



Actuarial Valuation Report as at 31 March 2022

Nirex Section of the Combined Nuclear Pension
Plan

August 2023

Executive summary

Mark McClintock
Fellow of the Institute
and Faculty of Actuaries

Isio Total Reward and
Benefits Limited

August 2023

This report sets out the results of the actuarial valuation of the Nirex section ("the Section") of the Combined Nuclear Pension Plan ("the Plan") as at 31 March 2022.

Results summary			
31 March 2022 (£000's)	Technical Provisions	Solvency (estimated)	PPF (Section 179)
Assets	39,904	39,904	39,904
Liabilities	32,618	43,774	26,548
Surplus/(deficit)	7,286	(3,870)	13,356
Funding level	122%	91%	150%

The key risks for the Trustee of the Plan to monitor are:

- **Covenant risk:** A reduction in the strength of the covenant leads to an increased risk that the employer will not be able to make good any deficit that may emerge in the future or the risk that the Nuclear Decommissioning Authority ("the Lead Employer" or "the Employer") will not be able to pay the expenses associated with the day to day running of the Section. In the event that the financial strength of the Employer becomes weaker, the Trustee will need to consider whether the level of investment risk in the Section is appropriate for the reduced covenant strength, and the affordability of the contributions.
- **Investment risk:** The investment strategy has an exposure to higher risk growth assets. By taking additional investment risk, investors in growth assets expect to be compensated with higher longer-term returns than matching assets. In the shorter term, the price of growth assets is expected to be more volatile than matching assets. In the event of falling growth asset prices, this could lead to an emerging deficit that will need to be funded by the Employer.
- **Interest rate and inflation risk:** To the extent that there is a mismatching of the interest rate or inflation sensitivity of the assets and liabilities, either a surplus or deficit may arise when interest rates and inflationary expectations change.
- **Longevity risk:** There is a risk that members live longer than anticipated, and therefore the cost of providing the benefits is higher than expected.
- **Member selection risk:** There is a risk that member experience is not as expected e.g., members do not commute pension at retirement for an additional cash lump sum. The risk that a significant number of members may take a more valuable option than that assumed in the Technical Provisions.
- **Legislative risk:** There is a risk that new legislation or court rulings could change the benefits that must be paid to members and/or the way in which these benefits must be funded.

Actions being taken to mitigate these risks are:

- Regular reviews of the employer covenant.
- Triennial actuarial valuations and regular review of life expectancy in light of the most recently published CMI tables and a full mortality analysis was completed as part of the 31 March 2022 actuarial valuation.
- The Section does not hold assets to hedge longevity risk. To the extent that members live longer than expected, this could lead to an emerging deficit in future. The proposed assumptions include a deliberate margin for prudence to help protect against this risk. As Scheme Actuary I regularly keep the Trustee updated on developing trends in longevity.
- Regular reviews of investment performance and strategy including the level of growth assets and the level of hedging against movements in market conditions.
- Provision of annual funding updates from the Scheme Actuary plus any ad hoc funding updates as required.
- As Scheme Actuary, I keep the Trustee up to date on changes in legislation which may impact funding levels and the cost of benefits.

The Trustee is aware that the only way to remove all risks is to secure all the liabilities with an insurance company.

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Introduction

The aims of the valuation are:

- To calculate the Technical Provisions of the Section and to show the extent to which the Section's existing assets are sufficient to cover them as at the valuation date (the Statutory Funding Objective);
- To review the experience of the Section since the last actuarial valuation;
- To assess the solvency position of the Section;
- To calculate the value of the liabilities of the Section in relation to the Pension Protection Fund;
- To calculate the contribution rate that should be paid in respect of further accrual of benefits; and
- To provide information in order to determine a Recovery Plan, if applicable, for the funding of any disclosed deficit of the Section's Technical Provisions against its assets.

Valuation background

The financial and demographic assumptions used for the Technical Provisions have been agreed by the Trustee and the Lead Employer following actuarial advice from me. These assumptions are detailed in the Statement of Funding Principles. The Trustee should be familiar with the Code of Practice 03 – "Funding Defined Benefits" and other relevant material published by the Pensions Regulator.

Disclosures

I am the Scheme Actuary to the Scheme appointed in accordance with the requirements of Section 47 of the Pensions Act 1995.

This report, providing details of my actuarial valuation of the Section as at 31 March 2022, has been commissioned by and is addressed to the Trustee. Whilst other parties may be provided with the report, it should not be relied upon by any other person. Any person other than the Trustee who chooses to rely on this report does so at their own risk. To the fullest extent permitted by law, I, and Isio Total Reward and Benefits Limited accept no responsibility or liability to that party in connection with this report.

There is a statutory requirement under Part 3 of the Pensions Act 2004 for valuations to be carried out no less frequently than every three years.

The Trustee should make this report available to the Lead Employer within seven days of receipt.

