Form 5500

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans 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.**

OMB Nos. 1210-0110
1210-0089

2021

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

A This return/report is for:
- [ ] a multiemployer plan
- [ ] a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- [X] a single-employer plan
- [ ] a DFE (specify) ____

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 If the plan is a collectively-bargained plan, check here. . . . . ▶ [ ]

D Check box if filing under:
- [X] Form 5558
- [ ] automatic extension
- [ ] the DFVC program
- [ ] special extension (enter description)

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

1a Name of plan
PENSION PLAN FOR EMPLOYEES OF ADVANCED SILICON MATERIALS, LLC

1b Three-digit plan number (PN) ▶ 002

1c Effective date of plan 08/01/1990

2a 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)
REC ADVANCED SILICON MATERIALS, LLC

119140 RICK JONES WAY
SILVER BOW, MT 59750

2b Employer Identification Number (EIN) 20-3097239

2c Plan Sponsor's telephone number 406-496-9898

2d Business code (see instructions) 331400

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 accompanying schedules, statements and attachments, 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.

SIGN HERE	Filed with authorized/valid electronic signature.	05/04/2023	DEEANNA WORLEY
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	Filed with authorized/valid electronic signature.	05/04/2023	DEEANNA WORLEY
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a Plan administrator's name and address [X] Same as Plan Sponsor

3b Administrator's EIN

3c Administrator's telephone number

4 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:
a Sponsor's name
c Plan Name

4b EIN

4d PN

5	Total number of participants at the beginning of the plan year	**5**	628
6	Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines **6a(1), 6a(2), 6b, 6c,** and **6d**).		
a(1)	Total number of active participants at the beginning of the plan year	**6a(1)**	99
a(2)	Total number of active participants at the end of the plan year	**6a(2)**	98
b	Retired or separated participants receiving benefits	**6b**	189
c	Other retired or separated participants entitled to future benefits	**6c**	301
d	Subtotal. Add lines **6a(2)**, **6b**, and **6c**.	**6d**	588
e	Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	35
f	Total. Add lines **6d** and **6e**.	**6f**	623
g	Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	0
h	Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	0
7	Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	**7**	

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

1A 3D

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply)

(1)	[X]	Insurance
(2)	[ ]	Code section 412(e)(3) insurance contracts
(3)	[X]	Trust
(4)	[ ]	General assets of the sponsor

9b Plan benefit arrangement (check all that apply)

(1)	[X]	Insurance
(2)	[ ]	Code section 412(e)(3) insurance contracts
(3)	[X]	Trust
(4)	[ ]	General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

(1)	[X]	**R** (Retirement Plan Information)
(2)	[ ]	**MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
(3)	[X]	**SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

(1)	[X]		**H** (Financial Information)
(2)	[ ]		**I** (Financial Information – Small Plan)
(3)	[X]	1	**A** (Insurance Information)
(4)	[X]		**C** (Service Provider Information)
(5)	[X]		**D** (DFE/Participating Plan Information)
(6)	[ ]		**G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2021 Form M-1 annual report. If the plan was not required to file the 2021 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code_____

SCHEDULE A (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Insurance Information

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

▶ **File as an attachment to Form 5500.**

▶ Insurance companies are required to provide the information pursuant to ERISA section 103(a)(2).

OMB No. 1210-0110

2021

This Form is Open to Public Inspection

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

A Name of plan
PENSION PLAN FOR EMPLOYEES OF ADVANCED SILICON MATERIALS, LLC

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500
REC ADVANCED SILICON MATERIALS, LLC

D Employer Identification Number (EIN)
20-3097239

Part I Information Concerning Insurance Contract Coverage, Fees, and Commissions

Provide information for each contract on a separate Schedule A. Individual contracts grouped as a unit in Parts II and III can be reported on a single Schedule A.

1 Coverage Information:

(a) Name of insurance carrier
PRINCIPAL LIFE INSURANCE COMPANY

(b) EIN	(c) NAIC code	(d) Contract or identification number	(e) Approximate number of persons covered at end of policy or contract year	Policy or contract year	
				(f) From	(g) To
42-0127290	61271	629624	623	08/01/2021	07/31/2022

2 Insurance fee and commission information. Enter the total fees and total commissions paid. List in line 3 the agents, brokers, and other persons in descending order of the amount paid.

(a) Total amount of commissions paid	(b) Total amount of fees paid
15295	0

3 Persons receiving commissions and fees. (Complete as many entries as needed to report all persons).

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

RBC CAPITAL MARKETS LLC
RETIREMENT SOLUTIONS GROUP
60 S 6TH ST STE P21
MINNEAPOLIS, MN 55402-4400

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	
15295	0		3

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

Part II Investment and Annuity Contract Information

Where individual contracts are provided, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

4	Current value of plan's interest under this contract in the general account at year end	**4**	0
5	Current value of plan's interest under this contract in separate accounts at year end	**5**	8585616

6 Contracts With Allocated Funds:

a State the basis of premium rates ▶

b	Premiums paid to carrier	**6b**	
c	Premiums due but unpaid at the end of the year	**6c**	
d	If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, enter amount. Specify nature of costs ▶	**6d**	

e Type of contract: (1) ☐ individual policies (2) ☐ group deferred annuity (3) ☐ other (specify) ▶

f If contract purchased, in whole or in part, to distribute benefits from a terminating plan, check here ▶ ☐

7 Contracts With Unallocated Funds (Do not include portions of these contracts maintained in separate accounts)

a Type of contract: (1) ☐ deposit administration (2) ☐ immediate participation guarantee (3) ☐ guaranteed investment (4) ☐ other ▶

b	Balance at the end of the previous year			**7b**	
c	Additions: (1) Contributions deposited during the year	**7c(1)**			
	(2) Dividends and credits	**7c(2)**			
	(3) Interest credited during the year	**7c(3)**			
	(4) Transferred from separate account	**7c(4)**			
	(5) Other (specify below) ▶	**7c(5)**			
	(6) Total additions			**7c(6)**	
d	Total of balance and additions (add lines **7b** and **7c(6)**)			**7d**	
e	Deductions:				
	(1) Disbursed from fund to pay benefits or purchase annuities during year	**7e(1)**			
	(2) Administration charge made by carrier	**7e(2)**			
	(3) Transferred to separate account	**7e(3)**			
	(4) Other (specify below) ▶	**7e(4)**			
	(5) Total deductions			**7e(5)**	
f	Balance at the end of the current year (subtract line **7e(5)** from line **7d**)			**7f**	0

Part III Welfare Benefit Contract Information

If more than one contract covers the same group of employees of the same employer(s) or members of the same employee organizations(s), the information may be combined for reporting purposes if such contracts are experience-rated as a unit. Where contracts cover individual employees, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

8 Benefit and contract type (check all applicable boxes)

a ☐ Health (other than dental or vision) **b** ☐ Dental **c** ☐ Vision **d** ☐ Life insurance
e ☐ Temporary disability (accident and sickness) **f** ☐ Long-term disability **g** ☐ Supplemental unemployment **h** ☐ Prescription drug
i ☐ Stop loss (large deductible) **j** ☐ HMO contract **k** ☐ PPO contract **l** ☐ Indemnity contract
m ☐ Other (specify) ▶

9 Experience-rated contracts:				
a Premiums: (1) Amount received	**9a(1)**			
(2) Increase (decrease) in amount due but unpaid	**9a(2)**			
(3) Increase (decrease) in unearned premium reserve	**9a(3)**			
(4) Earned (**(1)** + **(2)** - **(3)**)			**9a(4)**	
b Benefit charges (1) Claims paid	**9b(1)**			
(2) Increase (decrease) in claim reserves	**9b(2)**			
(3) Incurred claims (add **(1)** and **(2)**)			**9b(3)**	
(4) Claims charged			**9b(4)**	
c Remainder of premium: (1) Retention charges (on an accrual basis) --				
(A) Commissions	**9c(1)(A)**			
(B) Administrative service or other fees	**9c(1)(B)**			
(C) Other specific acquisition costs	**9c(1)(C)**			
(D) Other expenses	**9c(1)(D)**			
(E) Taxes	**9c(1)(E)**			
(F) Charges for risks or other contingencies	**9c(1)(F)**			
(G) Other retention charges	**9c(1)(G)**			
(H) Total retention			**9c(1)(H)**	
(2) Dividends or retroactive rate refunds. (These amounts were ☐ paid in cash, or ☐ credited.)			**9c(2)**	
d Status of policyholder reserves at end of year: (1) Amount held to provide benefits after retirement			**9d(1)**	
(2) Claim reserves			**9d(2)**	
(3) Other reserves			**9d(3)**	
e Dividends or retroactive rate refunds due. (Do not include amount entered in line **9c(2)**.)			**9e**	
10 Nonexperience-rated contracts:				
a Total premiums or subscription charges paid to carrier			**10a**	
b If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, other than reported in Part I, line 2 above, report amount.			**10b**	

Specify nature of costs.

