

Actuarial Report 31 March 2020

Sellafield Section of the Combined Nuclear Pension Plan

31 March 2021

**Deloitte Total Reward and Benefits
Limited**

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1 Introduction

This report has been prepared for the *Trustee* of the Sellafield Section of the Combined Nuclear Pension Plan (the “Section”) and sets out the results of the Actuarial Report at 31 March 2020.

The purpose of this Actuarial Report is to provide an approximate update of the Section’s funding position at 31 March 2020, following the *actuarial valuation* at 31 March 2019.

This report should be read in conjunction with:

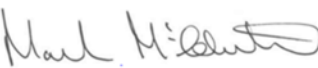
- The *Scheme Funding Report* dated 9 October 2020 for the actuarial valuation at 31 March 2019 and
- The in force *Statement of Funding Principles, Schedule of Contributions* and *Recovery Plan*, each dated 27 August 2020.

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 31 March 2021
Name Mark McClintock	Qualification Fellow of the Faculty and Institute of Actuaries

2 Summary of results

At the date of the Actuarial Report there was a surplus of £39,487,000. This is an improvement since the last valuation when the deficit was £122,121,000.

The table below sets out the value of the assets and *Technical Provisions* at 31 March 2020 compared to the position at the Valuation Date, and the corresponding change in *funding level*.

£000's	31 March 2020 Actuarial Report	31 March 2019 valuation
Assets	1,367,578	1,385,295
Technical Provisions		
- Total liabilities	1,328,091	1,507,416
- Expenses	-	-
Total Technical Provisions	1,328,091	1,507,416
Surplus/(deficit)	39,487	(122,121)
Funding level	103%	92%

The scope of this Actuarial Report is limited to considering the funding position at 31 March 2020. It should be noted that the financial position will have changed since that date and some information on the extent of the change up to 30 November 2020 is included in Section 4.

It should also be noted that it is possible that the development of the buy-out 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 valued the Technical Provisions as at 31 March 2020 by approximately rolling forward the results of the valuation.

To value the Technical Provisions, I have allowed for:

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

Proposed changes to RPI

The UK Statistics Authority (UKSA) announced on 4 September 2019 that it intends to reform the Retail Prices Index (RPI) to bring it into line with CPIH, which is the Consumer Prices Index (CPI) including owner occupiers' housing costs. The Government carried out a public consultation on the matter during 2020, covering the timing and methodology used in any change. The results of this consultation were released on 25 November 2020. It concluded that RPI will be reformed to be in line with the CPIH with the transition taking place during 2030, and that no compensation would be paid to index-linked gilt holders.

It is necessary to consider how this proposed change will impact the future increases (under the pension scheme rules) for pensions that are currently RPI linked and also the appropriate derivation of the pension increase assumption to be used. It is my view that the market-implied RPI inflation curve remains a reasonable basis for estimating long term future RPI-linked pension increases at 31 March 2020, including the changes in the RPI index to CPIH. I am therefore not proposing to make any specific adjustments. However, as the market reacts to the outcome of the public consultation,

this assumption should be kept under review and if necessary, taken into consideration again in future year ends, as this reform progresses.

Consumer Prices Index (“CPI”)

There are differences in the determination of RPI and CPI, both in the method of calculation and the goods covered by the indices.

Unlike RPI inflation, there is currently no market measure of future CPI inflation. The assumption for RPI inflation is often therefore used as the starting point for determining a suitable CPI inflation assumption.

RPI inflation (before the proposed changes outlined above) is generally expected to be significantly higher than both CPI and CPIH inflation, with CPI and CPIH inflation being broadly similar. On the day of the UKSA announcement, I would have expected to see a significant reduction in market implied RPI inflation, given CPIH inflation has historically been significantly less than RPI inflation. The actual observed immediate reduction was less than the full amount of the expected change to RPI inflation post 2030, with long-term market expectations of RPI inflation falling by around 0.2% p.a.

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. and CPI inflation is used in the derivation of the Pensionable Earnings growth assumption. Following the UKSA announcement, I propose that the RPI-CPI differential is amended based on:

- the change to RPI inflation being introduced in 2030,
- my expectations of the difference between RPI and CPI before (1.0%) and after that date (0.0%),
- the profile of inflation-linked benefits in the Section; and
- a desire for a straightforward calculation methodology whilst being cautious on understating the cost of inflation-linkage.

As at 31 March 2020 I propose that the RPI-CPI differential is reduced to 0.80% p.a. and an assumption of 1.90% p.a. is adopted for the CPI inflation.

Approximate funding position as at 30 November 2020

In this report, I have set out the estimated funding position of the Section as at 30 November 2020 and a number of approximations have been made to estimate this, although none of these should have a material impact on the result;

- The cash in the Trustee bank account is unchanged from 31 March 2020;
- The cost of benefits accruing and benefits paid out of each section are assumed to be at the same rate as during the period to 31 March 2020; and
- No allowance for inflationary experience or membership movements has been made.

4 Experience since the valuation

Since the valuation the funding position has changed from a deficit of £122,121,000 to a surplus of £39,487,000.

The key reasons for the change in funding position are:

- a fall in market expectations for long-term RPI inflation from 3.3% p.a. to 2.7% p.a.;
- an increase in the long-term expected return of the assets from 3.6% p.a. to 4.0% p.a.; and
- short-term inflation has been lower than expected.