Compliance with actuarial standards

This paper builds on:

- the Statement of Funding Principles and Schedule of Contributions each dated 19 May 2023.
- My advice on the:
 - Demographic assumptions in my paper for the Trustee meeting held on;
 - 6 April 2022
 - 13 July 2022; and
 - 12 October 2022
 - Financial assumptions in my papers for the Trustee meetings held on;
 - 12 October 2022
 - 8 December 2022; and
 - 15 February 2023
- The results papers provided for the Trustee meetings held on:
 - 12 October 2022
 - 8 December 2022
 - 15 February 2023; and
 - 26 April 2023

These papers, along with this report, constitute the actuarial work that I have provided on the actuarial valuation. The Technical Actuarial Standards TAS 100 and TAS 300 published by the Financial Reporting Council apply to the work on this actuarial valuation and I confirm that the work complies with these standards.

Employer covenant

Following the independent review of the covenant of the Lead Employer in reports prepared by Cardano Advisory dated March and June 2022, the Trustee have formed views on the strength of the Lead Employer.

The covenant advisor's conclusion was that on the basis of previous discussions with the NDA, it was reasonable for the Trustee to assume that the support provided by the NDA is "quasi-sovereign" despite there being no legal recourse to HM Government UK.

The Trustee should keep the covenant of the Lead Employer under review.

Valuation Process

Membership data

The quality of the valuation data determines the accuracy of the results and, as such, it is important that the information provided is of a suitable quality. I have relied upon the accuracy of the information provided by the administrators of the Section on behalf of the Trustee for this valuation.

Checks have been performed to assess the appropriateness of the data used, including reference to the audited accounts for the Plan year ending with the valuation date. I have no reason to doubt the accuracy of the data provided although I cannot confirm that the detailed information in respect of every member is correct in all respects. Consequently, I do not accept any liability in respect of my advice where I have relied on data which is incomplete or inaccurate.

The membership data, which has been supplied by the administrator, Barnett Waddingham, as administrators of the Section, is summarised in the Appendices, together with the data from the previous valuation.

Plan benefits

The benefits used in the valuation are those described in the Plan's Trust Deed and Rules.

On 26 October 2018, the High Court made a ruling in a case involving the Lloyds Banking Group that UK pension schemes will need to equalise benefits in respect of any member who accrued a Guaranteed Minimum Pension (GMP) after 17 May 1990. The judgment from the case confirms that members' benefits need to be equalised for the effects of unequal GMP benefits accrued after 17 May 1990 and provided some clarity regarding the methodologies which may be used.

To implement the judgment, it will be necessary to undertake a calculation (dependent on the method) of the benefits that a member of the opposite sex would receive, based on the same service and Pensionable Salary history. If that figure is higher, then the member would require an uplift to their benefits.

It is expected to take some time to undertake these detailed calculations to quantify the additional liability arising accurately. Therefore, I have made an approximate allowance for the impact of GMP equalisation in the Section's Technical Provisions, s179 (PPF) and solvency liabilities.

More detailed calculations in respect of equalising GMP benefits are expected to be carried out during the period to the next valuation as at 31 March 2025 and therefore I expect a more accurate allowance for the impact will be included as part of that valuation.

There is no current practice of awarding additional benefits on a discretionary basis, and accordingly this valuation makes no allowance for any such discretionary benefits in addition to benefits provided by the rules of the Plan.

Defined Contribution benefits

The Section has assets and liabilities in respect of Additional Voluntary Contributions have been excluded throughout this valuation.

Asset valuation

The value of the Section's assets has been taken from the audited accounts of the Plan for the year ending 31 March 2022. This is a market value and is compatible with the value of the liabilities calculated at the same date. The value of the assets used for this valuation is £39,904,000.

The current holdings are summarised in Appendix 1.

Whilst the longer term expected return from return generating assets exceed the assumed rates of return on which the Technical Provisions are based, their relative returns can be volatile in the shorter term and may consequently lead to short term volatility of the funding position of the Section. Subject to the potential short-term volatility, the investment policy is not inappropriate given the form and incidence of the Section's liabilities.

Valuing the Technical Provisions

The Technical Provisions are the value of the Section's future cash outflows. These cash flows comprise the pension and lump sum payments expected to fall due from the Section in respect of benefits already accrued to existing members.

Since these cash flows are in respect of pension payments to be made over many years into the future, they are long term and uncertain in nature. They are determined by the timing and level of benefits payable from the Section, but their exact values will depend on, amongst other factors, future rates of inflation, how long members will live, and when members choose to take their benefits.

Assumptions

The Trustee has taken advice from the Scheme Actuary with regard to the assumptions to be used to calculate the Technical Provisions.

The Trustee has also considered the employer covenant as well as the investment strategy of the Section. In doing so, the Trustee has considered the ability of the employer to be able to support the Section in the event of unfavourable future experience, and the risks associated with the investment strategy.

The assumptions are set out in the Appendices.

Funding method

As specified in the Trustee's Statement of Funding Principles (which is included in the Appendices), the funding method used to calculate the Section's position relative to the funding target is the Projected Unit Method. The choice of funding method is restricted by legislation.

Deficits or surpluses can be expected to emerge at future valuations if future experience is different from the assumptions underlying this valuation. Depending on the magnitude of any such future deficit, it may be necessary to adjust the Employer's contribution rates.

