

**Form 5500-SF**

Department of the Treasury  
Internal Revenue Service

Department of Labor  
Employee Benefits Security Administration  
Pension Benefit Guaranty Corporation

**Short Form Annual Return/Report of Small Employee Benefit Plan**

This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ **Complete all entries in accordance with the instructions to the Form 5500-SF.**

OMB Nos. 1210-0110  
1210-0089

**2024**

**This Form is Open to Public Inspection**

**Part I Annual Report Identification Information**

For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

- A** This return/report is for:  a single-employer plan  a multiple-employer plan (not multiemployer) (Pension Plan filers checking this box must attach Schedule MEP. Other plans must attach a list of participating employer information in accordance with the form instructions.)
- B** This return/report is  the first return/report  the final return/report  
 an amended return/report  a short plan year return/report (less than 12 months)
- C** Check box if filing under:  Form 5558  automatic extension  DFVC program  
 special extension (enter description)
- D** If the plan is a collectively-bargained plan, check here ..... ▶
- E** If this is a retroactively adopted plan permitted by SECURE Act section 201, check here ..... ▶

**Part II Basic Plan Information**—enter all requested information

<b>1a</b> Name of plan <u>ECO SERVICES PENSION EQUITY PLAN</u>	<b>1b</b> Three-digit plan number (PN) ▶	<u>010</u>
	<b>1c</b> Effective date of plan	<u>12/01/2014</u>
<b>2a</b> Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>ECOVYST CATALYST TECHNOLOGIES,LLC</u>  <u>P.O. BOX 834</u> <u>VALLEY FORGE, PA 19482</u>	<b>2b</b> Employer Identification Number (EIN)	<u>86-2551862</u>
	<b>2c</b> Sponsor's telephone number	<u>484-617-1202</u>
	<b>2d</b> Business code (see instructions)	<u>325200</u>
<b>3a</b> Plan administrator's name and address <input type="checkbox"/> Same as Plan Sponsor.  <u>ECOVYST CATALYST BENEFIT PLANS COMMITTEE</u> <u>P.O. BOX 834</u> <u>SUSAN OLAFSON</u> <u>VALLEY FORGE, PA 19482</u>	<b>3b</b> Administrator's EIN	<u>23-2012066</u>
	<b>3c</b> Administrator's telephone number	<u>484-617-1202</u>
<b>4</b> If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report. <b>a</b> Sponsor's name <b>c</b> Plan Name	<b>4b</b> EIN	
	<b>4d</b> PN	
<b>5a</b> Total number of participants at the beginning of the plan year ..... <b>b</b> Total number of participants at the end of the plan year ..... <b>c(1)</b> Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item) ..... <b>c(2)</b> Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) ..... <b>d(1)</b> Total number of active participants at the beginning of the plan year ..... <b>d(2)</b> Total number of active participants at the end of the plan year ..... <b>e</b> Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested .....	<b>5a</b>	<u>66</u>
	<b>5b</b>	<u>63</u>
	<b>5c(1)</b>	
	<b>5c(2)</b>	
	<b>5d(1)</b>	<u>34</u>
	<b>5d(2)</b>	<u>30</u>
	<b>5e</b>	<u>0</u>

**Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.**  
Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

<b>SIGN HERE</b>	<u>Filed with authorized/valid electronic signature.</u>	<u>10/13/2025</u>	<u>SUSAN OLAFSON</u>
	<b>Signature of plan administrator</b>	Date	Enter name of individual signing as plan administrator
<b>SIGN HERE</b>			
	<b>Signature of employer/plan sponsor</b>	Date	Enter name of individual signing as employer or plan sponsor

- 6a** Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) .....  Yes  No
- b** Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) .....  Yes  No
- If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.**
- c** If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? .....  Yes  No  Not determined
- If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year: 560713. (See instructions.)

