceeded 6% on three occasions during 2020-21 but on three occasions during the first half of 2021-22,
- the average absolute monthly variance increased from £10.3m in 2020-21 to £14.4m during the first half of 2021-22, and
- the largest absolute monthly variance increased from £20.6m in 2020-21 to £41m during the first half of 2021-22.

These factors suggest performance in this area may be deteriorating. We recommend the ESO closely monitors this issue and takes corrective action to prevent any further deterioration.

Daily costs in the II settlement runs for April to August were either entirely under-reported or over- and under-reported within any given month (see attached appendix). However, daily costs in the II settlement runs for September were entirely over-reported, by £41m. The ESO later verbally informed the industry via the Operational Transparency Forum that some costs reported in II settlement runs were incurred at the request of neighbouring system operators and so should not be funded by GB consumers. However, this has not yet been quantified in any document publicly available on the ESO's website. This approach is not ideal as market participants often respond to the information published by the ESO and, by not highlighting the additional costs sooner than it did, the ESO may have inadvertently contributed to market inefficiency and distortions.

Elements of some code modifications appear to place less focus on consumer benefit:

The ESO's performance as coordinator and secretariat for CUSC has broadly met baseline expectations. However, we highlight concerns about instances in which the ESO appears to place greater focus on solutions it considers better for the ESO when it proposes code modifications. We think the ESO's preferred position is not supported by robust justification and sufficient evidence.

An example of this occurred in the development of CMP361 (*BSUoS Reform: Introduction of an ex-ante fixed BSUoS tariff*). The ESO continually asserted that its existing working capital facility of £300m cannot be extended in the event balancing costs exceeded a certain threshold and a buffer fund should therefore be built using supplier contributions by way of consumer funding. Workgroup requests for the ESO to provide evidence demonstrating that it would be more expensive for the ESO to secure additional working capital instead of a buffer fund being built have not been met. We do not think conversational assertions suffice as the evidence base in the circumstances of a proposal which would detract from the intended consumer benefit of the overall reform.

⁵ e.g. our response to the call for evidence on ESO performance over the 2019-20 regulatory period.
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Additional information is included in the attached appendix. I hope you find this response helpful. Please contact me if you have any questions.

Yours sincerely,

Jack Presley Abbott
Head of Wholesale & Trading Regulation
Centrica Regulatory Affairs & Policy

Appendix: supporting evidence

System management expenditure forecasts:

Figure 2: Forecast system management expenditure for 2021-22

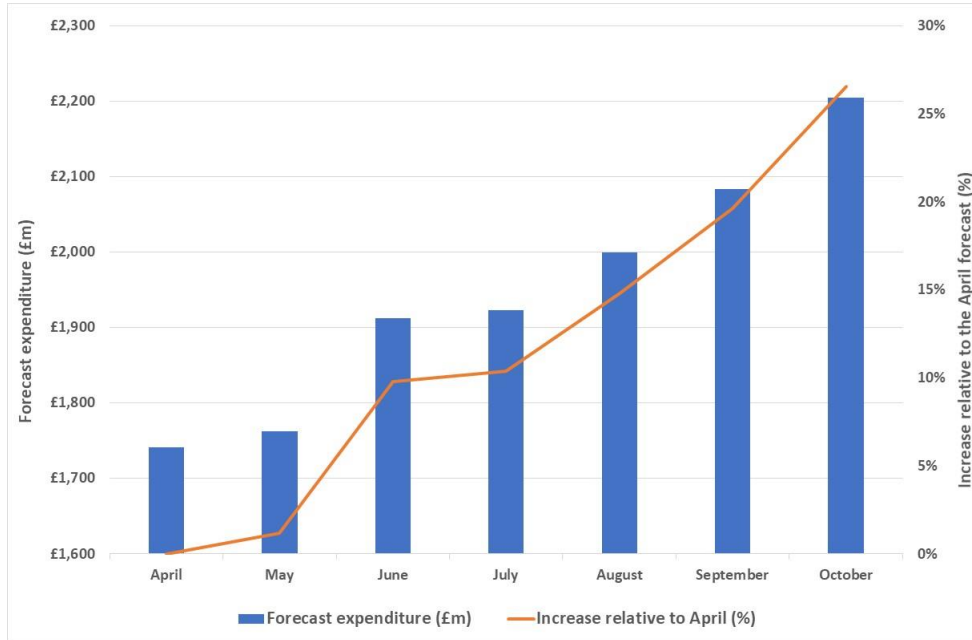


Figure 3: Forecast system management expenditure for 2022-23

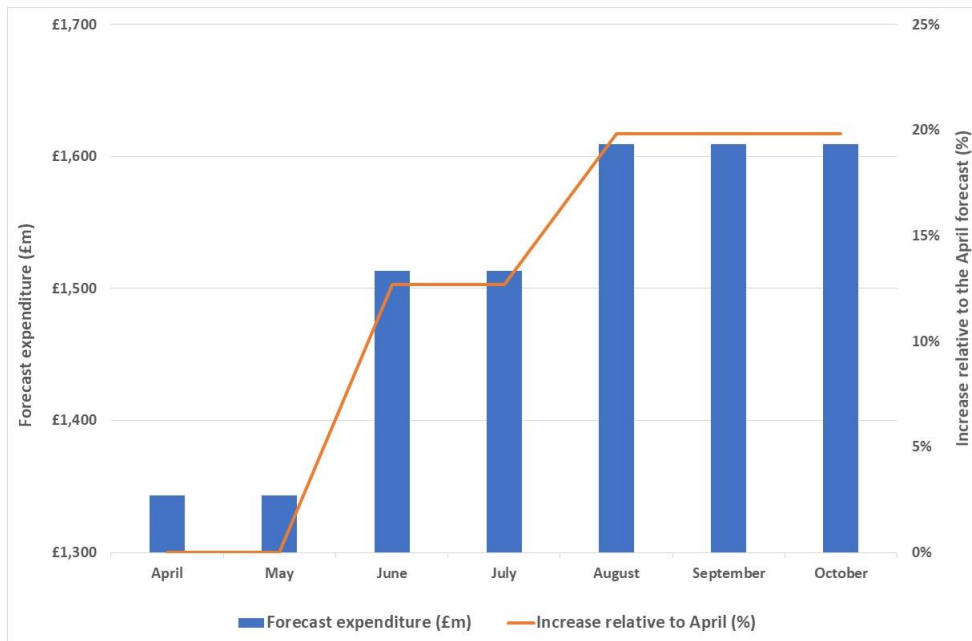


Table 1: Commentary explaining increase in forecast costs

Forecast published in...	Increase in 2021-22 costs*	Increase in 2022-23 costs*	Commentary explaining increase in forecast costs
April	-	-	<p>“Minor adjustments have been made to Energy Imbalance, Fast Reserve and Response costs based on recently observed data. ESO Incentive has been removed as a separate cost and is now included in the ESO internal costs as part of the Price Control Financial Model. For the FY21/22 forecast we have re costed the outage plan and adjusted the constraint costs accordingly. When producing a forecast of constraint costs, we apply a historical wind profile for each month. Variations in the constraint costs month on month will therefore be driven by the reduction in constraint limits due to outages in addition to the wind level applied. As such these are indicative of where costs may outturn but variations are expected due to outturn wind not following a particular historical profile exactly.</p> <p>We have added an additional line to the forecast from Apr 21 to Mar 22 to account for the deferred BSUoS as per CMP345/350.</p> <p>From April 21 CMP333 comes into effect changing the demand base to gross demand (NB. This has been included in the forecast figures for some time).”</p>
May	1.2%	0.0%	-
June	9.8%	12.7%	<p>“Adjustments have been made to Fast Reserve and Response based on recently observed trends.</p> <p>The ALoMCP costs have been revised and following the approval of CMP373 the under recovered costs have been profiled in the forecast”</p>
July	10.4%	12.7%	-
August	14.8%	19.8%	-
September	19.6%	19.8%	-
October	26.6%	19.8%	<p>“An uplift has been applied to Operating Reserve costs as a result of recent trends.”</p>

* cost increases are relative to costs presented in the April BSUoS forecast

Variance between II and SF settlement runs:

Table 2: Variance between II and SF settlement runs

	Expenditure change (£)	Expenditure change (%)	Volume change (MWh)	Volume change (%)	Rate change (£/MWh)	Rate change (%)
Apr-2020	£2,718,108	1.86%	27,901	0.09%	£0.09	1.78%
May-2020	£20,616,755	11.38%	61,988	0.21%	£0.70	11.03%
Jun-2020	-£4,364,783	-2.80%	38,597	0.13%	-£0.15	-2.80%
Jul-2020	-£5,170,073	-3.39%	74,305	0.23%	-£0.17	-3.41%
Aug-2020	-£4,875,086	-3.62%	54,265	0.16%	-£0.15	-3.76%
Sep-2020	£9,515,449	5.87%	73,906	0.22%	£0.27	5.39%
Oct-2020	£1,217,897	0.76%	6,922	0.02%	£0.03	0.73%
Nov-2020	£9,015,383	4.24%	55,731	0.14%	£0.22	3.70%
Dec-2020	£1,915,964	1.14%	42,449	0.10%	£0.04	0.99%
Jan-2021	£5,699,564	3.49%	133,622	0.29%	£0.11	3.25%
Feb-2021	£77,407	0.04%	79,698	0.21%	-£0.01	-0.19%
Mar-2021	£15,934,135	8.09%	34,883	0.09%	£0.39	7.88%
Apr-2021	£12,917,984	8.30%	182,118	0.45%	£0.30	7.92%
May-2021	£5,074,978	2.85%	154,660	0.39%	£0.11	2.27%
Jun-2021	£13,656,763	8.44%	166,542	0.46%	£0.36	7.99%
Jul-2021	£3,614,095	2.31%	215,037	0.58%	£0.07	1.75%
Aug-2021	£10,005,909	4.69%	334,295	0.92%	£0.22	3.68%
Sep-2021	-£41,031,644	-15.51%	-576,683	-1.55%	-£0.98	-11.04%

