

RE 29(4) e-FILING REPORT COVER SHEET

REPORT NAME: RE29(4) UM 1452 PGE's Compliance Filing for OAR 860-084-0430
Oregon Solar Payment Option Pilot Program, Bi-Annual Report

COMPANY NAME: Portland General Electric

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? Yes

If known, please select designation: RE (Electric)

Report is required by:

OAR 860-084-0430

Is this report associated with a specific docket/case? Yes

UM 1452 and UM 1505

Key words: Solar Payment Option Pilot Program, Bi-Annual Report

If known, please select the PUC Section to which the report should be directed:

Electric Rates and Planning



Portland General Electric Company
121 SW Salmon Street • Portland, Oregon 97204
PortlandGeneral.com

February 14, 2014

Public Utility Commission of Oregon
Attn: Filing Center
3930 Fairview Industrial Drive SE
P.O. Box 1088
Salem, OR 97308-1088

**RE: PGE's UM 1452 Compliance Filing for OAR 860-084-0430
Oregon Solar Payment Option Pilot Program, Bi-Annual Report**

Enclosed is PGE's bi-annual compliance filing for the Oregon Solar Payment Option Pilot Program. This filing is submitted in compliance with OAR 860-084-0430. PGE provides the raw data collected from pilot program participants who have signed agreements with PGE from August 1, 2013 through January 31, 2014. These signed agreements allow PGE to provide customer information to the Oregon Department of Energy (ODOE) and the Energy Trust of Oregon (ETO).

Below PGE provides pilot program enrollment data from the most recent window, which was October 1, 2013. In addition to the October 2013 window, summary enrollment results for the pilot to date are provided. PGE acknowledges that this filing does not provide historical enrollment results by window as it has in previous filings. Given that the pilot is winding down and the prices set for the remaining enrollment windows, we did not consider the historical results by window informative to this filing. They are available upon request.

With this bi-annual filing, PGE also provides the Cohort C, Survey 2 report, which is the most recent survey. The report provides an introduction, key findings and recommendations, and survey results. The Cohort C, Survey 2 information, findings and results echo the results from earlier cohort surveys, which have not been submitted and are available upon request. At the conclusion of this pilot, PGE will have conducted eight surveys: two surveys each for Cohorts A through D.

Finally, PGE expects to submit the pilot evaluation in March, 2014 so that the information may be available for purposes of the legislative report in Docket No. UM 1673.

Summary of Pilot Program

October 1, 2013, Reservation Period Results

Applicants from the October 1, 2013 reservation period are proceeding with the interconnection process. As of January 28, 2014, 54 small-size projects are fully interconnected with contracts in place, and operating. As of January 28, 2014, 22 projects withdrew or failed to meet the application and installed deadlines. The information is summarized in the table below.

October 1, 2013 Reservation Period						
	Reserved		In Operation		Withdrawn/Expired	
	Projects	kW	Projects	kW	Projects	kW
Small	203	1538	54	365	22	153
Medium	11	1059	0	0	0	0
Large	N/A	N/A	N/A	N/A	N/A	N/A

July 2010 – February 2014 Summary Reservation Period Results

As the initial eight enrollment windows are concluded in this pilot, PGE provides summary pilot results of the number of systems in progress, operation and withdrawn as well as the associated capacity amounts. The withdrawn/expired results represent the total number of projects and capacity that have dropped out or expired past one of the program deadlines since the beginning of the pilot. The majority of the capacity was rolled over to subsequent enrollment windows.

Total – July 2010 to February 2014						
	In Progress		In Operation		Withdrawn/Expired	
	Projects	kW	Projects	kW	Projects	kW
Small	142	1176	1063	6967	380	2679
Medium	18	1662	43	3360	14	1197
Large	1	500	8	3009	0	0

The following attachments are included:

- Attachment A provides the non-confidential raw data.
- Attachment B is the confidential raw data and provided in spreadsheet format on a CD. Attachment B should be treated as a confidential submission under OAR 860-001-0070 and is provided in a separate sealed envelope marked "Confidential." The ETO and ODOE will receive a copy of this filing including the confidential data.
- Attachment C provides survey results (without appendices) from Cohort C, Survey Two.

Please direct any inquiries on this filing to Bonnie Gariety at (503) 464-7470.

Sincerely,

A handwritten signature in black ink, appearing to read "Karla Wenzel". The signature is fluid and cursive, with the first name "Karla" being more prominent than the last name "Wenzel".

Karla Wenzel
Manager, Pricing & Tariffs

Enclosures

cc: UM 1452 and UM 1505 Service List

Attachment A
PGE Solar Payment Option Pilot Program
August 2013 – January 2014
Non-Confidential Raw Data

PGE Solar Payment Option Pilot Program
Compliance with OAR 860-084-0430(2)
DATE RANGE: 08/01/2013 to 01/31/2014

OAR 860-084-0420(2)(a), (b), and (c.)							(d)	(e)				(f)	(g)	(h)	(i)	(j)	(k)
Name and address of retail electricity consumer; Name and address of individual receiving VIR payments*; and installation location of system							Installed capacity	Name, business name and business address of contractor** See ETO Trade Ally List				Financer of system	In-service Date	Date of certification of compliance	Applicant Consent	New Customer	Customer Type
							9.36	Imagine Energy	4209 N Kerby Ave	Portland	Mark Bassett		8/15/2013	8/29/2013	Yes	N/A	Type 1
							9.89	Sunbridge Solar	1631 NE Broadway #320	Portland	Jordan Weisman		8/21/2013	8/28/2013	Yes	N/A	Type 1
							10	RS Energy, LLC	20915 SW 105th Ave	Tualatin	Grant Lindsley		10/10/2013	10/18/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5.2	Solar City	20915 SW 105th Ave	Tualatin	Robert Yoo	SolarCity Corporation	10/28/2013	11/6/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	2.88	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/13/2013	8/19/2013	Yes	N/A	Type 1
							9.87	Benton Electric, Inc.	34037 Excor Road	Albany	Travis Sheffield		10/17/2013	10/23/2013	Yes	N/A	Type 1
							10	RS Energy, LLC	3055 Clearview Way	San Mateo	Grant Lindsley		10/24/2013	11/6/2013	Yes	N/A	Type 1
							8.25	RS Energy, LLC	20915 SW 105th Ave	Tualatin	Grant Lindsley		9/26/2013	10/1/2013	Yes	N/A	Type 1
							9.8	E C Company	2121 NW Thurman	Portland	Laurie Hutchinson		9/27/2013	10/1/2013	Yes	N/A	Type 1
							9.95	Imagine Energy, LLC	2409 N. Kerby Avenue	Portland	Jonathan Cohen		10/28/2013	11/7/2013	Yes	N/A	Type 1
							9.81	Synchro Solar	1339 SE 8th Avenue Suite B	Portland	Randy Feldhaus		12/2/2013	12/20/2013	Yes	N/A	Type 1
							9.8	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson	Wells Fargo	10/1/2013	10/16/2013	Yes	N/A	Type 1
							9.81	Synchro Solar	1339 SE 8th Avenue Suite B	Portland	Randy Feldhaus		11/27/2013	12/20/2013	Yes	N/A	Type 1
							9.72	Imagine Energy	2409 N Kerby Ave	Portland	Mark Bassett		10/8/2013	10/16/2013	Yes	N/A	Type 1
							7.83	Elemental Energy LLC	830 Ne Hazelfern Pl	Portland	John Grieser		1/3/2014	1/10/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	9.36	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/14/2013	8/29/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	4.08	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	10/4/2013	10/16/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	3.92	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/13/2013	8/20/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	4.8	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/12/2013	8/19/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	9.8	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/13/2013	8/26/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	4.8	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/14/2013	8/26/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	8.58	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/20/2013	8/29/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5.88	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/16/2013	8/29/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	7.44	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/15/2013	8/29/2013	Yes	N/A	Type 1
							9.95	Synchro Solar	1339 SE 8th Avenue Suite B	Portland	Randy Feldhaus		8/2/2013	8/13/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	4.84	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/14/2013	8/26/2013	Yes	N/A	Type 1

PGE Solar Payment Option Pilot Program
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DATE RANGE: 08/01/2013 to 01/31/2014

OAR 860-084-0420(2)(a), (b), and (c.)								(d)	(e)				(f)	(g)	(h)	(i)	(j)	(k)
Name and address of retail electricity consumer; Name and address of individual receiving VIR payments*; and installation location of system								Installed capacity	Name, business name and business address of contractor** See ETO Trade Ally List				Financer of system	In-service Date	Date of certification of compliance	Applicant Consent	New Customer	Customer Type
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	15.51	SolarCity	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	9/23/2013	9/27/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	9.8	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/13/2013	8/19/2013	Yes	N/A	Type 1
				Assigned	Willamette Energy Solutions	PO Box 2143	Corvallis	10	Abundant Solar	7267 Nw Grandview Drive	Corvallis	James Reismiller		10/25/2013	11/7/2013	Yes	N/A	Type 1
								9	RS Energy	20915 SW 105th Ave	Tualatin	Grant Lindsley		11/8/2013	11/22/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	9.6	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	10/15/2013	10/23/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	9.46	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/23/2013	9/4/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6.24	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/9/2013	8/20/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	3.68	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/12/2013	8/26/2013	Yes	N/A	Type 1
								10	RS Energy	20915 SW 105th Ave	Tualatin	Grant Lindsley		8/14/2013	8/26/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6.24	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/5/2013	8/13/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	5.88	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	10/17/2013	10/23/2013	Yes	N/A	Type 1
								10	Benton Electric Inc.	34037 Excor Rd SW	Albany	Matthew Henderson		10/10/2013	10/18/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6.72	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/9/2013	8/20/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6.86	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/21/2013	8/28/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	5.88	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/15/2013	8/29/2013	Yes	N/A	Type 1
								70	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson	Northwest Farm Credit Services	8/15/2013	8/29/2013	Yes	N/A	Type 1
								4.83	Sunlight Solar Energy	50 SE Scott Street Bldg 13	Bend	Alicia Sherman		10/31/2013	11/6/2013	Yes	N/A	Type 1
				Assigned	Duerst FLP	13512 Doerfler Rd SE	Silverton	10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson		8/29/2013	9/4/2013	Yes	N/A	Type 1
				Assigned	Doerfler FLP	13510 Doerfler Rd SE	Silverton	10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson		8/15/2013	9/4/2013	Yes	N/A	Type 1
								10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson	Columbia State Bank	8/12/2013	8/20/2013	Yes	N/A	Type 1
								9.72	RS Energy	20915 SW 105th Ave	Tualatin	Grant Lindsley		1/13/2014	1/17/2014	Yes	N/A	Type 1
								10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson	Columbia State Bank	8/2/2013	8/13/2013	Yes	N/A	Type 1
								10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson		8/13/2013	8/20/2013	Yes	N/A	Type 1