<b>Part III Financial Information</b>			
<b>7</b> Plan Assets and Liabilities		<b>(a) Beginning of Year</b>	<b>(b) End of Year</b>
<b>a</b> Total plan assets .....	<b>7a</b>	16864262	16270590
<b>b</b> Total plan liabilities .....	<b>7b</b>	0	0
<b>c</b> Net plan assets (subtract line 7b from line 7a) .....	<b>7c</b>	16864262	16270590
<b>8</b> Income, Expenses, and Transfers for this Plan Year		<b>(a) Amount</b>	<b>(b) Total</b>
<b>a</b> Contributions received or receivable from:			
<b>(1)</b> Employers .....	<b>8a(1)</b>	380000	
<b>(2)</b> Participants .....	<b>8a(2)</b>		
<b>(3)</b> Others (including rollovers) .....	<b>8a(3)</b>		
<b>b</b> Other income (loss) .....	<b>8b</b>	1152927	
<b>c</b> Total income (add lines 8a(1), 8a(2), 8a(3), and 8b) .....	<b>8c</b>		1532927
<b>d</b> Benefits paid (including direct rollovers and insurance premiums to provide benefits) .....	<b>8d</b>	2017791	
<b>e</b> Certain deemed and/or corrective distributions (see instructions) .	<b>8e</b>		
<b>f</b> Administrative service providers (salaries, fees, commissions) .....	<b>8f</b>		
<b>g</b> Other expenses .....	<b>8g</b>	108808	
<b>h</b> Total expenses (add lines 8d, 8e, 8f, and 8g) .....	<b>8h</b>		2126599
<b>i</b> Net income (loss) (subtract line 8h from line 8c) .....	<b>8i</b>		-593672
<b>j</b> Transfers to (from) the plan (see instructions) .....	<b>8j</b>		

<b>Part IV Plan Characteristics</b>	
<b>9a</b>	If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions: <u>1C 1I 3H</u>
<b>b</b>	If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

<b>Part V Compliance Questions</b>				
<b>10</b> During the plan year:		<b>Yes</b>	<b>No</b>	<b>Amount</b>
<b>a</b> Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program) .....	<b>10a</b>		X	
<b>b</b> Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.) .....	<b>10b</b>		X	
<b>c</b> Was the plan covered by a fidelity bond? .....	<b>10c</b>	X		5000000
<b>d</b> Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty? .....	<b>10d</b>		X	
<b>e</b> Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.) .....	<b>10e</b>		X	
<b>f</b> Has the plan failed to provide any benefit when due under the plan? .....	<b>10f</b>		X	
<b>g</b> Did the plan have any participant loans? (If "Yes," enter amount as of year-end.) .....	<b>10g</b>		X	
<b>h</b> If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.) .....	<b>10h</b>			
<b>i</b> If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3 .....	<b>10i</b>			

**Part VI Pension Funding Compliance**

**11** Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and lines 11a and b below.) If this is a defined contribution pension plan, leave line 11 blank and complete line 12 below.  Yes  No

**a** Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 **11a** 0

**b PBGC missed contribution reporting requirements.** If the plan is covered by PBGC and the amount reported on line 11a is greater than \$0, has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:

Yes.

No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.

No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.

No. Other. Provide explanation \_\_\_\_\_

**12** Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA? (If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.) If this is a defined benefit pension plan, leave line 12 blank and complete line 11 above.  Yes  No

**a** If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and enter the date of the letter ruling granting the waiver. Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

**If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.**

**b** Enter the minimum required contribution for this plan year **12b**

**c** Enter the amount contributed by the employer to the plan for this plan year **12c**

**d** Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount) **12d**

**e** Will the minimum funding amount reported on line 12d be met by the funding deadline?  Yes  No  N/A

**Part VII Plan Terminations and Transfers of Assets**

**13a** Has a resolution to terminate the plan been adopted in any plan year?  Yes  No

**a** If "Yes," enter the amount of any plan assets that reverted to the employer this year. **13a**

**b** Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?  Yes  No

**c** If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

13c(1) Name of plan(s):	13c(2) EIN(s)	13c(3) PN(s)

**Part VIII IRS Compliance Questions**

**14a** Does the plan satisfy the coverage and nondiscrimination tests of Code sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules?  Yes  No

**14b** If this is a Code section 401(k) plan, check all boxes that apply to indicate how the plan is intended to satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under Code sections 401(k)(3) and 401(m)(2).

Design-based safe harbor method

"Prior year" ADP test

"Current year" ADP test

N/A

**15** If the plan sponsor is an adopter of a pre-approved plan that received a favorable IRS Opinion Letter, enter the date of the Opinion Letter \_\_\_/\_\_\_/\_\_\_ (MM/DD/YYYY) and the Opinion Letter serial number \_\_\_\_\_.