Assumptions

I have used the assumptions set out in the Statement of Funding Principles to calculate the Section's Technical Provisions. A copy of the Statement of Funding Principles is given in the Appendices. I consider the assumptions used to be appropriate for calculating the Technical Provisions.

Financial assumptions

The main financial assumptions adopted for this valuation and the previous valuation are shown in the table below:

Key Assumptions (% p.a.) – Technical Provisions		
Year	31 March 2019	31 March 2022
Discount Rates		
Pre-retirement	2.40%	4.90%
Post-retirement	2.40%	2.90%
Inflation and pension increases:		
RPI	3.30% p.a.	3.70% p.a.
CPI	2.30% p.a.	3.00% p.a.
Pension increases	3.30% p.a.	3.70% p.a.
Deferred revaluation	2.30% p.a.	3.00% p.a.

Results

The results of the valuation of the Technical Provisions are set out in the table below. These results reflect the status of the Section on an ongoing basis.

Results (£000's):	Technical Provisions
Past Service:	
Active liabilities	0
Deferred liabilities	9,664
Pensioner liabilities	22,954
Expenses	0
Total liabilities	32,618
Assets	39,904
Surplus/(Deficit)	7,286
Funding level	122%

My certification of the calculation of the Technical Provisions is given in the Appendices. It should be noted that the Technical Provisions of the Section are not the same as the cost of securing benefits should the Section be wound up. This information is given in the "Estimate of Solvency" section of this report.

Future estimate of Technical Provisions

I am required to state how the Technical Provisions funding position given above is projected to change by the next valuation. I estimate that the funding level of the Section will improve over the three years from 31 March 2022. At the time of the next statutory actuarial valuation, I estimate that the assets will be sufficient to cover approximately 123% of the liabilities as valued on the current Technical Provisions basis.

In making these statements, I have assumed that market conditions remain stable, liability experience is in line with that expected (i.e. follows the assumptions underlying the Technical Provisions), and performance of the assets is in line with the assumptions underlying the Statement of Funding Principles and with asset outperformance of 0.25% p.a. above the discount rate. No allowance has been made for known experience since the valuation date. In practice it is likely that the actual funding level will vary materially in the period to the next valuation. In particular, the potential short-term volatility of the Section's assets can lead to significant variation in the funding level.

Sensitivities

Sensitivity analysis

It is likely, especially in the short term, that the assumptions will not be borne out in practice. Therefore, it is important to consider the potential impact of actual experience being different from that assumed.

It should be noted that the relative difference between assumptions is more important than the absolute value of each. In particular, the valuation results are sensitive to differences between:

- discount rate and rate of revaluation of accrued benefits; and
- discount rate and rates of increases to pensions in payment.

The assumption for life expectancy is another key assumption for valuing the liabilities. The mortality tables used allow for recent pension scheme experience and improvements.

In the following table, I have shown the sensitivity of the Technical Provisions results to changes in the valuation assumptions. These show the impact on solely the liabilities. All figures are in comparison with the Technical Provisions results previously shown.

It should be noted that a change in bond and gilt yields will affect both the calculation of the Technical Provisions and the market value of the portion of the Section's assets invested in bonds and gilts.

Assumption changed	Change in Technical Provisions (£000's)	Surplus / (Deficit)
Pre-retirement discount rate decreases by 0.5%	164	7,122
Post retirement discount rate decreases by 0.5%	2,397	4,889
Discount rate decreases by 0.5%	2,576	4,710
RPI rate increases by 0.5%	2,104	5,182
Mortality – 10% decrease in the scaling factor	1,145	6,141
Mortality – increase in the long-term rate by 0.25%	272	7,014

Note:

Change in RPI inflation assumption includes the effect on CPI, and pension increases assumptions.

Review of past experience

Previous valuation

I carried out the last actuarial valuation of the Section as at 31 March 2019 and the results were published in a report dated 4 November 2020. That valuation showed a funding level of 97% of the Section's Technical Provisions, and a deficit of £995,000.

The Trustee and the Lead Employer agreed an additional annual contribution of £556,000 per annum, payable monthly, being paid to the Nirex Section of the CNPP by the Employer from 31 March 2019 to 31 March 2021. Expenses and PPF levies would be payable directly by the Employer.

Contributions paid

Since the last valuation, contributions have been paid by the Employer at the previously agreed amounts set out in the Schedules of Contributions certified on 27 August 2020 and the previous one certified on 30 May 2017.

Developments since the previous valuation

Changes in benefits since the last valuation

There have been no fundamental changes to the benefits since the previous actuarial valuation.

RPI Reform

The potential reform of the RPI measure of inflation has been an ongoing topic. On 25 November 2020 the Chancellor confirmed that there would be no change before February 2030. At that point the UK Statistics Authority is able to change the methodology and the current expectation is that the methodology will be aligned with that underlying the CPI measure, with an allowance for housing costs, CPIH. Whilst not changing the benefits, there is an impact on the methodology for setting inflation assumptions after 2030.

Guaranteed Minimum Pension ('GMP') equalisation

As discussed in an earlier section, the Trustee will undertake a detailed member by member exercise to adjust benefits due to GMP equalisation. For the purpose of this valuation, I have estimated the additional liabilities which may arise as a consequence of GMP equalisation to be a small proportion of the Section's liabilities (i.e., less than 1%).

