Horizon
Actuarial Services, LLC

Industry & Local 338 Pension Plan

July 1, 2020 PPA Certification and Actuarial Update

June 30, 2020

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Today's Discussion

- **Plan History Under PPA**
- **2020 PPA Zone Status Certification – Preliminary Discussion**
- **Forecast Scenarios**
- **Appendix**
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  - Contribution Rate Summary
  - Funding Under PPA
  - PPA Certification Zone Statuses

Plan History Under PPA

Plan History Under PPA

Plan Year Begins	Contribution Requirements	Benefit Changes
7/1/2008 - 7/1/2009 Green	**7/1/2009 supplemental contribution requirement** • Contrib increase requirements were updated periodically	**7/1/2009 supplemental contribution requirement** • Supplemental contributions were not benefit bearing
7/1/2010 - 7/1/2015 Green	N/A	N/A
7/1/2016 Yellow, Proj Red w/in 5 years	**Funding Improvement Plan (FIP), adopted 5/22/2017** • Flat dollar schedule of contribution increases • Rehabilitation Plan was adopted before any contract was required to include the terms of the FIP	**Amendment Effective 7/1/2016** • Benefit accruals are 0.9% of contributions • All contributions are benefit bearing
7/1/2017 Red	**Rehabilitation Plan (RP), adopted 9/18/2017** • Flat dollar schedule of contribution increases equivalent to 6.5% of the average contribution rate in effect July 1, 2017 • Surcharges and the default schedule were imposed on open contracts after 180 days	**Adjustable Benefits eliminated, effective 1/1/2018** • Ancillary Benefits • Death Benefit for Single Participants • Disability • Normal Form of Payment • Single Participants: 120 Payments Guaranteed • Married Participants: 75% Joint and Survivor (with 120 Payments Guaranteed) • Early Retirement Subsidies • Age 55 and 15 Years of Service • Service Pension: 20, 25, 30, 35 Years
7/1/2018 Red	N/A	N/A
7/1/2019 Green	**Funding Policy, adopted 10/15/2019** Flat dollar schedule of contribution increases equivalent to 3.0% of the average contribution rate in effect July 1, 2017	N/A

2020 PPA Zone Status Certification
- Preliminary Discussion

2020 PPA Certification

- **Certification must be submitted by the 90th day of the Plan Year**
  - September 28, 2020
- **Preliminary Assets**
  - **0.16%** return on assets for the plan year ending June 30, 2020
    - Estimated year-to-date return on investments through May 31, 2020 provided by SEI
- **Projected liabilities**
  - Based on results of the July 1, 2019 actuarial valuation
  - Plan changes known at the time of certification should be reflected

2020 PPA Certification (continued)

- **Projected Contributions: Contribution Rates**
  - Only rate increases already included in CBAs as of the certification date are recognized
    - Settled Contracts that include the Preferred Schedule of the RP or the terms of the Funding Policy
      - Crowley LaFargeville, CBA term 11/1/2017 – 10/31/2020
      - LP Transportation, CBA term 8/16/2019 – 8/15/2022 (Funding Policy)
      - Montefiore New Rochelle, CBA term 2/25/2017 – 11/5/2020
      - Paraco Gas, CBA term 1/31/2018 - 1/31/2021
      - Friesland, CBA term 12/31/2018 – 12/31/2021 (option to open contract 1/1/2021)
    - Open Contracts
      - Westchester Local 860, Expired 9/30/2013

- **Projected Contributions: Industry Activity Assumption**
  - PPA requires that the actuary's annual certification of the zone status of a multiemployer plan reflects industry activity assumptions that are based on input from the Trustees, provided in good faith
  - The industry activity assumption is very important, as it directly affects the level of the contributions expected in future years
  - Assumption is often based on prior year's work levels or contributions

