PUGET SOUND ENERGY

Ms. Thara Johnson
City of Bellevue
PO Box 90012
Bellevue, WA 98009-9012

July 28, 2022

RE: 2021 Electric Service Reliability Report

Dear Ms. Johnson,

Enclosed please find Puget Sound Energy's Bellevue Electric Reliability Report for calendar year 2021. For the 17th consecutive year, service reliability experienced by Bellevue customers was well above that experienced by all PSE customers in the aggregate. Of the 98 distribution circuits serving Bellevue customers in 2021, 79 circuits had reliability numbers better than the system wide performance (17 circuits experienced no unplanned outages). 19 circuits had SAIDI or SAIFI figures that exceeded the 2021 PSE system wide performance values.

The report content for the 2021 report is the same as our 2020 report:

- Preface summarizing 2021 performance metrics reporting
- 2017 – 2021 System Average Interruption Duration Index (SAIDI) & System Average Interruption Frequency Index (SAIFI) Five Year History
- 2017 – 2021 SAIDI & SAIFI Five Year History Illustrated (graphed)
- 2021 Performance for Circuits Serving Bellevue
- 2021 Outages Summaries for Circuits Serving Bellevue
- 2021 Circuits Serving Bellevue Exceeding PSE SAIDI or SAIFI
- 2017 – 2021 Circuits That Exceeded PSE System SAIDI or SAIFI Five Year Overview
- 2021 Outage Events by Circuit list
- 2021 Report Codes Legend

We report PSE system-wide and Bellevue circuit SAIDI values consistent with reporting to the Washington State Utilities & Transportation Commission (WUTC).

Also included is our 2021 Service Quality Report Card available at PSE.com.

Please contact me at (206) 517-3432 or e-mail at *justin.mcconachie@pse.com* to discuss any questions or concerns you may have about the report materials.

Sincerely,

Justin McConachie
Senior Municipal Liaison Manager

CC:

Kate Nesse – City of Bellevue, Community Development
Brian Rodan – City of Bellevue, Franchise Manager
RaeLynn Asah – PSE, Manager Municipal Relations
David Hoffman – PSE, Local Government Affairs & Public Policy Manager
Cathy Koch – PSE, Director Planning

Enclosures

PREFACE TO BELLEVUE ELECTRIC RELIABILITY REPORT FOR 2021

This preface summarizes performance metrics reporting for the 2021 calendar year, consistent with reporting to the Washington Utilities and Transportation Commission (WUTC) using System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI). All SAIDI values in the 2021 report were calculated using the IEEE 1366 methodology summarized below. SAIFI values calculation remains unchanged from past years.

System Average Interruption Duration Index (SAIDI)

Prior to 2010, PSE calculated and reported single year SAIDI values excluding Major Storm event (affecting 5% or more of total PSE electric customers) outages. During the period 2010 - 2015 PSE calculated and reported rolling five–year average SAIDI values (the current year and four preceding years) including *Major Storm* event outages. Eligible outages having durations longer than one minute were included in SAIDI calculations.

In consultation with the WUTC, in 2016 PSE began using the Institute of Electrical and Electronics Engineers (IEEE) Standard 1366 methodology for calculating SAIDI values reported to the WUTC. The IEEE Standard 1366 defines electric power reliability indices and factors that affect their calculations. The switch to the IEEE 1366 methodology returned to calculation of single year SAIDI values excluding outage events occurring on *Major Event Days.* Eligible outages having durations longer than five minutes are included in SAIDI calculations. Detailed discussion of this methodology is contained in PSE's 2016 Service Quality and Electric Reliability Report filed with the WUTC. In summary, the IEEE methodology takes this approach:

Major Event – An event, such as a storm, that causes serious reliability performance problems.

Major Event Days – Days when outage events can be excluded from the reliability performance calculation. Types of Major Event Days include:

> **SAIDI Exclusion Major Event Days** – Any day in which the daily system SAIDI exceeds the threshold value for the current year.
>
> **5% Exclusion Major Event Days** – Days that five percent or more of electric customers are experiencing an electric outage during a 24-hour period and subsequent days when the service to those customers is being restored.

SAIDI – System Average Interruption Duration Index – This index is calculated based on the formula:

$$\text{SAIDI} = \frac{\Sigma \textit{Customer Minute Interruptions}}{\textit{Average Annual Electric Customer Count}}$$

SAIDI$_{SQI}$*: The SAIDI values used in this report are calculated with the numerator including customer interruption minutes for outage events longer than five minutes occurring during non-Major Event Days events.
*SQI - Service Quality Index

All SAIDI values in the 2021 report were calculated using the IEEE Standard 1366 methodology.

System Average Interruption Frequency Index (SAIFI)

Calculation of SAIFI values reported to the WUTC has not changed from past years. SAIFI values are calculated for single years excluding *5% Exclusion Major Event Day* outage events (see above). SAIFI is calculated based on the formula:

$$\text{SAIFI} = \frac{\Sigma \, Number \; of \; Customer \; Interruptions}{Average \; Annual \; Electric \; Customer \; Count}$$

SAIFI$_{SQI}$*: The SAIFI values used in this report are calculated with the numerator including customer interruptions for outage events longer than one minute occurring outside of 5% Exclusion Major Event Days.
*SQI – Service Quality Index

SAIFI values calculation has not changed from past reports.

Momentary & Sustained Interruptions

Interruptions to customer service fall into two designations:

Momentary Interruption— brief loss of power delivery to one or more customers caused by the opening and closing of an interrupting device:

SAIDI$_{SQI}$ – any interruption five minutes or shorter

SAIFI$_{SQI}$ – any interruption one minute or shorter

Sustained Interruption—any interruption not classified as Momentary (above):

SAIDI$_{SQI}$ – any interruption longer than five minutes

SAIFI$_{SQI}$ – any interruption longer than one minute

Outage Event Codes

Prior to 2016, PSE used *Storm Codes* to indicate whether an outage occurred during normal conditions (NON), weather event conditions (WTH) or major storm conditions (MAJ). In 2016, Storm Codes were discontinued and replaced with *Event Codes* to incorporate the IEEE designation of Major Event Days:

MEJ – IEEE Major Event Day & Major Storm (5% of customers effected)
MEN – IEEE Major Event Day & non Major Storm
NMJ – Non IEEE Major Event Day, but Major Storm (5% of customers effected)
NON – Non IEEE Major Event Day & non Major Storm

BELLEVUE ELECTRIC RELIABILITY REPORT FOR 2021

This report summarizes electric service reliability for customers within the City of Bellevue for calendar year 2021. For the 17th consecutive year, service reliability as measured by SAIDI & SAIFI for Bellevue customers was well above that experienced by all PSE customers in the aggregate. Of the 98 distribution circuits serving Bellevue customers in 2021, 79 circuits had reliability numbers better than the system wide performance (17 circuits experienced no unplanned outages). 19 circuits had SAIDI and/or SAIFI figures that exceeded 2021 system wide performance values.

SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI)
SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX (SAIFI)
FIVE YEAR HISTORY

PSE analyzes and reports on the performance of its distribution circuits using two standard benchmarks of the electric utility industry, SAIDI and SAIFI.

	SAIDI		SAIFI	
	BELLEVUE	**PSE**	**BELLEVUE**	**PSE**
2017	116.4	175.0	0.91	1.2
2018	111.3	145.0	0.71	1.02
2019	102.7	136.0	0.79	0.98
2020	93.0	165.0	0.92	1.24
2021	111.0	207.0	0.65	1.35

SAIDI figures in minutes per customer calculated using the IEEE 1366 method
SAIFI figures in outage events per customer

$SAIDI_{IEEE}$: The System Average Interruption Duration Index is a measure of how long the average customer is out of service during the year, and is determined as:

$$\frac{\textit{Sum of the customer outage minutes}}{\textit{Total number of customers served}}$$

SAIDI figures are single year figures excluding outages that exceed the annual adjusted Major Event Day Threshold

Some customers will experience more outage minutes than the average and some fewer.

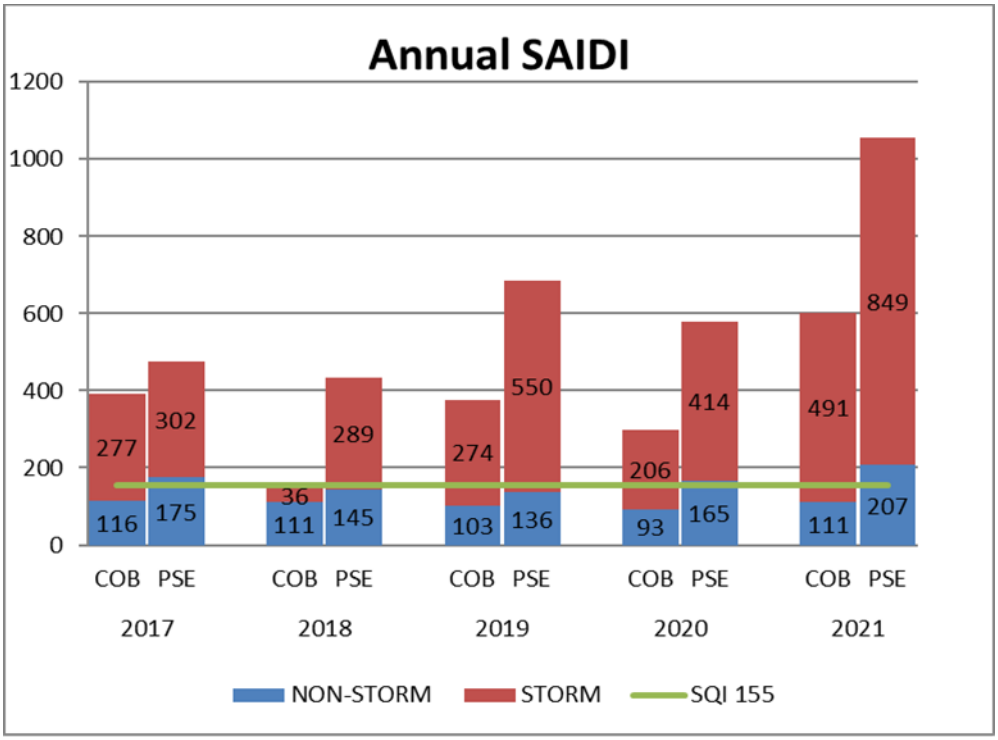
SAIFI: The System Average Interruption Frequency Index is a measure of how often the average customer in an area is out of service during a year, and is determined as:

$$\frac{\textit{Sum of the number of customers affected by each outage}}{\textit{Total number of customers served}}$$