Part IV Provision of Information

11 Did the insurance company fail to provide any information necessary to complete Schedule A? ☐ Yes ☒ No

12 If the answer to line 11 is "Yes," specify the information not provided. ▶

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

2021

This Form is Open to Public Inspection

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

▶ **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.

A Name of plan
PENSION PLAN FOR EMPLOYEES OF ADVANCED SILICON MATERIALS, LLC

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
REC ADVANCED SILICON MATERIALS, LLC

D Employer Identification Number (EIN)
20-3097239

E Type of plan: [X] Single [ ] Multiple-A [ ] Multiple-B

F Prior year plan size: [ ] 100 or fewer [ ] 101-500 [X] More than 500

Part I Basic Information

1 Enter the valuation date: Month 08 Day 01 Year 2021

2 Assets:

a Market value	**2a**	30159291
b Actuarial value	**2b**	30159291

3 Funding target/participant count breakdown

	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	216	14592954	14592954
b For terminated vested participants	312	12543867	12543867
c For active participants	108	3212207	3212207
d Total	636	30349028	30349028

4 If the plan is in at-risk status, check the box and complete lines (a) and (b) [ ]

a Funding target disregarding prescribed at-risk assumptions	**4a**	
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	**4b**	
5 Effective interest rate	**5**	5.57 %
6 Target normal cost		
a Present value of current plan year accruals	**6a**	0
b Expected plan-related expenses	**6b**	130500
c Total (line 6a + line 6b)	**6c**	130500

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.

SIGN HERE

Signature of actuary

04/11/2023
Date

STEWARD SAINVIL
Type or print name of actuary

23-08415
Most recent enrollment number

PRINCIPAL FINANCIAL GROUP
Firm name

678-322-3602
Telephone number (including area code)

PO BOX 9394
DES MOINES, IA 50306-9394
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 II Beginning of Year Carryover and Prefunding Balances

		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	0
10	Interest on line 9 using prior year's actual return of 16.20 %	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		57
	b(1) 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 5.38 %		3
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
	c Total available at beginning of current plan year to add to prefunding balance		60
	d Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14	Funding target attainment percentage	14	99.37 %
15	Adjusted funding target attainment percentage	15	99.37 %
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	83.27 %
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(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
11/12/2021	380887	0			
02/11/2022	380887	0			
05/12/2022	380887	0			
08/11/2022	380887	0			
11/10/2022	343839	0			
02/13/2023	343839	0			
			Totals ► 18(b)	2211226	18(c)

19	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
	a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
	b Contributions made to avoid restrictions adjusted to valuation date	19b	0
	c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	2107790

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? [X] Yes [ ] No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? [X] Yes [ ] No

c 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

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

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
4.75 %	5.36 %	6.11 %	☐ N/A, full yield curve used

b Applicable month (enter code)	**21b**	4
22 Weighted average retirement age	**22**	63

23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☒ Yes	☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes	☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment	☒ Yes	☐ No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	**27**	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

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

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6c)	**31a**	130500
b Excess assets, if applicable, but not greater than line 31a	**31b**	0

32 Amortization installments:	Outstanding Balance	Installment
a Net shortfall amortization installment	189737	17691
b Waiver amortization installment	0	0

33 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	**33**	
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	**34**	148191

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0

36 Additional cash requirement (line 34 minus line 35)	**36**	148191
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	**37**	2107790

38 Present value of excess contributions for current year (see instructions)

a Total (excess, if any, of line 37 over line 36)	**38a**	1959599
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	**38b**	0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	**39**	0
40 Unpaid minimum required contributions for all years	**40**	0

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:

a Schedule elected ☐ 2 plus 7 years ☐ 15 years

b Eligible plan year(s) for which the election in line 41a was made ☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011

SCHEDULE C (Form 5500)	Service Provider Information	OMB No. 1210-0110
Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ **File as an attachment to Form 5500.**	**2021** **This Form is Open to Public Inspection.**

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

A Name of plan	**B** Three-digit plan number (PN) ▶
PENSION PLAN FOR EMPLOYEES OF ADVANCED SILICON MATERIALS, LLC	002
C Plan sponsor's name as shown on line 2a of Form 5500	**D** Employer Identification Number (EIN)
REC ADVANCED SILICON MATERIALS, LLC	20-3097239

Part I Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions).. . . . . [X] Yes [ ] No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

PRINCIPAL LIFE INSURANCE COMPANY

42-0127290

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

RBC CAPITAL MARKETS LLC

41-1416330

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
49 99	OTHER SERVICES	0	Yes [X] No [ ]	Yes [ ] No [X]	28027	Yes [ ] No [X]

(a) Enter name and EIN or address (see instructions)

PRINCIPAL LIFE INSURANCE COMPANY

42-0127290

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
13 50 64	CONTRACT ADMINISTRATOR	132000	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [ ] No [X]

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes [ ] No [ ]	Yes [ ] No [ ]		Yes [ ] No [ ]

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received $1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
RBC CAPITAL MARKETS LLC	49 99	28027
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
PRINCIPAL LIFE INSURANCE COMPANY 42-0127290	REFERRAL/SERVICE FEE	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)

(complete as many entries as needed)

a Name: ERIN R. BREYMAN
b EIN: 42-0127290
c Position: ENROLLED ACTUARY
d Address: PO BOX 9394
DES MOINES, IA 50306-9394
e Telephone: 515-247-5111

Explanation: REASSIGNMENT OF WORKLOAD WITHIN PRINCIPAL LIFE INSURANCE COMPANY

a Name:
b EIN:
c Position:
d Address:
e Telephone:

Explanation:

a Name:
b EIN:
c Position:
d Address:
e Telephone:

Explanation:

a Name:
b EIN:
c Position:
d Address:
e Telephone:

Explanation:

a Name:
b EIN:
c Position:
d Address:
e Telephone:

Explanation:

SCHEDULE D (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

DFE/Participating Plan Information

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

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2021

This Form is Open to Public Inspection.

