Exh. ASR-7
Dockets UE-220066, UG-220067, UG-210918
Witness: Andrew S. Rector

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-220066, UG-220067, UG-210918 (consolidated)**
In the Matter of the Petition of **PUGET SOUND ENERGY** **For an Order Authorizing Deferred Accounting Treatment for Puget Sound Energy's Share of Costs Associated with the Tacoma LNG Facility**	

EXHIBIT TO TESTIMONY OF

ANDREW S. RECTOR

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

EV Marketing Performance Report (PSE customer survey) (December 16, 2019)

July 28, 2022

EV MARKETING PERFORMANCE

WAVE 2 EV CAMPAIGN REPORT, 12.16.19

PlanBeyond

OVERALL FINDINGS

- Overall awareness and consideration of EVs has significantly improved since the initial Wave 1 research performed 16 months ago. Respondents are significantly more likely to have read or heard about EVs in the past six months (63% vs 57%) and are more likely to consider purchasing an EV (68% vs. 61%).
- Critical perceptions that drive EV consideration have improved. Respondents are more likely to say they can use EVs to do weekend activities (68% vs. 62%), that EVs are as reliable as gas vehicles (54% vs. 47%) and that EVs are fun to drive (48% vs. 40%).
  - However, several key consideration points have stayed constant since the last measurement point, including ease of getting to work (74% vs. 73%), ease of charging EV (54% vs. 52%), belief that EV batteries are safe (55% vs. 51%), and belief that charging an EV is convenient (36% vs. 35%).
- Notably, cost perceptions continue to be major barriers for EV adoption. Only 37% of all respondents believe EVs are available at reasonable prices while 30% of respondents say EVs cost the same to maintain.
  - Further, only 32% of respondents say EVs cost the same to purchase as gas vehicles, though this is significantly better than Wave 1.
  - This is additionally harmed by the fact that only 49% of respondents believe that used EVs are available for purchase, a new measure introduced in Wave 2.
- Limited agreement with other newly-introduced measures—available in stylish designs (59%), variety of makes/models available (44%)—indicates limited familiarity with the range of EVs present in the market today.
- PSE continues to enjoy high ratings for its commitment to innovation (87%) and offering eco-friendly products and programs (87%).

BIGGEST OPPORTUNITIES

With trends moving in a positive direction, it is recommended that PSE continue its EV marketing efforts by both directly addressing major misperceptions while continuing to build interest in EVs at a general level.

- **Program Pillars:** In an effort to directly address purchase price misperceptions, consider evolving the “Save Money” pillar to a “No Need To Spend More” pillar, balancing discussions about lower cost of ownership with discussions about affordable upfront prices. This could help alleviate sticker price misconceptions while still stressing EVs’ long term affordability.
- **Program Support Points:** PSE has a major opportunity to “own” EV messaging via its email and social media activities. Consider leveraging these channels to further hone in on original program support points that need further attention.

  - ***Fun To Drive***: Showcase the breadth of EVs on the market today (e.g. different makes/models, styles, colors) to illustrate that EVs have just as much variety and visual "fun factor" as gas vehicles.
  - ***Cost of Ownership:*** Continue active discussions around purchase price, cost of ownership, and used EV availability to improve beliefs around EV affordability.
  - ***Technology***: Double-down on discussions about charging to make inroads into an area that has seen zero improvement since Wave 1.
- **Co-Marketing and Event Sponsorships:** Faced with limited direct marketing reach and a limited EV marketing budget, PSE should continue sponsoring events that include education of and interaction with EVs (e.g. Seattle Auto Show). These opportunities exceed what PSE alone could fund and help promote general familiarity and interest in EVs.
- **EV Charger Program Marketing**: As PSE expands its Charger Programs, leverage existing marketing channels to assuage concerns around EV charging.
  - 3rd party events can include high-level collateral about PSE's Charger Programs (e.g. where you can find PSE charging locations). This will help nip concerns about EV charging in the bud while individuals are still in the early EV consideration stage.
  - More nuanced information about the program details and installation processes should be discussed in social and email given the more qualified nature of those being reached via these channels.