2020 PPA Certification: Industry Activity

Plan Year	Active Count	Average Weeks / Active		Total Weeks	Average Ultimate Contribution Rate
		Total Wks	Active Wks		
7/1/2020 – 6/30/2021+	?	?		?	?
7/1/2019 – 6/30/2020	10-month average= 204	?		9,996 for 204 actives working 49 weeks / yr	?
7/1/2018 – 6/30/2019	226 CNR=17	54.7	48.4	12,366	$274.36
7/1/2017 – 6/30/2018	238 CNR=20, Culinart=21	51.9	47.7	12,351	261.20
7/1/2016 – 6/30/2017	238 CNR=13, Culinart=19	50.6	49.3	11,740	249.60
7/1/2015 – 6/30/2016	243	48.5	47.5	11,775	232.00
7/1/2014 – 6/30/2015	265	50.2	47.5	13,303	215.20
7/1/2013 – 6/30/2014	306	51.3	N/A	15,698	223.20
7/1/2012 – 6/30/2013	326	49.9	N/A	16,267	206.80
7/1/2011 – 6/30/2012	382	51.2	N/A	19,558	177.60
7/1/2010 – 6/30/2011	412	50.6	N/A	20,847	?

Historical contribution information for plan years prior to 7/1/2015 – 6/30/2016 obtained from prior years' actuarial valuation reports.

Forecast Scenarios

Projection Assumptions and Methods

- **Unless otherwise stated, the projection assumptions, methods, data and plan provisions used are the same as those used for the preliminary July 1, 2019 actuarial valuation.**
  - No future expected gains or losses other than those attributable to investment returns, as applicable.
  - No changes to valuation methods / no amortization extensions.
  - Investment Earnings
    - 0.16% return on assets for the plan year through May 31, 2020
    - Alternative scenarios
      - 7.50% per year, net of investment-related expenses, 7/2020+ unless otherwise noted
      - 7.25% per year, net of investment-related expenses, 7/2020+ unless otherwise noted
  - Operating Expenses: $375,000 for the plan year beginning July 1, 2020, increasing 2.5% per year

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.)

- **Withdrawn Employers**
  - Culinart, withdrawn May 10, 2019
    - Withdrawal liability periodic payments plus settlement of $2.39M during 2019 -2020 Plan Year reflected
  - Active participants employed by the College of New Rochelle are assumed to terminate employment August 9, 2019 when the employer withdrew from the Plan
    - No collection of withdrawal liability

- **Contracts**
  - 54% of hours worked under contracts beginning that are expected to renew in PYB 2020
    - HP Hood / Crowley, Montefiore New Rochelle, Paraco
  - 31% of hours worked under contracts that are expected to renew in PYB 2021
    - FrieslandCampina
  - 15% of hours worked under contracts beginning that are expected to renew in PYB 2022
    - LP Transport (renewed in 2019-2020 plan year)

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.)

- **Work Levels**
  - Plan year beginning July 1, 2019 – 10,300 total weeks, unless otherwise noted
  - Each plan year beginning July 1, 2020 - 10,000 total weeks, unless otherwise noted
    - 49 weeks per active for 204 active participants (average for 7/1/2019 – 4/30/2020)

- **Contribution Rates**
  - All contribution rate increases are benefit-bearing
  - Contracts adopted on or after October 15, 2019 must comply with the Plan's Funding Policy, requiring contribution rate increases as follows:

First 10 Years of Contribution Rate Increases

Year 1	$	8.76 per week	Year 6	$	10.16 per week
Year 2	$	9.02 per week	Year 7	$	10.46 per week
Year 3	$	9.29 per week	Year 8	$	10.77 per week
Year 4	$	9.57 per week	Year 9	$	11.10 per week
Year 5	$	9.86 per week	Year 10	$	11.43 per week

Contribution rate requirements for Year 11 and beyond will be provided by the Trustees.

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 7.50% Discount Rate

Scenario	Investment Return PYB 2019 / PYB 2020+	Weeks Worked PYE 2019 / PYE 2020+	Projected 6/30/2020 Market Value of Assets	Projected Zone Status 2020-2021	First Non-Green Year In Projection	Remediation Required - 10- year Temporary Contribution Increase Only
Certification Basis: Contribution Rates Included in Current Collective Bargaining Agreements						
1 Baseline July 1, 2019 Valuation	7.50% / 7.50%	10,300 / 10,200	$94.6M	**Green**	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 154% 7/1/2038
1A Est ROA PYE 2020	0.16% / 7.50%	10,300 / 10,200	$88.0M	**Green**	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 130% 7/1/2038
1B Est ROA PYE 2020 + Lower Future Weeks	0.16% / 7.50%	10,300 / 10,000	$88.0M	**Green**	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 128% 7/1/2038
1C Low ROA That Results in Non-Green 2020	-3.25% / 7.50%	10,300 / 10,000	$84.9M	**Green**	**7/2028 Green & Red w/in 5**	Funding Policy (3%/year) provides recovery, F% = 117% 7/1/2038