New legislation

Since the last valuation, there have been no major changes to the Pensions Act 2004 funding regime. The Department of Work & Pensions ('DWP') launched a consultation on the Funding and Investment Regulations ending in Autumn 2022. We expect the Pensions Regulator ('TPR') to consult on its draft Funding Code.

From the consultation papers, at a point of reaching significant maturity, schemes will be expected to have a journey plan to reach full funding on a low-risk basis (set out in a written 'statement of strategy'). Assets should also be invested to follow a gradual de-risking approach towards a low risk and broadly cashflow matched strategy. In addition, the draft Regulations set out that appropriate recovery plans should recover funding deficits 'as the employer can reasonably afford'. This is a strengthening of The Pension Regulator's existing guidance.

Although not a requirement at this valuation, the Trustee should consider these matters at the next valuation.

Experience analysis

I have compared the results of the current valuation with the position at the previous valuation to analyse how the position has changed over the intervening period. The key sources of surplus and deficit over the period are detailed below.

	31 March 2022 (£'000s)
Surplus / (deficit) at 31 March 2019	(995)
Interest on the surplus / (deficit)	(19)
Investment returns above / (below) expected	4,023
Deficit contributions	1,112
Changes in market conditions	1,690
Changes to Statement of Funding Principles	(189)
Inflationary increases	580
Experience	1,084
Surplus / (deficit) at 31 March 2022	7,286

Investment returns

I estimate that, from the published figures in the Plan's annual reports, over the three years since the last valuation the Section's assets have achieved a rate of return of 6.0% p.a.

Estimate of solvency

At the valuation date, the estimated funding level of the Section on a solvency basis was 91%.

The Occupational Pension Schemes (Scheme Funding) Regulations require me to give my estimate of the solvency position of the Section as at the valuation date.

Assumptions for estimate of solvency

A solvency basis is not the same as the Technical Provisions basis. The Technical Provisions basis takes into account the investment strategy of the Section and the Trustee's view of the Lead Employer covenant. A solvency basis estimates the assumptions an insurance company may use to price the cost of providing the benefits on a fully guaranteed basis, in return for a one-off premium. This will take into account:

- The returns on the assets an insurer would typically hold to back these liabilities.
- The margins added by the insurer to take account of the risk, as the insurer takes on sole responsibility for all future benefit payments. There is no recourse for further premiums if experience is worse than expected.

My estimate of the solvency position of the Section has been made as my estimate of the buy-out cost in line with the Isio team's estimate of pricing in the buy-out market as at the valuation date.

The buy-out team keeps track of the buy-out market and the pricing bases used by the insurance companies and from the information supplied are able to provide estimated buy-out pricing assumptions.

It is important to note that the solvency estimate is only a guide. In particular, the buy-out market is volatile, both relative to interest rates and in the supply and demand for this type of business, and consequently no single estimate can be relied upon. Ultimately, the true solvency position can only be established by completing a buy-out.

Estimated solvency position

The results are as follows:

Results (£000's)	31 March 2019	31 March 2022
Total liabilities	54,080	43,774
Assets	36,871	39,904
Surplus/(Deficit)	(17,209)	(3,870)
Funding level	68%	91%

If the Section is wound up, the Section would have insufficient assets to secure the benefits in full without additional funding from the Employer. If the Employer is not able to make those payments and becomes insolvent, the Section may be eligible for compensation from the PPF, if the Section's assets could not secure at least the PPF level of compensation from an insurer.

Future solvency estimate

I estimate that the solvency position of the Section will improve over three years from 31 March 2022 to a funding level of 97%.

In making this statement, I have assumed that market conditions remain stable and liability experience is in line with that expected (i.e., follows the assumptions underlying the solvency estimate). I have also assumed that the performance of the assets is in line with the assumptions underlying the Statement of Funding Principles and with asset outperformance of 0.25% p.a. above the discount rate.

No allowance has been made for known experience since the valuation date.

In practice it is likely that the funding level and coverage of the different priority classes will vary materially in the period to the next valuation. In particular, the potential short-term volatility of the Section's funding position can lead to significant variation in the level of benefit coverage.

Pension Protection Fund

Background

The Pension Protection Fund (the "PPF") is a compensation scheme that aims to provide members of private sector defined benefit schemes with a specified minimum level of compensation for pension benefits when the sponsoring employer becomes insolvent. It is run by a statutory body. The compensation benefits are not guaranteed and the PPF is funded by levies payable by defined benefit schemes.

Currently, the PPF will pay a maximum of 100% of benefits for those over normal retirement age and 90% of the benefits of those under normal retirement age. Pensions in payment from the PPF only receive increases in line with Consumer Prices Index inflation (capped at 2.5% per annum) in respect of service after 5 April 1997, and no increases in payment are given for pensions in respect of service before 6 April 1997. Spouses' pensions are limited to 50% of the member's pension.

If the Employer becomes insolvent, the Section may become eligible to enter the PPF. One of the main requirements is that the Section's assets are less than the buyout of the benefits provided by the PPF.