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

A Name of plan
PENSION PLAN FOR EMPLOYEES OF ADVANCED SILICON MATERIALS, LLC

B Three-digit plan number (PN) ▶ 002

C Plan or DFE sponsor's name as shown on line 2a of Form 5500
REC ADVANCED SILICON MATERIALS, LLC

D Employer Identification Number (EIN)
20-3097239

Part I Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs)

(Complete as many entries as needed to report all interests in DFEs)

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LDI LONG DURATION SA-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
42-0127290-104	P	4273091

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LDI SHORT DUR SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
42-0127290-127	P	284711

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LDI INTRM DUR SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
42-0127290-128	P	3806712

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LDI EXT DUR SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
42-0127290-129	P	221102

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

Part II **Information on Participating Plans (to be completed by DFEs)**
(Complete as many entries as needed to report all participating plans)

a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN
a Plan name	
b Name of plan sponsor	**c** EIN-PN

SCHEDULE H (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Financial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2021

This Form is Open to Public Inspection

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

A Name of plan
PENSION PLAN FOR EMPLOYEES OF ADVANCED SILICON MATERIALS, LLC

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500
REC ADVANCED SILICON MATERIALS, LLC

D Employer Identification Number (EIN)
20-3097239

Part I Asset and Liability Statement

1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)	554509	1068565
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)		
(9) Value of interest in common/collective trusts	1c(9)		
(10) Value of interest in pooled separate accounts	1c(10)	11028012	8585616
(11) Value of interest in master trust investment accounts	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)	18579469	17716181
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

			(a) Beginning of Year	**(b)** End of Year
1d	Employer-related investments:			
	(1) Employer securities	1d(1)		
	(2) Employer real property	1d(2)		
e	Buildings and other property used in plan operation	1e		
f	Total assets (add all amounts in lines 1a through 1e)	1f	30161990	27370362
	Liabilities			
g	Benefit claims payable	1g		
h	Operating payables	1h		
i	Acquisition indebtedness	1i		
j	Other liabilities	1j		
k	Total liabilities (add all amounts in lines 1g through1j)	1k	0	0
	Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	30161990	27370362

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

	Income		**(a)** Amount	**(b)** Total
a	**Contributions:**			
	(1) Received or receivable in cash from: **(A)** Employers	2a(1)(A)	2211226	
	(B) Participants	2a(1)(B)		
	(C) Others (including rollovers)	2a(1)(C)		
	(2) Noncash contributions	2a(2)		
	(3) Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)**	2a(3)		2211226
b	**Earnings on investments:**			
	(1) Interest:			
	(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
	(B) U.S. Government securities	2b(1)(B)		
	(C) Corporate debt instruments	2b(1)(C)		
	(D) Loans (other than to participants)	2b(1)(D)		
	(E) Participant loans	2b(1)(E)		
	(F) Other	2b(1)(F)		
	(G) Total interest. Add lines **2b(1)(A)** through **(F)**	2b(1)(G)		0
	(2) Dividends: **(A)** Preferred stock	2b(2)(A)		
	(B) Common stock	2b(2)(B)		
	(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	314555	
	(D) Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)**	2b(2)(D)		314555
	(3) Rents	2b(3)		
	(4) Net gain (loss) on sale of assets: **(A)** Aggregate proceeds	2b(4)(A)		
	(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
	(C) Subtract line **2b(4)(B)** from line **2b(4)(A)** and enter result	2b(4)(C)		0
	(5) Unrealized appreciation (depreciation) of assets: **(A)** Real estate	2b(5)(A)		
	(B) Other	2b(5)(B)		
	(C) Total unrealized appreciation of assets. Add lines **2b(5)(A)** and **(B)**	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		-1701255
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		-2026417
c Other income	2c		2767
d Total income. Add all **income** amounts in column (b) and enter total	2d		-1199124
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	1460504	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines **2e(1)** through **(3)**	2e(4)		1460504
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses: **(1)** Professional fees	2i(1)		
(2) Contract administrator fees	2i(2)	132000	
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)		
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		132000
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		1592504
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		-2791628
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) [X] Unmodified **(2)** [ ] Qualified **(3)** [ ] Disclaimer **(4)** [ ] Adverse

b Check the appropriate box(es) to indicate whether the IQPA performed an ERISA section 103(a)(3)(C) audit. Check both boxes (1) and (2) if the audit was performed pursuant to both 29 CFR 2520.103-8 and 29 CFR 2520.103-12(d). Check box (3) if pursuant to neither.

(1) [X] DOL Regulation 2520.103-8 **(2)** [ ] DOL Regulation 2520.103-12(d) **(3)** [ ] neither DOL Regulation 2520.103-8 nor DOL Regulation 2520.103-12(d).

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: MOSS ADAMS LLP **(2)** EIN: 91-0189318

d The opinion of an independent qualified public accountant is **not attached** because:

(1) [ ] This form is filed for a CCT, PSA, or MTIA. **(2)** [ ] It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

		Yes	No	Amount
a 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.)	4a		X	

			Yes	No	Amount
b	Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)	**4b**		X	
c	Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	**4c**		X	
d	Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	**4d**		X	
e	Was this plan covered by a fidelity bond?	**4e**	X		1000000
f	Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	**4f**		X	
g	Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	**4g**		X	
h	Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	**4h**		X	
i	Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	**4i**	X		
j	Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked and see instructions for format requirements.)	**4j**	X		
k	Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	**4k**		X	
l	Has the plan failed to provide any benefit when due under the plan?	**4l**		X	
m	If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	**4m**			
n	If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	**4n**			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No

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

5b 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.)

5b(1) Name of plan(s)	**5b(2)** EIN(s)	**5b(3)** PN(s)

5c Was the plan a defined benefit plan covered under the PBGC insurance program at any time during this plan year? (See ERISA section 4021 and instructions.) ☒ Yes ☐ No ☐ Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 452043.

SCHEDULE R (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Retirement Plan Information

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

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2021

This Form is Open to Public Inspection.

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

A Name of plan
PENSION PLAN FOR EMPLOYEES OF ADVANCED SILICON MATERIALS, LLC

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500
REC ADVANCED SILICON MATERIALS, LLC

D Employer Identification Number (EIN)
20-3097239

Part I Distributions

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions ..... | 1 | 0

2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits):

EIN(s): 42-0127290

Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.

3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year ..... | 3 | 0

Part II Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ..... ☐ Yes ☐ No ☒ N/A

If the plan is a defined benefit plan, go to line 8.

5 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 ruling letter granting the waiver. **Date:** Month _____ Day _____ Year _____

If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.

6	a	Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)	6a	
	b	Enter the amount contributed by the employer to the plan for this plan year	6b	
	c	Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)	6c	

If you completed line 6c, skip lines 8 and 9.

7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ..... ☐ Yes ☐ No ☐ N/A

8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ..... ☐ Yes ☐ No ☒ N/A

Part III Amendments

9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ..... ☐ Increase ☐ Decrease ☐ Both ☒ No

Part IV ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? ..... ☐ Yes ☐ No

11 a Does the ESOP hold any preferred stock? ..... ☐ Yes ☐ No

b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ..... ☐ Yes ☐ No

12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ..... ☐ Yes ☐ No

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify):

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14 Enter the number of deferred vested and retired participants (inactive participants), as of the beginning of the plan year, whose contributing employer is no longer making contributions to the plan for:

a The current plan year. Check the box to indicate the counting method used to determine the number of inactive participants: ☐ last contributing employer ☐ alternative ☐ reasonable approximation (see instructions for required attachment)	**14a**	
b The plan year immediately preceding the current plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	**14b**	
c The second preceding plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	**14c**	

15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	**15a**	
b The corresponding number for the second preceding plan year	**15b**	

16 Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	**16a**	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	**16b**	

17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

19 If the total number of participants is 1,000 or more, complete lines (a) through (c)

a Enter the percentage of plan assets held as:
Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%

b Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

c What duration measure was used to calculate line 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify):

20 **PBGC missed contribution reporting requirements.** If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.

a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? ☐ Yes ☒ No

b If line 20a is "Yes," 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 _____



Report of Independent Auditors and
Financial Statements with
Supplemental Schedules

Pension Plan for Employees of Advanced Silicon Materials LLC

July 31, 2022 and 2021

MOSSADAMS

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Report of Independent Auditors

The Plan Administrator
Pension Plan for Employees of Advanced Silicon Materials LLC

Report on the Audit of the Financial Statements

Scope and Nature of the ERISA Section 103(a)(3)(C) Audit

We have performed an audit of the financial statements of Pension Plan for Employees of Advanced Silicon Materials LLC (the Plan), an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 (ERISA), as permitted by ERISA Section 103(a)(3)(C) (ERISA Section 103(a)(3)(C) audit). The financial statements comprise the statement of net assets available for benefits as of July 31, 2022, and the related statement of changes in net assets available for benefits for the year then ended, and the related notes to the financial statements (collectively, the 2022 financial statements).