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 7.25% Discount Rate

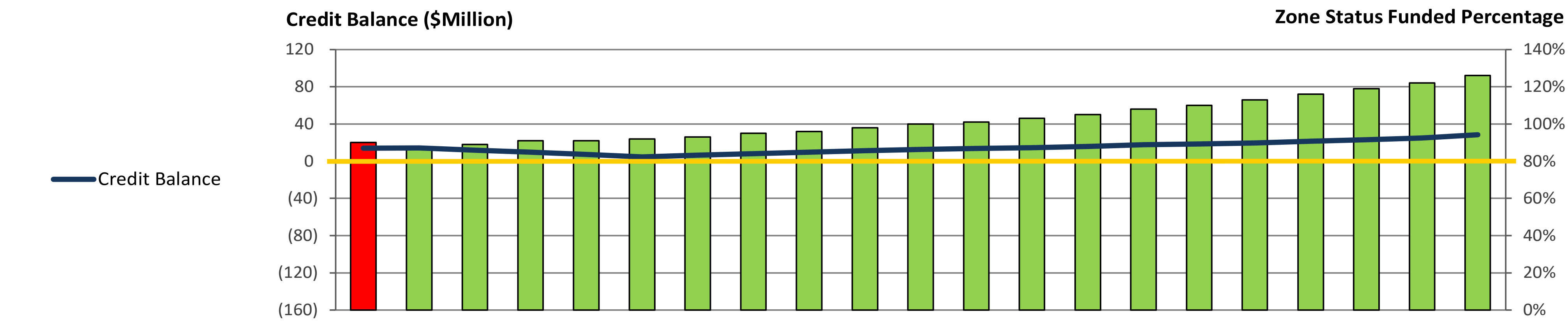
Scenario	Investment Return PYB 2019 / PYB 2020+	Weeks Worked PYE 2019 / PYE 2020+	Projected 6/30/2020 Market Value of Assets	Projected Zone Status 2020-2021	First Non-Green Year In Projection	Remediation Required - 10- year Temporary Contribution Increase Only
Certification Basis: Contribution Rates Included in Current Collective Bargaining Agreements						
2 Baseline July 1, 2019 Valuation	7.25% / 7.25%	10,300 / 10,200	$94.3M	Green	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 141% 7/1/2038
2A Est ROA PYE 2020	0.16% / 7.25%	10,300 / 10,200	$88.0M	Green	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 119% 7/1/2038
2B Est ROA PYE 2020 + Lower Future Weeks	0.16% / 7.25%	10,300 / 10,000	$88.0M	Green	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 117% 7/1/2038
2C Low ROA That Results in Non-Green 2020	-0.25% / 7.25%	10,300 / 10,000	$82.0M	Green	**7/2029 Green & Red w/in 5**	Funding Policy (3%/year) provides recovery, F% = 116% 7/1/2038

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.

Scenario 2: Baseline 7.25% Discount Rate

7.25% Return PYB 2019+ | 10.2 Thousand Weeks Worked beginning PYB 2020 | Current CBA Contribution Increases only

