Industry & Local 338 Pension Plan

Actuarial Update

October 20, 2023

Mary Ann Dunleavy, ASA
Peter Bernstein, FSA

Today’s Discussion

- **2023 PPA Zone Status Certification**
- **Updated Funding Projections**
- **2022 – 2023 Plan Year Timeline**
- **Appendix**
  - Contribution Rate Summaries
  - Early Retirement Provisions
  - Plan Historical Risk Measures
  - Data, Assumptions, Methods and Plan Provisions
  - PPA Zone Certification Statuses
  - Actuarial Certification

2023 PPA Zone Status Certification

2023 PPA Certification

- **The Plan was certified as in the "Green Zone" for the July 1, 2023 – June 30, 2024 Plan Year on September 28, 2023**
  - Projected Funded % at 7/1/2023 = 96.7%
    - Uses Actuarial Value of Assets
  - No projected funding deficiency in the projection period
- **Basis of the certification:**
  - Preliminary market value of assets based on 9.84% return for the plan year ending June 30, 2023 provided by SEI, then earning 7.25% in all future years
  - Projected liabilities based on results of the July 1, 2022 actuarial valuation, including a 7.25% interest rate
  - Projected Contributions
    - Only contribution rate increases already included in CBAs as of the certification date are recognized
    - Reflects 9,600 weeks in all future years, based on input from the Trustees at the June 28, 2023 Board Meeting

Updated Funding Projections

Projection Assumptions and Methods

- **Unless otherwise stated, the projection assumptions, methods, data and plan provisions used are the same as those used for the July 1, 2022 actuarial valuation.**
  - No future expected gains or losses other than those attributable to investment returns, as applicable.
  - Plan amendment effective July 1, 2022 is reflected.
- **Investment Earnings**
  - 9.84% return on assets for the plan year ending June 30, 2023
  - 7.25% per year, net of investment-related expenses, thereafter unless otherwise noted
- **Operating Expenses**
  - $375,000 for the plan year beginning July 1, 2022, increasing 2.5% per year
- **Work Levels**
  - Plan year beginning July 1, 2023 – 9,600 total weeks, unless otherwise noted
- **Contribution Rates**
  - Included in Collective Bargaining Agreements as bargained
  - All contributions rate increases are benefit-bearing

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Projection Assumptions and Methods (cont.)

- **Contracts**
  - 85% of hours worked under contracts beginning that are expected to renew in PYB 2023
    - HP Hood, expiration September 30, 2023
    - FrieslandCampina, expiration December 31, 2023
    - Montefiore New Rochelle, expiration November 5, 2023
    - Paraco, expiration January 31, 2024
  - 15% of hours worked under contracts beginning that are expected to renew in PYB 2025
    - LP Transport, expires August 15, 2025
    - Westchester Local 860, expires September 30, 2025

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Projection Roadmap

Scenario	Investment Return PYB 2022 / PYB 2023/ PYB 2024+	Weeks Worked PYB 2022+	Funded % / Credit Bal ($M) PYB 2023	Future Zone Status Changes	100% Funded PYB	% Funded 7/1/2041	Credit Balance ($M) 6/30/2042
1 July 1, 2022 Valuation	7.25% / 7.25% thereafter	9,600	96% / $8	**Green**	2034	118%	$21
2 July 1, 2023 Certification	9.84% 2022 / 7.25% thereafter	9,600	96% / $8	**Green**	2032	127%	$30
3 YTD ROA PYB 2022 Lower Hours	9.84% 2022 / 7.25% thereafter	9,150 (5% lower)	96% / $8	**Green**	2033	122%	$25
4 ROA PYB 2023 That Results in Non-Green 2024	9.84% 2022 / -9.50% 2023 / 7.25% thereafter	9,600	96% / $8	**Proj Red 2024 Red 2030**	N/A	70%	($24)
5 3.25% Per Year Contribution Increases	9.84% 2022 / -9.50% 2023 / 7.25% thereafter	9,600	96% / $8	**Yellow 2027 Red 2033**	N/A	95%	$1

Notes:

- All scenarios include the removal of the service cap effective July 1, 2022
- Scenario 5 Contribution Increases begin 7/1/2024