Management, having determined it is permissible in the circumstances, has elected to have the audit of the 2022 financial statements performed in accordance with ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. As permitted by ERISA Section 103(a)(3)(C), our audit need not extend to any statements or information related to assets held for investment of the plan (investment information) by a bank or similar institution or insurance carrier that is regulated, supervised, and subject to periodic examination by a state or federal agency, provided that the statements or information regarding assets so held are prepared and certified to by the bank or similar institution or insurance carrier in accordance with 29 CFR 2520.103-5 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA (qualified institution).

Management has obtained a certification from a qualified institution as of and for the year ended July 31, 2022, stating that the certified investment information, as described in Note 3 to the financial statements, is complete and accurate.

Opinion

In our opinion, based on our audit and on the procedures performed as described in the Auditor's Responsibilities for the Audit of the Financial Statements section

- the amounts and disclosures in the accompanying 2022 financial statements, other than those agreed to or derived from the certified investment information, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America (GAAP).

- the information in the accompanying 2022 financial statements related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Pension Plan for Employees of Advanced Silicon Materials LLC and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our ERISA Section 103(a)(3)(C) audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with GAAP, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. Management's election of the ERISA Section 103(a)(3)(C) audit does not affect management's responsibility for the financial statements.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Pension Plan for Employees of Advanced Silicon Materials LLC's ability to continue as a going concern within one year after the date that the financial statements are available to be issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the plan, and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Except as described in the Scope and Nature of the ERISA Section 103(a)(3)(C) Audit section of our report, our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Pension Plan for Employees of Advanced Silicon Materials LLC's internal control. Accordingly, no such opinion is expressed.

- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Pension Plan for Employees of Advanced Silicon Materials LLC's ability to continue as a going concern for a reasonable period of time.

Our audit did not extend to the certified investment information, except for obtaining and reading the certification, comparing the certified investment information with the related information presented and disclosed in the 2022 financial statements, and reading the disclosures relating to the certified investment information to assess whether they are in accordance with the presentation and disclosure requirements of GAAP.

Accordingly, the objective of an ERISA Section 103(a)(3)(C) audit is not to express an opinion about whether the financial statements as a whole are presented fairly, in all material respects, in accordance with GAAP.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matters

Supplemental Schedules Required by ERISA

The Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year) as of July 31, 2022, and the Schedule H, Line 4(j)- Schedule of Reportable Transactions for the year ended July 31, 2022, are presented for purposes of additional analysis and are not a required part of the financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information included in the supplemental schedules, other than that agreed to or derived from the certified investment information, has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS. For information included in the supplemental schedules that agreed to or are derived from the certified investment information, we compared such information to the related certified investment information.

In forming our opinion on the supplemental schedules, we evaluated whether the supplemental schedules, other than the information agreed to or derived from the certified investment information, including their form and content, are presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

In our opinion

- the form and content of the supplemental schedules, other than the information in the supplemental schedules that agreed to or are derived from the certified investment information, are presented, in all material respects, in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosures under ERISA.

- the information in the supplemental schedules related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Auditor's Report on the 2021 Financial Statements

We were engaged to audit the 2021 financial statements of Pension Plan for Employees of Advanced Silicon Materials LLC. As permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA, the Plan administrator instructed us not to perform and we did not perform any auditing procedures with respect to the information certified by a qualified institution. In our report dated February 28, 2022, we indicated that (a) because of the significance of the information that we did not audit, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion and accordingly, we did not express an opinion on the 2021 financial statements, and (b) the form and content of the information included in the 2021 financial statements other than that derived from the certified information were presented in compliance with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

Moss Adams LLP

San Francisco, California
May 2, 2023

Financial Statements

Pension Plan for Employees of Advanced Silicon Materials LLC
Statements of Net Assets Available for Benefits
July 31, 2022 and 2021

	2022	2021
Assets:		
Investments, at fair value:		
Mutual funds	$ 17,716,181	$ 18,579,469
Pooled separate accounts	8,585,616	11,028,012
Total investments	26,301,797	29,607,481
Receivables:		
Employer's contributions receivable	1,068,565	554,509
Net assets available for benefits	$ 27,370,362	$ 30,161,990

See accompanying notes.

Pension Plan for Employees of Advanced Silicon Materials LLC
Statements of Changes in Net Assets Available for Benefits
Years Ended July 31, 2022 and 2021

	2022	2021
Additions to net assets attributed to:		
Interest	$ 314,555	$ 255,818
Net realized and unrealized appreciation (depreciation) in fair value of investments	(3,727,672)	3,882,364
	(3,413,117)	4,138,182
Employer contributions	2,211,226	1,581,244
Total additions	(1,201,891)	5,719,426
Deductions from net assets attributed to:		
Benefits paid to participants	1,457,737	1,455,288
Administrative expenses	132,000	133,004
Increase (decrease) in net assets available for benefits	(2,791,628)	4,131,134
Net assets available for benefits:		
Beginning of year	30,161,990	26,030,856
End of year	$ 27,370,362	$ 30,161,990

See accompanying notes.

NOTE 1 – DESCRIPTION OF PLAN

General – The following description of the Pension Plan for Employees of Advanced Silicon Materials LLC (the Plan) provides only general information. Participants should refer to the Plan document for a more complete description of Plan provisions. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). The Plan is a defined benefit plan covering all nonunion employees of Advanced Silicon Materials LLC (the Company). All nonunion employees became eligible for Plan participation upon employment.

The Plan was originally established in 1990 and, through various transactions, REC Advanced Silicon Materials LLC (REC Silicon) became the Plan sponsor in July 2005.

On December 31, 2005, the Plan was frozen, entry to the Plan was closed, and participants ceased accruing benefits. All active participants became fully vested, regardless of service time.

Contributions – The Plan is a noncontributory defined benefit pension plan. Contributions to the Plan are made by the Company in amounts determined by management with the assistance of its actuary. Contributions met the minimum funding requirements of ERISA in the 2022 and 2021 Plan years.

Administration of the Plan – The Company has appointed the Administrative Committee (the Committee) to manage the operation and administration of the Plan and maintain the records of participant data. The Company contracted with Principal Trust Company (Principal) to act as custodian and to provide actuarial services. All expenses incurred for administering the Plan were paid by the Company or the Plan.

Plan benefits – The Plan provides that eligible employees who had any service prior to 1996 receive a monthly pension benefit calculated using the greater of the regular, alternate, or minimum formulas. Eligible employees who were hired after 1995 and prior to December 31, 2005, receive a monthly pension benefit using the greater of the regular or minimum formulas.

- The regular formula is based on 1.2% of average monthly compensation multiplied by years of credited service, plus $12 multiplied by years of credited service divided by years of credited service at retirement.

- The minimum formula is:

  $6 for each of the first ten years of credited service, plus

  $9 for each of the 11th through 20th years of credited service, plus

  $12 for years of service in excess of 20, plus

  10% of average final compensation, plus

  $12 multiplied by years of credited service divided by years of credited service at retirement.

- The alternate formula applies only to participants whose benefit as of December 31, 1995, under the alternate formula, is greater than the benefit determined under the regular formula or the minimum formula.

Prior to August 1, 1996: The alternate formula is based on 1.5% of average monthly compensation multiplied by years of credited service at December 31, 1995, minus 1.5% of the monthly social security benefit multiplied by years of credited service at December 31, 1995 (not to exceed 50% of the social security benefit).

After August 1, 1996: The alternate formula is based on 1.2% of the average monthly compensation multiplied by years of credited service earned on or after August 1, 1996, plus $12 multiplied by years of credited service, divided by years of credited service at retirement.

Payments to Plan participants or beneficiaries are payable, at the participants' or beneficiaries' option, in one of the following ways:

- Single life annuity
- Joint and survivor annuity
- Level income (Social Security adjustment option)
- Lump-sum payment (only applicable if the total value of the benefit is less than $5,000)

Termination of the plan – In the event of termination of the Plan, the rights of each participant's benefits accrued to the date the Plan was frozen shall continue to be vested and nonforfeitable, and the right of each participant to any other benefits accrued to the date the Plan was frozen shall be fully vested and nonforfeitable to the extent then funded under the priority rules set forth in Section 4044 of ERISA.