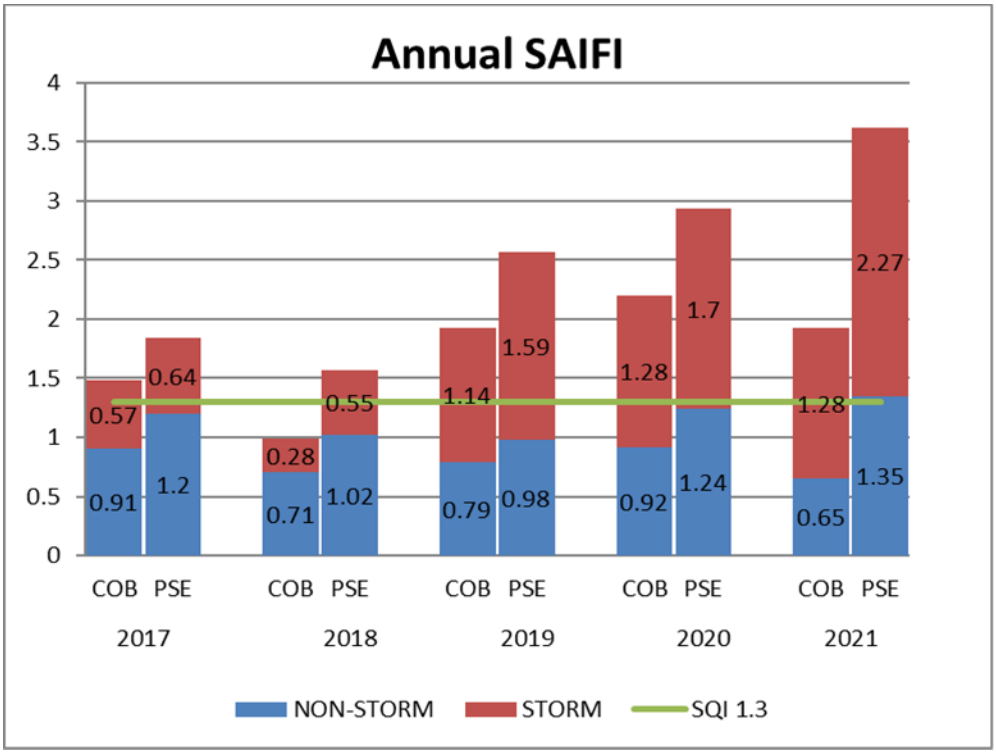
SAIFI figures are single year figures excluding 5% Exclusion Major Event Day outage events

Some customers will experience more outages than the average and some fewer.

SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI)
SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX (SAIFI)
FIVE YEAR HISTORY



Values in minutes for all years calculated using IEEE 1366 method



Values in outage events for all years

2021 PERFORMANCE FOR CIRCUITS SERVING BELLEVUE

EXCLUDING STORM OUTAGES

CIRCUIT	CUSTOMERS (METERS)	UNPLANNED OUTAGES[1]	OUTAGE MINUTES[1]	SAIDI[2]	SAIFI[2]	
	2021 PSE Companywide performance figures			*207*	*1.35*	
ARD-11	226	1	569	2.52	0.01	
ARD-13	861	4	132,199	158.76	1.04	
ARD-14	254	1	979	6.84	0.04	
ARD-15	1,612	4	357,276	221.63	1.18	
ARD-43	738	0	0	0.00	0.00	
BTR-14	1,132	2	3,550	3.14	1.11	
BTR-21	1,136	9	491,173	432.69	1.59	
BTR-22	687	14	219,050	351.03	2.51	
BTR-23	642	4	234,153	364.72	2.39	
CEN-11	26	0	0	84.65	0.15	5
CEN-12	318	0	0	0.00	0.00	
CEN-13	471	0	0	10.01	0.01	5
CEN-14	30	0	0	0.00	0.00	
CEN-22	549	3	29,773	56.35	0.42	
CEN-25	965	0	0	0.00	0.00	
CLY-22	344	0	0	0.00	0.00	
CLY-23	539	6	14,146	26.24	0.17	
CLY-25	1,694	7	80,031	47.24	0.27	
CLY-26	1,252	3	674	0.54	0.01	
CLY-27	794	8	13,523	17.03	0.11	
COL-22	1	0	0	0.00	0.00	
COL-23	70	1	5,633	118.83	3.00	3
COL-24	19	0	0	0.00	0.00	
COL-25	240	2	18,562	77.34	0.34	
COL-26	1,998	8	64,278	32.89	0.20	
EGT-11	1,223	11	165,526	209.40	1.54	3
EGT-12	2,079	16	992,258	493.96	3.19	3
EGT-13	7	1	563	92.86	2.00	3
EGT-15	269	3	36,600	148.64	1.24	3
EGT-16	512	3	51,553	163.70	3.19	3
EGT-25	738	5	69,730	120.61	1.09	3
EGT-26	27	1	2,173	100.72	1.11	3
EGT-27	611	11	60,054	113.47	1.18	3
EGT-28	1,772	14	228,038	141.53	1.43	3
EVE-23	2,976	26	284,637	104.79	0.37	
FAC-12	1,269	20	78,868	72.55	0.33	
FAC-13	493	3	3,976	8.06	0.04	
FAC-14	474	1	186	0.39	0.00	
FAC-21	96	2	2,657	27.68	0.10	
FAC-23	227	3	829	5.35	0.04	
FAC-24	84	0	0	0.00	0.00	
FAC-25	1,487	8	318,553	214.23	1.03	
GOO-13	2,251	7	201,102	89.43	1.30	
GOO-21	635	9	32,771	460.46	1.15	
HAZ-12	3,187	23	1,018,087	323.55	1.70	3
HAZ-13	1,232	15	23,690	26.75	0.13	
HOU-23	1,317	7	80,451	131.84	0.22	
HOU-25	521	10	100,727	201.05	2.12	
KWH-22	1,251	14	299,799	239.65	0.32	
KWH-23	956	13	41,467	43.38	0.16	
KWH-25	1,627	22	48,668	45.21	0.12	
KWH-26	371	4	2,675	15.36	0.08	
LHL-22	1,019	2	12,018	25.12	0.19	
LHL-23	1,378	5	62,846	47.54	0.25	
LHL-25	2,499	12	211,178	85.60	0.29	

LHL-26	550	2	2,853	11.59	0.18	
LOC-22	2,434	4	69,943	29.58	0.14	
LOC-23	2,100	2	81,956	41.91	0.37	
LOC-24	46	2	83	1.80	0.04	
LOC-25	153	0	0	0.00	0.00	
LOC-32	229	0	0	0.00	0.00	
LOC-33	286	0	0	0.00	0.00	
LOC-34	408	0	0	0.00	0.00	
LOC-35	21	1	156	7.43	0.81	
MED-35	190	4	1,520	7.99	0.05	
MED-36	676	5	50,236	74.31	0.38	
MLK-12	425	1	7,422	17.46	0.09	
MLK-13	1,434	2	36,829	25.68	0.08	
MLK-15	1,620	5	140,050	86.52	0.15	
MLK-16	1,566	4	8,518	5.44	0.03	
NOB-11	63	1	6,825	108.33	0.98	
NOB-12	521	1	29,815	58.89	1.02	
NOB-13	18	0	0	0.00	0.00	
NOB-14	1,006	4	2,694	3.86	0.01	
NOB-21	5	0	0	0.00	0.00	
NOB-22	145	1	3,136	74.95	0.17	
NOB-23	956	2	1,582	2.20	0.01	
NOB-24	1,013	5	152,588	161.26	0.47	
NRU-14	23	0	0	0.00	0.00	
NRU-23	757	9	174,476	230.87	1.15	4
NRU-25	846	18	176,604	249.92	1.19	4
NRU-26	784	4	158,316	203.60	1.18	4
NRU-27	507	16	180,324	392.93	1.84	4
OVE-12	584	9	9,018	16.19	0.06	
OVE-15	758	17	220,449	291.06	1.60	
PHA-13	1,051	13	21,413	114.99	0.25	
PHA-15	178	2	519	2.92	0.03	
PHA-16	2,085	9	14,888	12.23	0.07	
PHA-17	703	5	13,704	19.49	0.11	
ROS-17	1,231	8	15,972	13.15	0.07	
SBE-22	416	5	3,291	20.73	0.03	
SBE-23	119	1	5,211	48.71	0.08	
SBE-25	527	3	1,837	11.49	0.03	
SBE-26	1,860	25	128,586	69.48	0.32	
SOM-13	1,423	7	97,982	71.98	0.47	3
SOM-15	1,746	14	48,011	41.69	0.70	
SOM-16	2,638	15	82,383	150.23	0.40	
SOM-17	1,711	17	181,124	105.89	1.01	
Scheduled Outages		104	467,592			
Unscheduled Outages		591	8,227,562			
Totals	84,998	695	8,695,154			

Notes

1 Figures exclude Major Event Day and Major Storm outages.

2 SAIDI are 2021 single year figures calculated using the IEEE 1366 method which excludes Major Event Day outage events.
SAIFI are 2021 single year figures which exclude 5% Exclusion Major Event Day outage events.

