

Actuarial Report 31 March 2021

GPS Nexia Solutions Section of the Combined Nuclear Pension Plan

8 December 2021

**Deloitte Total Reward and Benefits
Limited**

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1 Introduction

This report has been prepared for the *Trustee* of the GPS Nexia Solutions Section of the Combined Nuclear Pension Plan (the “Section”) and sets out the results of the Actuarial Report at 31 March 2021

The purpose of this Actuarial Report is to provide an approximate update of the Section’s funding position at 31 March 2021, following the *actuarial valuation* at 31 March 2019.

This report should be read in conjunction with:

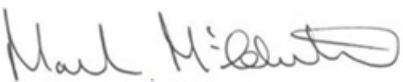
- The *Scheme Funding Report* dated 26 October 2020 for the actuarial valuation at 31 March 2019
- The in-force *Statement of Funding Principles, Schedule of Contributions* and *Recovery Plan*, each dated 12 May 2020 and
- The Actuarial Report as at 31 March 2020 dated 19 March 2021

This report has been prepared in accordance with *Technical Actuarial Standard 100*, and reviewed in accordance with Actuarial Professional Standard X2. This report has been drafted on the basis that it will not be used by the Trustee to support decisions on funding, contribution requirements or benefit levels. If this is not the case, please let me know.

This report may not be relied on for any purpose other than that explained above. The funding valuation is not relevant for any other purposes, and in particular is not relevant to the costs and liabilities of the Section to be disclosed by the Employer in its accounts.

In accordance with our terms of engagement, this report is addressed to the Trustee, but copies may be provided to the Employer. It may not be shown to any other party without the express written permission of Deloitte Total Reward and Benefits Limited and we do not accept any liability to any party other than the Trustee in relation to the contents of this Actuarial Report.

A glossary of defined terms can be found in Appendix C.

Signature 	Date 8 December 2021
Name Mark McClintock	Qualification Fellow of the Faculty and Institute of Actuaries

2 Summary of results

At the date of this Actuarial Report there was a deficit on the funding basis of £235,000. This is an improvement since the last actuarial report when the deficit was £951,000.

The table below sets out the assets and *Technical Provisions* at 31 March 2021 compared to the position at the date of the last Actuarial Report and the Valuation Date, and the corresponding change in *funding level*.

£000's	31 March 2021 Actuarial Report	31 March 2020 Actuarial Report	31 March 2019 Valuation
Assets	5,831	5,126	5,207
Technical Provisions			
- Total liabilities	6,066	6,077	5,635
- Expenses	-	-	-
Total Technical Provisions	6,066	6,077	5,635
Surplus/(deficit)	(235)	(951)	(428)
Funding level	96%	84%	92%

The scope of this Actuarial Report is limited to considering the funding position at 31 March 2021. It should be noted that the financial position will have changed since that date. Further details on how the position may have changed since 31 March 2021 are provided in Section 4.

It should also be noted that it is possible that the development of the buy-out or solvency position, which is not considered in this report, might be different from the estimated development of the ongoing funding level.

3 Methodology overview

I have calculated the Technical Provisions as at 31 March 2021 by approximately rolling forward the results of the last actuarial report.

To calculate the Technical Provisions, I have allowed for:

- changes in financial conditions between the Valuation Date and the date of this Actuarial Report;
- accrual of benefits;
- actual inflationary increases to deferred benefits and pensions in payment since the last Actuarial Report; and
- actual benefit payments paid out of the Section.

As no new member data has been used for this report, membership movements are implicitly assumed to be in line with the projections made at the valuation.

If actual member experience (e.g. number of deaths or transfers out of the Section) is significantly out of line with expectations, then the liability values calculated using full membership data may be materially different from the estimate given in this report.

4 Experience since the last Actuarial Report

Since the last Actuarial Report, the funding position has improved from a deficit of £951,000 to a deficit of £235,000.

The key reasons for the change in funding position are:

- higher than assumed returns on the Section's assets over the period;
- deficit contributions paid by the Employer;
- yields on 20-year government bonds have increased from 0.85% p.a. to 1.40% p.a.; and
- short-term inflation has been lower than assumed, which resulted in pension increases being lower than assumed and produced a funding gain on the deferred and pensioner liabilities.

This has been offset by:

- an increase in market expectations for long-term RPI inflation from 2.90% p.a. to 3.50% p.a.;
- the future service contributions being lower than the cost of benefits accruing.