PGE Solar Payment Option Pilot Program
Compliance with OAR 860-084-0430(2)
DATE RANGE: 08/01/2013 to 01/31/2014

OAR 860-084-0420(2)(a), (b), and (c.)							(d)	(e)				(f)	(g)	(h)	(i)	(j)	(k)
Name and address of retail electricity consumer; Name and address of individual receiving VIR payments*; and Installation location of system							Installed capacity	Name, business name and business address of contractor** See ETO Trade Ally List				Financer of system	In-service Date	Date of certification of compliance	Applicant Consent	New Customer	Customer Type
			Assigned	Doerfler FLP	13510 Doerfler Rd SE	Silverton	10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson	West Coast Bank Agricultural Banking	8/22/2013	9/4/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	2.45	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/15/2013	8/29/2013	Yes	N/A	Type 1
			Assigned	Duerst FLP	13512 Doerfler RD SE	Silverton	10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson	Columbia State Bank	8/21/2013	8/29/2013	Yes	N/A	Type 1
			Assigned	Doerfler FLP	13510 Doerfler RD SE	Silverton	10	Benton Electric Inc.	34037 Excor Road	Albany	Matthew Henderson		10/17/2013	10/23/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	2.59	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	10/1/2013	10/1/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	9.8	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/13/2013	8/20/2013	Yes	N/A	Type 1
							9.72	RS Energy, LLC	20915 SW 105th Ave	Tualatin	Grant Lindsley		10/8/2013	10/16/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	8.82	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/14/2013	8/26/2013	Yes	N/A	Type 1
							10	Paul Solonika and Sons, LLC	4114 Frazer Rd	Sublimity	Paul Solonika		8/2/2013	8/14/2013	Yes	N/A	Type 1
							9.72	Advanced Energy Systems	65 Centennial Loop	Eugene	Thomas Brex	MAPS Credit Union	9/9/2013	9/16/2013	Yes	N/A	Type 1
							9.87	Solar Universe	556 Sommerset Rd.	Woodland	Dan Tracy		8/21/2013	8/28/2013	Yes	N/A	Type 1
							10	Dynamic Power Innovation	236 SE Baker	McMinnville	Josh Kopczynski	OnPoint Credit Union	8/20/2013	8/29/2013	Yes	N/A	Type 1
							6	Dynamic Power Innovation	236 SE Baker Street	McMinnville	Josh Kopczynski		10/9/2013	10/18/2013	Yes	N/A	Type 1
							10	Dynamic Power Innovation	236 SE Baker ST	McMinnville	Dee Kopczynski		8/28/2013	9/4/2013	Yes	N/A	Type 1
							8.7	Dynamic Power Innovation	236 SE Baker Street	McMinnville	Josh Kopczynski		10/1/2013	10/16/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	4.73	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	10/18/2013	11/6/2013	Yes	N/A	Type 1
							10	Dynamic Power Innovation	236 SE Baker	McMinnville	Dee Kopczynski		9/23/2013	9/27/2013	Yes	N/A	Type 1
							10	REC Solar	3380 SE 20th	Portland	Thomas Farringer		8/20/2013	9/4/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	2.21	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/14/2013	8/26/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	7.35	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	9/19/2013	10/1/2013	Yes	N/A	Type 1
							9	Lite Solar Corp. Oregon	3417 SE Guilford Drive	Milwaukie	Pat Schellerup		8/2/2013	8/14/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	8.82	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/12/2013	8/19/2013	Yes	N/A	Type 1
			Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	7.35	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/30/2013	9/16/2013	Yes	N/A	Type 1

PGE Solar Payment Option Pilot Program
Compliance with OAR 860-084-0430(2)
DATE RANGE: 08/01/2013 to 01/31/2014

OAR 860-084-0420(2)(a), (b), and (c.)							(d)	(e)				(f)	(g)	(h)	(i)	(j)	(k)
Name and address of retail electricity consumer; Name and address of individual receiving VIR payments*; and Installation location of system							Installed capacity	Name, business name and business address of contractor** See ETO Trade Ally List				Financer of system	In-service Date	Date of certification of compliance	Applicant Consent	New Customer	Customer Type
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	6.37	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	9/12/2013	9/16/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5.94	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/23/2013	9/4/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	9.56	SolarCity Corporation	3055 Clearview Way	San Mateo	Jennifer Crist	SolarCity Corporation	8/12/2013	8/20/2013	Yes	N/A	Type 1
							6.62	Solar Universe of Oregon	556 Sommerset Road	Woodland	Dan Tracy		12/4/2013	12/20/2013	Yes	N/A	Type 1
							7.42	Synchro Solar	1339 SE 8th Avenue Suite B	Portland	Randy Feldhaus	umpqua bank	12/9/2013	12/20/2013	Yes	N/A	Type 1
							8.09	Solar Universe of Oregon	556 Sommerset Road	Woodland	Dan Tracy	EnerBank USA	11/7/2013	11/22/2013	Yes	N/A	Type 1
							5.23	Synchro Solar	1339 SE 8th Avenue Suite B	Portland	Randy Feldhaus		12/20/2013	12/30/2013	Yes	N/A	Type 1
							9.16	Synchro Solar	1339 SE 8th Avenue Suite B	Portland	Randy Feldhaus		12/19/2013	12/27/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	3.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/19/2013	12/27/2013	Yes	N/A	Type 1
							6.9	Synchro Solar	1339 SE 8th Avenue Suite B	Portland	Randy Feldhaus	EnerBankUSA	1/6/2014	1/13/2014	Yes	N/A	Type 1
							10	Dynamic Power Innovation	236 SE Baker Street	McMinnville	Dee Kopczynski		1/6/2014	1/13/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/23/2013	12/30/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	3	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/13/2013	12/24/2013	Yes	N/A	Type 1
							9.95	Benton Electric Inc.	34037 Excor Rd SW	Albany	Matthew Henderson		12/24/2013	12/27/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/12/2013	12/24/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	6.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/12/2013	12/24/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/19/2013	12/27/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5.25	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/6/2014	1/10/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/30/2013	1/3/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	7	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/12/2013	12/24/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	8.25	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/20/2013	12/27/2013	Yes	N/A	Type 1

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				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	10	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/20/2013	12/30/2013	Yes	N/A	Type 1
				Assigned	SolarCity Corporation	3055 Clearview Way	San Mateo	5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity Corporation	12/16/2013	12/24/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/3/2014	1/13/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	2.88	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/17/2013	12/24/2013	Yes	N/A	Type 1
				Assigned	SolarCity Corporation	3055 Clearview Way	San Mateo	3	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/19/2013	12/30/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	5.25	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/10/2013	12/20/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	4.17	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/13/2014	1/17/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	9	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity Corporation	1/3/2014	1/13/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	5.25	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/27/2013	1/3/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/16/2013	12/24/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/16/2013	12/24/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	4.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/13/2014	1/17/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	4.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/3/2014	1/13/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity Corporation	12/27/2013	1/3/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	6.25	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		11/7/2013	11/22/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	7.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/11/2013	12/24/2013	Yes	N/A	Type 1
								10	Sunbridge Solar	1631 NE Broadway #320	Portland	Jordan Weisman		1/13/2014	1/17/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	5.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	Solar City	12/20/2013	12/27/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way	San Mateo	5.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/30/2013	1/3/2014	Yes	N/A	Type 1

PGE Solar Payment Option Pilot Program
Compliance with OAR 860-084-0430(2)
DATE RANGE: 08/01/2013 to 01/31/2014

OAR 860-084-0420(2)(a), (b), and (c.)							(d)	(e)				(f)	(g)	(h)	(i)	(j)	(k)
Name and address of retail electricity consumer; Name and address of individual receiving VIR payments*; and Installation location of system							Installed capacity	Name, business name and business address of contractor** See ETO Trade Ally List				Financer of system	In-service Date	Date of certification of compliance	Applicant Consent	New Customer	Customer Type
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	9.31	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	Mound Solar Owner VII, LLC	12/10/2013	12/20/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clear View Way San Mateo	8	SolarCity Corporation	3055 Clear View Way	San Mateo	Gerard Sison	Solar City	12/13/2013	12/24/2013	Yes	N/A	Type 1
							10	Sunbridge Solar	1631 NE Broadway #320	Portland	Jordan Weisman		1/3/2014	1/10/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	9.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/24/2013	1/3/2014	Yes	N/A	Type 1
							10	RS Energy	20915 SW 105th Ave	Tualatin	Meredith Paeper		12/19/2013	1/13/2014	Yes	N/A	Type 1
							9	Sunbridge Solar	1631 NE Broadway #320	Portland	Jordan Weisman		11/11/2013	11/21/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	3	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/6/2013	12/20/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	6	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	12/23/2013	12/27/2013	Yes	N/A	Type 1
				Assigned	SolarCity Corporation	3055 Clearview Way San Mateo	6.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/13/2014	1/17/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	6.5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity Corporation	1/13/2014	1/17/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	9.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/7/2014	1/13/2014	Yes	N/A	Type 1
							9	Sunbridge Solar	1631 NE Broadway #320	Portland	Jordan Weisman		11/11/2013	11/21/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		1/13/2014	1/17/2014	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	7.75	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison		12/24/2013	12/27/2013	Yes	N/A	Type 1
				Assigned	Solar City Corporation	3055 Clearview Way San Mateo	5	SolarCity Corporation	3055 Clearview Way	San Mateo	Gerard Sison	SolarCity	1/3/2014	1/10/2014	Yes	N/A	Type 1
							7.02	Neil Kelly company	804 N Alberta	Portland	Michael Figueredo		1/13/2014	1/17/2014	Yes	N/A	Type 1

PGE Solar Payment Option Pilot Program DATE RANGE: 08/01/2013 - 01/31/2014
Compliance with OAR 860-084-0430(2)