EV AWARENESS & CONSIDERATION

- Respondents are significantly more likely to have read or heard about EVs in the past six months than they were during Wave 1 (63% vs 57%).
- Remarkably, respondents were also more likely to consider purchasing an EV than the Wave 1 cohort (68% vs. 61%) showing that EV acceptance and interest has grown over time.

	Wave 1 Total	Wave 2 Total	Wave 1 Live in Apt	Wave 2 Live in Apt	Wave 1 Live In House	Wave 2 Live In House
	A	B	C	D	E	F
(N)	(411)	(432)	(118)	(100)	(209)	(283)
	%	%	%	%	%	%
AMOUNT READ/HEARD ABOUT EV'S VS LAST SIX MONTHS						
Read/heard more	**57**	**63[a]**	**60**	**70**	**56**	**62**
Read/heard a lot more	24	26	22	31	23	24
Read/heard somewhat more	33	38	38	39	33	38
Read/heard neither more nor less	32	28	27	25	35	27
Read/heard somewhat less	5	7	7	3	5	10
Read/heard a lot less	6	2	6	2	4	2
Read/heard less	**11**	**9**	**13**	**5**	**9**	**12**
EV PURCHASE CONSIDERATION						
Likely to consider	**61**	**68 [a]**	**63**	**65**	**61**	**69[e]**
Extremely likely to consider	20	24	23	28	19	24
Somewhat likely to consider	41	44	40	37	42	45
Neither likely nor unlikely to consider	17	14	18	16	15	13
Somewhat unlikely to consider	13	10	9	12	16[f]	8
Extremely unlikely to consider	8	9	10	7	8	10
Unlikely to consider	**21**	**18**	**20**	**19**	**23**	**18**

Uppercase letter indicates significance at the 95% level

Lowercase letter indicates significance at the 90% level

EV PERCEPTIONS

- Significant improvements are being made in EV perceptions since Wave 1 including ease of doing weekend activities (68% vs. 62%), reliability relative to gas vehicles (54% vs. 47%), and fun to drive (48% vs. 40%).
  - Additionally, there is directional, though not statistically significant, improvement on believing that EV batteries are reliable (56% vs. 51%).
- However, many important considerations have stayed steady including ease of getting to work (74% vs. 73%), ease of charging EVs (54% vs. 52%), and the belief that EV batteries are safe (55% vs. 51%).
- Notably, just over one-third of respondents say charging an EV is convenient, consistent with Wave 1.
- Perceptions of cost continue to be major barriers for EV adoption.
  - Just 37% of all respondents believe EVs are available at reasonable prices.
  - 32% of respondents say EVs cost the same to purchase, low but significantly better than Wave 1.
  - Only 30% of respondents say EVs cost the same to maintain as gas vehicles, only directionally higher than Wave 1.

	Wave 1 Total	Wave 2 Total	Wave 1 Live in Apt	Wave 2 Live in Apt	Wave 1 Live In House	Wave 2 Live In House
	A	B	C	D	E	F
(N)	(411)	(432)	(118)	(100)	(209)	(283)
	%	%	%	%	%	%
EV INFO AVAILABLE ON RATINGS/REVIEW SITES						
Agree completely/somewhat	--	**76**	--	**76**	--	**75**
Agree completely	--	35	--	36	--	31
Agree somewhat	--	41	--	40	--	44
Neither agree nor disagree	--	15	--	19	--	14
Disagree somewhat	--	2	--	0	--	3
Disagree completely	--	1	--	1	--	1
Disagree completely/somewhat	--	**3**	--	**1**	--	**4**
I don't know	--	6	--	4	--	7
EASY TO GET TO WORK WITH EV						
Agree completely/somewhat	**73**	**74**	**70**	**74**	**73**	**74**
Agree completely	42	42	41	47	44	40
Agree somewhat	31	32	30	27	30	34
Neither agree nor disagree	14	13	20	15	12	12
Disagree somewhat	4	4	3	4	5	4
Disagree completely	1	3	0	0	1	4
Disagree completely/somewhat	**5**	**7**	**3**	**4**	**10**	**8**
I don't know	8	**6**	7	**7**	9	6
EASY TO DO WEEKEND ACTIVITIES WITH EV						
Agree completely/somewhat	**62**	**68[a]**	**67**	**60**	**59**	**70[E]**
Agree completely	33	31	35	31	31	30
Agree somewhat	29	38[a]	32	29	28	40[E]
Neither agree nor disagree	15	14	16	20	14	11
Disagree somewhat	11	8	9	12	13	7
Disagree completely	3	5	1	2	4	7
Disagree completely/somewhat	**14**	**13**	**10**	**14**	**17**	**14**
I don't know	9	**5**	7	**6**	10	5