Should the Plan terminate at some future time, its net assets generally will not be available on a pro rata basis to provide participants' benefits. Certain benefits under the Plan are insured by the Pension Benefit Guarantee Corporation (the PBGC). Generally, the PBGC guarantees most vested normal age retirement benefits, early retirement benefits, and certain disability and survivor's benefits. However, the PBGC does not guarantee all types of benefits under the Plan and the amount of benefit protection is subject to certain limitations. Vested benefits under the Plan are guaranteed at the level in effect on the date of termination. There is a statutory ceiling, which is adjusted periodically, on the amount of a participant's monthly benefit that the PBGC guarantees. Whether all participants receive their benefits should the Plan terminate at some future time will depend on the sufficiency, at that time, of the Plan's net assets to provide for accumulated benefit obligations and may also depend on the financial condition of the Plan's sponsor and the level of benefits guaranteed by the PBGC.

Tax status – The Internal Revenue Service (IRS) has determined and informed the Company in a letter dated March 30, 2018, that the Plan and related trust are designed in accordance with applicable sections of the Internal Revenue Code (IRC). The plan administrator believes that the Plan is operated in accordance with, and qualifies under, the applicable requirements of the IRC and related state statutes, and that the trust, which forms a part of the Plan, is exempt from federal income and state franchise taxes.

Accounting principles generally accepted in the United States of America require Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. No uncertain positions have been identified that would require recognition of a liability (or asset) or disclosure in the financial statements as of July 31, 2022. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

Subsequent events – The Plan has evaluated subsequent events through May 2, 2023, which is the date the financial statements were available to be issued.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of accounting – The financial statements of the Plan are prepared on the accrual method of accounting in accordance with accounting principles generally accepted in the United States of America.

Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Investments – The investments are stated at fair value. The Plan's custodian, Principal, certify the fair value of all investments. If available, quoted market prices are used to value investments.

Fair value is the price that would be received to sell an asset or paid to transfer a liability (the "exit price") in an orderly transaction between market participants at the measurement date.

Risks and uncertainties – Plan contributions are made and the actuarial present value of accumulated Plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates, and employee demographics, all of which are subject to change. Due to uncertain inherent risks in the estimations and assumptions processes, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility risks. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the value of the investment security will occur in the near term and that such changes could materially affect the amounts reported in the statement of net assets available for benefits.

Income recognition – Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. The net appreciation or depreciation in fair value of investments consists of both the realized gains or losses and unrealized appreciation and depreciation of those investments.

Payment of benefits – Benefit payments to participants are recorded upon distribution.

Fair value of financial instruments – The fair value measurements standard establishes a framework for measuring fair value. That framework provides a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under the standard are described below:

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the plan has the ability to access.

Level 2 – Inputs to the valuation methodology include:

- Quoted market prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability; and
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at July 31, 2022 and 2021.

Registered investment companies (mutual funds) – Valued at the daily closing price as reported by the fund. These funds are required to publish their daily net asset value (NAV) and to transact at that price. The funds held by the Plan are deemed to be actively traded. Mutual funds held by the Plan are open-end mutual funds that are registered with the U.S. Securities and Exchange Commission.

Pooled separate accounts – Units held in pooled separate accounts (PSAs) are valued using the NAV practical expedient of the PSA as reported by the account managers. The net asset value is based on the fair value of the underlying assets owned by the PSA, minus its liabilities, and then divided by the number of units outstanding. The net asset value of a PSA is calculated based on a compilation of primarily observable market information.

The methods described above may produce a fair value calculation that may not be indicative or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth by level, within the fair value hierarchy, the Plan's assets at fair value as of July 31, 2022 and 2021:

	Assets at fair value as of July 31, 2022			
	Level 1	Level 2	Level 3	Total
Mutual funds	$ 17,716,181	$ -	$ -	$ 17,716,181
Total assets in the fair value hierarchy	$ 17,716,181	$ -	$ -	17,716,181
Investments measured at NAV practical expedient				8,585,616
Investments at fair value				$ 26,301,797

	Assets at fair value as of July 31, 2021			
	Level 1	Level 2	Level 3	Total
Mutual funds	$ 18,579,469	$ -	$ -	$ 18,579,469
Total assets in the fair value hierarchy	$ 18,579,469	$ -	$ -	18,579,469
Investments measured at NAV practical expedient				11,028,012
Investments at fair value				$ 29,607,481

NOTE 3 – CERTIFIED INFORMATION

The plan administrator has elected the method of compliance permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Accordingly, Principal, the custodian of the Plan, have certified to the completeness and accuracy of:

- Investments reflected on the accompanying statements of net assets available for benefits as of July 31, 2022 and 2021.
- Net appreciation (depreciation) in fair value of investments and interest reflected on the accompanying statements of changes in net assets available for benefits for the years ended July 31, 2022 and 2021.
- Investments reflected on the schedule of assets (held at end of year) as of July 31, 2022.
- Transactions reflected on the schedule of reportable transactions for the year ended July 31, 2022.

NOTE 4 – ACTUARIAL ASSUMPTIONS AND PROCEDURES

Accumulated benefits are those future benefit payments that individual participants have accumulated under the Plan's provisions based on the employee's compensation and service rendered to date. The actuarial present value of accumulated benefits is the sum of accumulated benefits adjusted to reflect the probability of payment (by means of death, disability, termination, or retirement) and the time value of money (through discounts for interest).

Accumulated Plan benefits represent the estimated future periodic payments, including lump sum distributions not exceeding $5,000, under the Plan's provisions that are attributable to services rendered by employees through the valuation date. Accumulated Plan benefits include benefits expected to be paid to: a) retired or terminated employees or their beneficiaries, b) beneficiaries of employees who have died, and c) present employees or their beneficiaries. Benefits under the Plan are based on years of service and benefit credit rates. The accumulated Plan benefits for active employees are based on years of service and benefit credit rates on the date at which the benefit information is presented (valuation date). Benefits payable under all circumstances (retirement, death, disability, and termination of employment) are included, to the extent they are deemed attributable to employee service rendered to the valuation date. The actuarial valuations for each year were prepared using the beginning of the year valuation as of August 1. Had the valuations been prepared as of July 31, there would be no material difference.

The significant actuarial assumptions used in the valuations as of July 31, 2022 and 2021, are as follows:

Rate of return	July 31, 2022: 6.25%
	July 31, 2021: 5.25%
Mortality	July 31, 2022: based on the Pri-2012 Total dataset base rate mortality table projected generationally using MP-2021.
	July 31, 2021: based on the Pri-2012 Total dataset base rate mortality table projected generationally using MP-2021.
Normal retirement age	Expected retirement beginning at age 58 with 100% assumed to retire at age 65.

NOTE 5 – PRESENT VALUE OF ACCUMULATED PLAN BENEFITS

A summary of the actuarial present value of accumulated Plan benefits at July 31, 2022 and 2021, is as follows:

	2022	2021
Actuarial present value of accumulated Plan benefits:		
Vested benefits:		
Participants currently receiving payments	$ 14,102,036	$ 14,717,734
Other participants	14,502,106	16,767,315
Total actuarial present value of accumulated Plan benefits	$ 28,604,142	$ 31,485,049

Changes to the actuarial present value of accumulated Plan benefits for the years ended July 31, 2022 and 2021, were a result of the following:

	2022	2021
Actuarial present value of Plan benefits, beginning of year	$ 31,485,049	$ 33,478,642
Increase (decrease) during the year attributable to:		
Benefits paid	(1,457,737)	(1,455,288)
Change in actuarial assumptions	(3,052,701)	(1,715,227)
Increase for interest due to decrease in discount period	1,615,117	1,556,073
Benefits accumulated	14,414	(379,151)
Actuarial present value of accumulated Plan benefits, end of year	$ 28,604,142	$ 31,485,049

The foregoing actuarial assumptions are based on the presumption that the Plan will continue. If the Plan were to terminate, then different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated Plan benefits.