Scenario 1: July 1, 2022 Valuation

7.25% Return PYB 2022+ | 9.6 Thousand Weeks Worked beginning PYB 2022

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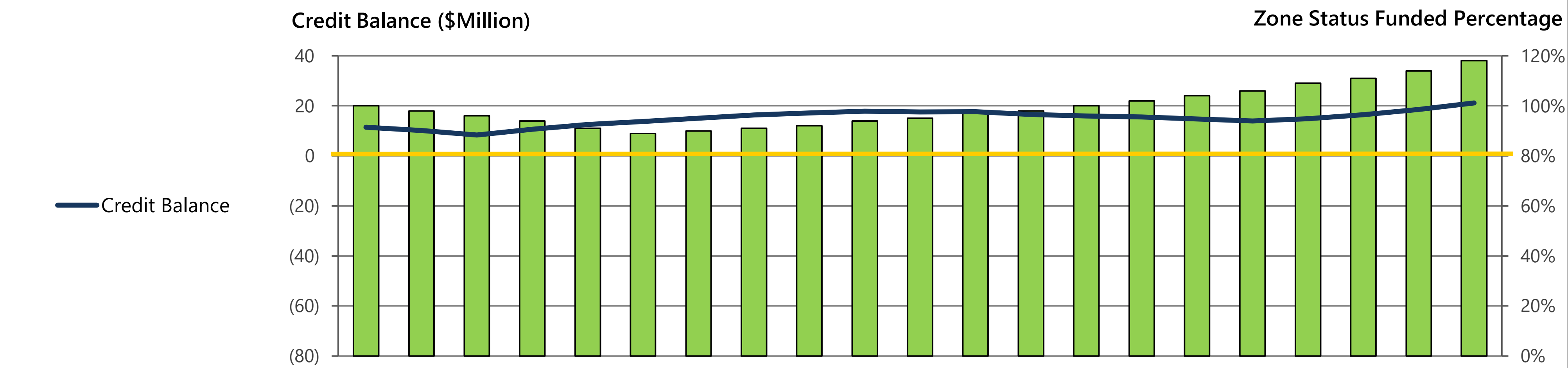
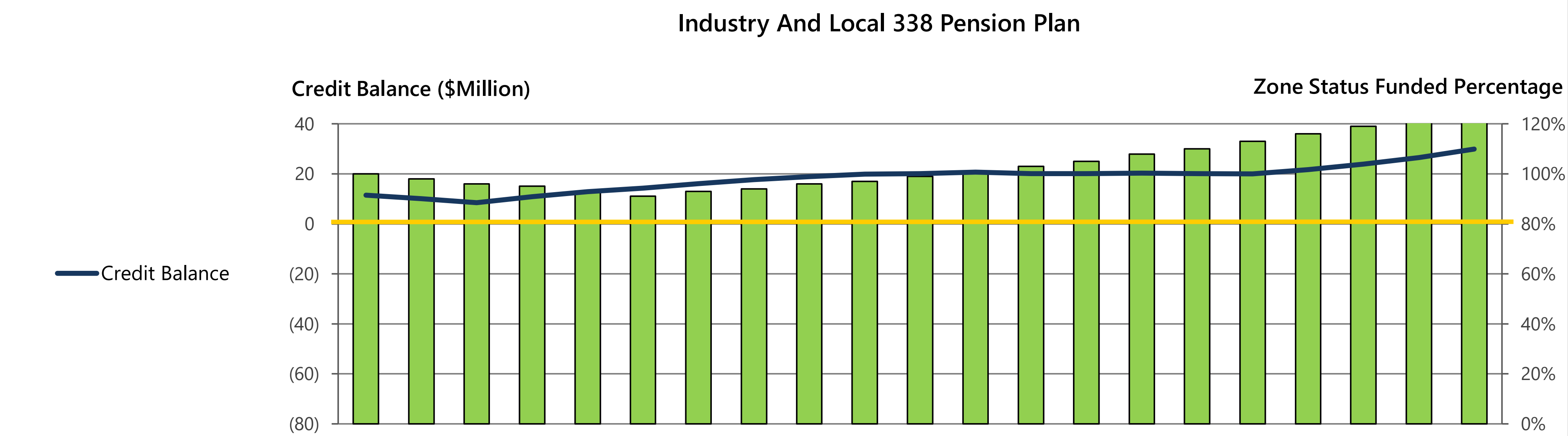