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Lowercase letter indicates significance at the 90% level

	Wave 1 Total	Wave 2 Total	Wave 1 Live in Apt	Wave 2 Live in Apt	Wave 1 Live In House	Wave 2 Live In House
	A	B	C	D	E	F
(N)	(411)	(432)	(118)	(100)	(209)	(283)
	%	%	%	%	%	%
EV AVAILABLE IN STYLISH DESIGNS						
Agree completely/somewhat	--	**59**	--	**65**	--	**58**
Agree completely	--	22	--	28	--	18
Agree somewhat	--	38	--	37	--	40
Neither agree nor disagree	--	17	--	19	--	17
Disagree somewhat	--	10	--	6	--	10
Disagree completely	--	6	--	3	--	7
Disagree completely/somewhat	--	**16**	--	**9**	--	**17**
I don't know	--	8	--	7	--	8
PREFERRED PARKING FOR EVs AVAILABLE						
Agree completely/somewhat	--	**57**	--	**59**	--	**58**
Agree completely	--	25	--	31	--	22
Agree somewhat	--	32	--	28	--	36
Neither agree nor disagree	--	20	--	24	--	18
Disagree somewhat	--	8	--	6	--	8
Disagree completely	--	4	--	3	--	5
Disagree completely/somewhat	--	12	--	9	--	13
I don't know	--	**10**	--	**8**	--	**11**
CHARGING AN EV IS EASY						
Agree completely/somewhat	**56**	**54**	**65**	**60**	**55**	**54**
Agree completely	20	22	25	24	18	19
Agree somewhat	36	33	40	36	37	35
Neither agree nor disagree	15	19	9	16	17	21
Disagree somewhat	16	13	12	11	17	12
Disagree completely	3	5	4	7	2	6
Disagree completely/somewhat	**19**	**18**	**16**	**18**	**19**	**18**
I don't know	10	8	9	6	10	8
EV BATTERIES ARE SAFE						
Agree completely/somewhat	**51**	**55**	**48**	**59**	**53**	**53**
Agree completely	17	19	21	21	17	19
Agree somewhat	33	35	26	38 C	36	34
Neither agree nor disagree	26	23	28	19	27	23
Disagree somewhat	8	9	5	9	10	10
Disagree completely	2	4	4	2	1	5
Disagree completely/somewhat	**10**	**13**	**9**	**11**	**11**	**15**
I don't know	13	9	15	11	10	9
EV BATTERIES ARE RELIABLE						
Agree completely/somewhat	**51**	**56**	**53**	**56**	**52**	**57**
Agree completely	16	18	20	20	15	18
Agree somewhat	34	38	32	36	37	39
Neither agree nor disagree	25	23	21	27	27	20
Disagree somewhat	10	9	7	7	10	10
Disagree completely	2	3	4	1	1	4
Disagree completely/somewhat	**12**	**13**	**11**	**8**	**11**	**14**
I don't know	13	**9**	15	**9**	11	**9**