A summary of the reasons for the change are set out in the table below.

	£000's
Surplus/(deficit) at 31 March 2020	(951)
Interest on the deficit	(24)
Deficit contributions paid by the Employer	200
Contributions above/(below) the cost of accrual	(9)
Investment returns in excess of the discount rate	543
Changes in market conditions	(31)
Pension increases (in payment and deferment)	37
Surplus/(deficit) at 31 March 2021	(235)

There have been no significant events that have occurred since the effective date of the annual update that has affected the membership profile or the benefits of the Section.

Other developments since the last Actuarial Report

Impact of COVID-19 on assets and financial conditions

COVID-19 has resulted in significant market volatility impacting both asset values and market yields. The Trustee should note that the funding level of the Section will likely vary more than usual in the current climate depending on the date of any valuation.

Impact of COVID-19 on mortality assumptions

In March 2021, the CMI released the latest version of the CMI projections model, CMI 2020. This version incorporates data to the end of 2020 and includes a new parameter (" w_{2020} ") which allows users to change the weight placed on 2020 mortality data used within calculations. Increasing the value of this parameter leads to a decrease in the value of liabilities.

Moving from the core CMI 2018 model to the core CMI 2020 model (which assumes no weight is placed on the 2020 calendar year data) leads to life expectancies at age 65 decreasing for both males and females.

For the purposes of this report, the mortality assumptions used are the same as those used for the 31 March 2019 valuation, with no adjustment made for COVID-19. The Trustee should note that the Section's mortality assumptions will be reviewed at the next funding valuation and updated, taking into consideration market practice and Section mortality experience analysis.

RPI/CPI assumption rates

The government released its response to the consultation about the future of the Retail Prices Index ("RPI") on 25 November 2020 and concluded that:

- the RPI will be reformed to be in line with the CPIH;
- the transition will take place during 2030; and
- no compensation will be paid to index-linked gilt holders.

At the 31 March 2019 valuation, the CPI inflation assumption was derived by applying a deduction to the RPI assumption of 1.0% p.a. CPI inflation is used in the derivation of the Post 88 GMP pension increase assumption.

At 31 March 2021 I propose an RPI-CPI differential of 0.80% p.a. This is in line with the approach used for the last Actuarial Report at 31 March 2020.

GMP equalisation on transfer value payments

On 20 November 2020 the latest High Court judgement on GMP equalisation in relation to transfer value payments was made. It concluded that historic transfers since 17 May 1990, which contained GMP accrued after this date, will now need to be equalised.

For the purposes of this report, no additional allowance has been made in relation to this ruling. This will be reviewed at the next funding valuation and may lead to an increase in the liabilities.

Expected change in funding position since 31 March 2021

At the date of this report (December 2021) gilt yields are around 0.4% lower than at 31 March 2021, which has lowered the discount rate. Expected long-term inflation has increased by c.0.2% since 31 March 2021. The net impact will have increased the liabilities since 31 March 2021.

Since the funding update as at 31 March 2021, equity markets have continued to rise. While no formal calculation has been completed, it is expected that the funding position at the current date is slightly worse than that at 31 March 2021.

5 Next steps

The Trustee is required to share the results of this report with the Employer and members

Following receipt of this report the Trustee should:

- Send a copy of this report to the Employer within seven days; and
- Provide a summary funding statement to members within a reasonable period.

The funding position at the date of this Actuarial Report shows an improvement relative to the position as at 31 March 2020. However, significant volatility remains but I do not consider it necessary to bring forward the date of the actuarial valuation if there has not been a significant change in the employer covenant.

The next full actuarial valuation is due at 31 March 2022.