Section 179 valuation

It is a requirement that a valuation for the purpose of determining the annual levy payable to the PPF (a Section 179 valuation) is carried out, at least every three years.

I have carried out such a valuation as at the valuation date, and the results have been input on the Pensions Regulator's Scheme Exchange system. A summary of the Section 179 valuation results is given below.

Results (£000's):	Section 179
Active liabilities	0
Deferred liabilities	7,462
Pensioner liabilities	18,572
Expenses	514
Total liabilities	26,548
Assets	39,904
Surplus/(Deficit)	13,356
Funding level	150%

Contributions

Standard contributions

The Nirex section is closed to future accrual and was in surplus on its technical provisions basis as at 31 March 2022, therefore, no contributions are required from the Employer.

Expenses

The Section's administrative expenses, including all levies, for example the PPF levy, will be met directly by the assets of the Section or by the Lead Employer, as determined by the Lead Employer. This includes investment management invoices raised directly by fund managers but excludes those met by a deduction from the Section's assets at source.

Schedule of Contributions

All contributions, including their effective dates, must be set out in a Schedule of Contributions, to be signed on behalf of the Trustee and the Lead Employer and certified by me. A copy of the schedule and my certificate is included in the Appendices.

The Trustee will revisit the position at the next actuarial valuation or before in the event of any material change in circumstances.

Appendices

Appendix 1

Membership summary and assets

Membership data at the valuation date is summarised below, along with membership data at the previous valuation date for comparison.

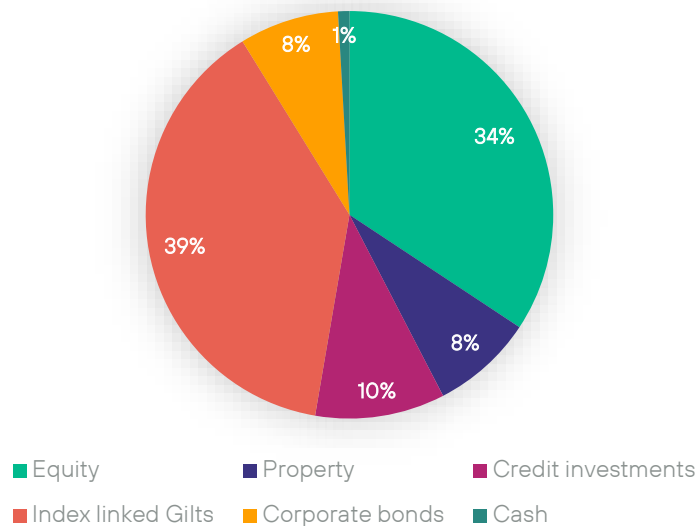
	Number (previous valuation in brackets)	Weighted average age*	Total Pensionable Earnings/pension (£'000s)**
Actives	0 (0)	0 (0)	0 (0)
Deferreds	53 (66)	56.3 (54.9)	165 (275)
Pensioners	99 (91)	69.2 (67.9)	1,056 (892)

*Weighted by liability

** Accrued pension at date of leaving for deferreds, current pension in payment for pensioners and dependants

Section Assets

The chart below shows the market value of the assets as at 31 March 2022. This figure has been taken as the audited value of the assets and excludes the value of members' AVCs Funds. The total is £39,904,000.



Appendix 2

Benefit summary

This report has been based upon benefits in the Trust Deed and Rules.

Except where stated in the report, no allowance has been made for any discretionary benefits or discretionary increases to benefits.

Appendix 3

Certificates and documentation

Certification of the calculation of the Technical Provisions

Statement of Funding Principles

Schedule of Contributions

Section 179 valuation

Certification of the calculation of the Technical Provisions

Name of Scheme: Nirex section of the Combined Nuclear Pension Plan

Calculation of Technical Provisions

I certify that, in my opinion, the calculation of the Section's Technical Provisions as at 31 March 2022 is made in accordance with regulations under Section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the Trustee of the Plan and set out in the Statement of Funding Principles dated 19 May 2023.

Signature

Date

20 May 2023

Name

Qualification

Mark McClintock

Fellow of the Institute and
Faculty of Actuaries

Address

Employer

Isio
Arthur House
31 Arthur Street
Belfast
BT14GB

Isio Total Reward and Benefits
Limited

Statement of Funding Principles

Statement of Funding Principles

As part of the actuarial valuation of the Nirex Section ("the Section") of the Combined Nuclear Pension Plan ("the Plan") as at 31 March 2022, the Trustee has reviewed their Statement of Funding Principles. The statement has been updated to reflect:

- The Trustee's assessment of the Lead Employer (Nuclear Decommissioning Authority) covenant;
- changes in financial market conditions; and
- recent demographic publications since the last actuarial valuation as at 31 March 2019.

This statement, dated 19 May 2023 | 14:17:46 BST, has been agreed by the Trustee of the Plan and the Lead Employer as required by section 223 of the Pensions Act 2004.

The actuarial valuation of the Plan as at 31 March 2022 will be carried out on the basis of these principles.

The Trustee took advice from the Scheme Actuary, Mark McClintock FIA, before drafting this statement.