<b>SCHEDULE SB</b> <b>(Form 5500)</b>  <small>Department of the Treasury Internal Revenue Service</small>  <small>Department of Labor Employee Benefits Security Administration</small>  <small>Pension Benefit Guaranty Corporation</small>	<b>Single-Employer Defined Benefit Plan</b> <b>Actuarial Information</b>  This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).  <b>▶ File as an attachment to Form 5500 or 5500-SF.</b>	<small>OMB No. 1210-0110</small>  <b>2024</b>  <b>This Form is Open to Public Inspection</b>
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For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

▶ **Round off amounts to nearest dollar.**  
 ▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

<b>A</b> Name of plan <u>ECO SERVICES PENSION EQUITY PLAN</u>	<b>B</b> Three-digit plan number (PN) ▶	<u>010</u>
<b>C</b> Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>ECOVYST CATALYST TECHNOLOGIES,LLC</u>	<b>D</b> Employer Identification Number (EIN) <u>86-2551862</u>	
<b>E</b> Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B	<b>F</b> Prior year plan size: <input checked="" type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input type="checkbox"/> More than 500	

**Part I Basic Information**

<b>1</b>	Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2024</u>		
<b>2</b>	Assets:		
	<b>a</b> Market value .....	<b>2a</b>	<u>17347041</u>
	<b>b</b> Actuarial value .....	<b>2b</b>	<u>17347041</u>
<b>3</b>	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target
	<b>a</b> For retired participants and beneficiaries receiving payment .....	<u>21</u>	<u>7864482</u>
	<b>b</b> For terminated vested participants .....	<u>11</u>	<u>1763878</u>
	<b>c</b> For active participants .....	<u>34</u>	<u>10171530</u>
	<b>d</b> Total .....	<u>66</u>	<u>19799890</u>
<b>4</b>	If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>		
	<b>a</b> Funding target disregarding prescribed at-risk assumptions .....	<b>4a</b>	
	<b>b</b> Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor .....	<b>4b</b>	
<b>5</b>	Effective interest rate .....	<b>5</b>	<u>5.06 %</u>
<b>6</b>	Target normal cost		
	<b>a</b> Present value of current plan year accruals .....	<b>6a</b>	<u>0</u>
	<b>b</b> Expected plan-related expenses .....	<b>6b</b>	<u>130000</u>
	<b>c</b> Target normal cost .....	<b>6c</b>	<u>130000</u>

**Statement by Enrolled Actuary**  
 To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

<b>SIGN HERE</b>		<u>08/22/2025</u>
	Signature of actuary	Date
	<u>ROBERT MORGAN</u>	<u>23-05585</u>
	Type or print name of actuary	Most recent enrollment number
	<u>MERCER (US) LLC</u>	<u>215-982-4312</u>
	Firm name	Telephone number (including area code)
	<u>30 SOUTH 17TH STREET, 19TH FLOOR PHILADELPHIA, PA 19103</u>	
	Address of the firm	

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions

<b>Part II Beginning of Year Carryover and Prefunding Balances</b>		(a) Carryover balance	(b) Prefunding balance
<b>7</b>	Balance at beginning of prior year after applicable adjustments (line 13 from prior year) .....	0	0
<b>8</b>	Portion elected for use to offset prior year's funding requirement (line 35 from prior year) .....	0	0
<b>9</b>	Amount remaining (line 7 minus line 8) .....	0	0
<b>10</b>	Interest on line 9 using prior year's actual return of <u>11.94</u> % .....	0	0
<b>11</b>	Prior year's excess contributions to be added to prefunding balance:		
<b>a</b>	Present value of excess contributions (line 38a from prior year) .....		4375
<b>b(1)</b>	Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>5.18</u> % .....		227
<b>b(2)</b>	Interest on line 38b from prior year Schedule SB, using prior year's actual return .....		0
<b>c</b>	Total available at beginning of current plan year to add to prefunding balance .....		4602
<b>d</b>	Portion of (c) to be added to prefunding balance .....		0
<b>12</b>	Other reductions in balances due to elections or deemed elections .....	0	0
<b>13</b>	Balance at beginning of current year (line 9 + line 10 + line 11d - line 12) .....	0	0

<b>Part III Funding Percentages</b>			
<b>14</b>	Funding target attainment percentage .....	<b>14</b>	87.61 %
<b>15</b>	Adjusted funding target attainment percentage .....	<b>15</b>	87.61 %
<b>16</b>	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement .....	<b>16</b>	83.22 %
<b>17</b>	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage .....	<b>17</b>	%

<b>Part IV Contributions and Liquidity Shortfalls</b>		<b>18 Contributions made to the plan for the plan year by employer(s) and employees:</b>					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees		
04/10/2024	120000	0					
07/09/2024	120000	0					
10/11/2024	120000	0					
01/14/2025	20000	0					
			<b>Totals ▶</b>	<b>18(b)</b>	380000	<b>18(c)</b>	0