Plan Year Beginning 7/1	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
(1) Investment Return (%)	(8.72)	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	10.1	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
(3) Weekly Contribution Rate ($)	324	330	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333
(4) Contributions+EWL Payments($M)	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
(5) Actuarial Value of Assets ($M)	107	106	103	100	97	94	94	95	95	95	96	96	97	98	98	99	100	101	102	104	105
(6) Zone Status Liability ($M)	107	107	107	106	106	105	104	103	102	101	100	99	98	97	96	95	94	92	91	90	89
(7) Credit Balance ($M)	11	10	8	11	13	14	15	16	17	18	18	18	17	16	16	15	14	15	16	19	21
(8) Zone Status Funded Percentage	100%	98%	96%	94%	91%	89%	90%	91%	92%	94%	95%	97%	98%	100%	102%	104%	106%	109%	111%	114%	118%

Scenario 2: July 1, 2023 PPA Certification

9.84% Return PYB 2022; 7.25% Return PYB 2023+ | 9.6 Thousand Weeks Worked beginning PYB 2022



Plan Year Beginning 7/1	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
(1) Investment Return (%)	(8.72)	$\boxed{9.84}$	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	10.1	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
(3) Weekly Contribution Rate ($)	324	330	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333
(4) Contributions+EWL Payments($M)	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
(5) Actuarial Value of Assets ($M)	107	106	103	101	99	97	98	98	99	99	100	101	102	103	104	105	106	108	109	111	113
(6) Zone Status Liability ($M)	107	107	107	106	106	105	104	103	102	101	100	99	98	97	96	95	94	93	91	90	89
(7) Credit Balance ($M)	11	10	8	11	13	14	16	18	19	20	20	21	20	20	20	20	20	22	24	27	30
(8) Zone Status Funded Percentage	100%	98%	96%	95%	93%	91%	93%	94%	96%	97%	99%	101%	103%	105%	108%	110%	113%	116%	119%	123%	127%

Scenario 3: PYB 2022 YTD Return & Low Weeks Worked

9.84% Return PYB 2022; 7.25% Return PYB 2023+ | 9.15 Thousand Weeks Worked beginning PYB 2022

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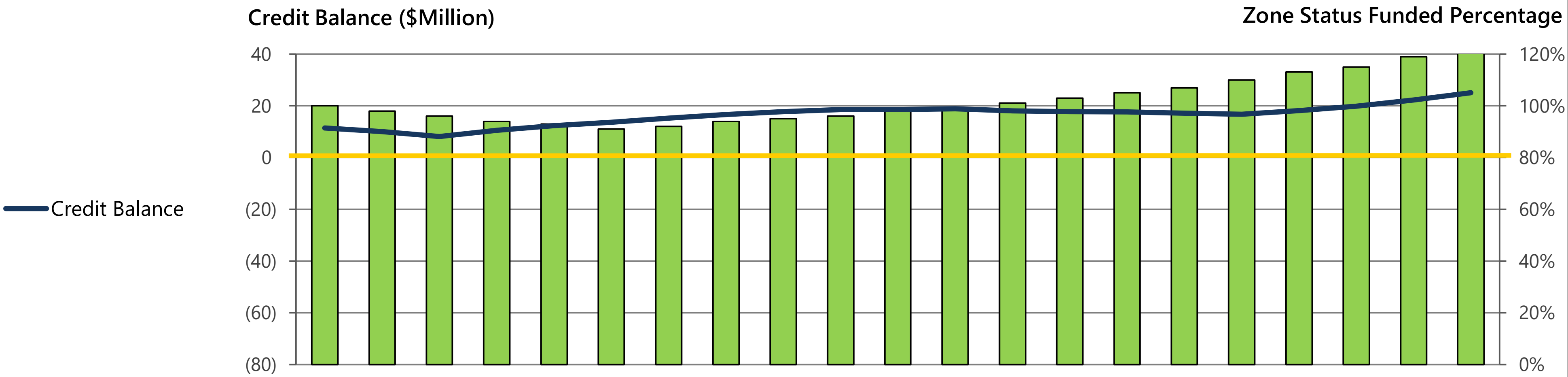