The statutory funding objective

This statement sets out the Trustee's policy for ensuring that the Statutory Funding Objective is met.

The Trustee will carry out their obligations under the Pensions Act 2004 and this Statement of Funding Principles. They will hold discussions with the Lead Employer to obtain agreement to this statement and any changes to it.

The assumptions selected will provide an appropriate margin for adverse deviation, taking into account any expected changes in the relevant risks, in particular the risks that, for whatever reasons, the Lead Employer may not be able to pay contributions or make good deficits on time. This may be related but not restricted to the following risks:

- the investments under-perform;
- the investments increase at a slower rate than assumed;
- inflation rates are higher than expected; and
- members live longer than anticipated.

Additional funding objectives

The Plan has no funding objectives other than the Statutory Funding Objective described above.

Method and assumptions used to calculate the Technical Provisions

The Section's Technical Provisions will be calculated using the actuarial method known as the Projected Unit Method.

The principal assumptions used to calculate the Technical Provisions will be determined using the methodologies outlined below. The financial assumptions have been derived from market rates at the valuation date (31 March 2022).

Financial Assumptions	Technical Provisions	
	Derivation	Assumption at 31 March 2022
Pre-retirement discount rate	Based on the yield available on fixed interest gilts with a similar duration to the Section's liabilities plus an allowance for the higher return that would be expected from growth assets after an allowance for prudence. The higher return on the growth assets will reflect the appropriate margin above the fixed interest gilts at the effective date of the calculation.	4.90% p.a.
Post-retirement discount rate	Based on the yield available on fixed interest gilts with a similar duration to the Section's liabilities with an allowance for the higher return that would be expected from the assets held to back the pensioner liabilities.	2.90% p.a.
Retail Prices Index (RPI) inflation	The assumed rate of RPI price inflation will be assessed by reference to the Bank of England's UK implied inflation spot curve data (using duration appropriate to the Section's liabilities). An adjustment could be considered to allow for a possible inflation risk premium, reflecting the high demand for index linked gilts distorting the Bank of England's market based calculation.	3.70% p.a. (being 0.3% p.a. below the Bank of England data at a 20 year duration, the deduction being to allow for inflation risk premium)
Consumer Prices Index (CPI) inflation	Assessed by the rate of RPI inflation less a deduction to take account of the differences in the method of calculation, goods covered in the indices and the historical rates of RPI and CPI inflation.	3.00% p.a. (being 0.70% p.a. below the RPI inflation assumption)
Increases to pensions in payment	An adjustment could be considered to the assumption for price inflation when looking at RPI inflation-linked pension increases.	3.70% p.a. (no reduction from assumed inflation rate)

Valuation Documents 31 March 2022
Nirex Section of the Combined Nuclear Pension Plan

Financial Assumptions	Technical Provisions	
	Derivation	Assumption at 31 March 2022
Revaluation of deferred pensions	An adjustment could be considered to the assumption for price inflation when looking at CPI inflation-linked revaluation.	3.00% p.a. (no reduction from assumed inflation rate)

Demographic Assumptions	Technical Provisions	
	Derivation	Assumption
Mortality	Standard published tables of mortality would be adopted that have been found appropriate for the Plan. These tables would be adjusted to allow for expected future improvements in longevity.	110% of SAPS S3 Pensioner tables CMI 2021 projections with a 1.5% p.a. long term rate of improvement (smoothing parameter of 7 and W_{2020} & W_{2021} both zero)
Ill health	Advice will be taken from the Scheme Actuary as to the appropriate ill health rates to adopt taking into account the experience from the Plan and the views of the Lead Employer.	See sample rates in Appendix: Table A
Retirement	Members are assumed to retire at their Normal Pension Age. No account has been taken of the possibility of members continuing to work after Normal Pension Age, but this may be reviewed in the future, taking account of the Plan's experience.	Age 60 or 65 as applicable to specific members
Age difference	Advice will be taken from the Scheme Actuary as to the appropriate age difference between spouses to adopt, taking into account experience of the Plan where plausible and the views of the Lead Employer.	Husband assumed to be 3 years older than wife
Proportion married	Advice will be taken from the Scheme Actuary as to the appropriate proportions married to adopt, taking into account the experience analysis of the Plan.	NDA Unisex rates See sample rates in Appendix: Table B
New entrants	The Section of the Plan is closed to defined benefit new entrants.	No allowance
Commutation	The assumption is based on recent experience.	Nil
GMP Equalisation	Allowance has been made for GMP equalisation	Calculated on a member-by-member basis
Expenses	Expenses are paid directly by the Lead Employer.	Paid directly by Lead Employer
PPF and other levies	Paid directly by the Lead Employer.	Paid directly by Lead Employer

Demographic Assumptions	Technical Provisions	
	Derivation	Assumption
Assets	Market value taken from audited accounts (excluding members' money purchase AVC).	Market value

Meeting the funding shortfall

The Trustee and the Lead Employer have agreed that any funding shortfall identified at an actuarial valuation should be eliminated by the payment of additional contributions. The level and period over which these additional contributions are to be paid will be agreed between the Trustee and the Lead Employer. In determining the actual recovery period at any particular valuation, the Trustee will take into account the following factors:

- the size of the funding shortfall;
- the Trustee's assessment of the financial covenant of the Lead Employer;
- the business plan of the Lead Employer;
- any contingent security offered by the Lead Employer; and
- the Rules of the Plan.