Name and address of retail electricity consumer; Name and address of individual receiving VR payments*; and installation location of system	(-1)	(-2)	(-3)	(-4)	(-5)	(-6)	(-7)		(-8)							(-9)	(-10)	(-11)	(-12)	(-13)	(-14)	(-15)		
	Installed Capacity	Total Installed cost	Photovoltaic module cost	Non-photovoltaic module cost	Total financing cost	Financing terms	System Location - address and GPS location	Crystalline Solar Panel	Thin Film Solar Panel	Other Solar Panel	Other Solar Panel Detail	Rooftop Racking	Field/Rack Mounting	Tracking System Mounting	Building Integrated Mounting	Other	Fed Tax Credit	In-service Date	Expected annual energy output	Date of certification of compliance	Class of Service	Applicant Consent	New Customer	
	9.56	42997.5	6592.95	36404.55				Yes	No	No	No	No	No	No	No	N/A	8/12/2013	9821	8/20/2013	7	Yes	N/A		
	6.62							No	No	No	No	No	No	No	No				12/4/2013	6555	12/20/2013	7	Yes	N/A
	7.42	51280	25640	25640	25640			Yes	No	No	No	No	No	No	No	7000	12/9/2013	7400	12/20/2013	7	Yes	N/A		
	8.09	35916.9	10000	26916.9	38810.36	green street loan 2 loans: 1:25,841.83 at 2.99%, tot payments 30,787.20 2: 1 yr same as cash 12,968.53 at 16.93, tot 25,043.60, due by Oct 2014. The above panel cost sans labor was not supplied to me, it is only an estimate. Contact contractor for details		Yes	No	No	No	Yes	No	No	No	11075.07	11/7/2013	8500	11/22/2013	7	Yes	N/A		
	5.23	26795	16077	10718				Yes	No	No	No	Yes	No	No	No	7588	12/20/2013	6400	12/30/2013	7	Yes	N/A		
	9.16	39340	23503	15837				Yes	No	No	No	Yes	No	No	No	11802	12/19/2013	10700	12/27/2013	7	Yes	N/A		
	3.5	16625	2397.5	14227.5				Yes	No	No	No	Yes	No	No	No	N/A	12/19/2013	7469	12/27/2013	7	Yes	N/A		
	6.9	32412	20575	11837	18000	12 year, 2.99%		Yes	No	No	No	Yes	No	No	No	9724	1/6/2014	6700	1/13/2014	7	Yes	N/A		
	10							No	No	No	No	No	No	No	No				1/6/2014	11000	1/13/2014	7	Yes	N/A
	5	23750	3425	20325				Yes	No	No	No	Yes	No	No	No	N/A	12/23/2013	5765	12/30/2013	7	Yes	N/A		
	3							No	No	No	No	No	No	No	No				12/13/2013	3341	12/24/2013	7	Yes	N/A
	9.95	34807.5	11779.95	23027.55	NA	NA		Yes	No	No	No	No	Yes	No	No	10442.25	12/24/2013	10800	12/27/2013	7	Yes	N/A		
	5.5	0						No	No	No	No	No	No	No	No				12/12/2013	5735	12/24/2013	7	Yes	N/A
	6.75	32062.5	4623.75	27438.75				Yes	No	No	No	Yes	No	No	No	N/A	12/12/2013	7706	12/24/2013	7	Yes	N/A		
	5.5							No	No	No	No	No	No	No	No				12/19/2013	6021	12/27/2013	7	Yes	N/A
	5.25							No	No	No	No	No	No	No	No				1/6/2014	5221	1/10/2014	7	Yes	N/A
	5	23750	3425	20325				Yes	No	No	No	Yes	No	No	No	N/A	12/30/2013	5858	1/8/2014	7	Yes	N/A		
	7							No	No	No	No	No	No	No	No				12/12/2013	7617	12/24/2013	7	Yes	N/A
	8.25	39187.5	5651.25	33536.25				Yes	No	No	No	Yes	No	No	No	N/A	12/20/2013	9367	12/27/2013	7	Yes	N/A		
	10							No	No	No	No	No	No	No	No				12/20/2013	10551	12/30/2013	7	Yes	N/A
	5	24500	3425	21075				Yes	No	No	No	Yes	No	No	No	N/A	12/16/2013	5228	12/24/2013	7	Yes	N/A		
	6.75							No	No	No	No	No	No	No	No				1/3/2014	5970	1/13/2014	7	Yes	N/A
	2.88	13680	3168	10512				Yes	No	No	No	Yes	No	No	No	N/A	12/12/2013	2515	12/24/2013	7	Yes	N/A		
	3	14250	2035	12195				Yes	No	No	No	Yes	No	No	No	N/A	12/10/2013	3372	12/20/2013	7	Yes	N/A		
	5.25							No	No	No	No	No	No	No	No				12/10/2013	5918	12/20/2013	7	Yes	N/A
	4.17							No	No	No	No	No	No	No	No				1/13/2014	4057	1/17/2014	7	Yes	N/A
	9	42750	5997.6	36752.4				Yes	No	No	No	Yes	No	No	No	N/A	1/3/2014	9987	1/13/2014	7	Yes	N/A		
	5.25							No	No	No	No	No	No	No	No				12/12/2013	5657	1/3/2014	7	Yes	N/A
	6							No	No	No	No	No	No	No	No				12/16/2013	5997	12/24/2013	7	Yes	N/A
	6							No	No	No	No	No	No	No	No				12/16/2013	5993	12/24/2013	7	Yes	N/A
	4.5							No	No	No	No	No	No	No	No				1/13/2014	4080	1/17/2014	7	Yes	N/A
	4.75							No	No	No	No	No	No	No	No				1/3/2014	4792	1/13/2014	7	Yes	N/A
	6.75	32062.5	4623.75	27438.75				Yes	No	No	No	Yes	No	No	No	N/A	12/27/2013	6444	1/3/2014	7	Yes	N/A		
	6.25							No	No	No	No	No	No	No	No				11/7/2013	9752	11/22/2013	7	Yes	N/A
	7.5	35625	5137.5	30487.5				Yes	No	No	No	Yes	No	No	No	N/A	12/11/2013	7269	12/24/2013	7	Yes	N/A		
	10							No	No	No	No	No	No	No	No				1/13/2014	10500	1/17/2014	7	Yes	N/A
	5.5	6018	3000	3018	N/A	Leases \$40.88 per month - 20 years		Yes	No	No	No	Yes	No	No	No	N/A	12/28/2013	6570	12/27/2013	7	Yes	N/A		
	5.3	76125	22357.5					Yes	No	No	No	Yes	No	No	No	N/A	12/20/2013	6416	1/13/2014	7	Yes	N/A		
	9.31	46550	6507.5	40042.5				Yes	No	No	No	Yes	No	No	No	N/A	12/10/2013	9790	12/20/2013	7	Yes	N/A		
	8	7729	3200	4529	7729	Lease		Yes	No	No	No	Yes	No	No	No	N/A	12/13/2013	7887	12/24/2013	7	Yes	N/A		
	10	39000	8500	30500	0	We paid cash for our system.		No	No	Yes	Flat Plate Collectors	Yes	No	No	No	N/A	1/3/2014	11500	1/9/2014	83	Yes	N/A		
	9.75				N/A			No	Yes	No	No	Yes	No	No	No	N/A	12/24/2013	9837	1/3/2014	7	Yes	N/A		
	10							No	No	No	No	No	No	No	No				12/19/2013	10500	1/13/2014	32	Yes	N/A
	9	39700	7560	32140	0	not applicable		Yes	No	No	No	Yes	No	No	No	N/A	11/11/2013	10400	11/21/2013	32	Yes	N/A		
	3							No	No	No	No	No	No	No	No				12/6/2013	3222	12/20/2013	7	Yes	N/A
	8	28500	4281.25	24218.75				Yes	No	No	No	Yes	No	No	No	N/A	12/23/2013	5399	12/27/2013	7	Yes	N/A		
	6.5							No	No	No	No	No	No	No	No				12/13/2013	6660	1/17/2014	7	Yes	N/A
	6.5	30875	4331.6	26543.4				Yes	No	No	No	Yes	No	No	No	N/A	1/13/2014	6917	1/17/2014	7	Yes	N/A		
	9.75							No	No	No	No	No	No	No	No				1/7/2014	11728	1/13/2014	7	Yes	N/A
	9	39700	7560	32140	0	not applicable		Yes	No	No	No	Yes	No	No	No	N/A	11/11/2013	10300	11/21/2013	32	Yes	N/A		
	5.75							No	No	No	No	No	No	No	No				1/13/2014	7908	1/17/2014	7	Yes	N/A
	7.75							No	No	No	No	No	No	No	No				12/24/2013	8014	12/27/2013	7	Yes	N/A
	5	23750	3425	20325				Yes	No	No	No	Yes	No	No	No	N/A	1/3/2014	5369	1/10/2014	7	Yes	N/A		
	7.02	41349.03	14309	27040.03	0			Yes	No	No	No	Yes	No	No	No	12405	1/13/2014	6056	1/17/2014	7	Yes	N/A		

Attachment B
PGE Solar Payment Option Pilot Program
August 2013 – January 2014
Confidential Raw Data

Provided on CD Only

Attachment C
PGE Solar Payment Option Pilot Program
Solar Payment Option Cohort C; Survey 1 & 2 Interim Report
without Appendices



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Final *Solar Payment Option* Cohort C, Survey 1 & 2 Interim Report

Funded By:



Prepared By:



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Research Into Action, Inc.

July 2013



TABLE OF CONTENTS

- INTRODUCTION 5**
- KEY FINDINGS AND RECOMMENDATIONS 6**
- SURVEY RESULTS 7**
 - PARTICIPANT CHARACTERISTICS..... 7
 - Residential Participants.....7
 - Commercial Participants9
 - Comparison of Residential and Commercial Participant Characteristics..... 10
 - THE DECISION TO PARTICIPATE..... 10
 - Program Awareness 10
 - Decision-Making Factors 11
 - Program Information..... 13
 - Uncertainty..... 13
 - Barriers to Participation 13
 - Payback Expectations 14
 - Performance Expectations..... 15
 - Comments on the Oregon Public Utility Commission..... 16
 - SOLAR PAYMENT OPTION VS. NET METERING..... 16
 - Reasons for NOT Participating in Net Metering..... 16
 - System Size..... 17
 - Payback Time Estimate..... 17
 - PROGRAM EXPERIENCE: THE FIRST YEAR 18
 - Program Design 18
 - Application Process..... 19
 - Financing 19
 - Solar PV Equipment..... 21
 - Solar Energy Payments 23
 - Project Installation Process 25
 - Summary of Program Experience 25
 - COHORT DIFFERENCES AND THE CONTINUED IMPORTANCE OF CONTRACTORS..... 26
- APPENDICES..... ERROR! BOOKMARK NOT DEFINED.**
 - APPENDIX A: SURVEY 1 – RESIDENTIAL & COMMERCIAL..... ERROR! BOOKMARK NOT DEFINED.
 - APPENDIX B: SURVEY 2 – RESIDENTIAL & COMMERCIAL..... ERROR! BOOKMARK NOT DEFINED.
- SURVEY 1 - RESIDENTIAL & COMMERCIAL..... ERROR! BOOKMARK NOT DEFINED.**

SURVEY 2 - RESIDENTIAL & COMMERCIAL.....ERROR! BOOKMARK NOT DEFINED.