NOTE 6 – RELATED-PARTY TRANSACTIONS

The Plan investment is managed by Principal. Any purchases and sales of this fund are performed by Principal at fair value. Such transactions, while considered party-in-interest transactions under ERISA regulations, are permitted under the provisions of the Plan and are specifically exempt from the prohibition of party-in-interest transactions under ERISA.

Supplemental Schedules

Pension Plan for Employees of Advanced Silicon Materials LLC
Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year)
July 31, 2022

Plan Sponsor: REC Advanced Silicon Materials LLC
Employer Identification Number: 20-3097239
Plan Number: 002
Schedule H, Line 4(i)

(a)	(b) Identity of issue, borrower, lessor, or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(d) Cost	(e) Current value
	Vanguard 500 Index Admiral Fund	Mutual Fund	$ 5,949,977	$ 7,221,875
	Vanguard Mid-Cap Index Admiral Fund	Mutual Fund	3,253,746	3,730,690
	Vanguard Small-Cap Index Admiral Fund	Mutual Fund	3,191,857	3,606,798
	Vanguard Total International Stock Index Admiral Fund	Mutual Fund	3,325,894	3,156,818
*	Principal LDI Extended Duration Separate Account	Pooled Separate Account	272,532	221,102
*	Principal LDI Intermediate Duration Separate Account	Pooled Separate Account	4,067,756	3,806,712
*	Principal LDI Long Duration Separate Account	Pooled Separate Account	5,206,960	4,273,091
*	Principal LDI Short Duration Separate Account	Pooled Separate Account	295,244	284,711
			Total	$ 26,301,797

* Party-in-interest.

Plan Sponsor: REC Advanced Silicon Materials LLC
Employer Identification Number: 20-3097239
Plan Number: 002
Schedule H, Line 4(j)

Identity of party involved	Number of transactions	Purchase price	Selling price	Lease rental	Expense incurred with transaction	Cost of asset	Current value of asset on transaction date	Net gain or (loss)
Category (iii) - series of transactions in excess of 5% of Plan assets as of July 31, 2021								
Principal LDI Long Duration Separate Account	13	$ 241,594	$ -	$ -	$ -	$ 241,594	$ 241,594	$ -
Principal LDI Long Duration Separate Account	42	-	1,610,698	-	-	1,706,253	1,610,698	(95,555)


MOSSADAMS

F052TF

SCHEDULE H, line 4j - SCHEDULE OF REPORTABLE TRANSACTIONS

P P E A S
M, LLC
EIN 20 3097239
PLAN NUMBER 002
PLAN YEAR 08/01/2021 TO 07/31/2022

DESCRIPTION OF ASSET	(A) Total Number of Purchases	(B) Total Number of Sales	(C) Total Value of Purchases	(D) Total Value of Sales	(E) Net Gain/(Loss)
Pooled Separate Accounts PRINCIPAL LDI LONG DURATION SE	13		$ 241,593.55		$ 0.00
Pooled Separate Accounts PRINCIPAL LDI LONG DURATION SE		42		$ 1,610,698.26	$ 95,554.50-

* Schedule is prepared using the alternative way of reporting (iii) series transactions under DOL Regulation 2520.103-6(d)(2).

SCHEDULE H, line 4j - SCHEDULE OF REPORTABLE TRANSACTIONS

F051TF

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

P P E A S

EIN 20 3097239
PLAN NUMBER 002
PLAN YEAR 08/01/2021 TO 07/31/2022

(A)	(B) Identity of issuer, borrower, lessor or similar party.	(C) Description of investment including maturity date, rate of interest, collateral, par or maturity value.	(D) Cost	(E) Current Value
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LDI EXT DUR SEP ACCT-Z	$ 272,532.61	$ 221,102.36
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LDI INTRM DUR SEP ACCT-Z	$ 4,036,112.76	$ 3,806,712.40
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LDI LONG DURATION SA-Z	$ 5,161,123.16	$ 4,273,091.05
*	Principal Life Insurance Company	Pooled Separate Accounts PRIN LDI SHORT DUR SEP ACCT-Z	$ 295,243.64	$ 284,710.55
	Vanguard Group	Registered Investment Company VANGUARD MID CAP INDEX ADM FD	$ 3,271,772.51	$ 3,730,693.25
	Vanguard Group	Registered Investment Company VANGUARD SM CAP INDEX ADM FUND	$ 3,225,165.70	$ 3,606,798.70
	Vanguard Group	Registered Investment Company VANGUARD 500 INDEX ADMIRAL FD	$ 5,937,681.73	$ 7,221,879.97
	Vanguard Group	Registered Investment Company VGD TTL INTL STK IDX ADM FD	$ 3,375,641.28	$ 3,156,818.80

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

Schedule SB, Line 26 - Schedule of Active Participant Data
Pension Plan for Employees of Advanced Silicon Materials, LLC
EIN 20-3097239 Plan No. 002

Form 5500 - Schedule of Active Participation Data Valuation Date 08/01/2021

	YEARS OF CREDITED SERVICE																	
	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 & up	
Attained Age	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.
Under 25	0		0		0		0		0		0		0		0		0		0	
25 to 29	0		0		0		0		0		0		0		0		0		0	
30 to 34	0		0		0		0		0		0		0		0		0		0	
35 to 39	0		2		0		0		0		0		0		0		0		0	
40 to 44	0		7		1		0		0		0		0		0		0		0	
45 to 49	0		11		6		0		0		0		0		0		0		0	
50 to 54	0		11		9		0		0		0		0		0		0		0	
55 to 59	1		13		15		0		1		0		0		0		0		0	
60 to 64	0		8		15		1		1		1		0		0		0		0	
65 to 69	0		2		2		0		1		0		0		0		0		0	
70 & up	0		0		0		0		0		0		0		0		0		0	

Assumptions prescribed by law

Mortality

During benefit payment period

IRS Prescribed Mortality - Static Annuitant, male and female.

Before benefit payment period

IRS Prescribed Mortality - Static Non-annuitant, male and female.

Assumptions selected by actuary

Inflation

2.25% increase per year.

See Long-Term Capital Market Assumptions link.

Asset return

6.00% for the current plan year.

The asset return is developed as a weighted average rate based on the target asset allocation of the plan and the long-term capital market assumptions. The calculated return is on an arithmetic mean basis. For details, see the Long-Term Capital Market Assumptions link.

Expected expense

The expected expense included in target normal cost is an estimate based on prior year expenses paid from plan assets. This is the best estimate available of upcoming year's expenses.

Retirement

Active participants

Age	Probability of retirement	Age	Probability of retirement
55	0%	61	0%
56	0%	62	50%
57	0%	63	0%
58	15%	64	0%
59	0%	65	100%
60	0%		

Inactive participants are assumed to retire at age 63.

This is based on the assumption selected by your prior actuary. We believe this assumption is reasonable with the plan's design and we will continue to monitor and make appropriate adjustments. Some participants retire early since the plan provides an early retirement subsidy beginning at age 62 and 10 years of vesting service.

Disability

None.

Disability retirement benefit was removed prospectively with the 12/31/2005 plan freeze.

Marriage

80% married for male and 50% married for female; husbands are 3 years older than wives. This assumption does not have material impact on the results of this report and has been selected based on our best estimate of active workforce.

Withdrawal

Table: Selected by Altman & Cronin

Selected rates of withdrawal are shown below:

Age	Rate of withdrawal for male	Rate of withdrawal for female
25	12.32%	20.79%
40	3.26%	4.71%
55	0%	0%

This is based on the assumption selected by your prior actuary. We believe this assumption is reasonable with the plan's design and we will continue to monitor and make appropriate adjustments.