3 Includes one circuit outage resulting from substation bank outage.

4 Includes one circuit outage resulting from transmission line outage.

5 SAIDI & SAIFI figures greater than zero reflect inclusion of scheduled outages (including customer requested outages).

2021 OUTAGES FOR CIRCUITS SERVING BELLEVUE

EXCLUDING STORM OUTAGES

BY CAUSE

CAUSE CODE	CAUSE DESCRIPTION	OUTAGES		OUTAGE MINUTES	
		COUNT	PERCENT	COUNT	PERCENT
AC	ACCIDENT	8	1.2%	56,985	0.7%
AV	ACCIDENT/VANDALISM NOT RESULTING IN DC	1	0.1%	3,536	0.0%
BA	BIRD OR ANIMAL	94	13.5%	274,793	3.2%
CE	CUSTOMER EQUIPMENT	8	1.2%	52,026	0.6%
CP	CAR EQUIPMENT	9	1.3%	783,070	9.0%
DU	DIG UP UNDERGROUND	17	2.4%	56,405	0.6%
EF	EQUIPMENT FAILURE	352	50.6%	4,146,932	47.7%
FI	FAULTY INSTALLATION	3	0.4%	2,806	0.0%
OD	OUTSIDE DISTURBANCE	3	0.4%	776	0.0%
OE	OUTAGE WHILE WORKING	3	0.4%	11,111	0.1%
SO	SCHEDULED OUTAGE	104	15.0%	467,592	5.4%
TV	TREE - RIGHT OF WAY UNKNOWN	70	10.1%	2,519,214	29.0%
UN	UNKNOWN CAUSE	22	3.2%	319,719	3.7%
VA	VANDALISM	1	0.1%	189	0.0%
	Totals	695	100%	8,695,154	100%

BY EQUIPMENT

EQUIP CODE	EQUIPMENT DESCRIPTION	OUTAGES		OUTAGE MINUTES	
		COUNT	PERCENT	COUNT	PERCENT
ACE	ALL CUSTOMER EQUIPMENT	10	1.4%	83,474	1.0%
DNO	DID NOT OPERATE	1	0.1%	223	0.0%
OAR	OVERHEAD ARRESTER	1	0.1%	3,686	0.0%
OCE	CUSTOMER EQUIPMENT	2	0.3%	306	0.0%
OCN	OVERHEAD SECONDARY CONNECTOR	12	1.7%	3,080	0.0%
OCO	OVERHEAD CONDUCTOR	57	8.2%	2,371,146	27.3%
OCR	OVERHEAD CROSSARM	3	0.4%	288,349	3.3%
OFC	OVERHEAD CUT-OUT	20	2.9%	58,480	0.7%
OFU	OVERHEAD LINE FUSE / FUSE LINK	49	7.1%	657,781	7.6%
OIN	OVERHEAD INSULATOR	2	0.3%	12,114	0.1%
OPO	OVERHEAD POLE (EDOP100)	28	4.0%	1,046,261	12.0%
OSV	OVERHEAD SERVICE	24	3.5%	6,019	0.1%
OSW	OVERHEAD SWITCH	8	1.2%	67,775	0.8%
OTF	OVERHEAD TRANSFORMER FUSE	64	9.2%	81,773	0.9%
OTR	OVERHEAD TRANSFORMER	31	4.5%	82,460	0.9%
PMF	PADMOUNT SWITCH FUSE	1	0.1%	2,201	0.0%
PMP	PADMOUNT METER POINT (EDUM100)	2	0.3%	1,360	0.0%
PTF	PADMOUNT TRANSFORMER FUSE	5	0.7%	37,115	0.4%
SCB	POWER CIRCUIT BREAKER	6	0.9%	700,748	8.1%
SPT	STATION POWER TRANSFORMER	1	0.1%	30,388	0.3%
UEL	UNDERGROUND ELBOW	29	4.2%	283,225	3.3%
UFE	UNDERGROUND FUSED ELBOW	1	0.1%	386	0.0%
UFJ	UNDERGROUND J-BOX	12	1.7%	532,470	6.1%
UGF	UNDERGROUND SUBMERSIBLE FUSE	5	0.7%	59,511	0.7%
UGV	UNDERGROUND VAULT	2	0.3%	6,624	0.1%
UHH	UNDERGROUND HANDHOLE - SECONDARY	27	3.9%	24,823	0.3%
UMP	UNDERGROUND SUBMERSIBLE METER POINT	2	0.3%	306	0.0%
UNK	UNDERGROUND UNKNOWN	1	0.1%	147	0.0%
UOT	UNDERGROUND OUTDOOR TERMINATION	19	2.7%	94,403	1.1%
UPC	UNDERGROUND PRIMARY CABLE	78	11.2%	1,379,775	15.9%
UPS	UNDERGROUND PADMOUNT SWITCH (EDUS100)	5	0.7%	302,703	3.5%
UPT	UNDERGROUND PADMOUNT TRANSFORMER	26	3.7%	126,763	1.5%
USC	UNDERGROUND SECONDARY CABLE	8	1.2%	15,179	0.2%
USP	UNDERGROUND PRIMARY SPLICE	1	0.1%	3,316	0.0%
USV	UNDERGROUND SERVICE	109	15.7%	57,851	0.7%
UTC	UNDERGROUND TERMINAL FUSE	5	0.7%	51,790	0.6%
UTF	UNDERGROUND SUBMERSIBLE TRANSFORMER FUSE	3	0.4%	9,381	0.1%
UTR	UNDERGROUND SUBMERSIBLE TRANSFORMER	29	4.2%	179,964	2.1%
UVS	UNDERGROUND VISTA SWITCH	1	0.1%	156	0.0%
(blank)	BLANK	5	0.7%	31,642	0.4%
	Totals	695	100%	8,695,154	100%

CIRCUITS THAT EXCEED 2021 PSE SYSTEM SAIDI AND/OR SAIFI SQI: SAIDI = 155 SAIFI = 1.30 PSE: SAIDI = 207 SAIFI = 1.35 BELLEVUE: SAIDI = 111 SAIFI = 0.65			***Notes:*** *SAIDI figures reflect all non-med, scheduled & unscheduled* *SAIFI figures reflect all non-storm outages, scheduled & unscheduled*		
CIRCUIT	**SAIDI**	**SAIFI**	**2021 Events Comments**	**Actions & Projects Completed in 2021**	**Planned Actions & Projects**
Circuits with planned actions or investigations					
BTR-21	*432.69*	1.59	One outage event involving a tree in overhead distribution feeder contributed to both SAIDI & SAIFI.	Trees were removed and overhead conductors were repaired.	An underground cable replacement project to help reduce outages from aging and failed cables, is in development and is estimated to be completed in 2023. The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
BTR-22	*351.03*	*2.51*	One outage event involving a failed piece of equipment in the substation contributed to both SAIDI & SAIFI.	Repairs were made and power restored.	Construction of a distribution underground conversion project along NE 60th St is pending receipt of required easement(s) and is projected to start in 2023. Another underground conversion project along 132nd Ave NE is pending receipt of required easement(s) and is projected to start in 2024. The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
EGT-11	209.40	1.54	One outage event involving tree limbs in overhead distribution feeder contributed to both SAIDI & SAIFI.	Limbs were removed and trimmed and power restored.	An underground cable replacement project to help reduce outages from aging and failed cables, is in development and is estimated to be completed in 2023. The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2020 and the next scheduled trim will be in 2024.
EGT-28	141.53	1.43	One transmission line event contributed to both SAIDI & SAIFI.	Repairs were made and power restored.	An underground cable replacement project to help reduce outages from aging and failed cables, is in development and is estimated to be completed in 2023. A fuse saver project is also in development to help reduce the number of outages caused by temporary faults. The transmission circuit has a tree trimming cycle of 3 years, the last time trees were trimmed and removed was 2021 and the next scheduled trim will be in 2024. The distribution circuit also has a tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
KWH-22	*239.65*	*0.32*	One outage event involving a tree in overhead distribution feeder contributed 218.29 to SAIDI.	Trees were removed and overhead conductors were repaired.	A fuse saver project is in development to help reduce the number or outages caused by temporary faults. The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
NOB-24	161.3	0.47	One outage event involving a failed piece of equipment on an overhead distribution pole contributed 119.34 to SAIDI.	The failed equipment was replaced.	A fuse saver project is in development to help reduce the number or outages caused by temporary faults. The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2020 and the next scheduled trim will be in 2024.
NRU-23	230.9	1.15	One outage event involving a tree branch in substation switchgear which resulted in a substation outage and contributed 193.79 to SAIDI.	Tree branches were removed and power restored.	Installtion of a recloser on overhead feeder wire is in development to help reduce outages caused by temporary faults. The project is projected to to completed in 2023. The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2021 and the next scheduled trim will be in 2025.
NRU-27	392.93	1.84	One outage event involving a tree branch in substation switchgear which resulted in a substation outage and contributed 171.65 to SAIDI.	Tree branches were removed and power restored.	An underground cable replacement project to help reduce outages from aging and failed cables, is in development and is estimated to be completed in 2023.
OVE-15	291.1	1.60	One outage event involving a tree in overhead distribution feeder contributed 190.01 to SAIDI.	Trees were removed and overhead conductors were repaired.	The replacement of overhead conductor with tree wire along 84th Ave NE is projected to start in 2024. The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2020 and the next scheduled trim will be in 2024.
Circuits with completed 2021 actions - no additional corrective action needed					
ARD-13	158.8	*1.04*	One outage event involving failed feeder cable contributing to 145.34 SAIDI.	Section of underground cable repaired.	
ARD-15	*221.63*	*1.18*	One outage event involving failed feeder cable contributing to 189.34 SAIDI.	Section of underground cable repaired.	The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2021 and the next scheduled trim will be in 2025.
BTR-23	364.7	*2.39*	One outage event involving a failed piece of underground equipment that contributed to both SAIDI & SAIFI.	Repairs were made and power restored.	
COL-23	118.8	*3.00*	Two transmission line events contributed to SAIFI.	Repairs were made and power restored.	The transmission circuit has a tree trimming cycle of 3 years, the last time trees were trimmed and removed was 2021 and the next scheduled trim will be in 2024. The distribution circuit also has a tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
EGT-12	494.0	*3.19*	One transmission line event contributed to both SAIDI & SAIFI.	Limbs were removed and trimmed and power restored.	The transmission circuit has a tree trimming cycle of 3 years, the last time trees were trimmed and removed was 2021 and the next scheduled trim will be in 2024. The distribution circuit also has a tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2019 and the next scheduled trim will be in 2023.
EGT-13	92.9	*2.00*	One transmission line event contributed to both SAIDI & SAIFI.	Repairs were made and power restored.	The transmission circuit has a tree trimming cycle of 3 years, the last time trees were trimmed and removed was 2021 and the next scheduled trim will be in 2024. The distribution circuit also has a tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2020 and the next scheduled trim will be in 2024.
EGT-16	163.70	3.19	Two transmission line events contributed to both SAIDI &SAIFI.	Repairs were made and power restored.	The transmission circuit has a tree trimming cycle of 3 years, the last time trees were trimmed and removed was 2021 and the next scheduled trim will be in 2024. The distribution circuit also has a tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2021 and the next scheduled trim will be in 2025.
FAC-25	214.23	*1.03*	One outage event involving a car accident that caused damaged to underground distribution feeder resulted in a substation outage and contributed 171.25 to SAIDI.	Equipment was repaired or replaced and substaion equiment was tested prior to returning to service.	The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2022 and the next scheduled trim will be in 2026.
GOO-21	460.46	1.15	One outage event involving a tree in overhead distribution feeder contributed 401.51 to SAIDI.	Trees were removed and overhead conductors were repaired.	The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2020 and the next scheduled trim will be in 2024.
HAZ-12	*323.55*	*1.70*	One transmission line event contributed to both SAIDI and SAIFI.	Repairs were made and power restored.	The transmission circuit has a tree trimming cycle of 3 years, the last time trees were trimmed and removed was 2021 and the next scheduled trim will be in 2024. The distribution circuit also has a tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2020 and the next scheduled trim will be in 2024.
HOU-25	201.05	2.12	One outage event involving tree limbs in overhead distribution feeder contributed to both SAIDI & SAIFI.	Limbs were removed and trimmed and power restored.	The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
NRU-25	249.92	*1.19*	One outage event involving a tree branch in substation switchgear which resulted in a substation outage and contributed 173.87 to SAIDI.	Tree branches were removed and power restored.	The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
NRU-26	203.60	1.18	One outage event involving a tree branch in substation switchgear which resulted in a substation outage and contributed 152.05 to SAIDI.	Tree branches were removed and power restored.	The distribution circuit has tree trimming cycle of 4 years, the last time trees were trimmed and removed was in 2018 and the next scheduled trim will be in 2022.
Circuits for which no corrective action is needed					