LIST OF FIGURES

Figure 1: What percent of your annual electricity do you expect your system will generate? 16

Figure 2: Why did you decide *not* to participate in the traditional net metering program? (Multiple Responses Allowed)..... 17

Figure 3: Satisfaction with Financing Arrangement 20

Figure 4: Thinking back over the year, how satisfied are you with the quality of the solar installation?..... 22

Figure 5: Has the performance of the solar PV system met your expectations over the year? 22

Figure 6: Has the payment amount you've received so far met your expectations? 24

Figure 7: Participant Satisfaction with Time Periods 25

Figure 8: Initial Satisfaction with Quality of Installation 27

Figure 9: Overall Satisfaction with Contractor, after Three Months and after One Year 28

LIST OF TABLES

Table 1: Summary of Survey Respondents in Cohort C 5

Table 2: About what year was your home built? (n=58) 7

Table 3: How large is the living space in your home, excluding garage and unfinished areas? (n=59) 8

Table 4: Primary source of energy for space and water heating (n=59) 9

Table 5: About what year was your building built? (n=31) 10

Table 6: From whom or how did you first hear about the SPO program? 11

Table 7: How long had you considered installing your new solar PV system? 12

Table 8: How important were each of the following factors in your decision to invest in solar at this time? (Multiple Responses Allowed)..... 12

Table 9: How significant was each of the following factors as a potential problem for participation? (Multiple Responses Allowed)..... 14

Table 10: How many years do you estimate it will take to recover your initial investment? 15

Table 11: How did the planned size of the system for net metering compare to the size of your system under the SPO program? 17

Table 12: Estimate of Years until Payback for SPO vs. Net Metering 18



Table 13: Who calculated the payback estimate? 18

Table 14: Percent of Participants Utilizing Each Method to Finance All, Some or None of Their Installation
(Multiple responses allowed) 20

Table 15: What is the additional amount that you are paying annually to meet the liability insurance
requirement?..... 21

Table 16: Do you know if the value of your home/business has changed? 23

Table 17: Averages for “Has the payment amount you’ve received met expectations?” 24



INTRODUCTION

The Solar Payment Option (SPO) Pilot Program is a new offering from Portland General Electric (PGE). The SPO is intended to encourage the development of solar energy projects in Oregon, promote the solar industry, make solar photovoltaic systems more affordable, and determine the effectiveness of volumetric incentive rate structure. This state-mandated program is a component of Oregon’s 2020 vision to generate 25% of energy from renewable resources.

This interim report provides a preliminary analysis of the experience of the “Cohort C” participants in the SPO program, who enrolled in April 2011. The report assesses the participants’ responses to two surveys. The first survey was fielded about three months after operation of their solar PV system began. A second survey was fielded one year after the first survey.

Table 1: Summary of Survey Respondents in Cohort C

	SURVEY 1 REQUESTS SENT BETWEEN JUNE 2011-APRIL 2012*	SURVEY 1 - NUMBER OF COMPLETED SURVEYS (RESPONSE RATE)	SURVEY 2 - REQUESTS SENT IN MAY 2013	SURVEY 2 - NUMBER OF COMPLETED SURVEYS (RESPONSE RATE)
Residential Total	N = 67	n = 59 (88%)	N = 50	n = 49** (98%)
Commercial Total	N = 34	n = 31 (91%)	N = 26	n = 26 (100%)

* Survey invitations were sent monthly using participant contact information provided by PGE after installation, and surveys were conducted approximately three months after system began running.

** Five of the participants (three residential, two commercial) that completed Survey 2 did not previously complete Survey 1. These respondents were kept in the sample, but were excluded from analyses when comparing responses on like items between the two surveys.



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KEY FINDINGS AND RECOMMENDATIONS

The analysis of two waves of surveys completed by Cohort C participants resulted in the same key findings and recommendations as presented in the Cohort B Interim Report:

1. Nearly all SPO program participants would recommend the program to others. Overall participant satisfaction with a variety of program elements tended to start high and rise further over the first year.
 - ➔ *Recommendation:* With no glaring deficiencies in program processes, program managers could aim to sustain their high level of performance with succeeding cohorts and focus on addressing the minor issues raised in the evaluation.
2. Solar PV contractors are essential to the success of the SPO program. Contractors introduce the program to participants, explain it, conduct many of the payback calculations, and fill out the program paperwork. Participant satisfaction with contractors is very high, both at installation and after one year. Among Cohort C, average contractor satisfaction ratings rose over the course of the year.
 - ➔ *Recommendation:* Program managers could leverage contractors as a delivery channel for participant information. Information intended for participants could be given to contractors, and training could be provided to contractors in areas where participants identified their services or knowledge was lacking. Program staff noted that although there is currently no formal process for using contractors as a delivery channel, program staff are in frequent contact with contractors.





SURVEY RESULTS

PARTICIPANT CHARACTERISTICS

Residential Participants

Cohort C participants had higher incomes and greater educational attainment than typical Portland residents. About two-thirds (70%) of residential participants that provided an answer had an annual household income greater than \$60,000, while the Portland area median household income is about \$55,000. Most (91%) of Cohort C participants completed at least some college or had a trade school degree and 60% had a four-year-degree or more. In contrast, the U.S. Census found that only 37% of Portland residents over 25 have a bachelor's degree or more.

In terms of household size and the age of the building stock, residential participants were more typical of Portland. On average, residential participants reported three persons residing in their home, with over half (52%) reporting living in a two-person household. This is similar to the average Portland owner-occupied household size of 2.65 people.

Forty-one percent of Cohort C respondent homes were built before 1979 and 78% were built prior to 2001 (Table 2). This reflects Portland's housing stock, which has relatively few new homes.

Table 2: About what year was your home built? (n=58)¹

YEAR	NUMBER OF HOMES	PERCENT	CUMULATIVE PERCENT
Before 1950	9	16%	16%
1950 - 1973	11	19%	34%
1974 - 1978	4	7%	41%
1979 - 1984	8	14%	55%
1985 - 1992	3	5%	60%
1993 - 1994	1	2%	62%
1995 - 1997	6	10%	72%
1998 - 2000	3	5%	78%

¹ Reported n values fluctuate throughout this report, as some participants refused to answer certain demographic questions or chose "not applicable" to certain items that did not pertain to their experience in the program. We excluded these responses from an analysis when refusals and "not applicable" responses are less than 5% of all responses for a given item and accordingly report the 'adjusted n' (the number of respondents that actually provided a 'legitimate' answer). In certain tables and figures, the 'adjusted n' slightly varies from item to item. In these cases, we report the sample n with an asterisk (n=x*) to denote variation in the 'adjusted n'.

YEAR	NUMBER OF HOMES	PERCENT	CUMULATIVE PERCENT
2001 - 2002	3	5%	83%
2003 - 2004	1	2%	84%
2005 - 2006	4	7%	91%
After 2006	5	9%	100%
Total	58	100%*	

* Due to rounding errors, total percentages may not always sum to the reported total of 100%.

Cohort C participants represented a range of home sizes. As Table 3 shows, the living space of the respondents is fairly evenly spread into five categories, ranging from smaller than 1,500 square feet to over 3,000 square feet. The fewest respondents reside in the smallest category.

Table 3: How large is the living space in your home, excluding garage and unfinished areas? (n=59)

LIVING SPACE	PERCENT OF PARTICIPANTS
Less than 1,500 square feet	12%
1,500 - 2,000 square feet	27%
2,000 - 2,500 square feet	19%
2,500 - 3,000 square feet	24%
More than 3,000 square feet	19%
Total	100%

Natural gas is residential participants' primary space and water heating fuel. About half of Cohort C residential participants used natural gas for space heating (53%) and for heating water (49%). Electricity was reported as the primary source by 24% for heating rooms and by 42% for heating water, as seen in Table 4.



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Table 4: Primary source of energy for space and water heating (n=59)

ENERGY SOURCE	SPACE HEATING	WATER HEATING
Natural gas	53%	49%
Electricity	24%	42%
Liquid propane gas	7%	9%
Wood	7%	0%
Pellet stove	3%	0%
Fuel oil, kerosene	2%	0%
Other	5%	N/A
Total	100%	100%

Commercial Participants

Commercial participants represented long-established businesses of varying sizes. Most (65%) commercial respondent’s businesses were established 10 or more years ago, with about one-fifth (19%) representing organizations established three to five years ago and one-tenth (10%) representing organizations established two years ago or less.

Commercial participants represented a wide-range of businesses sizes. About half (48%) reported 15 or fewer employees and about one-quarter (26%) reported 25 to 60 employees at their location. Responses on this item ranged from 0 to 600.

More than one-third (36%) reported revenues of less than \$500,000 per year. The sample includes some larger businesses, as three commercial participants reported more than \$10 million per year in revenue and 60% reported operating at more than one location (one of which indicated “more than 51” locations). Only three commercial respondents (10% of the Survey 1 sample) had a change in number of employees over the first year of SPO participation.

Respondents to the commercial survey were highly placed in their businesses and held greater educational attainment than typical of Portland residents. The survey respondent’s position in the participating business was generally that of a principal: 71% said they were owners, presidents, or management. In terms of educational attainment, most (81%) commercial respondents had a four-year degree or more.

Responding businesses operate in a range of building ages, often heated with natural gas. About one-quarter of commercial respondents operate in buildings built since 2006 (26%) or between 1950-1973 (26%) (Table 5). About twice as many commercial properties in the sample are heated with natural gas (55%) as compared to electricity (26%). Similarly, most of the respondent’s buildings use natural gas (45%) over electricity (36%) for water heating.



Table 5: About what year was your building built? (n=31)

YEAR	NUMBER OF BUILDINGS	PERCENT	CUMULATIVE PERCENT
Before 1950	2	6%	6%
1950 - 1973	8	26%	32%
1974 - 1978	3	10%	42%
1979 - 1984	1	3%	45%
1985 - 1992	2	6%	52%
1995 - 1997	2	6%	58%
2001 - 2002	2	6%	65%
2003 - 2004	1	3%	68%
2005 - 2006	2	6%	74%
After 2006	8	26%	100%
Total	31	100%	

Commercial respondents represented a wide range of operating hours and building sizes. Respondent businesses are open an average of 81 hours per week, with about one-quarter (27%) operating more than 80 hours per week. Less than half (48%) of the sampled buildings are smaller than 10,000 square feet in size, demonstrating a median size of 10,000 square feet. Only two commercial respondents altered their occupied floor space during the first year of SPO participation.

Comparison of Residential and Commercial Participant Characteristics

The evaluation team found no significant differences between residential and commercial participants on several key characteristics, with both groups exhibiting similar rates of:

- Percent of buildings built in or before 1978
- Percent of buildings built in or after 2005
- Percent of respondents primarily using natural gas for space heating
- Percent of respondents primarily using natural gas for water heating
- Percent who had previously owned a solar electric energy system

THE DECISION TO PARTICIPATE

Program Awareness

Both residential and commercial participants in Cohort C primarily first heard about the Solar Payment Option (SPO) program from a contractor or word of mouth. Table 6 exhibits these responses in descending order. Sources of awareness between the two groups only significantly



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varied on two items: commercial participants were more likely to report hearing about SPO via their contractor and residential participants were more likely to indicate media as a source of awareness.