Form of benefit

Participants are assumed to receive their benefits on the normal form at the assumed retirement age.

Methods prescribed by law

Liability measure

Funding target is the present value of the benefits accrued on the valuation date. Included in Funding Target is the value of any missed required minimum distributions (defined in IRC §401(a)(9) and Treasury Regulation §1.401(a)(9)), equal to back payments with interest at 6.00%.

Target normal cost is based on benefits expected to accrue during the current plan year and includes an estimate of plan expenses for the year.

HCE benefit payment restrictions

A ratio of the plan assets and accrued liability is used to determine if restrictions apply. Assets and accrued liability are as of the valuation date and are reduced by:

any retiree benefit index or floor

amounts for HCEs who were previously restricted

an amount for the retiring HCE

The estimated HCE ratio illustrated in this report is based on the market value of plan assets (excluding late deposits) and funding target as of the valuation date. The funding target uses the non-stabilized interest rates as defined in IRC §430(h)(2)(C)(iv). Other assumptions or methods could be used.

Methods selected by plan sponsor

Asset method	Market value
Segment rates	24-month average with no weighting to prior law basis. Use rates where April is the last month included in the average.
PBGC premium basis	Variable Rate Premiums are calculated using census, market value of assets and interest rates in effect on the current valuation date. Interest rates are the 24-month average rates used for annual cost but without the interest rate corridor defined in IRC §430(h)(2)(C)(iv). You elected this Alternative interest method for and this method must be used for five years before a change can be made.

Methods elected by actuary

Retirees	Assets and liabilities for current and future retirees are included.
Vested benefits	A benefit is included in vested benefits if it meets the requirements under PBGC. The benefit is multiplied by the participant's vesting percentage applicable to each benefit on the valuation date. The following ancillary benefits are always treated as nonvested: disability benefits payable to retirement age unless in pay status, pre-retirement death benefits in excess of the survivor annuity death benefit and post retirement death benefits for non-retired participants except as noted in the Plan provisions.

Assumptions and methods elected by actuary - plan accounting (ASC 960)

With the exceptions below, all assumptions and methods are the same as those used in determining your plan's regular funding target and target normal cost.

Mortality	Based on Pri-2012 Total dataset base rate mortality table projected generationally using MP-2021. **Base rates** <u>Before benefit payment period</u> Employee amount-weighted, male and female <u>During benefit payment period</u> Retiree amount-weighted, male and female The Society of Actuaries (SOA) is an actuarial organization that periodically reviews mortality data and publishes mortality tables and improvement scales. In October 2019, the SOA released the Pri-2012 Mortality Tables for private-sector retirement plans in the U.S. The Pri-2012 report contains different sets of mortality tables based on complete dataset or various subsets. The Total dataset base rate table was selected based on information provided by the plan sponsor.

	Pri-2012 section 12.4. provided three approaches for designated beneficiaries in the calculation of joint-and-survivor annuities. We believe "Approach 1" is reasonable for this plan. **Mortality improvement (MI)** MP-2021 is the most recent improvement scale published by the SOA in October 2021.
Interest rate used to value liabilities	5.25% The interest rate used to value ASC 960 liabilities is developed as long-term expected geometric return on plan assets. Arithmetic expected return is calculated as the weighted average of broad asset classes' arithmetic returns of the plan's target asset allocation, and then converted to the geometric under lognormal distribution assumption. For details, see Long-Term Capital Market Assumptions link.
Treatment of administrative expenses	No adjustments are made for administrative expenses, either through a reduction in the discount rate or by calculating a present value of future expenses. Plan sponsors may change their administrative expense handling at any time. Our approach provides consistent handling of ASC 960 liabilities from year to year, whether expenses are paid with plan assets or directly by the employer. Note - expenses paid with plan assets are required to be included in funding normal cost. As a result, the plan is reimbursed annually through required funding. Exception – contributions are not required due to assets sufficiently in excess of liabilities to fund both expenses and normal cost. In this case, administrative expenses are taken from the excess assets.

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

2021

This Form is Open to Public Inspection

For calendar plan year 2021 or fiscal plan year beginning 08/01/2021 and ending 07/31/2022

▶ **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.

A Name of plan
Pension Plan for Employees of Advanced Silicon Materials, LLC

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
REC Advanced Silicon Materials, LLC

D Employer Identification Number (EIN)
20-3097239

E Type of plan: [X] Single [ ] Multiple-A [ ] Multiple-B

F Prior year plan size: [ ] 100 or fewer [ ] 101-500 [X] More than 500

Part I Basic Information

1 Enter the valuation date: Month 08 Day 01 Year 2021

2 Assets:

a Market value	**2a**	30159291
b Actuarial value	**2b**	30159291

3 Funding target/participant count breakdown

	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	216	14592954	14592954
b For terminated vested participants	312	12543867	12543867
c For active participants	108	3212207	3212207
d Total	636	30349028	30349028

4 If the plan is in at-risk status, check the box and complete lines (a) and (b) [ ]

a Funding target disregarding prescribed at-risk assumptions	**4a**	
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	**4b**	
5 Effective interest rate	**5**	5.57 %
6 Target normal cost		
a Present value of current plan year accruals	**6a**	0
b Expected plan-related expenses	**6b**	130500
c Total (line 6a + line 6b)	**6c**	130500

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.

SIGN HERE

SS

Signature of actuary

4/11/2023
Date

Steward Sainvil
Type or print name of actuary

2308415
Most recent enrollment number

Principal Financial Group
Firm name

678-322-3602
Telephone number (including area code)

PO Box 9394
Des Moines, IA 50306-9394

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 II Beginning of Year Carryover and Prefunding Balances

		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	0
10	Interest on line 9 using prior year's actual return of 16.20 %	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		57
	b(1) 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 5.38 %		3
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
	c Total available at beginning of current plan year to add to prefunding balance		60
	d Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14	Funding target attainment percentage	14	99.37 %
15	Adjusted funding target attainment percentage	15	99.37 %
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	83.27 %
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(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
11/12/2021	380887	0			
02/11/2022	380887	0			
05/12/2022	380887	0			
08/11/2022	380887	0			
11/10/2022	343839	0			
02/13/2023	343839	0			
			Totals ► 18(b)	2211226	18(c)

19	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
	a Contributions allocated toward unpaid minimum required contributions from prior years.	19a	0
	b Contributions made to avoid restrictions adjusted to valuation date	19b	0
	c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	2107790

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? [X] Yes [ ] No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? [X] Yes [ ] No

c 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

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

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
4.75 %	5.36 %	6.11 %	☐ N/A, full yield curve used

b Applicable month (enter code)	**21b**	4
22 Weighted average retirement age	**22**	63

23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☒ Yes	☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes	☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment	☒ Yes	☐ No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	**27**	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

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

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6c)	**31a**	130500
b Excess assets, if applicable, but not greater than line 31a	**31b**	0

32 Amortization installments:	Outstanding Balance	Installment
a Net shortfall amortization installment	189737	17691
b Waiver amortization installment	0	0

33 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	**33**	
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	**34**	148191

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0

36 Additional cash requirement (line 34 minus line 35)	**36**	148191
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	**37**	2107790

38 Present value of excess contributions for current year (see instructions)

a Total (excess, if any, of line 37 over line 36)	**38a**	1959599
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	**38b**	0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	**39**	0
40 Unpaid minimum required contributions for all years	**40**	0

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:

a Schedule elected ☐ 2 plus 7 years ☐ 15 years

b Eligible plan year(s) for which the election in line 41a was made ☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011

Schedule SB, Line 2a - Explanation of Assets
Pension Plan for Employees of Advanced Silicon Materials, LLC
EIN 20-3097239 Plan No. 002

The market value of assets on line 2a does not equal assets shown on Schedule H, Schedule I or Form 5500-SF. Schedule H, Schedule I and Form 5500-SF use the full value of contributions received after plan year end. Line 2a includes the value of $554,509 contributions received after the plan year end with a discounted value of $551,810.