Figure exceeded Service Quality Index

Figure exceeding system wide average and Service Quality Index

SAIFI figure results in part from circuit outages due to 2021 transmission or substation outage

CIRCUITS THAT EXCEEDED PSE SYSTEM SAIDI OR SAIFI
2017 - 2021

During the five year period 2017-2021 these circuits serving customers in Bellevue performed below PSE's average system wide performance in one or more years. Of these circuits...

28 (39%) circuits performed below system wide performance in one of the five years
22 (31%) circuits performed below system wide performance in two of the five years
14 (20%) circuits performed below system wide performance in three of the five years
5 (7%) circuits performed below system wide performance in four of the five years
2 (3%) circuit performed below system wide performance in five of the five years

						Repeat Counts				
CIRCUIT	2017	2018	2019	2020	2021	1	2	3	4	5
ARD-11						1				
ARD-13		1					2			
ARD-15		1							4	
BTR-21								3		
BTR-22								3		
BTR-23							2			
CEN-11							2			
CEN-22						1				
CEN-25						1				
CLY-22						1				
CLY-23						1				
CLY-25						1				
CLY-26						1				
CLY-27							2			
COL-22						1				
COL-23								3		
COL-24						1				
COL-25						1				
COL-26						1				
EGT-11									4	
EGT-12		1								5
EGT-13							2			
EGT-15							2			
EGT-16							2			
EGT-25							2			
EGT-28							2			
EVE-23						1				
FAC-12						1				
FAC-13						1				
FAC-25							2			
GOO-13							2			
GOO-21								3		
HAZ-12						1				
HAZ-13						1				
HOU-23							2			
HOU-25		1							4	
KWH-22		1						3		
KWH-23							2			
KWH-25								3		
KWH-26		1						3		
LHL-23		1					2			
LHL-25		1							4	

LOC-22		1					2			
LOC-32						1				
LOC-33							2			
MED-35							2			
MED-36						1				
MLK-13		1					2			
MLK-15		1						3		
NOB-11		1				1				
NOB-14						1				
NOB-21						1				
NOB-24		1							4	
NRU-23							2			
NRU-25						1				
NRU-26							2			
NRU-27		1								5
OVE-12		1					2			
OVE-15								3		
PHA-13		1						3		
PHA-15		1				1				
PHA-16		1					2			
PHA-17		1				1				
ROS-17		1				1				
SBE-22		1						3		
SBE-23		1						3		
SBE-26						1				
SOM-13		1				1				
SOM-15		1				1				
SOM-16		1						3		
SOM-17		1						3		
Totals	33	26	39	24	22	28	22	14	5	2
	2017	2018	2019	2020	2021	39%	31%	20%	7%	3%

2021 OUTAGES FOR CIRCUITS SERVING BELLEVUE

DATE	CIRCUIT	CAUSE	EQUIPMENT	CUSTOMERS OUT	CUSTOMER MINUTES	STORM CODE
5/28/2021	ARD-11	EF	UTR	2	569	NON
5/20/2021	ARD-13	SO	OPO	6	1,173	NON
7/9/2021	ARD-13	EF	UPC	8	2,497	NON
8/13/2021	ARD-13	SO	UPT	4	3,317	NON
9/10/2021	ARD-13	EF	UPC	858	125,139	NON
9/30/2021	ARD-13	EF	UPC	10	2,482	NON
12/1/2021	ARD-13	EF		10	2,081	NON
1/25/2021	ARD-14	SO	OCO	2	425	NON
1/28/2021	ARD-14	SO	OCO	2	291	NON
5/3/2021	ARD-14	EF	UTR	4	979	NON
10/20/2021	ARD-14	SO	USV	1	42	NON
4/15/2021	ARD-15	EF	UTR	53	11,783	NON
5/5/2021	ARD-15	EF	UPC	79	93	NON
7/6/2021	ARD-15	EF	UPC	1,612	305,215	NON
8/23/2021	ARD-15	EF	UEL	148	40,185	NON
8/30/2021	ARD-15	SO	UEL	5	83	NON
9/17/2021	ARD-15	EF	UFJ	1,621	3,376,209	MEJ
9/17/2021	ARD-15	EF	UGF	208	457,191	MEJ
1/13/2021	BTR-14	TV	OCO	1,232	434,588	MEJ
6/27/2021	BTR-14 [3]	EF	CON	1,224	139,639	MEN
9/1/2021	BTR-14	BA	UGF	13	837	NON
9/17/2021	BTR-14	EF	UPC	7	11,892	MEN
10/25/2021	BTR-14	AO	ACE	13	559	MEJ
12/9/2021	BTR-14	BA	UOT	17	2,713	NON
1/13/2021	BTR-21	TV	OCO	680	271,751	MEJ
1/13/2021	BTR-21	TV	OCO	456	1,011,347	MEJ
5/7/2021	BTR-21	UN	UEL	104	19,434	NON
5/7/2021	BTR-21	UN	UEL	104	8,931	NON
6/15/2021	BTR-21	SO	UPC	5	361	NON
6/27/2021	BTR-21	EF	UPT	455	276,725	MEN
6/28/2021	BTR-21	EF	UFJ	468	226,160	NON
7/6/2021	BTR-21	TV	OCO	3	1,473	NON
8/4/2021	BTR-21	CE	ACE	48	30,308	NON
8/4/2021	BTR-21	CE	ACE	24	13,980	NON
8/9/2021	BTR-21	DU	UPC	143	23,774	NON
8/10/2021	BTR-21	TV	OSV	1	476	NON
10/29/2021	BTR-21	TV	OCR	456	166,637	NON
1/11/2021	BTR-22	TV	OFU	9	402	NON
1/13/2021	BTR-22	TV	OCO	375	819,375	MEJ
1/13/2021	BTR-22	TV	OCO	16	75,890	MEJ