This has been partially offset by:

- lower than expected returns on the Section's assets over the period;
- a reduction in the gap between the RPI and CPI inflation assumptions; and
- 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 2019	(122,121)
Interest on the deficit	(4,767)
Deficit contributions paid by the Employer	-
Contributions above/(below) the cost of accrual	(30,594)
Investment returns in excess of the discount rate	(135,947)
Changes in market conditions	330,722
Pension increases (in payment and deferment)	2,194
Surplus/(deficit) at 31 March 2020	39,487

There have been no significant events that have occurred since 31 March 2021 that have affected the membership profile or the benefits of the Section. However, since the start of 2020 there has been significant levels of volatility in market conditions and in equity markets, which deteriorated the value of the assets at the effective date of this annual report when compared with equity values during January 2020. Equity markets have recovered and increased strongly during November 2020 after the announcement of the potential COVID-19 vaccinations.

There has been an increase in expected RPI inflation and the assumption as at 30 November would be 3.05% or 0.35% p.a. above the figure at 31 March 2020 and increases the Section's liabilities. Also, the expected return on the assets has fallen from 4% p.a. as at 31 March 2020 to 3.4% p.a. as at 30 November 2020 and this has corresponded to a decrease in the discount rate and an increase in the value of the liabilities.

Overall, the funding level as at 30 November 2020 has deteriorated since 31 March 2020 as the effect of significant investment returns on the Section's assets has been insufficient to offset the impact of higher expectations for long-term inflation and a decrease in the expected return available on the Section's assets.

By approximately updating the funding position to 30 November 2020, it is expected that the funding level has declined from 103% to 93%.

Also, short-term inflation is lower than expected with September 2020's RPI inflation figure being 1.1% and there will be funding saving on the deferred and pensioner liabilities when this is implemented on 1 April 2021. No allowance for this increase has been applied in the 31 March 2020 results or the approximate position at 30 November 2020.

Since the approximate update as at 30 November 2020, equity markets have continued to rise but inflation expectations have increased. The discount rate is set using long-term expected return assumptions on the assets. While no formal calculation has been completed, if we assume that the expected return on the assets is unchanged from 30 November 2020, then it is likely that the current funding position would show an improvement.

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.

While this annual report does show an improvement in the funding position as at 31 March 2020, significant volatility in the markets remains as highlighted by the deterioration in the funding position of the Section as at 30 November 2020. I do not consider it necessary to bring forward the date of the next actuarial valuation if there has not been a significant change in the employer covenant.

A further Actuarial Report is due with an effective date of 31 March 2021, and the next full actuarial valuation is due at 31 March 2022.

An aerial photograph of a turbulent ocean surface. The water is a deep, dark blue, with numerous white, frothy waves and foam breaking across the surface. The texture is highly dynamic and chaotic, with varying shades of blue and white creating a complex pattern. The lighting appears to be bright, possibly from the sun, highlighting the white foam against the darker water.

Appendices

A Assumptions

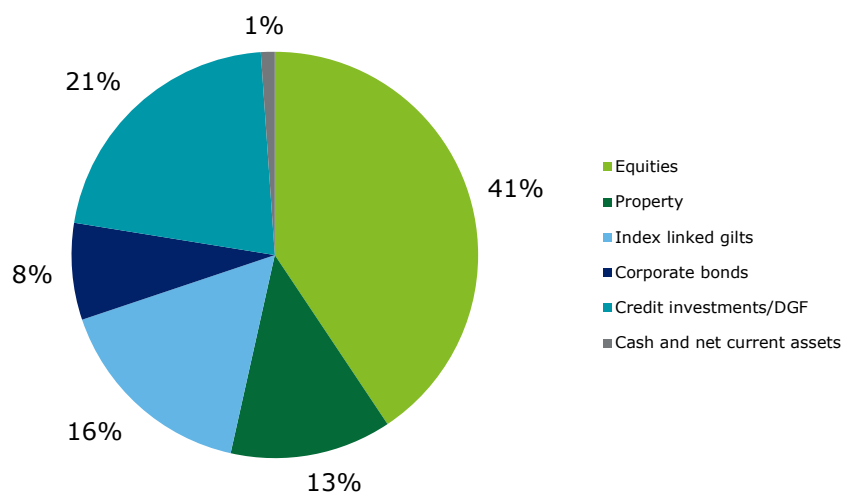
The key financial assumptions used to calculate the Technical Provisions for this Actuarial Report are set out below. The corresponding assumptions used for the valuation are shown for comparison.

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	30 November 2020 Approximate update	31 March 2020 Actuarial Report	31 March 2019 valuation
Discount rate	3.40%	4.00%	3.60%
	Future service: 3.80%	Future service: 4.40%	Future service: 4.00%
Retail Prices Index (RPI) inflation	3.05%	2.70%	3.30%
Consumer Prices Index (CPI) inflation	2.25%	1.90%	2.30%
Salary increases	Years 1-10: CPI + 0.25% Over 10 years: CPI + 0.75% Plus promotional salary scale	Years 1-10: CPI + 0.25% Over 10 years: CPI + 0.75% Plus promotional salary scale	Years 1-10: CPI + 0.25% Over 10 years: CPI + 0.75% Plus promotional salary scale
Inflation-linked pension increases in payment	3.05%	2.70%	3.30%
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		
Proportion married	Based on scheme specific experience		
Age difference	Males 3 years older than females		
Cash commutation	80% of members assumed to commute the maximum amount of tax free cash		
Expenses	Paid directly by the Employer		

B Assets

I have used an asset value of £1,367,578,000 as at 31 March 2020. This is based on the audited value in the Trustee's Report and Accounts, 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 Plan'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	Sellafield 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

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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