Table 6: From whom or how did you first hear about the SPO program?

SOURCE	RESIDENTIAL PARTICIPANTS (N=59)	COMMERCIAL PARTICIPANTS (N=31)
Contractor	25%	55%
Friends, family, neighbor, co-worker, or other word of mouth	24%	13%
Media (radio, TV, newspaper, magazine, etc.)	15%	0%
Energy Trust of Oregon (website, representative, etc.)	7%	10%
Event	7%	10%
Mortgage provider	7%	0%
PGE (bill insert, website, representative, etc.)	3%	0%
Other	2%	6%
Don't remember	10%	6%
Total	100%	100%

Note: Grey bars denote significant differences (p<.05).

Decision-Making Factors

In addition to providing awareness, the contractor was the most influential source of decision information. For both residential and commercial participants, contractors were the most influential source of information for them when reaching the decision to participate. The contractor was reported “most influential” by 68% of commercial and 61% of residential respondents. A minority of commercial respondents (13%) reported Energy Trust of Oregon as the most influential, with only 3% of residential participants citing this source. Other sources, such as PGE representatives, media, or friends or colleagues, were each deemed as “most influential” by 10% or less of respondents in either group.

Cohort C most often considered installing their projects for between one and three years. More than one-third of both residential and commercial participants considered their decision for between 1 and 3 years (Table 7). Additionally, about another third of residential (31%) and commercial respondents (30%) considered their solar system for less than six months.



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Table 7: How long had you considered installing your new solar PV system?

	RESIDENTIAL PARTICIPANTS (N=59)	COMMERCIAL PARTICIPANTS (N=30)
Less than 3 months	14%	20%
3 months to less than 6 months	17%	10%
6 months to less than 1 year	22%	10%
1 year to less than 3 years	37%	43%
3 years to less than 5 years	8%	10%
5 years to less than 10 years	2%	7%
More than 10 years	14%	3%
Total	100%	100%

Table 8 shows results of participant ratings on the importance of various factors in their decision to invest in a solar energy system at the time of the Survey 1 period (approximately three months after installation), with significant differences shown in grey bars. While residential respondents demonstrated that becoming more energy independent was the most important factor in their decision to participate in the program, commercial respondents reported environmental benefits as the most important factor. Long-term savings on energy bills were the second highest rated factor for both groups; however, residential respondents attributed significantly higher importance to this factor. When asked what other factors were important in their decision, various energy concerns were the most prominent responses.

Table 8: How important were each of the following factors in your decision to invest in solar at this time? (Multiple Responses Allowed)

PERCENT OF RESPONDENTS RATING IMPORTANCE OF "4" OR "5" FOR:	RESIDENTIAL PARTICIPANTS (N=59)*	COMMERCIAL PARTICIPANTS (N=31)
Becoming more energy independent	90%	52%
Long-term savings on energy bills	88%	77%
Environmental benefits	73%	84%
Interest in new technologies	63%	45%
Income from Solar Payment Option program	57%	71%
Demonstration of personal value	55%	68%
Keep up with energy trends	36%	45%
Demonstration of sustainable corporate policy	N/A	71%

Note: Grey bars denote significant differences (p<.05).

In deciding whether to participate, the kilowatt-hour (kWh) price was important to most participants. The majority of residential (66%) and commercial participants (80%) rated the kWh price as important (a "4" or "5" on a five-point scale) when deciding whether to participate.



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Similarly, the 15-year fixed payment term was important to 64% of residential respondents and 73% of commercial participants.

Expected duration of the payback period was also an important decision point. Of those who estimated their payback timeframe, about one-quarter of both residential (29%) and commercial participants (23%) indicated it was highly likely (a “4” or “5” on a five-point scale) that they still would have participated if the payback period were extended by five years. However, if the payback period had been extended by 10 years, only 16% of residential and 4% of commercial participants reported that they likely would still have participated.

Program Information

Most participants were satisfied with the information provided during the application process, both from PGE’s website and from their contractor. About three-quarters of residential (79%) and commercial respondents (74%) were highly satisfied with information provided by their contractor on how the SPO program worked. However, satisfaction with the PGE website was comparably lower. Only about half of residential participants (42%) and commercial participants (52%) were highly satisfied (a “4” or “5” on a five-point scale) with the information on the PGE website regarding the SPO program, with substantial minorities of residential (17%) and commercial respondents (26%) reporting this question was “not applicable” to them. The majority of participants (81% of residential, and 87% of commercial respondents) said they had sufficient time to review the program details before making the decision to participate.

Uncertainty

Residential participants were significantly more likely to report having any concerns or unresolved issues when they made the decision to participate. About one-third (31%) of residential participants reported having concerns or unresolved issues when they made the decision to participate in the program, compared to only one-tenth of commercial participants.²

The most common unresolved issue for residential participants was unclear information, mostly in regards to various financial concerns. Many participants who reported unresolved issues felt the information was unclear on various financial issues, such as the payback period, payments from PGE, their contractor lease agreement, and the contract.

Barriers to Participation

Potential barriers to participation in the program differed between residential and commercial participants. Table 9 exhibits the percentage of respondents who ranked potential barriers to

² p<.05



participation as significant (“4” or “5” on a five-point scale). While total upfront cost was the most prominent barrier to participation among residential participants, commercial respondents deemed this issue less important in comparison to access to upfront capital and the condition of the existing roof (both of which commercial respondents were significantly more likely to report). Estimated system payback and total system cost were two other prominent barriers to participation, with about one-third of both groups reporting either of those two issues as significant. Additionally, residential respondents were significantly more likely to report estimated taxes on system income as a potential problem for participation.

Table 9: How significant was each of the following factors as a potential problem for participation? (Multiple Responses Allowed)

POTENTIAL BARRIER	RESIDENTIAL PARTICIPANTS (N=59)	COMMERCIAL PARTICIPANTS (N=31)*
Total upfront cost	37%	39%
Estimated system payback	34%	30%
Total system cost	32%	39%
Prohibited from applying for an Oregon State Tax Credit	25%	23%
Access to upfront capital	24%	45%
Estimated taxes on system income	20%	6%
Uncertainty about the amount of electricity the system would generate	19%	16%
Access to adequate information	19%	16%
Condition of existing roof	17%	43%
Prohibited from applying for an Energy Trust incentive	15%	10%
Appearance / aesthetics of PV system	14%	16%
Liability insurance requirement	14%	13%
Finding an experienced contractor	14%	20%
Amount of the refundable deposit	0%	N/A

Note: Grey bars denote significant differences (p<.05).

Payback Expectations

About half of residential (61%) and commercial respondents (48%) thought their new [SPO] solar PV system would pay back in 5 to 10 years (Table 10). Despite a lower median value, commercial respondents were more likely to estimate a payback period exceeding 10 years; about one-quarter of commercial participants (23%) estimated their payback periods longer than 10 years, while only about one-tenth (12%) of residential participants estimated a similar



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APPENDIX B: SURVEY RESULTS

payback timeframe. Substantial amounts of respondents in both groups indicated they did not know or did not estimate the payback period.

Table 10: How many years do you estimate it will take to recover your initial investment?

PAYBACK PERIOD	RESIDENTIAL PARTICIPANTS (N=59)	COMMERCIAL PARTICIPANTS (N=31)
1-4 years	7%	13%
5-10 years	61%	48%
More than 10 years	12%	23%
Don't know / didn't estimate payback	20%	16%
Average	8.2 years	8.1 years
Median	8 years	6.5 years

Respondents or their contractors typically calculated the payback estimate. While residential participants primarily calculated the estimate themselves (52%, compared to 39% of commercial participants), commercial respondents most commonly reported using a contractor (50%, compared to 46% of residential respondents).

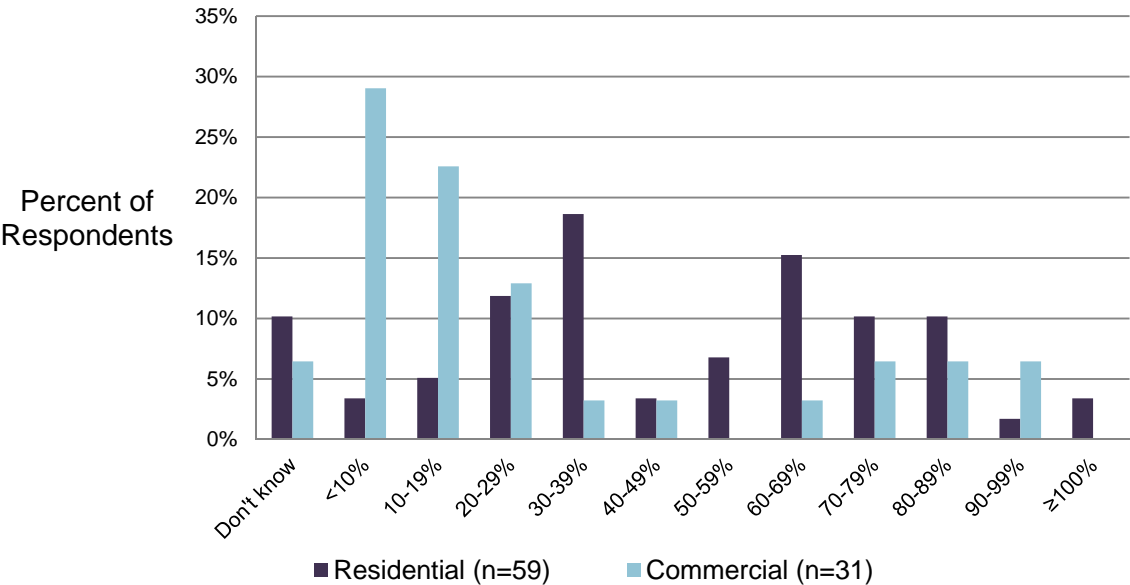
Performance Expectations

Residential and commercial participants gave a wide range of answers when asked what percent of their annual electricity use they expected their solar PV system to provide (Figure 1). While “<10%” was the most common response for commercial respondents (29% chose this option), residential respondents commonly expected their system to generate 30-39% of their annual electricity (19% chose this option).



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Figure 1: What percent of your annual electricity do you expect your system will generate?



Comments on the Oregon Public Utility Commission

The bulk of both residential and commercial participants reported neutral satisfaction with the Oregon Public Utility Commission (OPUC). Also, significant proportions of both groups (up to 59% of a group for a given item) indicated ‘not applicable’ on questions regarding OPUC.