<b>19</b>	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
<b>a</b>	Contributions allocated toward unpaid minimum required contributions from prior years .....	<b>19a</b> 0	
<b>b</b>	Contributions made to avoid restrictions adjusted to valuation date .....	<b>19b</b> 0	
<b>c</b>	Contributions allocated toward minimum required contribution for current year adjusted to valuation date .....	<b>19c</b> 369850	
<b>20</b>	Quarterly contributions and liquidity shortfalls:		
<b>a</b>	Did the plan have a "funding shortfall" for the prior year? .....	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>b</b>	If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? .....	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>c</b>	If line 20a is "Yes," see instructions and complete the following table as applicable:		
Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
0	0	0	0

<b>Part V Assumptions Used to Determine Funding Target and Target Normal Cost</b>			
<b>21</b> Discount rate:			
<b>a</b> Segment rates:	1st segment: 4.75 %	2nd segment: 4.87 %	<input type="checkbox"/> N/A, full yield curve used
<b>b</b> Applicable month (enter code) .....			<b>21b</b> 4
<b>22</b> Weighted average retirement age .....			<b>22</b> 60
<b>23</b> Mortality table(s) (see instructions) <input type="checkbox"/> Prescribed - combined <input checked="" type="checkbox"/> Prescribed - separate <input type="checkbox"/> Substitute			

<b>Part VI Miscellaneous Items</b>	
<b>24</b> Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.....	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>25</b> Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>26</b> Demographic and benefit information	
<b>a</b> Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.....	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>b</b> Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment ...	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>27</b> If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.....	<b>27</b>

<b>Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years</b>	
<b>28</b> Unpaid minimum required contributions for all prior years .....	<b>28</b> 0
<b>29</b> Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a).....	<b>29</b> 0
<b>30</b> Remaining amount of unpaid minimum required contributions (line 28 minus line 29).....	<b>30</b> 0

<b>Part VIII Minimum Required Contribution For Current Year</b>			
<b>31</b> Target normal cost and excess assets (see instructions):			
<b>a</b> Target normal cost (line 6c) .....	<b>31a</b>	130000	
<b>b</b> Excess assets, if applicable, but not greater than line 31a .....	<b>31b</b>	0	
<b>32</b> Amortization installments:	Outstanding Balance	Installment	
<b>a</b> Net shortfall amortization installment .....	2452849	238807	
<b>b</b> Waiver amortization installment.....	0	0	
<b>33</b> If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount .....	<b>33</b>		
<b>34</b> Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	<b>34</b>	368807	
	Carryover balance	Prefunding balance	Total balance
<b>35</b> Balances elected for use to offset funding requirement .....	0	0	0
<b>36</b> Additional cash requirement (line 34 minus line 35) .....	<b>36</b>	368807	
<b>37</b> Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c) .....	<b>37</b>	369850	
<b>38</b> Present value of excess contributions for current year (see instructions)			
<b>a</b> Total (excess, if any, of line 37 over line 36)	<b>38a</b>	1043	
<b>b</b> Portion included in line 38a attributable to use of prefunding and funding standard carryover balances.....	<b>38b</b>	0	
<b>39</b> Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37) .....	<b>39</b>	0	
<b>40</b> Unpaid minimum required contributions for all years .....	<b>40</b>	0	

<b>Part IX Pension Funding Relief Under the American Rescue Plan Act of 2021 (See Instructions)</b>	
<b>41</b> If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. <input type="checkbox"/> 2019 <input type="checkbox"/> 2020 <input checked="" type="checkbox"/> 2021	

**Schedule SB, line 26 — Schedule of Active Participant Data**

Attained age	Years of credited service										Total
	Under 1	1–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40 & up	
Under 25											
25–29											
30–34											
35–39											
40–44											
45–49					1						1
50–54						2					2
55–59					2	8	4				14
60–64					1	2	5		2		10
65–69							2	1	4		7
70 & up											
Total					4	12	11	1	6		34

In each cell, the top number is the count of active participants for each age/service combination. Average pay is not shown for plans with less than 1,000 active participants or cells with fewer than 20 participants.

**Schedule SB, Part V — Statement of Actuarial Assumptions/Methods****Actuarial assumptions for January 1, 2024 funding valuation**

<b>Discount rate sponsor elections</b>			
• Segment rates or full yield curve	Segment		
• Look-back months	4		
	<b>Stabilized</b>	<b>Nonstabilized</b>	<b>PBGC</b>
• First 5 years	4.75%	3.62%	5.01%
• Next 15 years	4.87%	4.46%	5.13%
• Over 20 years	5.59%	4.52%	5.15%
<b>Mortality sponsor elections</b>			
• Healthy participants	Section 430(h)(3) prescribed generational annuitant and nonannuitant mortality tables.		
<b>Other economic assumptions</b>			
• Salary increases	Not applicable		
• Expenses	\$130,000 added to current year normal cost		
• Long Term Conversion Rate	5.00%		

**Rationale for Economics Assumptions**

Expenses – best estimate of plan related expenses during current plan year. Best estimate considers prior year plan expense rounded up to nearest \$10,000.