1/13/2021	BTR-22	TV	OCO	5	25,507	MEJ
1/13/2021	BTR-22	TV	OCO	117	576,488	MEJ
1/13/2021	BTR-22	TV	OCO	27	133,530	MEJ
1/13/2021	BTR-22	TV	OCO	1	210	MEJ
2/19/2021	BTR-22	EF	UHH	4	99	NON
3/12/2021	BTR-22	AC	ACE	16	673	NON
4/12/2021	BTR-22	TV	OCO	234	24,301	NON
4/14/2021	BTR-22	DU	UPC	28	6,176	NON
5/12/2021	BTR-22	BA	OTR	3	204	NON
5/13/2021	BTR-22	BA	UOT	1	82	NON
5/18/2021	BTR-22	EF	SPT	687	30,388	NON
6/8/2021	BTR-22	TV	OFU	238	17,640	NON
6/9/2021	BTR-22	TV	OCO	116	69,786	NON
6/26/2021	BTR-22	EF	OTR	7	6,094	NON
9/6/2021	BTR-22	UN	OFU	209	17,085	NON
10/11/2021	BTR-22	TV	OCO	116	37,518	NON
10/26/2021	BTR-22	TV	OFU	116	11,223	NMJ
11/9/2021	BTR-22	TV	OFU	9	2,616	MEJ
12/10/2021	BTR-22	TV	OCO	27	8,602	NON
12/11/2021	BTR-22	TV	OCO	5	6,321	MEN
12/20/2021	BTR-22	SO	OPO	22	10,882	NON
1/13/2021	BTR-23	TV	OCO	642	256,564	MEJ
5/7/2021	BTR-23	UN	UEL	562	105,019	NON
5/7/2021	BTR-23	UN	UEL	562	48,262	NON
6/27/2021	BTR-23	EF	UPT	501	308,251	MEN
6/28/2021	BTR-23	EF	UFJ	254	80,755	NON
6/28/2021	BTR-23	CE	UMP	1	117	NON
4/24/2021	CEN-11	SO	PMF	4	2,201	NON
5/1/2021	CEN-13	SO	UPT	7	4,713	NON
7/26/2021	CEN-22	EF	UPC	116	22,913	NON
7/26/2021	CEN-22	EF	UPC	104	6,753	NON
8/26/2021	CEN-22	EF	UEL	1	107	NON
8/28/2021	CEN-22	SO		7	1,162	NON
1/13/2021	CLY-23	TV	OCO	44	216,113	MEJ
2/3/2021	CLY-23	BA	OTF	3	358	NON
3/5/2021	CLY-23	EF	USV	1	194	NON
5/15/2021	CLY-23	BA	UOT	6	524	NON
7/1/2021	CLY-23	BA	OTF	3	260	NON
10/9/2021	CLY-23	EF	OCN	4	1,293	NON
11/30/2021	CLY-23	AC	ACE	75	11,517	NON
2/14/2021	CLY-25	TV	OFU	9	4,816	NON
6/28/2021	CLY-25	TV	OCO	16	4,510	NON
6/29/2021	CLY-25	EF	OTF	6	1,429	NON
7/11/2021	CLY-25	UN	PTF	150	35,784	NON

7/13/2021	CLY-25		TV	OCO	9	580	NON
12/15/2021	CLY-25		BA	UGF	89	24,549	NON
12/15/2021	CLY-25		BA	UGF	173	8,363	NON
2/14/2021	CLY-26		TV	OCN	1	14	NON
6/2/2021	CLY-26		EF	OTF	4	312	NON
10/20/2021	CLY-26		EF	OTF	4	348	NON
1/18/2021	CLY-27		EF	OSV	1	187	NON
4/22/2021	CLY-27		EF	UPC	51	6,765	NON
4/22/2021	CLY-27		OE	UEL	15	1,945	NON
6/19/2021	CLY-27		EF	USV	1	1,050	NON
7/27/2021	CLY-27		EF	UPT	4	251	NON
8/14/2021	CLY-27		BA	OTR	6	2,589	NON
9/3/2021	CLY-27		BA	OTF	6	525	NON
10/12/2021	CLY-27		EF	PTF	2	211	NON
8/2/2021	COL-23		SO		140	1,820	NON
10/26/2021	COL-23	2	TV	OCO	70	866	NMJ
10/28/2021	COL-23	3	EF	OCO	70	5,633	NON
1/20/2021	COL-25		CE	ACE	13	7,084	NON
11/1/2021	COL-25		EF	UPC	68	11,478	NON
1/13/2021	COL-26		TV	OCO	34	17,681	MEJ
1/13/2021	COL-26		TV	OCO	34	178,291	MEJ
1/13/2021	COL-26		TV	OCO	26	29,396	MEJ
1/13/2021	COL-26		TV	OCO	28	43,300	MEJ
1/15/2021	COL-26		TV	OSV	1	1,370	NMJ
4/8/2021	COL-26		EF	UPC	169	28,997	NON
6/5/2021	COL-26		EF	UPC	143	23,631	NON
6/27/2021	COL-26		EF	OTF	4	1,326	MEN
7/20/2021	COL-26		EF	OTF	7	414	NON
7/30/2021	COL-26		BA	OTF	5	398	NON
8/12/2021	COL-26		BA	OTF	6	778	NON
8/29/2021	COL-26		BA	OFU	17	1,568	NON
9/8/2021	COL-26		BA	OFU	34	1,733	NON
10/24/2021	COL-26		TV	OTF	6	19,898	MEJ
10/24/2021	COL-26		EF	OTF	5	16,041	MEJ
10/27/2021	COL-26		FI	OSV	1	68	NMJ
12/14/2021	COL-26		EF	UPC	17	6,759	NON
1/13/2021	EGT-11	1	TV	OCO	0	151,457	MEJ
1/13/2021	EGT-11	2	TV	OCO	0	28,557	MEJ
1/13/2021	EGT-11		TV	OCO	1,214	1,031,010	MEJ
3/23/2021	EGT-11		EF	USV	1	146	NON
4/30/2021	EGT-11		EF	UOT	95	13,170	NON
5/3/2021	EGT-11		TV	OCO	158	17,912	NON
7/1/2021	EGT-11		BA	UOT	190	29,903	NON
7/13/2021	EGT-11		EF	USV	1	241	NON

7/21/2021	EGT-11		BA	UTC	31	3,205	NON
7/30/2021	EGT-11		SO	OFU	10	3,141	NON
8/14/2021	EGT-11		BA	OFC	7	1,576	NON
8/29/2021	EGT-11		SO	OSW	166	62,192	NON
10/26/2021	EGT-11	2	TV	OCO	1,223	15,124	NMJ
10/28/2021	EGT-11	3	EF	OCO	1,223	98,411	NON
11/8/2021	EGT-11		UN	OFU	111	10,107	NMJ
12/3/2021	EGT-11		EF	USV	1	458	NON
12/14/2021	EGT-11		CE	OCN	1	281	NON
12/14/2021	EGT-11		UN	DNO	1	223	NON
1/13/2021	EGT-12		TV	OCO	2,079	3,098,539	MEJ
1/13/2021	EGT-12	1	TV	OCO	0	257,465	MEJ
1/13/2021	EGT-12	2	TV	OCO	0	48,544	MEJ
1/13/2021	EGT-12		EF	USV	1	3,891	MEJ
2/4/2021	EGT-12		EF	USV	1	271	NON
4/19/2021	EGT-12		EF	USV	1	99	NON
4/22/2021	EGT-12		SO	OPO	4	913	NON
6/19/2021	EGT-12		BA	OTF	4	563	NON
6/21/2021	EGT-12		EF	UHH	4	124	NON
6/25/2021	EGT-12		BA	OTF	4	309	NON
6/28/2021	EGT-12		EF	UPT	28	22,080	NON
7/5/2021	EGT-12		UN	OCO	43	7,696	NON
7/5/2021	EGT-12		UN	OTR	4	463	NON
7/10/2021	EGT-12		BA	OTF	38	11,491	NON
7/22/2021	EGT-12		SO	OPO	2	161	NON
7/23/2021	EGT-12		SO	OPO	36	7,734	NON
7/25/2021	EGT-12		EF	OFC	1	227	NON
9/12/2021	EGT-12		TV	OCO	8	2,413	NON
10/10/2021	EGT-12		CP	OPO	2,079	435,808	NON
10/10/2021	EGT-12		CP	OPO	170	1,394	NON
10/26/2021	EGT-12	2	TV	OCO	2,079	25,713	NMJ
10/27/2021	EGT-12		TV	OPO	5	177	NMJ
10/28/2021	EGT-12	3	EF	OCO	2,079	167,293	NON
11/4/2021	EGT-12		TV	OCO	39	22,589	NON
11/14/2021	EGT-12		TV	OCO	2,079	319,438	NON
12/11/2021	EGT-12		EF	UTR	11	20,048	MEN
1/13/2021	EGT-13	1	TV	OCO	0	867	MEJ
1/13/2021	EGT-13	2	TV	OCO	0	163	MEJ
1/13/2021	EGT-13		TV	OCO	7	1,751	MEJ
1/29/2021	EGT-13		SO	ACE	7	19,197	NON
10/26/2021	EGT-13	2	TV	OCO	7	87	NMJ
10/28/2021	EGT-13	3	EF	OCO	7	563	NON
1/13/2021	EGT-15		TV	OCO	269	0	MEJ
1/13/2021	EGT-15	1	TV	OCO	0	33,313	MEJ