Plan Year Beginning 7/1	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
(1) Investment Return (%)	(8.72)	9.84	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	10.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
(3) Weekly Contribution Rate ($)	324	330	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333
(4) Contributions+EWL Payments($M)	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
(5) Actuarial Value of Assets ($M)	107	106	103	101	98	96	97	97	97	98	98	99	99	100	101	101	102	103	105	106	107
(6) Zone Status Liability ($M)	107	107	107	106	106	105	104	103	102	101	100	99	98	96	95	94	93	91	90	89	88
(7) Credit Balance ($M)	11	10	8	10	12	14	15	17	18	19	18	19	18	18	18	17	17	18	20	22	25
(8) Zone Status Funded Percentage	100%	98%	96%	94%	93%	91%	92%	94%	95%	96%	98%	99%	101%	103%	105%	107%	110%	113%	115%	119%	122%

Scenario 4: Low 2023 ROA That Results in Non-Green 2024

-9.50% Return in PYB 2023; 7.25% Return PYB 2024+ | 9.6 Thousand Weeks Worked beginning PYB 2022

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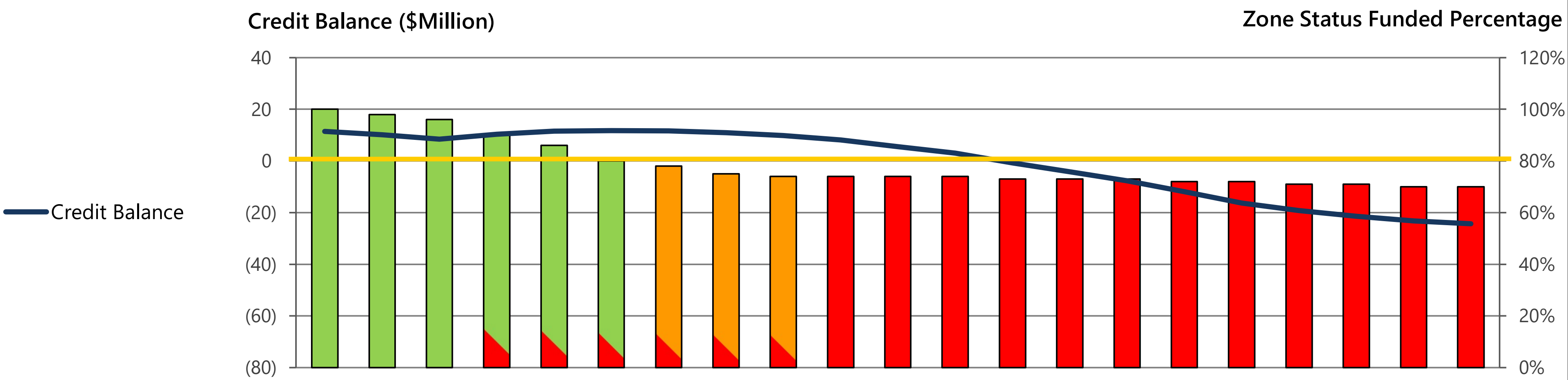
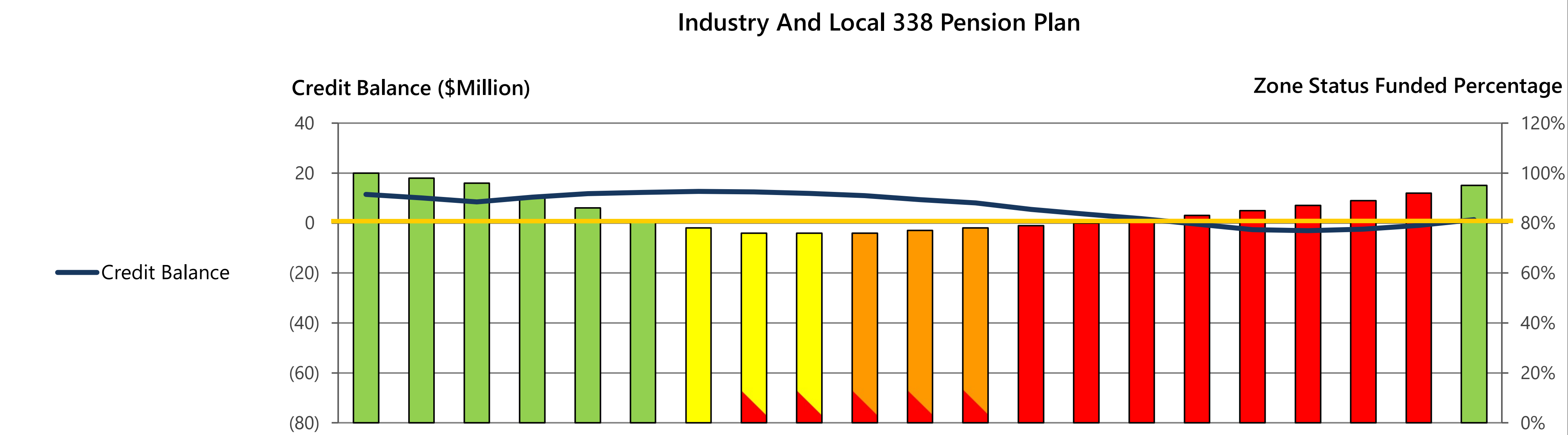