Industry And Local 338 Pension Plan



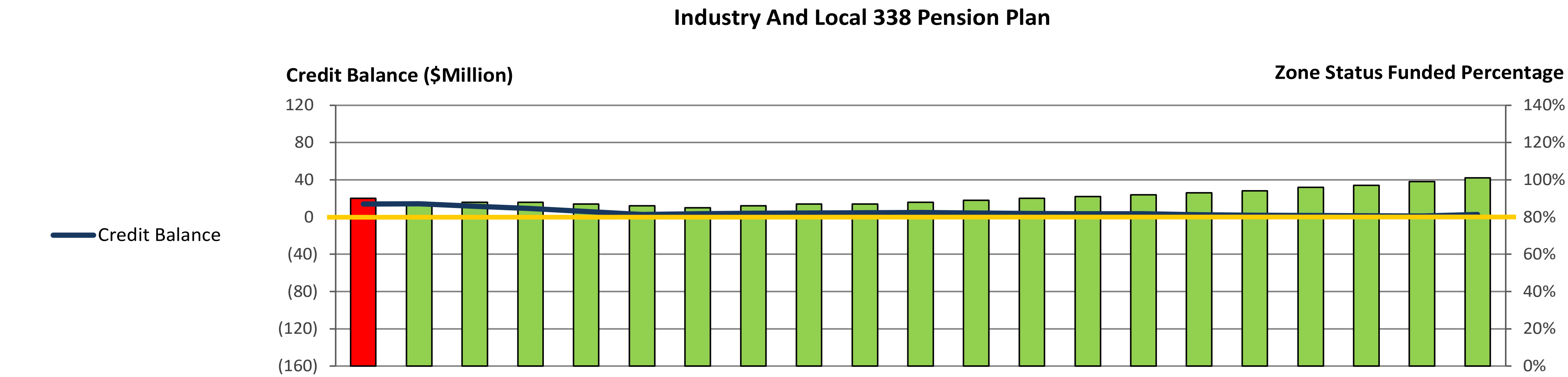
Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	314	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
(4) Contributions+EWL Payments($M)	3.4	5.6	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
(5) Actuarial Value of Assets ($M)	93	93	95	96	96	97	98	99	100	100	102	103	104	105	107	108	110	112	114	116	118
(6) Zone Status Liability ($M)	102	106	106	105	105	104	104	103	103	102	102	101	100	99	99	98	97	96	95	94	93
(7) Credit Balance ($M)	14	14	12	10	7	5	6	8	10	11	13	14	15	16	18	18	20	21	23	25	28
(8) Zone Status Funded Percentage	90%	87%	89%	91%	91%	92%	93%	95%	96%	98%	100%	101%	103%	105%	108%	110%	113%	116%	119%	122%	126%

Notes

1) Projected Market Value of Assets on 6/30/2020 = $94.3M
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Scenario 2B: 7.25% Disc Rate, Est 2019 ROA, Lower Weeks

0.16% Return PYB 2019; 7.25% Return PYB 2020+ | 10.0 Thousand Weeks Worked beginning PYB 2020 | Current CBA Contribution Increases only



Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	0.16	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)	11.9	10.3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
(3) Weekly Contribution Rate ($)	274	303	314	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
(4) Contributions+EWL Payments($M)	3.4	5.6	3.1	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 ($M)	93	93	93	93	92	90	89	89	89	90	90	90	90	91	91	91	92	92	93	93	94
(6) Zone Status Liability ($M)	102	106	106	105	105	104	104	103	103	102	101	101	100	99	98	98	97	96	95	94	93
(7) Credit Balance ($M)	14	14	12	9	6	3	3	4	4	5	5	5	4	4	4	2	2	2	1	1	3
(8) Zone Status Funded Percentage	90%	87%	88%	88%	87%	86%	85%	86%	87%	87%	88%	89%	90%	91%	92%	93%	94%	96%	97%	99%	101%

Notes

1) Projected Market Value of Assets on 6/30/2020 = **$88.0M**
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Horizon

Observations

- **The Plan is expected to be certified in the "Green" Zone for the Plan year beginning July 1, 2020**
- **The Plan remains sensitive to both investment return and contribution levels**
  - Long term funding improvement is compromised if investment returns are less than assumed or contribution levels fall.
  - Contribution rate increases like those anticipated by the Funding Policy may be required to keep the Plan well funded in the long term.
- **The recently adopted Funding Policy helps mitigate some of the risk due to investment return**

Appendix

2020 – 2021 Plan Year Timeline – PPA

Event	Deadline / Information	Latest Date
Actuarial Certification	90 days into plan year	9/28/2020
Notice of Critical Status (if applicable)	30 days after actuarial certification	10/28/2020
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

2020 – 2021 Plan Year – Other Actuarial Information

Event	Deadline / Information	Latest Date
Annual Funding Notice	120 days after the end of the plan year	10/28/2020
Schedule MB (Form 5500)	Last day of the 7th month following the end of the Plan Year (2½ month extension available)	1/31/2021 (w/o ext) 4/15/2021 (with ext)
ERISA 104(d) Notice	30 days after due date Form 5500 filing	3/1/2021 (w/o ext) 5/15/2021 (with ext)
PBGC Premium Filing	15th day of the 10th full calendar month in the Plan Year	4/15/2021
Actuarial Valuation		N/A
Review of Actuarial Assumptions	In conjunction with the actuarial valuation	N/A

Data, Assumptions, Methods and Plan Provisions

- **Assumptions, methods, data and plan provisions are those used for the preliminary July 1, 2019 actuarial valuation.**
  - Please see our presentation from January 14, 2020 for additional detail

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 information is available upon request.