1/13/2021	EGT-15	2	TV	OCO	0	6,281	MEJ
1/13/2021	EGT-15		TV	OCO	269	105,913	MEJ
1/15/2021	EGT-15		TV	OCO	1	58	NMJ
7/8/2021	EGT-15		UN	UPC	20	6,954	NON
9/8/2021	EGT-15		EF	UPC	20	8,000	NON
10/26/2021	EGT-15	2	TV	OCO	269	3,327	NMJ
10/28/2021	EGT-15	3	EF	OCO	269	21,646	NON
12/11/2021	EGT-15		TV	OFU	25	15,155	MEN
1/13/2021	EGT-16	1	TV	OCO	0	63,406	MEJ
1/13/2021	EGT-16	2	TV	OCO	0	11,955	MEJ
1/13/2021	EGT-16		TV	OCO	504	423,259	MEJ
1/13/2021	EGT-16		TV	OSV	1	1,374	MEJ
1/19/2021	EGT-16		EF	OTF	4	384	NON
1/29/2021	EGT-16		SO	OPO	11	1,401	NON
4/25/2021	EGT-16		BA	OFU	83	9,970	NON
8/2/2021	EGT-16		SO		1,022	24,528	NON
9/18/2021	EGT-16		EF	OSV	3	1,390	MEJ
10/24/2021	EGT-16		TV	OTF	2	2,878	MEJ
10/26/2021	EGT-16	2	TV	OCO	512	6,332	NMJ
10/28/2021	EGT-16	3	EF	OCO	512	41,199	NON
12/11/2021	EGT-16		EF	OCN	1	1,136	MEN
1/13/2021	EGT-25		TV	OCO	737	847,808	MEJ
1/14/2021	EGT-25		TV	OFC	38	107,192	MEJ
1/15/2021	EGT-25		TV	OPO	1	1,805	NMJ
1/19/2021	EGT-25		EF	OSV	1	344	NON
2/15/2021	EGT-25		TV	OFU	16	9,592	NON
3/26/2021	EGT-25		SO	OCO	7	1,446	NON
7/1/2021	EGT-25		TV	OTF	1	104	NON
9/30/2021	EGT-25		SO	OPO	42	6,904	NON
10/26/2021	EGT-25	2	TV	OCO	738	9,127	NMJ
10/28/2021	EGT-25	3	EF	OCO	738	59,384	NON
12/4/2021	EGT-25		EF	USV	1	306	NON
1/13/2021	EGT-26		TV	OCO	26	14,342	MEJ
8/31/2021	EGT-26		SO	OSW	3	213	NON
10/26/2021	EGT-26	2	TV	OCO	27	334	NMJ
10/28/2021	EGT-26	3	EF	OCO	27	2,173	NON
1/13/2021	EGT-27		TV	OCO	619	668,870	MEJ
1/13/2021	EGT-27		TV	OCO	5	8,529	MEJ
1/16/2021	EGT-27		TV	OTF	3	1,094	NMJ
2/1/2021	EGT-27		SO	OPO	3	626	NON
2/19/2021	EGT-27		EF	USV	1	177	NON
5/27/2021	EGT-27		TV	OSV	1	101	NON
7/8/2021	EGT-27		BA	OFU	9	121	NON
7/13/2021	EGT-27		EF	OTR	6	1,722	NON

8/19/2021	EGT-27		BA	OTF	3	192	NON
9/3/2021	EGT-27		EF	OFU	76	7,126	NON
9/6/2021	EGT-27		BA	OTF	5	380	NON
9/22/2021	EGT-27		EF	OSV	1	173	NON
10/26/2021	EGT-27	[2]	TV	OCO	611	7,556	NMJ
10/28/2021	EGT-27	[3]	EF	OCO	611	49,165	NON
11/3/2021	EGT-27		EF	OTF	3	372	NON
11/21/2021	EGT-27		BA	OTF	5	525	NON
1/2/2021	EGT-28		TV	OCO	545	52,674	NON
1/13/2021	EGT-28		TV	OCO	1,791	1,944,100	MEJ
1/18/2021	EGT-28		EF	USV	1	31	NON
2/4/2021	EGT-28		EF	OCN	1	130	NON
4/1/2021	EGT-28		SO	USV	7	843	NON
4/6/2021	EGT-28		AC	USC	1	325	NON
5/19/2021	EGT-28		EF	UPC	65	8,214	NON
7/18/2021	EGT-28		EF	UPC	65	10,454	NON
8/27/2021	EGT-28		EF	UFJ	45	8,330	NON
8/27/2021	EGT-28		EF	UFJ	13	2,477	NON
9/10/2021	EGT-28		BA	OTF	6	556	NON
9/23/2021	EGT-28		EF	USV	4	826	NON
9/29/2021	EGT-28		DU	USV	8	1,169	NON
10/15/2021	EGT-28		EF	USV	1	137	NON
10/26/2021	EGT-28	[2]	TV	OCO	1,772	21,914	NMJ
10/28/2021	EGT-28	[3]	EF	OCO	1,772	142,587	NON
11/15/2021	EGT-28		EF	USV	1	1,576	MEJ
12/7/2021	EGT-28		EF	USV	1	128	NON
1/8/2021	EVE-23		TV	OCO	124	11,028	NON
1/12/2021	EVE-23		EF	UHH	2	159	MEN
1/12/2021	EVE-23		EF	UHH	2	769	MEN
1/30/2021	EVE-23		BA	OFC	8	537	NON
3/9/2021	EVE-23		OE	UNK	1	147	NON
4/30/2021	EVE-23		EF	USV	1	261	NON
5/18/2021	EVE-23		UN	USV	1	117	NON
5/30/2021	EVE-23		BA	OFU	10	1,253	NON
6/18/2021	EVE-23		SO	UPC	83	25,189	NON
7/12/2021	EVE-23		BA	UOT	374	12,828	NON
7/12/2021	EVE-23		BA	UOT	0	107	NON
7/12/2021	EVE-23		BA	UOT	0	8	NON
7/12/2021	EVE-23		BA	UOT	0	8	NON
7/12/2021	EVE-23		BA	UOT	0	6	NON
7/12/2021	EVE-23		BA	UOT	0	5	NON
7/12/2021	EVE-23		BA	UOT	0	4	NON
7/21/2021	EVE-23		BA	UTC	1	187	NON
7/24/2021	EVE-23		EF	UPC	39	23,895	NON

7/25/2021	EVE-23	EF	UTR	21	5,922	NON
8/11/2021	EVE-23	DU	USV	1	242	NON
8/17/2021	EVE-23	EF	USV	1	414	NON
8/20/2021	EVE-23	EF	UPT	3	296	NON
8/28/2021	EVE-23	SO	OFU	1	296	NON
9/14/2021	EVE-23	BA	OTF	4	870	NON
10/20/2021	EVE-23	BA	UOT	1	120	NON
10/26/2021	EVE-23	EF	USV	1	1,746	NMJ
10/31/2021	EVE-23	EF	UTR	17	8,533	NON
11/22/2021	EVE-23	EF	UPC	73	84,674	NON
12/15/2021	EVE-23	EF	UPC	31	21,913	NON
12/22/2021	EVE-23	EF	UHH	1	416	NON
12/23/2021	EVE-23	EF	OFU	291	110,846	NON
1/13/2021	FAC-12	TV	OCO	32	22,239	MEJ
2/15/2021	FAC-12	BA	OTF	2	389	NON
3/2/2021	FAC-12	EF	USV	1	432	NON
3/10/2021	FAC-12	EF	USC	8	498	NON
3/26/2021	FAC-12	UN	USV	1	219	NON
4/6/2021	FAC-12	UN	USV	1	816	NON
4/6/2021	FAC-12	BA	OTR	10	1,896	NON
5/24/2021	FAC-12	EF	UTR	107	30,275	NON
5/25/2021	FAC-12	EF	UPC	58	5,804	NON
5/25/2021	FAC-12	EF	USV	1	316	NON
5/28/2021	FAC-12	EF	USV	1	5,984	NON
6/22/2021	FAC-12	BA	OTF	2	255	NON
6/27/2021	FAC-12	EF	UHH	4	1,039	MEN
7/4/2021	FAC-12	BA	OTF	3	355	NON
7/7/2021	FAC-12	TV	OCO	15	6,640	NON
7/7/2021	FAC-12	EF	OTR	15	3,110	NON
8/21/2021	FAC-12	OD	USV	1	59	NON
9/16/2021	FAC-12	DU	USV	1	108	NON
9/17/2021	FAC-12	SO	UPT	5	440	MEN
9/24/2021	FAC-12	UN	UGF	143	19,596	NON
9/24/2021	FAC-12	EF	PMP	1	148	NON
10/24/2021	FAC-12	TV	OPI	31	24,496	MEN
10/27/2021	FAC-12	EF	UPC	68	13,204	NMJ
11/1/2021	FAC-12	EF	USV	5	1,662	NON
11/28/2021	FAC-12	EF	USV	1	306	NON
4/29/2021	FAC-13	EF	UPC	16	3,066	NON
5/27/2021	FAC-13	EF	UPC	1	244	NON
10/24/2021	FAC-13	TV	OCO	493	595,818	MEJ
10/29/2021	FAC-13	TV	OCO	1	666	NON
3/19/2021	FAC-14	EF	OSV	1	186	NON
3/17/2021	FAC-21	EF	USC	5	1,488	NON

4/30/2021	FAC-21		EF	UTF	5	1,169	NON
7/18/2021	FAC-23		TV	OFU	3	256	NON
7/18/2021	FAC-23		TV	OFU	3	413	NON
11/22/2021	FAC-23		SO	UFE	1	386	NON
12/14/2021	FAC-23		DU	UPC	1	160	NON
6/3/2021	FAC-25		EF	UTR	11	2,665	NON
6/12/2021	FAC-25		EF	USV	1	357	NON
6/27/2021	FAC-25		EF	UPT	15	5,405	MEN
6/28/2021	FAC-25		EF	UPT	15	17,111	NON
7/23/2021	FAC-25		EF	UPS	0	254,656	NON
7/23/2021	FAC-25		AC	UPS	0	8,861	NON
7/23/2021	FAC-25		AC	UPS	1,486	33,930	NON
8/4/2021	FAC-25		EF	UEL	1	468	NON
11/9/2021	FAC-25		DU	UPC	35	7,289	MEJ
11/22/2021	FAC-25		TV	OTF	4	505	NON
1/13/2021	GOO-13		TV	OCO	885	88,394	MEJ
2/14/2021	GOO-13		TV	OCO	99	86,364	NON
2/15/2021	GOO-13		TV	OCO	2	200	NON
2/15/2021	GOO-13		TV	OCO	2	116	NON
3/19/2021	GOO-13		SO	UPT	7	214	NON
5/9/2021	GOO-13		EF	USV	1	637	NON
6/27/2021	GOO-13	[4]	EF	OIN	2,255	241,473	MEN
7/17/2021	GOO-13		EF	USV	1	171	NON
8/3/2021	GOO-13		EF	USV	1	163	NON
11/5/2021	GOO-13		EF	OFU	551	113,451	NON
11/9/2021	GOO-13		TV	OFU	1	2,076	MEJ
1/6/2021	GOO-21		TV	OCO	2	1,473	NON
1/13/2021	GOO-21		TV	OCO	8	51,447	MEJ
1/13/2021	GOO-21		TV	OCO	49	273,273	MEJ
1/13/2021	GOO-21		TV	OCO	0	82,777	MEJ
1/13/2021	GOO-21		TV	OFU	6	39,144	MEJ
1/13/2021	GOO-21		TV	OCO	672	1,947,093	MEJ
1/16/2021	GOO-21		TV	OCO	7	1,280	NMJ
1/20/2021	GOO-21		TV	OSV	1	58	NON
1/27/2021	GOO-21		EF	UOT	13	4,740	NON
4/5/2021	GOO-21		DU	USV	1	216	NON
4/29/2021	GOO-21		EF	UPC	7	725	NON
5/9/2021	GOO-21		BA	OTF	2	194	NON
6/27/2021	GOO-21	[4]	EF	OIN	632	80,285	MEN
8/2/2021	GOO-21		EF	UPC	7	4,258	NON
9/19/2021	GOO-21		TV	OCO	4	524	NMJ
9/19/2021	GOO-21		TV	OCO	51	2,855	NMJ
10/24/2021	GOO-21		TV	OCO	7	16,933	MEN
10/27/2021	GOO-21		TV	OPO	616	254,962	NMJ