Plan Year Beginning 7/1	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
(1) Investment Return (%)	(8.72)	9.84	(9.50)	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	10.1	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
(3) Weekly Contribution Rate ($)	324	330	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333
(4) Contributions+EWL Payments($M)	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
(5) Actuarial Value of Assets ($M)	107	106	103	97	92	85	82	78	77	76	75	74	73	71	70	69	68	67	65	64	63
(6) Zone Status Liability ($M)	107	107	107	106	106	105	104	103	102	101	100	99	98	97	96	95	94	93	91	90	89
(7) Credit Balance ($M)	11	10	8	10	12	12	12	11	10	8	6	3	(1)	(4)	(8)	(12)	(16)	(19)	(21)	(23)	(24)
(8) Zone Status Funded Percentage	100%	98%	96%	90%	86%	80%	78%	75%	74%	74%	74%	74%	73%	73%	73%	72%	72%	71%	71%	70%	70%

Scenario 5: 3.5% Per Year Contribution Increases

-9.50% Return in PYB 2023; 7.25% Return PYB 2023+ | 9.6 Thousand Weeks Worked beginning PYB 2022

3.5% per year increase in Contribution Rate beginning 7/1/2024



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(1) Investment Return (%)	(8.72)	9.84	(9.50)	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	10.1	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
(3) Weekly Contribution Rate ($)	324	330	333	345	357	370	382	396	410	424	439	454	470	487	504	521	539	558	578	598	619
(4) Contributions+EWL Payments($M)	3.3	3.2	3.2	3.3	3.4	3.5	3.7	3.8	3.9	4.1	4.2	4.4	4.5	4.7	4.8	5.0	5.2	5.4	5.5	5.7	5.9
(5) Actuarial Value of Assets ($M)	107	106	103	97	92	85	82	79	79	79	79	79	80	80	81	83	84	86	88	91	94
(6) Zone Status Liability ($M)	107	107	107	106	106	105	104	104	103	102	101	101	100	100	99	99	99	98	98	99	99
(7) Credit Balance ($M)	11	10	8	10	12	12	13	12	12	11	9	8	6	4	2	(0)	(3)	(3)	(2)	(1)	1
(8) Zone Status Funded Percentage	100%	98%	96%	90%	86%	81%	78%	76%	76%	76%	77%	78%	79%	80%	81%	83%	85%	87%	89%	92%	95%

Observations

- **The Plan remains sensitive to both investment return and contributions**
  - A further decrease in hours as demonstrated in Scenario 3 will remove some of the Plan's ability to handle investment volatility
  - Scenario 4 demonstrates how the Plan may encounter zone status issues in the future
    - Absent investment returns above those assumed, an increase in contributions of 3.5% annually would be required to recover from such a one-time investment loss, as demonstrated in Scenario 5
- **Long term funding improvement is compromised if investment returns are less than assumed or if contributions levels fall**
  - Investment returns for the current plan year are below the assumed rate of return
  - We continue to monitor movements in the outlook for future investment returns reported by investment professionals