The assumptions to be used in these calculations will be those set out above for calculating the Technical Provisions except that they may also take account of the expected investment out-performance of Plan assets.

Other contributors

There are no agreements at present for anyone other than the Lead Employer to make contributions.

Policy on discretionary increases

No allowance has been included in the assumptions to pay discretionary benefits or increasing benefits that are not guaranteed under the Plan rules. The Lead Employer may direct the Trustee to increase benefits for individual members or all members.

The Trustee will not agree any benefit increase unless a specific payment is made to the Plan in respect of such an increase, or the Scheme Actuary advises that such increases can be met by any surplus.

Refund to the Lead Employer

The Trust Deed permits refund of surplus monies to any or all of the employers who participate in the Plan, but only on the winding up of the Plan as a whole and if then the assets exceed the cost of buying out the benefits of all the beneficiaries from an insurance company.

Policy on reducing cash equivalent transfer values (CETVs)

At each valuation, the Trustee will ask the Scheme Actuary to report on the extent to which assets are sufficient to provide CETVs for all members. If the assets are insufficient to provide 100% of benefits on that basis, so that payment of full CETVs would adversely affect the security of the remaining members' benefits, and the Lead Employer is unable or unwilling to provide additional funds, the Trustee will consider reducing CETVs as permitted under legislation.

If, at any other time, the Trustee is of the opinion that payment of CETVs at a previously agreed level could adversely affect the security of the remaining member's benefits, the Trustee will commission a report from the Scheme Actuary and will use the above criteria to decide whether, and to what extent, CETVs should be reduced.

Future actuarial valuations

The actuarial valuation under Part 3¹ is being carried out as at the effective date of 31 March 2022. All subsequent valuations will be due at three yearly intervals from this date. An actuarial report on the developments affecting the Section's funding level will be obtained as at each intermediate anniversary of that date.

The Trustee may call for a full actuarial valuation when, after considering the Scheme Actuary's advice, they are of the opinion that events have made it unsafe to continue to rely on the results of the previous valuation as the basis for future contributions. However, the Trustee will consult the Lead Employer before doing so.

Commissioning an additional valuation may not be necessary if agreement can be reached with the Lead Employer to revise the Schedule of Contributions in a way considered satisfactory by the Trustee and the Scheme Actuary.

¹ Part 3 of the Pensions Act 2004 covering Scheme funding.

This Statement of Funding Principles dated 19 May 2023 | 14:17:46 BST has been agreed by the Lead Employer and the Trustee of the Plan after obtaining advice from the Scheme Actuary.

Signed on behalf of the Lead Employer of the Plan

Signature

Name

Steve Hayton

Position

Head of Group Pensions, Nuclear Decommissioning Authority

Date

19 May 2023 | 11:17:38 BST

Signed on behalf of the Trustee of the Plan

Signature

Name

Allan whalley

Position

Director

Date

19 May 2023 | 14:17:46 BST

Appendix to the Statement of Funding Principles

- Sample rates

A. Ill health retirement

Ill health retirement decrements

Age	Male	Female
20	0.0000	0.0000
25	0.0001	0.0000
30	0.0001	0.0001
35	0.0003	0.0001
40	0.0005	0.0004
45	0.0011	0.0008
50	0.0023	0.0016
55	0.0045	0.0035

B. Proportions married

Age	% Male and Female
20	75
30	75
40	75
50	82
60	79
70	81
80	77
90	74

Schedule of Contributions

Schedule of Contributions

This Schedule of Contributions for the Nirex Section of the Combined Nuclear Pension Plan ("the Plan") has been prepared by the Trustee of the Plan, after obtaining the advice of Mark McClintock FIA, the Scheme Actuary. This Schedule of Contributions, put in place for the Scheme, supersedes the previous schedule dated 27 August 2020.

The contribution rates and payment dates have been agreed between the Trustee and the Nuclear Decommissioning Authority ("the Lead Employer"). The Trustee and the Lead Employer have signed this schedule.

Contributions to be paid to the Plan for the period from 1 April 2022 to 31 March 2027

The Nirex Section is closed to future accrual hence no contributions by members or by the Lead Employer in respect of future benefit accrual are required.

Contributions in respect of benefit augmentations

The Lead Employer will pay any contributions required to meet any benefit augmentations granted or benefit improvements as agreed with the Scheme Actuary.

Contributions in respect of administration expenses and other costs

Any costs, charges and expenses incurred by the Nirex Section of the Plan and levies payable to the Pension Protection Fund will be met directly by the assets of the Nirex Section or by the Lead Employer, as determined by the Lead Employer.