10/28/2021	GOO-21		TV	OCO	55	20,095	NON
11/8/2021	GOO-21		EF	OFC	2	1,012	NON
11/15/2021	GOO-21		TV	OFU	55	46,030	MEJ
1/3/2021	HAZ-12		EF	UEL	27	7,031	NON
1/18/2021	HAZ-12		TV	OFC	3	436	NON
3/2/2021	HAZ-12		BA	OTF	87	7,778	NON
3/14/2021	HAZ-12		EF	USV	1	144	NON
3/20/2021	HAZ-12		EF	USV	1	542	NON
4/16/2021	HAZ-12		EF	UFJ	38	9,604	NON
6/28/2021	HAZ-12		EF	UPT	9	7,483	NON
6/28/2021	HAZ-12		EF	UPT	69	13,157	NON
8/1/2021	HAZ-12		BA	OTR	84	13,304	NON
8/6/2021	HAZ-12		TV	OFU	6	786	NON
9/13/2021	HAZ-12		BA	OTF	6	552	NON
9/23/2021	HAZ-12		EF	USV	1	748	NON
9/25/2021	HAZ-12		EF	UTR	132	19,906	NON
9/28/2021	HAZ-12		EF	UEL	18	2,488	NON
10/10/2021	HAZ-12		CP	OPO	1,496	282,345	NON
10/12/2021	HAZ-12		SO	UPC	2	62	NON
10/15/2021	HAZ-12		EF	USV	3	240	NON
10/19/2021	HAZ-12		TV	OSV	1	109	NON
10/26/2021	HAZ-12	[2]	TV	OCO	1,051	12,997	NMJ
10/28/2021	HAZ-12	[3]	EF	OCO	1,523	122,551	NON
11/14/2021	HAZ-12		TV	OCO	1,720	514,148	NON
12/2/2021	HAZ-12		EF	USV	1	449	NON
12/3/2021	HAZ-12		EF	UTR	14	4,011	NON
12/3/2021	HAZ-12		OE	UTR	178	9,019	NON
12/6/2021	HAZ-12		EF	USV	1	1,256	NON
1/9/2021	HAZ-13		EF	OTR	1	93	NON
1/13/2021	HAZ-13		TV	OCO	19	103,147	MEJ
1/13/2021	HAZ-13		TV	OCO	5	25,447	MEJ
1/13/2021	HAZ-13		TV	OCO	5	22,782	MEJ
1/28/2021	HAZ-13		EF	UPC	5	2,112	NON
2/12/2021	HAZ-13		EF	USV	1	1,312	NON
3/13/2021	HAZ-13		EF	UPC	18	2,572	NON
5/3/2021	HAZ-13		FI	UPT	15	852	NON
6/8/2021	HAZ-13		EF	UHH	3	96	NON
7/14/2021	HAZ-13		EF	OPO	6	3,264	NON
7/22/2021	HAZ-13		EF	OTR	3	858	NON
8/3/2021	HAZ-13		BA	OFU	10	1,109	NON
8/11/2021	HAZ-13		EF	OTR	6	2,230	NON
9/11/2021	HAZ-13		EF	USV	1	89	NON
9/30/2021	HAZ-13		UN	OTF	3	286	NON
10/6/2021	HAZ-13		SO	OFU	23	8,813	NON

10/7/2021	HAZ-13	EF	OCN	1	202	NON
11/16/2021	HAZ-13	TV	OSV	1	454	NMJ
11/28/2021	HAZ-13	EF	USV	1	903	NON
12/9/2021	HAZ-13	EF	UPC	59	7,712	NON
1/5/2021	HOU-23	EF	USV	1	135	NON
1/31/2021	HOU-23	EF	USV	1	338	NON
4/24/2021	HOU-23	EF	OFC	67	25,803	NON
4/25/2021	HOU-23	EF	UTR	8	3,724	NON
9/30/2021	HOU-23	EF	USV	1	418	NON
10/21/2021	HOU-23	EF	UPC	179	42,089	NON
11/18/2021	HOU-23	EF		306	92,366	NMJ
11/18/2021	HOU-23	TV	UPT	6	719	NMJ
11/18/2021	HOU-23	SO	UPT	1	92	NMJ
12/6/2021	HOU-23	EF	UPC	30	7,944	NON
1/24/2021	HOU-25	EF	OTF	7	847	NON
3/16/2021	HOU-25	EF	UHH	2	26	NON
3/16/2021	HOU-25	EF	OSV	2	70	NON
4/12/2021	HOU-25	TV	OCO	521	54,106	NON
4/14/2021	HOU-25	EF	UEL	3	572	NON
6/18/2021	HOU-25	SO	OPO	4	1,980	NON
7/23/2021	HOU-25	EF	OFC	22	969	NON
7/23/2021	HOU-25	EF	OFC	17	905	NON
8/1/2021	HOU-25	EF	UTR	2	502	NON
8/31/2021	HOU-25	SO	UEL	1	2,040	NON
9/6/2021	HOU-25	UN	OFU	521	42,591	NON
9/29/2021	HOU-25	EF	USV	1	139	NON
11/9/2021	HOU-25	EF	OTR	3	1,458	MEJ
1/14/2021	KWH-22	TV	OSV	1	925	MEJ
1/28/2021	KWH-22	EF	USV	1	208	NON
2/25/2021	KWH-22	EF	USV	2	1,584	NON
6/10/2021	KWH-22	BA	OFU	28	2,779	NON
6/22/2021	KWH-22	UN	OTF	4	396	NON
6/30/2021	KWH-22	EF	USV	1	421	NON
7/18/2021	KWH-22	BA	OFU	73	7,403	NON
7/18/2021	KWH-22	BA	OFU	73	1,761	NON
7/21/2021	KWH-22	BA	OFU	28	4,173	NON
7/21/2021	KWH-22	BA	PTF	3	425	NON
7/30/2021	KWH-22	BA	OTF	6	658	NON
8/30/2021	KWH-22	EF	USV	1	251	NON
9/13/2021	KWH-22	BA	OTF	17	3,490	NON
11/4/2021	KWH-22	EF	OTR	10	3,165	NON
12/10/2021	KWH-22	TV	OCO	153	273,085	NON
1/13/2021	KWH-23	TV	OCO	124	615,162	MEJ
1/13/2021	KWH-23	TV	OCO	835	1,082,490	MEJ

1/20/2021	KWH-23	EF	UTR	9	4,042	NON
2/18/2021	KWH-23	EF	UPC	3	552	NON
2/25/2021	KWH-23	EF	UHH	8	1,062	NON
3/25/2021	KWH-23	EF	USV	1	103	NON
3/26/2021	KWH-23	EF	USV	1	461	NON
4/8/2021	KWH-23	EF	USV	1	343	NON
4/10/2021	KWH-23	EF	USV	1	102	NON
4/14/2021	KWH-23	EF	UHH	3	171	NON
6/24/2021	KWH-23	EF	UHH	3	147	NON
7/23/2021	KWH-23	EF	UTC	39	8,576	NON
8/14/2021	KWH-23	EF	UPC	39	17,590	NON
9/5/2021	KWH-23	EF	UPC	45	7,314	NON
10/24/2021	KWH-23	TV	OCO	203	290,740	MEJ
11/15/2021	KWH-23	TV	OFU	43	2,505	MEJ
12/28/2021	KWH-23	EF	USV	1	1,004	NON
1/28/2021	KWH-25	EF	USV	1	227	NON
2/8/2021	KWH-25	EF	USV	1	511	NON
3/7/2021	KWH-25	TV	OTF	1	114	NON
4/17/2021	KWH-25	BA	UOT	2	146	NON
5/20/2021	KWH-25	EF	UPC	6	2,922	NON
5/24/2021	KWH-25	EF	USV	1	145	NON
5/26/2021	KWH-25	EF	USP	6	3,316	NON
5/28/2021	KWH-25	OD	UEL	5	584	NON
6/2/2021	KWH-25	EF	USV	1	170	NON
6/28/2021	KWH-25	TV	OCO	1	318	NON
6/29/2021	KWH-25	EF	OTF	4	1,926	NON
7/7/2021	KWH-25	SO	OFC	5	1,269	NON
7/8/2021	KWH-25	SO	OFC	19	5,593	NON
7/9/2021	KWH-25	SO	OFC	1	203	NON
7/12/2021	KWH-25	SO	OFC	6	1,280	NON
7/19/2021	KWH-25	EF	UPC	6	2,098	NON
7/22/2021	KWH-25	EF	UPC	6	3,156	NON
8/13/2021	KWH-25	EF	UPC	23	-1	NON
8/18/2021	KWH-25	EF	USV	1	576	NON
8/27/2021	KWH-25	SO	UTR	15	4,062	NON
9/15/2021	KWH-25	EF	OCN	1	234	NON
9/16/2021	KWH-25	EF	UTR	50	9,539	NON
10/9/2021	KWH-25	EF	USV	1	499	NON
10/18/2021	KWH-25	EF	UPC	6	4,466	NON
10/22/2021	KWH-25	EF	USC	6	9,113	NON
10/24/2021	KWH-25	TV	OFU	93	235,749	MEJ
10/25/2021	KWH-25	TV	USV	1	1,654	MEJ
11/4/2021	KWH-25	TV	OPO	11	8,442	NON
11/10/2021	KWH-25	EF	OFU	93	12,008	NMJ