SOLAR PAYMENT OPTION VS. NET METERING

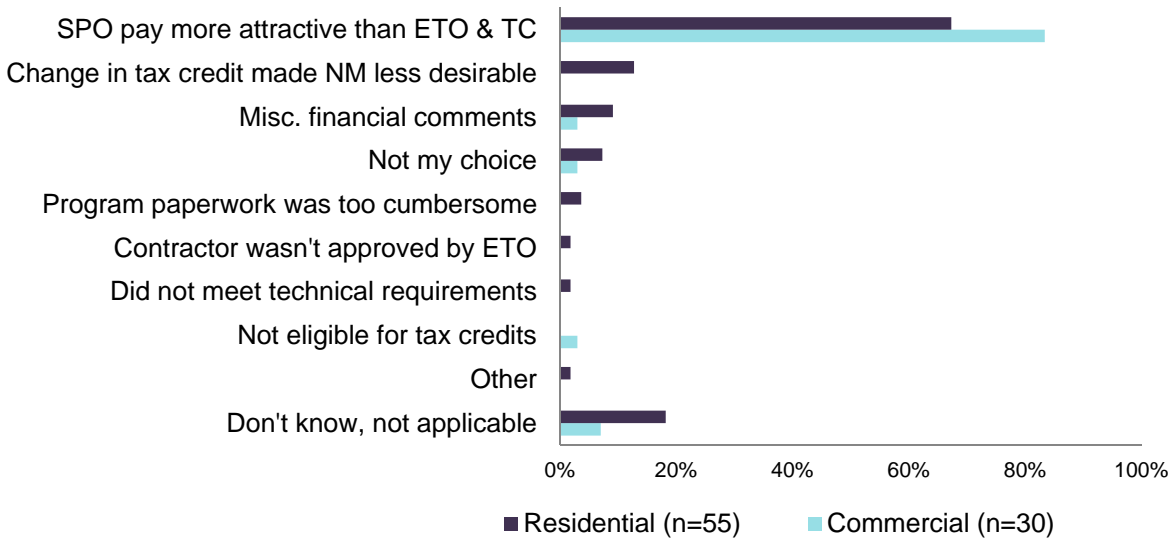
About two-fifths of residential (41%) and commercial (39%) SPO program participants considered participating in PGE’s Net Metering program. As the following section demonstrates, respondents did *not* choose net metering because it was associated with longer estimated payback periods, smaller or similarly-sized PV systems, and smaller incentives than the SPO program.

Reasons for NOT Participating in Net Metering

The most common reason SPO participants did not participate in the net metering program was because they found the financial incentive for the SPO program more attractive. Figure 2 shows the frequency with which participants sited various reasons for *not* choosing net metering. Their decision that the SPO incentive was better than the Energy Trust incentive combined with the state tax credit is clearly the most frequently mentioned reason, followed by “the change in State tax credits made net metering less desirable” for 13% of residential respondents.



Figure 2: Why did you decide *not* to participate in the traditional net metering program? (Multiple Responses Allowed)



System Size

Most residential (83%) and commercial (66%) participants reported that the size of the solar PV system they would have installed through traditional net metering would have been the same size or smaller than the system they installed through the SPO program (Table 11).

Table 11: How did the planned size of the system for net metering compare to the size of your system under the SPO program?

SIZE DIFFERENCE	RESIDENTIAL PARTICIPANTS (N=24)		COMMERCIAL PARTICIPANTS (N=12)	
	Count	Percent	Count	Percent
Smaller	8	33%	1	8%
The same	12	50%	7	58%
Larger	1	4%	1	8%
Don't know	3	13%	3	25%
Total	24	100%	12	100%

Payback Time Estimate

Both groups estimated their payback with the SPO program to be shorter than that of net metering; on average, residential participants estimated net metering to take approximately four



years longer to pay back and commercial participants estimated net metering to take about two and a half years longer (Table 12).

Table 12: Estimate of Years until Payback for SPO vs. Net Metering³

	RESIDENTIAL PARTICIPANTS			COMMERCIAL PARTICIPANTS		
	SPO (N=47)	Net Metering (N=11)	SPO Payback Time Was...	SPO (N=26)	Net Metering (N=7)	SPO Payback Time Was...
Average payback estimate	8.2	12.1	3.9 years shorter	8.1	10.7	2.6 years shorter
Median payback estimate	8	8	Same	6.5	8	1.5 years shorter

The person who conducted the payback estimates, the respondent or a contractor, differed among residential and commercial respondents. Residential participants were more likely to calculate the payback estimate themselves, for both SPO and net metering (Table 13).

Table 13: Who calculated the payback estimate?

WHO CALCULATED THE PAYBACK ESTIMATE?	RESIDENTIAL PARTICIPANTS		COMMERCIAL PARTICIPANTS ⁴	
	SPO (N=47)	Net Metering (N=11)	SPO (N=26)	Net Metering (N=7)
Respondent	52%	55%	39%	57%
Contractor	46%	45%	50%	43%
Both respondent and a contractor	2%	0%	4%	0%
Other	0%	0%	8%	0%

PROGRAM EXPERIENCE: THE FIRST YEAR

Responses from both surveys of SPO program participants are included in this section (approximately three months and one year post-installation). A few topics were included in both surveys and the results, if different, are compared in this section.

Program Design

Most residential (70%) and commercial participants (68%) were highly satisfied (a ranking of “4” or “5” on a five-point scale) with the overall design of the SPO program. Of the three

³ Reported n values and statistics exclude those who gave “don’t know / didn’t estimate payback” responses.

⁴ In order for a more intuitive comparison across groups, percentages are reported. Interpret percentages with caution, as some n values are quite low (particularly net metering).



APPENDIX B: SURVEY RESULTS

Page B-19

respondents that indicated dissatisfaction with the overall design of the program, they stated that PGE should abolish the lottery system and allow all interested building owners to participate (two mentions), the program was too complicated (one mention), and power generation limits were too stringent (one mention).

Satisfaction ratings were less positive in regards to program paperwork. About two-fifths of residential (46%) and commercial (39%) participants were highly satisfied with the ease of completing the online *Capacity Reservation Application*. For the *Interconnection Application*, about half of residential (48%) and commercial (58%) respondents were highly satisfied with the ease of completing the application, with 32% of residential respondents and 23% of commercial respondents providing a neutral ranking.

Application Process

Application Paperwork

Our analyses of the survey data demonstrate that contractors were very involved in the application process, with little variation between residential and commercial participants. Most participants (71% of residential; 87% of commercial) reported that their contractors submitted the online *Capacity Reservation Application* and about 85% in either group reported that their contractor helped them complete the *Interconnection Application*.

Contract Terms

More than half of residential (70%) and commercial participants (52%) found the terms and conditions in the 15-year contract “acceptable” or “very acceptable” (a “4” or “5” score on a 5 point scale). Most residential (85%) and commercial (72%) participants reported they understood the terms and conditions of the contract. However, commercial respondents were more likely to seek legal advice in order to understand the terms and conditions of the contract, as about one-quarter (28%) sought legal advice (as compared to only 2% of residential respondents). Additionally, the majority of residential (83%) and commercial (64%) respondents had their contractor review the contract terms.

Financing

Most participants paid for their solar PV system, in whole or in part, with cash (47% of residential participants, 48% of commercial participants) or a third party lease or contractor financing option (34% of residential participants, 39% of commercial participants). Table 14 exhibits the response rates for the various financing methods used.



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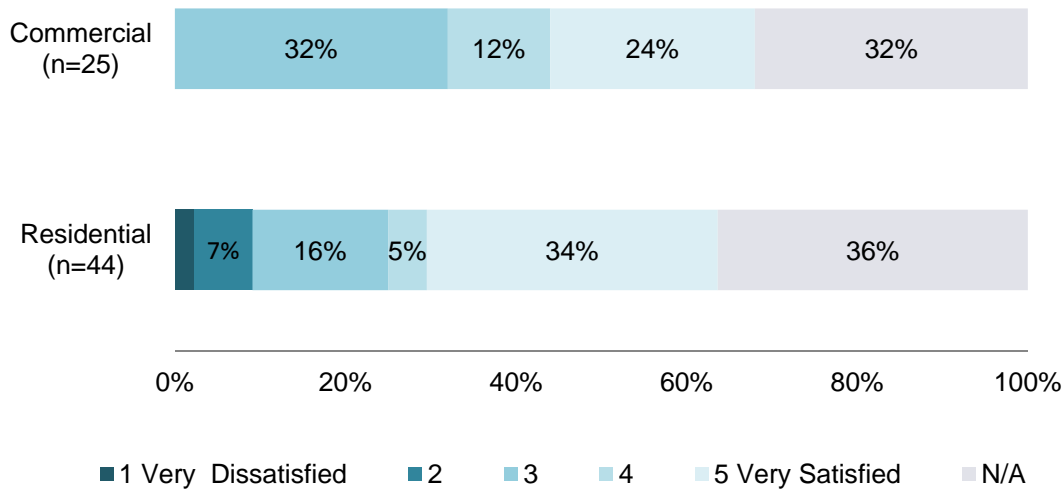
Table 14: Percent of Participants Utilizing Each Method to Finance All, Some or None of Their Installation (Multiple responses allowed)

FINANCING METHOD	RESIDENTIAL (N=59)			COMMERCIAL (N=31)		
	All	Some	None	All	Some	None
Cash	32%	15%	53%	35%	13%	52%
3rd party lease / contractor financing option	25%	8%	66%	39%	0%	61%
Credit card / business line of credit	12%	3%	85%	6%	6%	87%
Home equity loan	10%	5%	85%	3%	3%	94%
Other financing method	2%	2%	97%	3%	6%	90%
Other loan	0%	3%	97%	0%	0%	0%

Satisfaction with Financing

More than 85% of both residential and commercial respondents felt they understood the financing arrangement clearly. After a year of system operation, few respondents were dissatisfied with their financing arrangement (Figure 3). Of the four residents in the ‘dissatisfied’ category, only one offered a comment on their dissatisfaction, which reads: *“Interest on loans is very low now. I lost a lot of interest from my 401K to finance this. No bank wanted to loan on this project.”*

Figure 3: Satisfaction with Financing Arrangement



Most participants were satisfied with the payment process or third party assignment as well. Among participants who did not sign their payment benefit over to a third party, residential participants were more satisfied than commercial participants with the payment process: 77% of



APPENDIX B: SURVEY RESULTS

residential respondents indicated high levels of satisfaction (a “4” or “5” on a five-point scale), compared to 44% of commercial respondents. However, half of commercial participants reported moderate satisfaction (a “3” on a five-point scale) with the payment process (compared to 15% of residential respondents). Among the 45% of residential participants and 38% of commercial participants who assigned their SPO payments to a third party, the majority (62% of residential and 78% of commercial respondents) were highly satisfied with this arrangement.

Liability Insurance Payments

About one-third of residential (36%) and commercial participants (35%) reported paying an additional amount of liability insurance to meet program requirements, with residential responses ranging from \$1-700 and commercial responses ranging from \$30-658 (Table 15).

Table 15: What is the additional amount that you are paying annually to meet the liability insurance requirement?