**Schedule SB, Part V — Statement of Actuarial Assumptions/Methods**

<b>Demographic assumptions</b>			
• Withdrawal	See table of sample rates.		
• Disability incidence	See table of sample rates.		
• Retirement age	<b>Percentage</b>		
	<b>Attained age</b>	<b>Male</b>	<b>Female</b>
	Under 55	0%	0%
	55	5%	5%
	56	11%	11%
	57	11%	11%
	58	11%	11%
	59	20%	20%
	60	20%	20%
	61	25%	25%
	62	25%	25%
	63	25%	25%
	64	65%	65%
	65 and above	100%	100%
• Benefit commencement age for			
– Future vested deferred	65		
– Current vested deferred	65		
• Spouse assumptions	<b>Male participants</b>	<b>Female participants</b>	
– Percentage married	80%	80%	
– Spouse age difference	3 years younger	3 years older	
<b>Form of payment</b>	<b>Lump sum</b>	<b>Single Life</b>	<b>50% J&amp;S</b>
• Active retirements	50%	10%	40%
• Future vested deferred	100%	0%	0%
• Future disabilities	0%	100%	0%
• Future deaths	0%	0%	100%
• Current vested deferred	100%	0%	0%
<b>417(e) Conversions</b>	Mortality table applicable to distributions during the current plan year.		
<b>Unpredictable contingent event assumptions</b>	Not applicable		

**Schedule SB, Part V — Statement of Actuarial Assumptions/Methods**

**Table of sample rates**

Attained age	Percentage			
	Withdrawal		Disability incidence	
	Male	Female	Male	Female
20	15.00%	15.00%	0.076%	0.076%
25	15.00%	15.00%	0.100%	0.100%
30	15.00%	15.00%	0.112%	0.112%
35	12.00%	12.00%	0.124%	0.124%
40	10.00%	10.00%	0.164%	0.164%
45	10.00%	10.00%	0.221%	0.221%
50	10.00%	10.00%	0.347%	0.347%
55	0.00%	0.00%	0.712%	0.712%
60	0.00%	0.00%	1.260%	1.260%
65	0.00%	0.00%	0.000%	0.000%

**Rationale for Demographic Assumptions**

Note that while credible historic information for the isolated Eco Services pension Equity Plan population is currently not available, the overall Eco Services Pension Equity pension population was presumed to be reasonably comparative to the former Rhodia Inc. Pension Equity Plan population. Based on this information and discussions with the plan sponsor regarding anticipated employment patterns, the demographic assumptions with regard to turnover, disability and retirement rates are assumed to be consistent with the prior pension equity plan as the best available estimate of plan experience. In addition there are no gain/loss trends related to any specific assumptions that would warrant additional review at this time.

**Actuarial methods for funding**

**Asset methods**

The asset valuation method is the fair market value.

**Participant methods**

Participants or former participants are included or excluded from the valuation as described below:

- **Participants included:** The plan sponsor provides us with data on only eligible participants in the plan as of the valuation date and all are included in the valuation of liabilities.

**Minimum funding methods**

The funding target for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant’s benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

A detailed description of the calculation follows:

**Schedule SB, Part V — Statement of Actuarial Assumptions/Methods**

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual are the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's **funding target** is the sum of the individual funding targets for all participants under the plan.

**SCHEDULE SB**  
**(Form 5500)**

Department of the Treasury  
Internal Revenue Service

Department of Labor  
Employee Benefits Security Administration  
Pension Benefit Guaranty Corporation

**Single-Employer Defined Benefit Plan**  
**Actuarial Information**

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500 or 5500-SF.**

OMB No. 1210-0110

**2024**

**This Form is Open to Public Inspection**

For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024


▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

<b>A</b> Name of plan ECO SERVICES PENSION EQUITY PLAN		<b>B</b> Three-digit plan number (PN) ▶	010
<b>C</b> Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF ECOVYST CATALYST TECHNOLOGIES, LLC		<b>D</b> Employer Identification Number (EIN) 86-2551862	
<b>E</b> Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B		<b>F</b> Prior year plan size: <input checked="" type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input type="checkbox"/> More than 500	