2023 – 2024 Plan Year Timeline - PPA

Event	Deadline / Information	Latest Date
Actuarial Certification	90 days into plan year	9/28/2023 Complete
Notice of Critical Status (if applicable)	30 days after actuarial certification	N/A
Develop Funding Improvement Plan (FIP) or Rehabilitation Plan (RP) (if applicable)	Due 240 days after certification of endangered (FIP) or critical status (RP)	N/A
Funding Improvement or Rehabilitation Period (if applicable)	After expiration of contracts covering at least 75% of active participants, not later than first of plan year following second anniversary of adoption of FIP or RP	N/A

2023 – 2024 Plan Year – Other Actuarial Information

Event	Deadline / Information	Latest Date
Annual Funding Notice	120 days after the end of the plan year	10/28/2023
Schedule MB (Form 5500)	Last day of the 7th month following the end of the Plan Year (2½ month extension available)	1/31/2024 (w/o ext) 4/15/2024 (with ext)
ERISA 104(d) Notice	30 days after due date Form 5500 filing	3/1/2024 (w/o ext) 5/15/2024 (with ext)
PBGC Premium Filing	15th day of the 10th full calendar month in the Plan Year	4/15/2024
Actuarial Valuation		In process
Review of Actuarial Assumptions	In conjunction with the actuarial valuation	N/A

Appendix

Contribution Rate Summary

Employer	Contract Expiration Date	As of 7/1/2020 Active Count (Valn Data)	As of 7/1/2020 Total Wkly Contrib Rate	As of 7/1/2021 Active Count (Valn Data)	As of 7/1/2021 Total Wkly Contrib Rate	As of 7/1/2022 Active Count (Valn Data)	As of 7/1/2022 Total Wkly Contrib Rate
HP Hood / Crowley	9/30/2023	91	342.58	94	342.58	89	345.38
Freisland Campina	12/31/2023	62	261.33	65	281.24	58	290.00
LP Transport	8/15/2025	29	331.51	27	340.53	28	349.82
Montefiore New Rochelle	11/5/2023	13	290.21	13	311.41	14	333.99
Paraco Gas	1/31/2024	8	283.75	7	292.51	6	305.40
Westchester L860	9/30/2025	1	243.28	1	243.28	1	305.14
Total		204		207		196	

Notes

1) All contributions are benefit-bearing, effective beginning July 1, 2016.
2) Contribution rates shown above are as reported by Plan Administrator.

Plan Historical Risk Measures

- **The Plan is mature**
  - High negative net cash flow
  - High number of inactive participants supported by each active participant

Historical Plan Measures

Plan Year Ended June 30	Net Cash Flow % Market Value	# Active	Inactive to Active Ratio	Total Liability per Active	Unfunded per Active	Contributions Incl Wdl Liab	Contrib per Active
2022	-5.0%	196	6.5	$ 547,453	$ 75,075	$ 3,306,650	$ 16,871
2021	-5.9%	207	6.3	515,419	-	3,432,621	16,583
2020	-2.9%	204	6.9	520,003	78,095	5,839,691	28,626
2019	-5.3%	226	6.3	468,149	64,821	3,721,091	16,465
2018	-5.7%	238	5.9	430,222	45,228	3,435,385	14,434
2017	-6.1%	238	3.9	476,419	98,968	3,448,566	14,490
2016	-5.6%	243	3.9	456,389	110,458	3,152,597	12,974
2015	-5.1%	265	3.6	413,283	72,394	3,282,076	12,385
2014	-5.1%	306	2.7	349,703	48,774	3,372,931	11,023
2013	-5.5%	326	2.7	314,414	58,630	3,043,650	9,336
10-Year Average	-5.2%	245	4.8	449,146	65,244	3,603,516	