ADDITIONAL AMOUNT PAID	RESIDENTIAL (N=59)	COMMERCIAL (N=31)
None	49%	45%
Under \$100	17%	6%
\$100-200	5%	19%
Over \$200	14%	10%
No response given	15%	19%

Solar PV Equipment

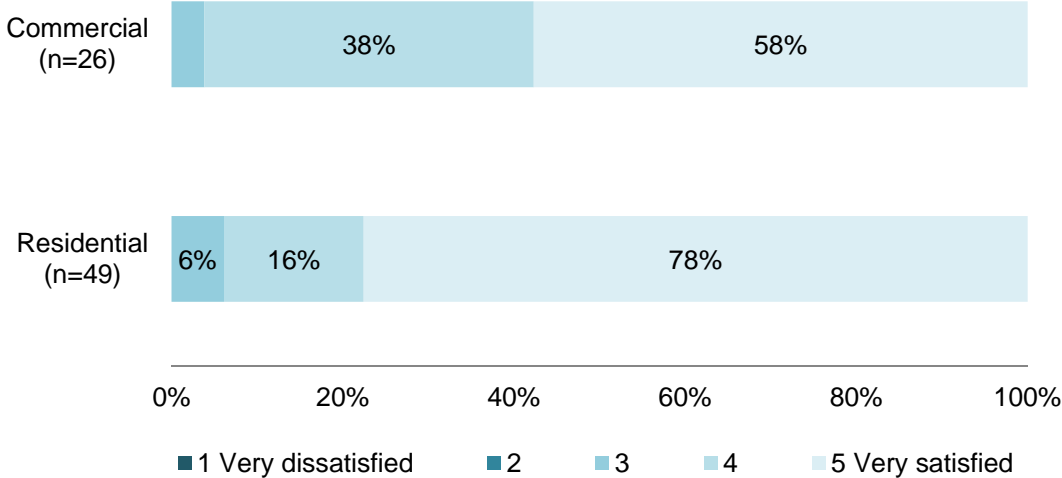
Satisfaction

Thinking back over the first year, about 95% of respondents in both groups reported being “highly satisfied” (a “4” or “5” on a five-point scale) with the quality of the installation (Figure 4). Zero respondents in either group indicated any dissatisfaction (a response of “1” or “2”) with their installation. Commercial satisfaction was virtually unchanged, demonstrating an average of 4.5 in both surveys. Residential satisfaction slightly rose over the year from an average score of 4.5 (three months post-installation) to 4.7 (one year post-installation).



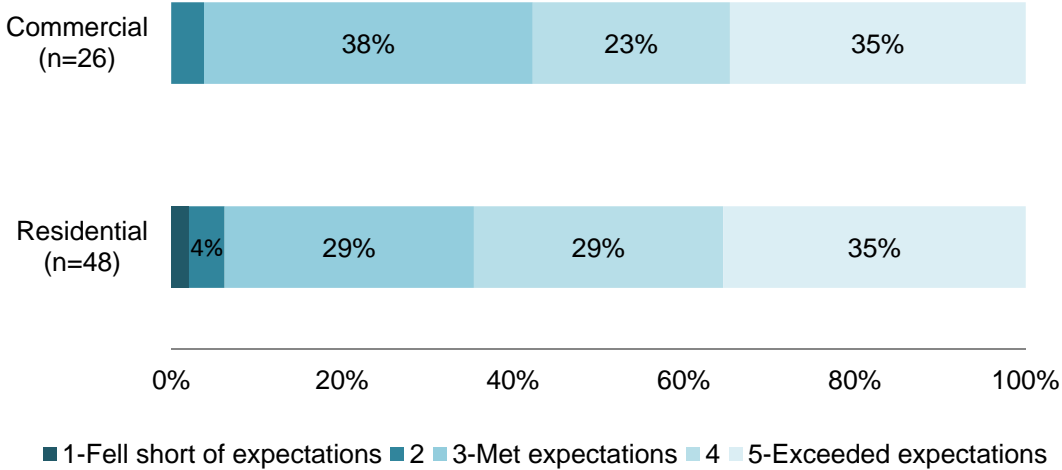
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Figure 4: Thinking back over the year, how satisfied are you with the quality of the solar installation?



Commercial satisfaction with performance of the system rose over first year of operation, while residential satisfaction remained unchanged. Following the first year after installation, nearly all residential (94%) and commercial (96%) respondents said the performance of the solar PV system met or exceeded their expectations (Figure 5). The average score (one year post-installation) was 3.9 for both residential and commercial respondents, compared to an average rating of approximately 3.5 for commercial and 3.9 for residential participants (three months post-installation).

Figure 5: Has the performance of the solar PV system met your expectations over the year?



Inspection

A solid majority of participants were highly satisfied with the local government inspection of the equipment. About three-quarters of residential (79%) and commercial (73%) respondents rated the City or County on-site inspection of the installed PV system to be a “4” or “5.”

Maintenance

Few systems required maintenance in the first year. While about one-quarter (27%) of commercial participants said they had had follow-up maintenance done, only 10% of residential participants reported they performed any maintenance.

Commercial respondents were more likely to perform the required test of their system.

When asked if they had performed a “required annual test, as specified in the contract,” 17% of residential respondents said “Yes,” compared to 46% of commercial respondents. Of those who said “No,” many claimed they were not aware of the test, had forgotten, or did not know how to go about scheduling the test.

Appearance and Impact on Real Estate Value

Very few respondents heard any complaints about the appearance of their solar system, with 2% of residential and zero commercial respondents reporting any complaints.

Many participants did not know whether the value of their home or business had changed as a result of installing the PV system, with 77% of residential and 39% of commercial respondents reporting “don’t know.” Only a minority indicated that the value of their home or business had changed: 8% of respondents in either group indicated their home or business has increased in value and one residential respondent reported that their home had decreased in value (Table 16).

Table 16: Do you know if the value of your home/business has changed?

RESPONSE	RESIDENTIAL (N=48)	COMMERCIAL (N=26)
Yes, the home or business has increased in value	8%	8%
The value of the home or business has stayed the same	13%	54%
The value of the home or business has decreased	2%	0%
Don't know	77%	38%
Total	100%	100%

Solar Energy Payments

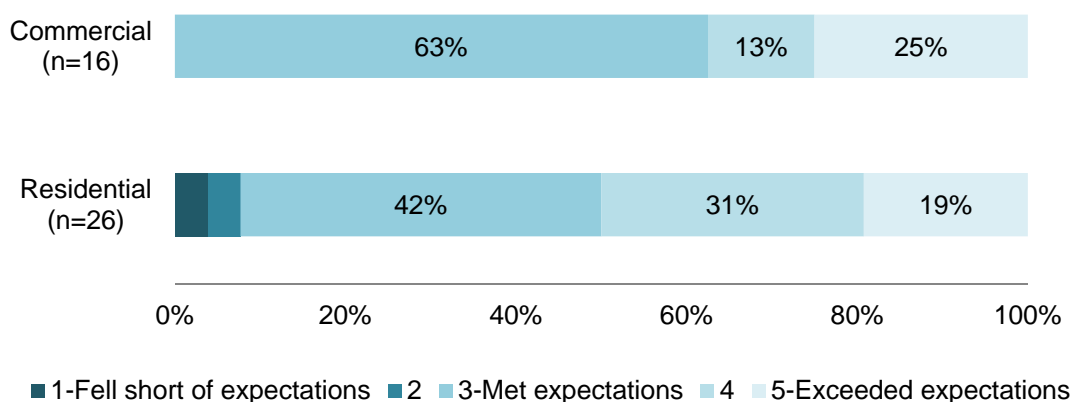
In general, the payment amount, the process of getting paid by the program, and the clarity of the PGE statement received relatively high satisfaction rankings among respondents.



Payment Amount

Satisfaction with the payment amount was high, and rose over time. Of those who did not assign their payment benefit to a third party, only 8% of residential participants indicated that the payment amount was below their expectations after 12 months of operation (Figure 6). Additionally, no (0%) commercial respondents indicated the payment amount received did not meet their expectations.

Figure 6: Has the payment amount you've received so far met your expectations?



Furthermore, the average satisfaction with the payment amount slightly increased over the first year post-installation (Table 17).

Table 17: Averages for “Has the payment amount you’ve received met expectations?”

SURVEY PERIOD	RESIDENTIAL (N=13) ^A	COMMERCIAL (N=10) ^A
After three months	3.4	3.3
After one year	3.6	3.6

^a Only includes those who provided responses on this question in both surveys.

Payment Process

More than half of both types of respondents (52% of residential and 54% of commercial participants) gave highly satisfied ratings for the clarity of information on their monthly PGE statement.

About half of known initial concerns had been addressed over the first year. Among the 17 individual participants who were known to have had some initial issues or concerns (and completed both surveys), almost one-third (35%) were reported to be resolved one year post-



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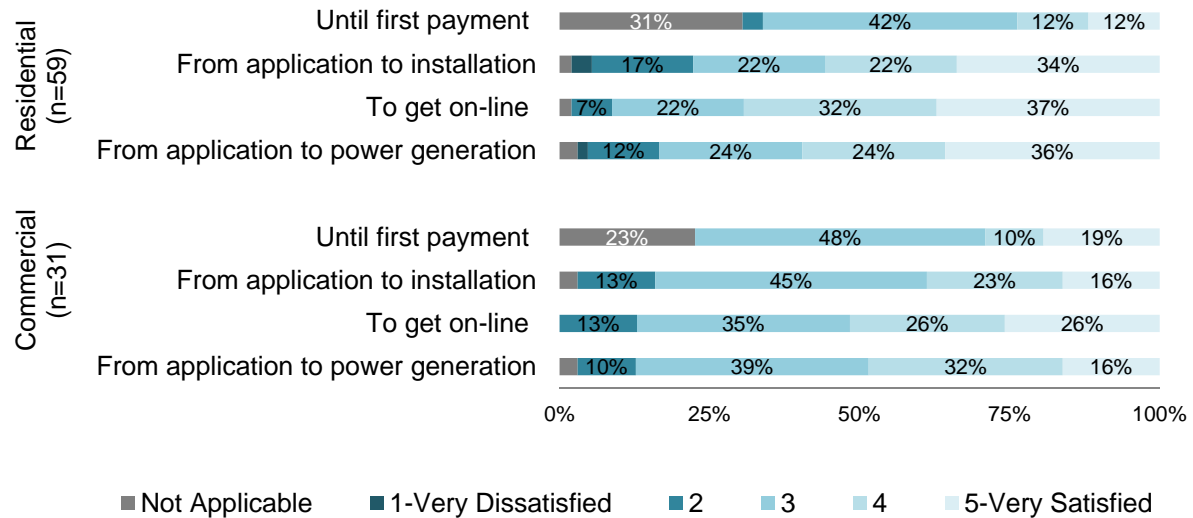
APPENDIX B: SURVEY RESULTS

installation. When asked to describe their remaining concerns or issues, the nine comments we collected spanned various issues such as meters, confusion with agreements and tax credits, and dissatisfaction with PGE and contractors.