Part I		Basic Information		
<b>1</b>	Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2024</u>			
<b>2</b>	Assets:			
	<b>a</b> Market value .....	<b>2a</b>	17,347,041	
	<b>b</b> Actuarial value .....	<b>2b</b>	17,347,041	
<b>3</b>	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
	<b>a</b> For retired participants and beneficiaries receiving payment.....	21	7,864,482	7,864,482
	<b>b</b> For terminated vested participants .....	11	1,763,878	1,763,878
	<b>c</b> For active participants .....	34	10,171,530	10,171,530
	<b>d</b> Total .....	66	19,799,890	19,799,890
<b>4</b>	If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>			
	<b>a</b> Funding target disregarding prescribed at-risk assumptions .....	<b>4a</b>		
	<b>b</b> Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor .....	<b>4b</b>		
<b>5</b>	Effective interest rate .....	<b>5</b>	5.06%	
<b>6</b>	Target normal cost			
	<b>a</b> Present value of current plan year accruals .....	<b>6a</b>	0	
	<b>b</b> Expected plan-related expenses .....	<b>6b</b>	130,000	
	<b>c</b> Target normal cost .....	<b>6c</b>	130,000	

**Statement by Enrolled Actuary**  
To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

<b>SIGN HERE</b>		<u>8/22/2025</u>
	Signature of actuary	Date
<u>ROBERT MORGAN</u>	Type or print name of actuary	<u>2305585</u>
		Most recent enrollment number
<u>MERCER (US) LLC</u>	Firm name	<u>215-982-4312</u>
		Telephone number (including area code)
<u>30 SOUTH 17TH STREET, 19TH FLOOR</u>		
<u>PHILADELPHIA PA 19103</u>		
Address of the firm		

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions



**Part V Assumptions Used to Determine Funding Target and Target Normal Cost**

<b>21</b> Discount rate:				
<b>a</b> Segment rates:	1st segment: 4.75 %	2nd segment: 4.87 %	3rd segment: 5.59 %	<input type="checkbox"/> N/A, full yield curve used
<b>b</b> Applicable month (enter code).....				<b>21b</b> 4
<b>22</b> Weighted average retirement age .....				<b>22</b> 60
<b>23</b> Mortality table(s) (see instructions)	<input type="checkbox"/> Prescribed - combined <input checked="" type="checkbox"/> Prescribed - separate <input type="checkbox"/> Substitute			

**Part VI Miscellaneous Items**

<b>24</b> Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.....				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>25</b> Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.....				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>26</b> Demographic and benefit information				
<b>a</b> Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.....				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>b</b> Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment ...				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>27</b> If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.....				<b>27</b>

**Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years**

<b>28</b> Unpaid minimum required contributions for all prior years .....	<b>28</b>	0
<b>29</b> Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a).....	<b>29</b>	0
<b>30</b> Remaining amount of unpaid minimum required contributions (line 28 minus line 29).....	<b>30</b>	0

**Part VIII Minimum Required Contribution For Current Year**

<b>31</b> Target normal cost and excess assets (see instructions):			
<b>a</b> Target normal cost (line 6c).....	<b>31a</b>	130,000	
<b>b</b> Excess assets, if applicable, but not greater than line 31a .....	<b>31b</b>	0	
<b>32</b> Amortization installments:	Outstanding Balance		Installment
<b>a</b> Net shortfall amortization installment .....	2,452,849		238,807
<b>b</b> Waiver amortization installment.....	0		0
<b>33</b> If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount .....	<b>33</b>		
<b>34</b> Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	<b>34</b>	368,807	
		Carryover balance	Prefunding balance
<b>35</b> Balances elected for use to offset funding requirement .....		0	0
<b>36</b> Additional cash requirement (line 34 minus line 35).....	<b>36</b>	368,807	
<b>37</b> Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c).....	<b>37</b>	369,850	
<b>38</b> Present value of excess contributions for current year (see instructions)			
<b>a</b> Total (excess, if any, of line 37 over line 36)	<b>38a</b>	1,043	
<b>b</b> Portion included in line 38a attributable to use of prefunding and funding standard carryover balances .....	<b>38b</b>	0	
<b>39</b> Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37).....	<b>39</b>	0	
<b>40</b> Unpaid minimum required contributions for all years .....	<b>40</b>	0	

**Part IX Pension Funding Relief Under the American Rescue Plan Act of 2021 (See Instructions)**

<b>41</b> If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. <input type="checkbox"/> 2019 <input type="checkbox"/> 2020 <input checked="" type="checkbox"/> 2021	
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**Schedule SB, line 22 — Description of Weighted Average Retirement Age**

Each employee is assumed to retire in accordance with the table of retirement rates. The proportion of employees expected to retire at each potential retirement age is shown below. The average retirement age is 60.