Schedule SB, Line 22 - Description Of Weighted Average Retirement Age
Pension Plan for Employees of Advanced Silicon Materials, LLC
EIN 20-3097239 Plan No. 002

The weighted average retirement age is weighted by the expected percentage of active participants retiring at each age. The retirement rate reflects only those participants who meet retirement eligibility. An active participant working past assumed retirement age is expected to retire at current age.

(1) Age	(2) Expected Active Headcount	(3) Retirement Rate	(4) Expected Retirements (2)*(3)	(5) Weighted Age (1)*(4)
58	66.6086	0.1500	9.9913	579.4944
59	61.4359	0.0000	0.0000	0.0000
60	69.2471	0.0000	0.0000	0.0000
61	74.0088	0.0000	0.0000	0.0000
62	77.7201	0.5000	38.8600	2,409.3231
63	42.5174	0.0000	0.0000	0.0000
64	47.3031	0.0000	0.0000	0.0000
65	50.0408	1.0000	50.0408	3,252.6551
66	1.0000	1.0000	1.0000	66.0000
67	2.0000	1.0000	2.0000	134.0000
68	0.0000	1.0000	0.0000	0.0000
69	1.0000	1.0000	1.0000	69.0000
Total			102.8922	6,510.4726
Average				63.27

This report reflects the maximum benefit limits under Internal Revenue Code (IRC) Section 415 and maximum compensation limits under IRC Section 401 in effect on the first day of each plan year.

The following is a summary of plan provisions and does not alter the intent or meanings of the provisions contained in the contract or plan document. This report reflects the provisions of the 08/01/2019 restatement, signed 10/28/2019.

Plan eligibility

Age	No age requirement.
Service	No service requirement.
Entry	Frozen as of 12/31/2005.

Normal retirement benefit

Age	Attained age 65.
Service	5 years after the first day of the plan year in which his entry date occurred.
Form	Monthly annuity payable for life (optional forms may be elected in advance of retirement).
Amount (accrued benefit)	Greater of Regular formula, Alternate formula or Minimum formula. Greatest formula is then offset by the Union Carbide plan benefit.

Regular formula
Sum of a. and b.

a. 1.2% of average monthly compensation multiplied by years of credited service plus

b. $12 multiplied by a fraction of service earned over potential credited service at normal retirement date.

Or
Alternate formula
Only applies if the sum of a. and b. is greater than the regular or minimum formulas as of 12/31/1995.

a. 1.50% of average monthly compensation multiplied by years of credited service prior to 01/01/1996 minus

b. 1.50% of monthly social security benefit multiplied by years of credited service earned prior to 01/01/1996, not to exceed 50% of the social security benefit plus

c. 1.2% of average monthly compensation multiplied by years of credited service earned on and after 01/01/1996 plus

d. $12 multiplied by a fraction of credited service earned over potential credited service at normal retirement date.

Or
Minimum formula
Sum of a. through f.

a. $6.00 multiplied by years of credited service up to 10 years

b. $9.00 multiplied by years of credited service between 10 and 20 years

c. $12.00 multiplied by years of credited service in excess of 20 years

d. 1% of average monthly compensation multiplied by years of credited service up to 10 years

e. $12 multiplied by a fraction of credited service earned over potential credited service at normal retirement date.

Frozen as of 12/31/2005.

Early retirement benefit-option one

Age Attained age 50.

Service Completed 10 years of credited service.

Service for early retirement eligibility is frozen as of 12/31/2005.

Form Same as normal retirement benefit.

Amount Accrued benefit on early retirement date reduced by 5% for each year that the early retirement date precedes normal or unreduced retirement date.

Amount Accrued benefit unreduced if one of the following applies:

a. If the employee was a participant as of 12/31/1995 and the sum of age and years of credited service is equal to or greater than 85.

b. If the participant has attained age 62 and 10 years of credited service.

Adjustment If the employee is terminated by the Employer for a reason other than for cause or a transfer of a business unit, has attained age 48 and completed 8 years of credited service as of 12/31/2005, then the reduction of the early retirement factor shall be determined as if the employee had attained 2 more years of age and 2 more years of service. This additional service and age do not allow the employee to retire under the unreduced option.

Early retirement benefit-option two

Age	Attained age 50.
Service	Completed 5 years of credited service. Service for early retirement eligibility is frozen as of 12/31/2005.
Form	Same as normal retirement benefit.
Amount	Accrued benefit on early retirement date reduced by 6 2/3% for the first three years and by 5% for each additional year early retirement date precedes normal or unreduced retirement date.

Late retirement benefit

Age	No maximum age.
Form	Same as normal retirement benefit.
Amount	Greater of accrued benefit on late retirement date or accrued benefit on normal retirement date actuarially increased to late retirement date.

Survivor annuity death benefit (a vested benefit)

Eligibility	Qualified married participant fully or partially vested in an accrued benefit.
Form	Monthly annuity payable to spouse, deferred to participant's earliest retirement date if later than the date of death.
Amount	If death occurs, the amount paid to the surviving spouse is equal to the amount that would have been paid had the participant terminated employment on the date of death and survived to his/her earliest retirement age, retired with a qualified joint and 50% survivor annuity in effect, then died the next day.

Definitions

Average monthly compensation	Highest consecutive 5 compensation periods during the last 10 years of employment excluding fractional years due to employment or termination. But shall not be less than the total compensation earned over the 60 calendar months preceding his date of retirement or termination, divided by the number of months in such period. Frozen as of 12/31/2005.

Optional forms of benefit payments

The optional forms of benefit payments are:

- Monthly annuity payable for life.
- Monthly annuity payable as a survivorship life annuity with survivorship percentages of 50 or 75.
- Social Security Leveling Income.

The optional form conversion basis is 6.00% interest and the UP 1984 Mortality table for payments other than lump sums.

The optional form conversion basis uses the applicable interest rate and applicable mortality table as set forth in Code Section 417 for lump sum payments. The applicable interest rate uses the third calendar month preceding the first day of the stability period which is the plan year.

Changes in Principal Eligibility or Benefit Provisions

There have been no changes in principal eligibility or benefit provisions since the last valuation.

Significant Event

The enrolled actuary has not been made aware that any significant events have occurred during the year.

Shortfall

Date created	Present value	Remaining years	Annual charge
08/01/2021	$189,737	15	$17,691
Total	**$189,737**		**$17,691**

Last year's total shortfall annual charge was $1,393,045. ARPA extends the shortfall amortization period from 7 to 15 years. Any existing shortfall bases have been eliminated and replaced with a new base amortized over 15 years.

The total annual charge used in calculating your annual cost can't be less than zero.

Waiver charges represent your repayment to the plan for an annual charge that was not funded. A waiver only exists once the Internal Revenue Service has granted approval. See Waivers in Rules and regulations.

Waiver

Date created	Present value	Remaining years	Annual charge
N/A	N/A	N/A	N/A

There are no waiver bases for the current year.

Schedule SB, Line 25 – Change in Method
Pension Plan for Employees of Advanced Silicon Materials, LLC
EIN 20-3097239 Plan No. 002

The Employee Retirement Income Security Act of 1974, Section 103(c)(4), requires the plan administrator to furnish an explanation of a change in the enrolled actuary as part of the annual report. There was a change in enrolled actuaries since last year. The actuarial valuation work continues to be done by Principal Life Insurance Company. However, the individual involved with this plan as the enrolled actuary has changed due to a change in the plan assignment among enrolled actuaries at Principal Life Insurance Company.

Schedule SB, Line 24 – Change in Actuarial Assumptions
Pension Plan for Employees of Advanced Silicon Materials, LLC
EIN 20-3097239 Plan No. 002

Certain non-prescribed assumptions have been changed since last year. These assumptions were changed to better reflect the anticipated experience of your plan. See the attachment, Part V – Statement of Actuarial Assumptions/Methods, for the rationale for each assumption.

The assumed asset return for the current year has increased from 5.00% to 6.00%.