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	Wave 1 Total	Wave 2 Total	Wave 1 Live in Apt	Wave 2 Live in Apt	Wave 1 Live In House	Wave 2 Live In House
	A	B	C	D	E	F
(N)	(411)	(432)	(118)	(100)	(209)	(283)
	%	%	%	%	%	%
EVs AS RELIABLE AS GAS VEHICLES						
Agree completely/somewhat	**47**	**54^A^**	**44**	**59^C^**	**50**	**54**
Agree completely	18	17	17	21	19	16
Agree somewhat	30	38^A^	27	38^C^	31	39^e^
Neither agree nor disagree	23	20	21	24	27^F^	18
Disagree somewhat	16	13	18	7	14	15
Disagree completely	2	5	3	4	2	6
Disagree completely/somewhat	**19**	**18**	**21**	**11**	**16**	**21**
I don't know	11	7	14	6	7	7
USED EVs AVAILABLE FOR PURCHASE						
Agree completely/somewhat	--	**49**	--	**49**	--	**48**
Agree completely	--	21	--	27	--	16
Agree somewhat	--	28	--	22	--	32
Neither agree nor disagree	--	19	--	19	--	19
Disagree somewhat	--	9	--	5	--	10
Disagree completely	--	4	--	8	--	3
Disagree completely/somewhat	--	13	--	13	--	13
I don't know	--	**19**	--	**19**	--	**19**
EVs ARE FUN TO DRIVE						
Agree completely/somewhat	**40**	**48^A^**	**40**	**57^C^**	**40**	**45**
Agree completely	20	21	19	26	21	20
Agree somewhat	20	27^A^	21	31	19	25
Neither agree nor disagree	33	29	33	25^C^	34	31
Disagree somewhat	6	5	4	6	8	5
Disagree completely	2	3	1	2	1	3
Disagree completely/somewhat	**8**	**8**	**5**	**8**	**10**	**8**
I don't know	20^b^	15	23^D^	10	17	15
VARIETY OF EVSs (e.g. SUV, TRUCK, CAR) AVAILABLE						
Agree completely/somewhat	--	**44**	--	**48**	--	**43**
Agree completely	--	14	--	17	--	11
Agree somewhat	--	31	--	31	--	32
Neither agree nor disagree	--	21	--	22	--	20
Disagree somewhat	--	14	--	11	--	15
Disagree completely	--	6	--	4	--	6
Disagree completely/somewhat	--	20	--	15	--	21
I don't know	--	**15**	--	**15**	--	**16**
CHARGING AN EV IS CONVENIENT						
Agree completely/somewhat	**35**	**36**	**38**	**43**	**34**	**34**
Agree completely	11	13	16	17	10	10
Agree somewhat	24	23	22	26	23	24
Neither agree nor disagree	17	19	17	19	17	19
Disagree somewhat	28	27	19	18	32	30
Disagree completely	11	12	15	14	10	11
Disagree completely/somewhat	**38**	**39**	**34**	**32**	**42**	**41**
I don't know	10	6	11	6	8	6

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	Wave 1 Total	Wave 2 Total	Wave 1 Live in Apt	Wave 2 Live in Apt	Wave 1 Live In House	Wave 2 Live In House
	A	B	C	D	E	F
(N)	(411)	(432)	(118)	(100)	(209)	(283)
	%	%	%	%	%	%
EV AVAILABLE AT REASONABLE PRICES						
Agree completely/somewhat	**--**	**37**	**--**	**42**	**--**	**34**
Agree completely	--	10	--	15	--	9
Agree somewhat	--	26	--	27	--	25
Neither agree nor disagree	--	25	--	30	--	23
Disagree somewhat	--	21	--	9	--	25
Disagree completely	--	10	--	9	--	10
Disagree completely/somewhat	**--**	**31**	**--**	**18**	**--**	**35**
I don't know	--	8	--	10	--	8
EV COST THE SAME TO PURCHASE AS GAS VEHICLES						
Agree completely/somewhat	**26**	**32[a]**	**26**	**36**	**26**	**28**
Agree completely	7	8	9	11	6	6
Agree somewhat	19	24	18	25	21	23
Neither agree nor disagree	17	14	14	23	19	11[E]
Disagree somewhat	34	34	33	25	34	39
Disagree completely	14	14	15	12	14	15
Disagree completely/somewhat	**47**	**48**	**48**	**37**	**48**	**54**
I don't know	10	6	11[D]	0	7	7
EV COST THE SAME TO MAINTAIN AS GAS VEHICLES						
Agree completely/somewhat	**25**	**30**	**28**	**36**	**22**	**29[e]**
Agree completely	8	9	9	8	6	9
Agree somewhat	18	22	20	28	16	21
Neither agree nor disagree	21	22	16	23	25	21
Disagree somewhat	27	28	25	22	27	29
Disagree completely	11	10	12	9	13	11
Disagree completely/somewhat	**38**	**38**	**37**	**31**	**41**	**40**
I don't know	16	10	19	19	12	10