(A) Retirement age	(B) Retirement percent	(C) Lx	(D) Number of employees expected to retire (B) x (C)	(E) (A) x (D)
55	5.0%	10,000	500.00	27,500
56	11.0%	9,500	1,045.00	58,520
57	11.0%	8,455	930.05	53,013
58	11.0%	7,525	827.74	48,009
59	20.0%	6,697	1,339.44	79,027
60	20.0%	5,358	1,071.55	64,293
61	25.0%	4,286	1,071.55	65,365
62	25.0%	3,215	803.66	49,827
63	25.0%	2,411	602.75	37,973
64	65.0%	1,808	1,175.36	75,223
65	100.0%	633	632.89	41,138
Total			10,000.00	599,888
Average				59.988

**Schedule SB, Part V — Summary of Plan Provisions****Summary of major plan provisions**

• Effective date and plan year	Original plan: December 1, 2014 Plan year: Calendar year
• Status of the plan	The plan is frozen as of December 31, 2016.
• Significant events that occurred during the year	None
<b>DEFINITIONS</b>	
• Covered employees	The plan only covers those employees included in the spinoff from Solvay USA Inc. Pension Equity Plan effective December 1, 2014. There will be no new participants.
• Participation	New participants are not allowed in the plan.
• Employee contributions	None.
• Vesting service	Earn vesting service for each month (1/12 of a year), in which work at least one hour of service. 100% vested after 3 years of vesting service.
• Credited service	Earn credited service for each month (1/12 of a year), in which work at least one hour of service. Used to calculate the PEP credit percentages. No credited service earned beyond 2016.
• Age	Earn PEP credit percentages based on age on January 1 of each calendar year of participation in the plan.
• Break in service	Occurs when participant earns less than 501 hours of service in any plan year.
• Pensionable earnings	Includes base pay, overtime, shift differentials/premiums; management, team, sales, and individual bonus/incentive awards; lump sum vacation pay, lump sum merit increases and safety bonuses. Pay does not include items such as severance payments, long-term incentive payments, relocation reimbursements, attendance awards, and hiring or stay- on bonuses.
• Final average earnings	Your final average pay is the greater of  Average annual pensionable earnings during the 5 highest consecutive or non-consecutive complete calendars years of the last 10 years of employment (or 12/31/2016, if earlier); or  Average annual pensionable earnings in the highest 60 consecutive months out of the last 120 months (10 years) of employment (or 12/31/2016; earlier)
• Covered Compensation	The average of the taxable wage bases in effect for each calendar year during the 35-year period prior to the year the participant reaches Social Security retirement age. A participant's Covered Compensation shall be adjusted each plan year until year of termination (or 12/31/2016, if earlier).
• Interest credit	4.00%

**Schedule SB, Part V — Summary of Plan Provisions**

- **Conversion Rate**                      Greatest annuity resulting from using  
 A. Applicable 417(e) rates,  
 B. 5% (but not more than 12%), and  
 C. 30-year Treasury rate for the September prior to the year of termination  
 (immediate factors)

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- **Accrued benefit**                      Lump sum payable immediately equal to the sum of credit percentages  
 earned during participation, times FAE, plus the sum of credit percentages  
 that applies to the FAE above Social Security covered compensation  
 amount. Percentages earned in any single year are adjusted if less than a  
 full year of credited service.

<b>PEP Percentages</b>		
<b>Attained age</b>	<b>Final Average Earnings (FAE)</b>	<b>FAE Above Social Security Covered Compensation</b>
Through 24	2.5%	0.0%
25 – 29	3.0%	0.0%
30 – 34	4.0%	0.5%
35 – 39	6.0%	1.0%
40 – 44	7.0%	1.0%
45 – 49	9.0%	2.0%
50 – 54	11.5%	3.0%
55 or more	12.5%	4.5%

The plan has been amended to eliminate ongoing accruals post 12/31/2016.

**NORMAL RETIREMENT**

- **Eligibility**                              Normal retirement date for each participant is the first day of the month  
 coincident with or next following their 65<sup>th</sup> birthday.

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- **Benefit**                                      Accrued benefit

**DISABILITY RETIREMENT**

- **Eligibility**                              A participant who has not reached his normal retirement date, is vested, is  
 receiving disability benefits under the long term disability plan, is totally and  
 permanently disabled and incurred a disability while an employee is eligible  
 for disability retirement once disability benefits under disability plan cease.