Appendices

A Assumptions

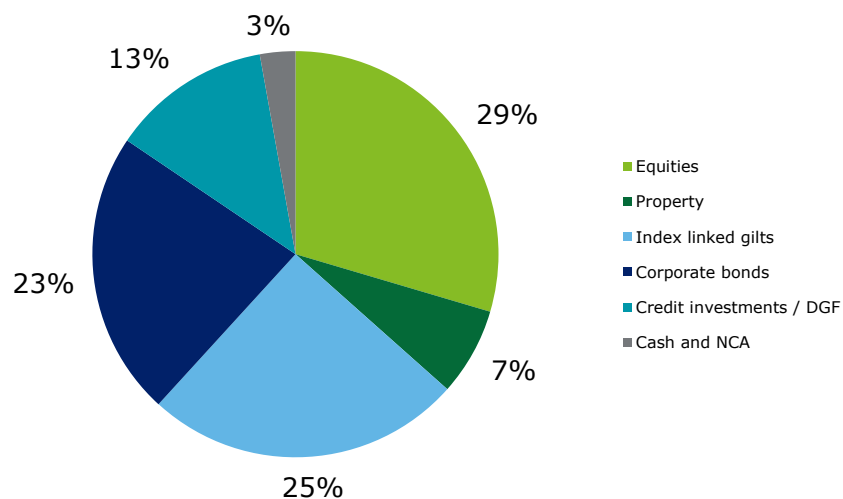
The key financial assumptions used to calculate the Technical Provisions for this Actuarial Report are set out below. The corresponding assumptions used for the last Actuarial Report and the 2019 Valuation are shown for comparison.

These assumptions have been based on the methodologies set out in the in force Statement of Funding Principles, as determined by the Trustee and Employer, and updated for market conditions.

Technical Provisions	31 March 2021 Actuarial Report	31 March 2020 Actuarial Report	31 March 2019 Valuation
Discount rate	Pre-retirement: 3.60% Post-retirement: 1.90%	Pre-retirement: 3.05% Post-retirement: 1.35%	Pre-retirement: 3.80% Post-retirement: 2.10%
Retail Prices Index (RPI) inflation	3.50%	2.90%	3.50%
Consumer Prices Index (CPI) inflation	2.70%	2.10%	2.50%
Salary increases	0-10 years: RPI + 0.25% Over 10 years: RPI + 0.5% Plus promotional salary scale		
Inflation-linked pension increases in payment	3.50%	2.90%	3.50%
Post-retirement mortality	110% SAPS S3 All Pensioners YoB and CMI 2018 projections with a long term trend of 1.5% p.a.		
Pre-retirement mortality	Same as post-retirement mortality		
Retirement	Age 60 or 65 as applicable to specific members		
Withdrawal from active service	Withdrawal scale applied		
Ill-health retirements	Ill-health scale applied		
Proportion married	Based on scheme specific experience		
Age difference	Males 3 years older than females		
Cash commutation	58% of members assumed to commute the maximum amount of pension		
Expenses	Paid directly by the Employer		

B Assets

I have used an asset value of £5,831,000. This is based on the audited value in the Trustee's Report and Accounts as at 31 March 2021, excluding Defined Contribution assets.



C Glossary

Key terms used throughout this report are summarised below

Actuarial Report	A report commissioned by the Trustee to provide an update of the Section's funding position at a time between full actuarial valuations
Actuarial valuation or valuation	A review carried out by an actuary under legislation at least every three years to assess whether a pension scheme's assets are sufficient to meet its liabilities and determine the contributions payable to the Plan in the future
Discount rate	The rate used to place a present value on the projected benefit payments
Employer	National Nuclear Laboratory Limited
Funding level	The ratio of the value of assets to the value of the liabilities
Funding valuation	An actuarial valuation of the Section carried under legislation to determine the contributions payable to the Section in future
Guaranteed Minimum Pension ("GMP")	A minimum level of income provided to members of contracted-out pension schemes between 1978 and 1997
Recovery Plan	An agreement between the Trustee and the Employer for payments needed to meet any shortfall between the assets and Technical Provisions
Schedule of Contributions	A schedule setting out the contribution rates and payment dates agreed between the Trustee and the Employer and certified by the Scheme Actuary as being adequate to satisfy the SFO
Scheme Funding Report	A report prepared by the Scheme Actuary setting out the results of the actuarial valuation

Solvency (or buyout) position	The ratio of the assets to the estimated cost of securing the Section's benefits in full with an insurance company
Statutory Funding Objective (SFO)	The requirement that a defined benefit pension scheme should have sufficient and appropriate assets to cover its Technical Provisions
Statement of Funding Principles	The documented policy for meeting the SFO and the principles for determining the assumptions to calculate the Technical Provisions
Technical Actuarial Standard 100	A professional standard issued by the Financial Reporting Council which applies to technical actuarial work
Technical Provisions	The actuarial value of the accrued liabilities of the Section
Trustee	The Trustee of the Section
Valuation Date	31 March 2019



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