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PSE PERCEPTIONS

- PSE continues to enjoy high ratings for its commitment to innovation (87%) and offering eco-friendly products and programs (87%).

	Wave 1 Total	Wave 2 Total	Wave 1 Live in Apt	Wave 2 Live in Apt	Wave 1 Live In House	Wave 2 Live In House
	A	B	C	D	E	F
(N)	(411)	(432)	(118)	(100)	(209)	(283)
	%	%	%	%	%	%
UTILITY COMPANY AWARENESS						
Puget Sound Energy	**90**	**96[A]**	**82**	93[C]	**95**	**97**
Seattle City Light	53[b]	47	46	40	59[F]	49
Northwest Public Power	6	6	8	5	5	7
Other	6	4	4	5	8	3
None of the above	2	1	3	2	0	1
(N – Aware of PSE)	(370)	(413)	(97)	(93)	(199)	(275)
	%	%				
PSE COMMITMENT TO OFFERING INNOVATIVE PRODUCTS/PROGRAMS						
Extremely/somewhat committed	**85**	**87**	**84**	**91**	**85**	**85**
Extremely committed	28	30	29	39	28	26
Somewhat committed	58	57	55	53	58	59
Somewhat uncommitted	12	11	12	8	12	12
Extremely uncommitted	3	2	4	1	3	3
Extremely/somewhat uncommitted	**15**	**13**	**17[d]**	**9**	**15**	**15**
PSE COMMITMENT TO OFFERING ECO-FRIENDLY PRODUCTS/PROGRAMS						
Extremely/somewhat committed	**88**	**88**	**86**	**91**	**89**	**88**
Extremely committed	30	36[a]	25	41[C]	31	33
Somewhat committed	59	52	61	50	58	55
Somewhat uncommitted	11	11	13	9	9	10
Extremely uncommitted	1	1	1	0	2	2
Extremely/somewhat uncommitted	**12**	**12**	**14**	**9**	**11**	**12**

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RESPONDENT BACKGROUND

	Before Total	Wave 2 Total
	A	B
(N)	(411)	(432)
	%	%
PREFERRED LANGUAGE		
English	**99**	**98**
Spanish	0	1
Russian	0	0
Vietnamese	0	0
Other	1	1
# OF CARS OWNED		
0	**8**	**5**
1	49	46
2	31	36
3	10	10
4 or more	3	3
GENDER		
Male	25	31
Female	75	69
CHILDREN UNDER 18		
0	47	40
1	24	25
2	17	22
3	11	10
4	2	3
5+	1	1
HOME TYPE		
Apartment	29	23
Condo	5	2
Townhouse/Duplex	12	7
Standalone House	51	66
EMPLOYMENT		
Full-time	54	54
Part-time	19	14
Not employed, but looking	9	7
Not employed, not looking	7	13
Retired	1	1
Disabled	3	7
Other	6	4

METHODOLOGY

Two discrete respondent samples were sourced from the Qualtrics panel group, 411 respondents in July 2018 and 432 respondents in November 2019. Respondents were first filtered by zip code to ensure that respondent households matched with the PSE electric service area.

To enter the survey, respondents had to pass two screener scenarios:

- Respondents had to *not* currently own an electric vehicle
- Respondents had to be open to purchasing a new vehicle within the next five years

Once entered into the survey, respondents were asked about their attitudes towards electric vehicles and Puget Sound Energy. Respondents were then asked general demographic information.