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- **Benefit**                                      Accrued benefit determined when disability benefits cease. A disabled  
 participant shall continue to accrue benefits at the rate of compensation in  
 effect as of the date of long-term disability until the actual retirement date  
 while disabled (or 12/31/2016, if earlier).

**PRE- RETIREMENT DEATH**

**Schedule SB, Part V — Summary of Plan Provisions**

• Eligibility	Vested participants are covered by a death benefit.
• Benefit while in active status	The surviving spouse, if any, is eligible for a life annuity or the full lump sum earned by the participant. In no event will this benefit be less in value than the qualified pre-retirement survivor annuity with 50% payable to the surviving spouse. A non-spouse beneficiary, if any, will receive the full lump sum earned by the participant.
• Benefit while in terminated vested status	The surviving spouse, if any, will receive 100% of the benefit as if the participant elected to commence their benefit under the joint and 100% survivor option just prior to death.
<b>UNPREDICTABLE CONTINGENT EVENTS BENEFITS</b>	None.
<b>FORM OF BENEFITS</b>	
• Automatic form for unmarried participants	Monthly life annuity
• Automatic form for married participants	Actuarially equivalent 50% Joint & Survivor annuity
• Optional forms	Lump sum; life annuity; 100%, 75%, 50%, or 25% Joint & Survivor annuity; 5, 10, 15, or 20 years certain life and annuity; Social security level income option payable as a life annuity or 50% J&S annuity.
• Optional form conversion factors	For conversions among annuities, 8.5%; UP94 mortality (2 year setback male/female). Applicable 417(e) rates and mortality for lump sum calculations (deferred to 65).
<b>MISCELLANEOUS</b>	
• Maximum compensation	Maximum compensation for 2016 is \$265,000. Because the plan is frozen effective 12/31/2016, the maximum compensation is no longer applicable beyond 2016.
• Maximum benefits	Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2024, the limit is \$275,000.

**Benefits included or excluded**

Unless noted below, all benefits provided by the plan effective December 1, 2014 with subsequent amendments are included in this valuation:

## Schedule SB, Part V — Summary of Plan Provisions

- **Late retirement increases:**

*Active participants:* The plan provides benefit suspension notices to participants who work beyond normal retirement; therefore, late retirement actuarial increases only apply to participants who defer retirement beyond age 70½.

- **Internal Revenue Code limitations:** The limitations of Internal Revenue Code Section 415(b) and 401(a)(17) have been incorporated into our calculations.
- **IRC Section 416 rules for top-heavy plans:** We did not test whether this plan is top-heavy (when the present value of benefits for key employees equals or exceeds 60% of the present value for all participants). However, we expect that the plan is not top-heavy due to the large number of rank-and-file participants; therefore, the funding target and target normal cost do not reflect any liability for top-heavy benefit accruals.

## Plan provisions specific to funding

### Additional benefits included or excluded

- **IRC Section 436 benefit restrictions:**

- *Unpredictable contingent event benefits:* This valuation excludes restricted contingent event benefits for events that occurred before the valuation date but includes contingent event benefits for events that are expected to occur on or after the valuation date regardless of anticipated funding-based limitations.
- *Plan amendments:* See above.
- *Prohibited payments:* Limitations on prohibited benefits (if any) are reflected for annuity starting dates before the valuation date but are ignored for annuity starting dates on or after the valuation date.
- *Benefit accruals:* The plan's funding target does not reflect any limitation on benefit accruals. The target normal cost does not reflect any limitation on benefit accruals.

- **Scheduled benefit increases:** Scheduled benefit increases effective after the end of the current plan year are excluded from minimum funding requirements.
- **Unpredictable contingent event benefits:** The plan does not have any unpredictable contingent event benefits.

## Plan provision changes since prior valuation

Maximum benefit amounts under IRS rules were updated from 2023 to 2024.

**Schedule SB, line 32 — Schedule of Amortization Bases**

The total shortfall amortization charge is the sum of the individual shortfall amortization installments for each plan year since the IRC Section 430 changes made by ARPA took effect for the plan. Although an individual shortfall amortization installment can be negative, the combined shortfall amortization charge cannot be less than \$0.

Shortfall bases					
Year established		Outstanding balance	Years remaining		2024 installment
2023	\$	3,506,055	14	\$	334,628
2024		(1,053,206)	15		(95,821)
Total	\$	2,452,849		\$	238,807

***Schedule SB, line 24 — Change in Actuarial Assumptions***

- The expense load increased from \$120,000 to \$130,000