Project Installation Process

We asked both residential and commercial participants a series of questions about how satisfied they were with different steps in the program process, from application to first payment. In general, as illustrated by Figure 7, a majority of respondents rated their satisfaction a “3,” “4,” or “5” on these steps in the installation process.

Figure 7: Participant Satisfaction with Time Periods



Participants were slightly less satisfied with the length of time from application to installation (20% of residential and 13% of commercial respondents rated it “1” or “2”), compared to other steps. When asked about their dissatisfaction, respondents typically mentioned unsatisfactory delays, such as sub-contractor or county permit delays.

Figure 7 also shows that participants were mostly neutral in satisfaction with the length of time until first payment, with almost half in either group providing a “3” rating. Given the other scores, this was the least satisfying time period.

Summary of Program Experience

Nearly all participants would recommend the SPO program to others. After one year of participation, 90% of residential and 92% of commercial respondents would recommend the program to others. Representative comments included:



“The program is fairly easy to go through and have the panels installed, the ROI is there, and it's a great way to give back to the community.” (Commercial participant)

“It's a good way to make PV energy fiscally reasonable.” (Residential participant)

“The FIT program is a great way to help organizations afford installing solar and start participating in the use of renewable energy.” (Commercial participant)

COHORT DIFFERENCES AND THE CONTINUED IMPORTANCE OF CONTRACTORS

Experiences in Cohorts A, B, and C were quite similar, with contractors playing an important role in the SPO program for all cohorts. Residential participants in the three cohorts exhibited very similar experiences, levels of satisfaction, and demographic backgrounds. And despite some firmographic and decision-making differences between businesses in the three cohorts, commercial respondents in all cohorts reported similar experiences and levels of satisfaction with the SPO program. **Contractors played an important role in the SPO program:**

- ➔ Contractors interacted with respondents steadily throughout decision-making and participation in the program.
- ➔ Contractors were the most common source where participants first heard about the SPO program.
- ➔ Contractors offered financing arrangements that many participants found attractive, ensuring affordability of the project.

For over half of both commercial and residential participants, the contractor was the most influential source of information for them to reach the decision to participate. Contractors reportedly submitted the majority of the participants' online applications. Contractors also assisted with the Interconnection Application, according to over 85% of participants. In addition, when reviewing the 15-year contract, the majority of respondents in both groups had their contractor review and explain the terms and conditions, with few (2%) residential participants seeking legal advice. Businesses, on the other hand, were more likely to seek legal advice (28%). However, one would expect that many businesses would seek legal advice when taking on a project of this magnitude. As evidenced by these findings, contractors were heavily involved throughout the entire process.

More than half of respondents indicated that finding an experienced contractor was not a significant barrier to participation in SPO. Both residential and commercial participants generally approached one installation contractor. Only about 15% of participants reported approaching three or more contractors.

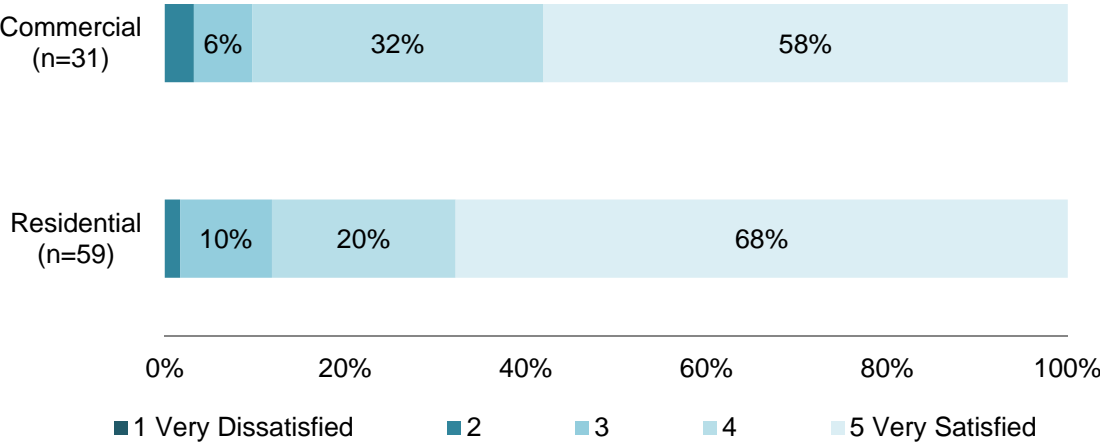


APPENDIX B: SURVEY RESULTS

Almost all residential respondents (93%) and all commercial respondents (100%) were “satisfied” or “very satisfied” with information their contractor provided about their solar energy system.

Majorities of both residential and commercial respondents were “very satisfied” with the quality of installation of their PV system and very few gave dissatisfied ratings (Figure 8).

Figure 8: Initial Satisfaction with Quality of Installation

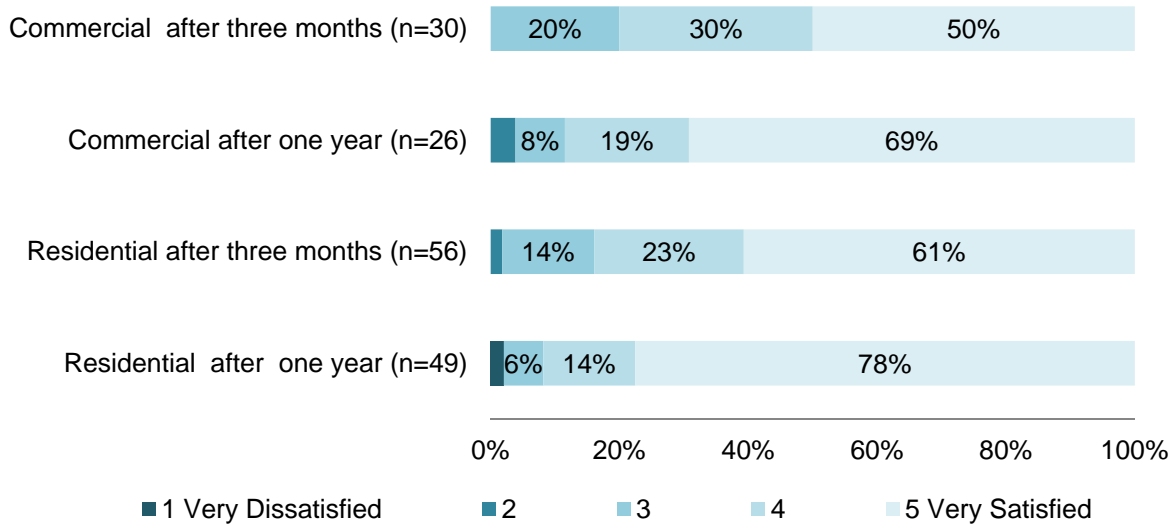


Overall satisfaction with their contractor was also very high among all participating respondents and rose over time (Figure 9). In fact, the average satisfaction rating for the contractor climbed over the year post-installation from 4.5 to 4.7 among residential respondents (a marginally significant increase).⁵

⁵ p < .06



Figure 9: Overall Satisfaction with Contractor, after Three Months and after One Year



Contractor complaints were few and varied. Of the few contractor complaints elicited from open-ended questions, comments included lack of contractor engagement and misrepresentations of contract terms and conditions.

Contractors played important roles for participants in Cohorts A, B, and C. Participant experiences and opinions regarding their contractor are quite similar between the first three cohorts involved in the program; satisfaction with and influence of contractors was high in both cohorts.

Specifically, (when compared to Cohorts A and B) residential and commercial members of Cohort C had similar high rates of: hearing about SPO via a contractor, contractors as the most influential source of information, satisfaction with contractor's information on how SPO worked, contractor-led payback estimates, having contractors review contract terms, satisfaction with the quality of installation, and overall satisfaction with their contractor (both three months and one year later). Additionally, respondents in Cohort C reported similarly low rates of 'finding an experienced contractor' as a potential barrier to participation. Thus, contractors continued to play an important role in the program.

While contractors were a critical component to the SPO experience across all cohorts, contractors played even stronger roles for members in Cohort C and received higher satisfaction ratings from their responding SPO customers. Specifically, members of Cohort C exhibited the following notable differences from Cohorts A and B concerning their contractor:

- While contractors were the most common source of information across all cohorts, more commercial participants first heard about SPO via a contractor



- Increased percentages of residential respondents indicated their contractor calculated their payback estimates
- More residential participants had their contractor review the contract terms
- Satisfaction with system installation (rated one year post-installation) was higher
- Unlike previous cohorts with substantial minorities reporting complaints with their contractor, very few respondents reported unsatisfactory issues (such as timely delays) with their contractor
- More respondents assigned their payment benefit to their contractor, with each cohort exhibiting a steady increase in payment assignment from the previous cohort
- Demonstrating high percentages similar to that of Cohort A, more members of Cohort C relied on their contractor for filling out program paperwork as compared to Cohort B

Despite the contractor-oriented commonalities found across all three cohorts, Cohort C significantly differed from the previous two cohorts in one key component of the SPO experience: contractor financing. While substantial numbers of residential participants in Cohort B and (to a lesser extent) Cohort A indicated taking advantage of a no-out-of-pocket-cost contractor financing option (where assigned generation payments acted as payment in full), no (0%) participants in Cohort C reported using this attractive financing method. Program records and open-ended comments reveal that the majority (if not all) of respondents who mentioned a no-out-of-pocket-cost contractor financing option all had the same contractor. An informal interview with a representative from that particular solar contracting firm revealed that the subsequent changes to the kWh rates forced the solar contractor to cease offering the no-out-of-pocket-cost option for Cohorts enrolled after Cohort B, as the rate became too low for the company to afford this unique payment plan. Even though substantial numbers of Cohort C participants reported using a contractor financing option (which continued to assist participants in financing their system), the nature of this arrangement was dramatically different than that of many of those in previous cohorts. Nonetheless, satisfaction with and reliance on contractors remained quite high for members of Cohort C.

NOTE: Appendices not provided here, but is available upon request. The entire report with appendices is 354 pages.



CERTIFICATE OF SERVICE

I hereby certify that I have this day caused **PORTLAND GENERAL ELECTRIC COMPANY'S COMPLIANCE FILING FOR OAR 860-084-0430, OREGON SOLAR PAYMENT OPTION PILOT PROGRAM, BI-ANNUAL REPORT** to be served by electronic mail to those parties whose email addresses appear on the attached service list from OPUC Docket Nos. UM 1452 and UM 1505.

Dated at Portland, Oregon, this 14th day of February, 2014.



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