Contribution Rate Summary

Employer	Contract Expiration Date	As of 7/1/2017 Active Count (Valn Data)	As of 7/1/2017 Total Wkly Contrib Rate	As of 7/1/2018 Active Count (Valn Data)	As of 7/1/2018 Total Wkly Contrib Rate	As of 7/1/2019 Active Count (Valn Data)	As of 7/1/2019 Total Wkly Contrib Rate
College of New Rochelle	8/31/2013	20	$ 174.00	17	$ 208.95	17	$ 269.04
Crowley LaFargeville	10/31/2020	96	286.43	92	303.98	91	322.98
Culinart	12/31/2016	21	226.91	20	267.15	0	267.15
Freisland Campina	12/31/2018	56	215.09	59	247.60	65	242.64
LP Transport	8/15/2019	25	290.80	29	322.75	32	322.75
Montefiore New Rochelle	11/5/2020	12	234.06	12	251.61	13	270.30
Paraco Gas	1/31/2021	7	227.60	8	245.15	7	263.84
Westchester L860	9/30/2013	1	205.21	1	243.28	1	243.28
Total		238		238		226	

Notes

1) Employer withdrawals: (1) College of New Rochelle 7/6/2019 and (2) Culinart 5/10/2019
2) All contributions are benefit-bearing, effective beginning July 1, 2016.
3) Contribution rates shown above are as reported by Plan Administrator.
4) Contribution rates as of 7/1/2018 include surcharges for College of New Rochelle, Culinart, Friesland Campina, Westchester L 860

Historical Contribution Rates by Contract

Employer	Base Rate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
					As of Plan Year Ending						
College of New Rochelle	$ 110.44	$ 130.40	$ 143.60	$ 158.00	$ 174.00	$ 174.00	$ 174.00	$ 174.00	$ 174.00	$ 208.95	$ 269.04
Crowley LaFargeville	130.00	154.00	169.00	186.34	204.97	225.47	248.00	272.79	286.43	303.98	322.67
Culinart	108.44	128.08	141.08	154.98	170.48	187.53	206.28	226.91	226.91	267.15	267.15
Friesland Campina	100.12	121.13	133.25	146.57	161.23	177.35	195.09	205.09	215.09	247.60	242.64
LP Transport	160.00	160.00	176.00	192.00	208.00	228.80	251.60	276.80	290.80	322.75	322.75
Montefiore New Rochelle	120.12	145.33	159.86	175.85	193.44	212.78	234.06	234.06	234.06	251.61	270.30
Paraco Gas	124.00	140.00	148.00	156.00	172.00	188.00	206.80	227.60	227.60	245.15	263.84
Westchester L860	130.15	154.17	169.59	186.55	205.21	205.21	205.21	205.21	205.21	243.28	243.28

Notes

1) Employer withdrawals: (1) College of New Rochelle 7/6/2019 and (2) Culinart 5/10/2019
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing.
3) Contribution rates for 2018 include surcharges for College of New Rochelle, Culinart, Friesland Campina, Westchester L 860

PPA Certification Zone Statuses

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

"Green Zone"

(none of the above)

New special rules, in effective as of 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 contained in this report may involve actuarial calculations. Actuarial calculations require that we make assumptions about future events. We have used assumptions that we believe are reasonable and appropriate for the purpose for which they have been used. Other assumptions may also be reasonable and could result in substantially different results. 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.

We have not performed a detailed analysis of the potential effects of risk on the Plan's future financial condition, but have included a discussion of some risks that may significantly affect the Plan. A more detailed assessment of the risks could provide the Trustees with a better understanding of the risks inherent in the Plan and may include additional scenario testing, sensitivity testing, stress testing and stochastic modeling.

Future events and actual experience will vary from any 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.

In our opinion, any 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.

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Actuary and Managing Consultant

Mary Ann Dunleavy, ASA, EA, MAAA
Consulting Actuary

Dylan Nitta
Actuarial Analyst