This Schedule of Contributions dated 19 May 2023 | 14:17:46 BST has been agreed by the Lead Employer and the Trustee of the Plan

Signed on behalf of the Lead Employer of the Plan

Signature

Name

Steve Hayton

Position

Head of Group Pensions, Nuclear Decommissioning Authority

Date

19 May 2023 | 11:17:38 BST

Signed on behalf of the Trustee of the Plan

Signature

Name

Allan whalley

Position

Director

Date

19 May 2023 | 14:17:46 BST

Actuary’s certification of Schedule of Contributions

Name of Plan: Nirex Section of the Combined Nuclear Pension Plan

Adequacy of rates of contributions

- 1. I certify that, in my opinion, the rates of contributions shown in this Schedule of Contributions are such that the statutory funding objective can be expected to be met on 31 March 2022 and continue to be met for the period for which the schedule is to be in force.

Adherence to statement of funding principles

- 2. I hereby certify that, in my opinion, this schedule of contributions is consistent with the Statement of Funding Principles dated 19 May 2023 | 14:17:46 BST

The certification of the adequacy of the rates of contributions for the purpose of ensuring that the statutory funding objective can be expected to be met is not a certification of their adequacy for the purpose of securing the Plan’s liabilities by the purchase of annuities, if the Nirex Section of the Combined Nuclear Pension Plan were to be wound up.

Signature		Date	
		20 May 2023 22:40:25 BST	
Name	Mark McClintock	Qualification	Fellow of the Institute and Faculty of Actuaries
Address	Deloitte Total Reward and Benefits Limited 1 New Street Square London EC4A 3HQ		

S179 valuation

Valuation details (all monetary amounts to be in pounds, not thousands or millions)	
	£
Total assets	39,904,000
Date of relevant accounts	31 March 2022
Total protected liabilities	26,547,932
Liabilities for active members, excluding expenses	0
Liabilities for all deferred pensioners, excluding expenses	7,462,492
Liabilities for pensioners, excluding expenses	18,571,868
Estimated costs of winding up (excluding the estimated expenses of benefit installation/payment)	405,172
Estimated expenses of benefit installation/payment	108,400
External Liabilities	-
Insurance	
Non-accounts insurance assets	-
Insurance matched active liabilities	-
Insurance matched deferred liabilities	-
Insurance matched pensioner liabilities	-
Proportion of active liabilities excluding expenses figure entered which relates to service:	
Pre 6 April 1997	0%
6 April 1997 – 5 April 2009 (inclusive)	0%
Post 5 April 2009	0%
Proportion of deferred pensioner liabilities excluding expenses figure entered which relates to service:	
Pre 6 April 1997	51%
6 April 1997 – 5 April 2009 (inclusive)	49%
Post 5 April 2009	0%
Proportion of pensioner liabilities excluding expenses figure entered which relates to service:	
Pre 6 April 1997	58%
Post 5 April 1997	42%

Membership and average ages		
	Number of members	Average age
Active members	0	0
Deferred members	53	55
Pensioner members	99	69

**31 March
2022**

Version number of section 179 guidance used for this valuation

G9

Version number of section 179 assumptions used for this valuation

A10

Appendix 4

Glossary of terms

Term	Explanation
Best-estimate	A value placed on a liability with the expectation that this value is in the middle of the possible range of such values.
Contingent asset	An asset which could be made available to a scheme under certain circumstances e.g., if a company defaults on a contribution payment. These can be used as security if a deficit is not to be repaid immediately.
Defined Benefit (DB)	A scheme where the rules determine the benefits a member will receive, typically related to number of years' service and pensionable pay.
Defined Contribution (DC)	A scheme where the value of a member's individual pension pot at retirement and market conditions at retirement determine the amount of pension a member receives.
Discount rate	The assumed interest rate used to find the present value of payments to be paid or received in the future.
Company covenant	The ability and willingness of the company to make contributions to a scheme as required to pay for benefits.
Guaranteed Minimum Pension (GMP)	The minimum amount that a member of an occupational scheme contracted-out of the second State pension will receive in respect of their service prior to 6 April 1997.
Inflation	Retail Price Index (RPI) and Consumer Price Index (CPI) are referred to separately in this report since, typically, both inflation measures are relevant to benefit calculations.
Pension Protection Fund (PPF)	A compensation scheme that provides members of qualifying private sector defined benefit schemes with a specified minimum level of compensation when a sponsoring employer becomes insolvent.
Prudence	The margin above a best-estimate value made in an assumption, or placed on a liability, so as to allow a better than equal chance of the assumed outcome being achieved.
Recovery Plan	Specifies how any deficit will be eliminated and the time period over which this will happen.
Schedule of Contributions (SoC)	Specifies the contributions to be paid by the Employer and members.
Statement of Funding Principles (SFP)	Specifies how the SFO will be met including the assumptions for calculating the Technical Provisions and how the Recovery Plan is formulated.
Statutory Funding Objective (SFO)	Defined in section 222 of the Pensions Act 2004. Every scheme must have sufficient and appropriate assets to cover their Technical Provisions, or a Recovery Plan in place to reach this objective.
Technical Provisions	Assets required to make provision for the accrued benefits when they fall due.
The Pensions Regulator (TPR)	Regulatory body for work-based pension schemes in the UK.
Transfer Value	Amount a scheme may pay a member when they have left service for the member to put in an alternative pension arrangement of their choosing.