Figure 4: Expenditure variance between II and SF settlement runs - April 2021

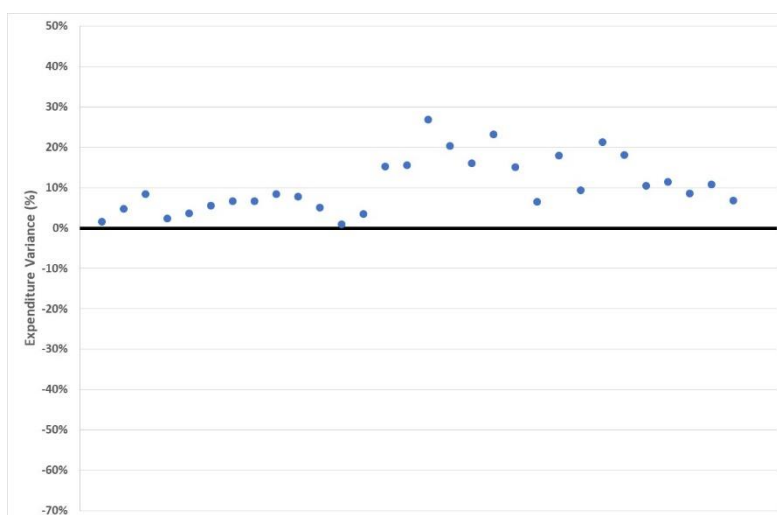


Figure 5: Expenditure variance between II and SF settlement runs - May 2021

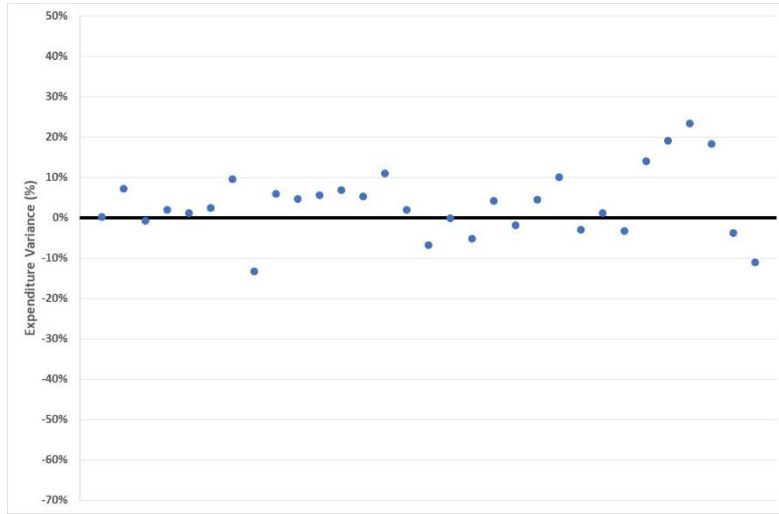


Figure 6: Expenditure variance between II and SF settlement runs - June 2021

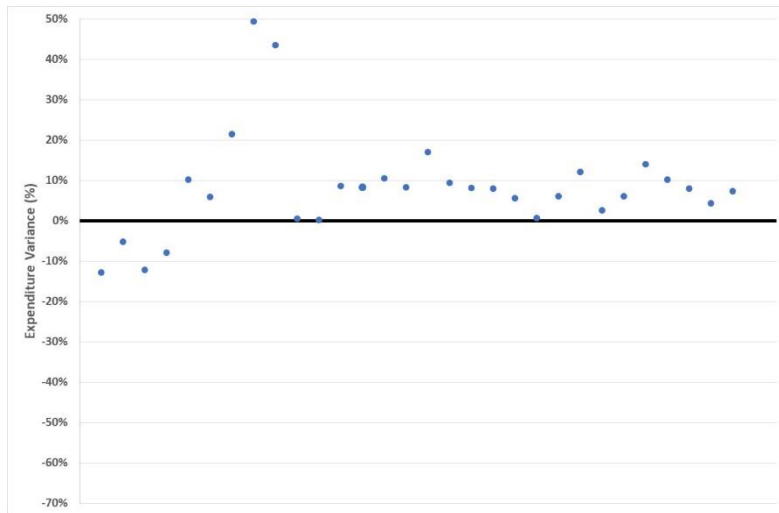


Figure 7: Expenditure variance between II and SF settlement runs - July 2021