Early Retirement changes made by the Rehab Plan

Plan Provision	Description of Plan Provision
Service Pension	Eligibility: 20, 25, 30 or 35 pension credits Amount of Benefit: At the Service Pension Commencement Date, a Participant will be entitled to receive a monthly benefit equal to his Normal Retirement Benefit actuarially reduced for early commencement. *If the participant retired before January 1, 2018*, the Service Pension is determined under the Plan rules in effect at that time. 20 Year Service Pension = 50% of the Regular Pension 25 Year Service Pension = 90% of the Regular Pension 30 Year Service Pension = 95% of the Regular Pension 35 Year Service Pension = 100% of the Regular Pension
Early Pension	Eligibility: An Employee is eligible for an Early Pension if the Employee has attained age 55 and has earned 15 pension credits. Amount of Benefit: Upon the Early Retirement Date, a Participant will be entitled to receive a monthly benefit equal to his Normal Retirement Benefit actuarially reduced for early commencement. *If the participant retired before January 1, 2018*, the Early Pension is determined under the Plan rules in effect at that time. Normal Retirement Benefit earned reduced by: 2% for each year of age less than 65 to age 55 for benefits accrued before July 1, 2010. 6% for each year of age less than 65 to age 55 for benefits accrued on or after July 1, 2010.

Data, Assumptions, Methods and Plan Provisions

- **Please see our January 27, 2023 and June 28, 2023 presentations**

PPA Certification Zone Statuses

Critical	**Critical and Declining (NEW)**
In general, a projected funding deficiency in the next 4 or 5 years (other factors may apply)	*In critical status, and projected to go insolvent within the 20 years (15 years in some cases)*
Endangered	**Seriously Endangered**
Under 80% funded or a projected funding deficiency in the next 7 years	*Under 80% funded and a projected funding deficiency in the next 7 years*

"Green Zone"

(none of the above)

- **Special rules, effective 12/31/2014:**
  - A plan newly in endangered status that would require no corrective action under a funding improvement plan is considered in the "Green Zone".
  - A plan projected to enter Critical Status in the next 5 plan years may elect to be in Critical Status immediately.

Actuarial Certification

We have prepared this actuarial report for use by the Industry & Local 338 Pension Plan (the "Plan"). This report has been prepared solely for the benefit of the Plan, and it is not complete without the accompanying discussion with a representative of Horizon Actuarial Services, LLC. This report should not be distributed to others not affiliated with the Plan or relied upon by any other person without prior written consent from Horizon Actuarial Services, LLC.

In preparing this report, we have relied on all the information and data provided by the Plan, including plan provisions and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have reviewed the data for reasonableness to the extent that we believe appropriate based on the purpose for which it has been used.

The analysis summarized in this report involves actuarial calculations that require assumptions about future events. These calculations are performed using actuarial models, the intended purpose of which is the estimation and projection of the Plan's liabilities, assets, zone status, and other related information summarized herein. We believe that the assumptions and methods used in this report are reasonable individually and in the aggregate, and are appropriate for the purposes for which they have been used. However, other assumptions and methods could also be reasonable and could generate materially different results. We have relied on the input of experts in developing certain assumptions, such as mortality and the valuation interest rate.

Because it is not possible or practical to model all aspects of a situation, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are immaterial in our judgment. Future events and actual experience will vary from the assumptions we have used, and calculations prepared with actual data will vary from estimates or summaries used for modeling purposes. Actual future results will differ from our projections. As these differences arise, contributions and/or benefits may need to be adjusted to take these changes into account.

We have not performed a detailed analysis of the potential range of future results in this report, but various reports provided throughout the year include information regarding the significant risks inherent in the Plan. A more detailed assessment of the risks – including additional scenario tests, sensitivity tests, stress tests, and stochastic modeling – would allow the Trustees to better understand how deviations from the assumptions may affect the Plan.

In our opinion, all methods, assumptions, and calculations are in accordance with the applicable provisions of the Internal Revenue Code and ERISA, and the procedures followed and presentation of results conform with generally accepted actuarial principles and practices. The undersigned consultants of Horizon Actuarial Services, LLC with actuarial credentials meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the Plan and Horizon Actuarial Services, LLC that affects our objectivity.

Mary Ann Dunleavy

Mary Ann Dunleavy, ASA, EA, MAAA
Actuary and Managing Consultant

Peter Bernstein

Peter Bernstein, FSA, EA, MAAA
Consulting Actuary


Thank you.
HORIZONactuarial