11/15/2021	KWH-25	EF	UTR	8	3,863	MEJ
12/10/2021	KWH-25	SO	UEL	4	480	NON
12/19/2021	KWH-25	EF	USV	1	167	NON
1/13/2021	KWH-26	TV	OCO	37	105,276	MEJ
1/13/2021	KWH-26	TV	OSV	1	3,104	MEJ
2/26/2021	KWH-26	EF	OCN	1	201	NON
3/7/2021	KWH-26	EF	USC	2	753	NON
4/27/2021	KWH-26	BA	OTF	12	1,061	NON
5/4/2021	KWH-26	SO	OSW	1	9	NON
6/23/2021	KWH-26	SO	OSW	1	450	NON
6/24/2021	KWH-26	SO	OSW	1	1,634	NON
8/9/2021	KWH-26	BA	OTF	7	660	NON
11/23/2021	KWH-26	SO	UEL	4	929	NON
1/13/2021	LHL-22	TV	OTF	3	9,540	MEJ
5/13/2021	LHL-22	SO	OPO	41	1,909	NON
5/21/2021	LHL-22	EF	OPO	41	11,298	NON
7/17/2021	LHL-22	EF	OTR	3	720	NON
7/23/2021	LHL-22	SO	OTF	10	3,411	NON
9/9/2021	LHL-22	SO	OPO	4	770	NON
9/16/2021	LHL-22	SO	OCO	52	6,562	NON
9/17/2021	LHL-22	TV	OFU	77	7,359	MEJ
9/18/2021	LHL-22	EF	OTR	11	22,991	MEJ
11/1/2021	LHL-22	SO	OCO	38	931	NON
4/29/2021	LHL-23	EF	UPC	106	11,470	NON
6/5/2021	LHL-23	EF	UPC	16	4,651	NON
6/26/2021	LHL-23	EF	UPT	85	13,992	NON
10/28/2021	LHL-23	SO	UPT	12	1,711	NON
11/29/2021	LHL-23	EF	UFJ	107	25,912	NON
11/29/2021	LHL-23	EF	UFJ	18	6,821	NON
12/3/2021	LHL-23	SO	UEL	4	960	NON
1/13/2021	LHL-25	TV	OCO	6	14,304	MEJ
2/23/2021	LHL-25	AC	OSV	6	369	NON
3/31/2021	LHL-25	EF	UPT	12	1,634	NON
5/28/2021	LHL-25	BA	OTF	103	14,681	NON
5/28/2021	LHL-25	BA	OTF	63	8,886	NON
7/12/2021	LHL-25	BA	OTF	5	843	NON
8/22/2021	LHL-25	BA	OTF	5	410	NON
8/31/2021	LHL-25	SO	OCO	50	2,199	NON
8/31/2021	LHL-25	SO	OCO	21	530	NON
9/15/2021	LHL-25	EF	UHH	1	878	NON
9/20/2021	LHL-25	EF	UPC	395	169,396	NON
9/20/2021	LHL-25	EF	OFU	50	9,846	NON
9/23/2021	LHL-25	EF	OTR	4	1,205	NON
10/3/2021	LHL-25	EF	UHH	1	715	NON

12/19/2021	LHL-25	EF	OTR	8	2,315	NON
3/27/2021	LHL-26	EF	USC	3	2,029	NON
7/7/2021	LHL-26	EF	OCR	8	824	NON
8/25/2021	LHL-26	SO	OCO	86	3,522	NON
5/28/2021	LOC-22	EF	OCO	7	2,303	NON
8/13/2021	LOC-22	BA	OTF	6	620	NON
10/13/2021	LOC-22	EF	UFJ	268	60,854	NON
11/21/2021	LOC-22	BA	UGF	47	6,166	NON
11/23/2021	LOC-22	SO		9	2,051	NON
3/12/2021	LOC-23	SO	USV	90	6,048	NON
8/2/2021	LOC-23	DU	UHH	5	3,057	NON
8/13/2021	LOC-23	EF	UFJ	679	78,899	NON
2/9/2021	LOC-24	CE	ACE	1	39	NON
2/9/2021	LOC-24	CE	ACE	1	44	NON
2/3/2021	LOC-35	EF	UVS	17	156	NON
4/26/2021	MED-35	EF	USV	1	1	NON
6/28/2021	MED-35	EF	USV	1	164	NON
9/26/2021	MED-35	BA	OTF	3	321	NON
11/19/2021	MED-35	EF	OCO	5	1,034	NON
2/7/2021	MED-36	EF	USV	1	407	NON
4/6/2021	MED-36	CP	OPO	51	23,796	NON
4/19/2021	MED-36	EF	USV	1	401	NON
5/26/2021	MED-36	EF	USV	1	132	NON
8/20/2021	MED-36	EF	OFU	203	25,500	NON
10/24/2021	MED-36	TV	OFU	49	34,772	MEJ
7/3/2021	MLK-12	EF	OTR	39	7,422	NON
8/25/2021	MLK-13	EF	UTR	20	9,923	NON
9/4/2021	MLK-13	EF	UTC	95	26,906	NON
1/13/2021	MLK-15	TV	OTF	7	18,707	MEJ
1/24/2021	MLK-15	EF	UPC	59	8,125	NON
1/25/2021	MLK-15	EF	UPC	6	536	NON
1/29/2021	MLK-15	SO	USV	2	116	NON
6/27/2021	MLK-15	EF	UPT	22	17,709	MEN
6/28/2021	MLK-15	EF	OFU	156	130,237	NON
9/26/2021	MLK-15	BA	OTF	4	294	NON
12/20/2021	MLK-15	EF	USC	2	858	NON
1/13/2021	MLK-16	TV	OCO	21	110,195	MEJ
1/13/2021	MLK-16	TV	OCO	34	187,636	MEJ
2/12/2021	MLK-16	EF	OAR	10	3,686	NON
6/30/2021	MLK-16	TV	OFU	34	3,542	NON
7/3/2021	MLK-16	EF	USV	1	1,256	NON
8/23/2021	MLK-16	EF	UHH	2	34	NON
4/10/2021	NOB-11	EF	UPC	62	6,825	NON
3/24/2021	NOB-12	SO	UPT	2	856	NON

6/2/2021	NOB-12		EF	UEL	526	29,815	NON
9/28/2021	NOB-12		SO	UEL	1	10	NON
2/17/2021	NOB-14		CP	PMP	1	1,212	NON
7/24/2021	NOB-14		EF	UTR	1	324	NON
7/24/2021	NOB-14		EF	UTR	0	156	NON
8/27/2021	NOB-14		SO	UEL	3	1,189	NON
11/30/2021	NOB-14		EF	UTR	2	1,002	NON
4/17/2021	NOB-22		SO	UPC	1	364	NON
4/24/2021	NOB-22		SO	UPC	1	468	NON
4/25/2021	NOB-22		SO	UPC	1	486	NON
7/26/2021	NOB-22		SO	UPC	2	6,097	NON
8/14/2021	NOB-22		BA	OFC	17	3,136	NON
10/22/2021	NOB-22		SO	UEL	3	317	NON
10/12/2021	NOB-23		EF	UPT	2	619	NON
10/12/2021	NOB-23		EF	UPT	2	963	NON
11/29/2021	NOB-23		SO	OTR	10	519	NON
1/1/2021	NOB-24		EF	OCR	314	120,888	NON
1/13/2021	NOB-24		TV	OCO	10	15,239	MEJ
4/3/2021	NOB-24		SO	OPO	37	10,288	NON
5/4/2021	NOB-24		EF	OTF	7	1,253	NON
5/27/2021	NOB-24		TV	OFU	2	409	NON
7/17/2021	NOB-24		BA	PTF	5	416	NON
10/6/2021	NOB-24		SO	OSW	1	359	NON
11/23/2021	NOB-24		EF	UPC	113	29,622	NON
12/29/2021	NOB-24		SO	OSW	1	118	NON
10/24/2021	NRU-14	2	TV	SCB	24	7,896	MEJ
1/19/2021	NRU-23		EF	USV	1	347	NON
4/3/2021	NRU-23		EF	PTF	1	279	NON
5/21/2021	NRU-23		EF	OFU	13	1,950	NON
5/24/2021	NRU-23		SO	UPC	3	295	NON
7/2/2021	NRU-23		BA	OFC	1	44	NON
8/8/2021	NRU-23	5	TV	SCB	762	147,480	NON
8/20/2021	NRU-23		BA	OFU	11	926	NON
10/21/2021	NRU-23		CP	OPO	5	2,739	NON
10/24/2021	NRU-23	2	TV	SCB	782	259,882	MEJ
10/24/2021	NRU-23		TV	OFU	9	11,370	MEJ
10/24/2021	NRU-23		TV	OCO	0	60,255	MEJ
11/13/2021	NRU-23		EF	UPC	68	17,963	NON
11/21/2021	NRU-23		EF	UPC	5	2,748	NON
1/8/2021	NRU-25		EF	USV	1	246	NON
3/3/2021	NRU-25		EF	USV	2	331	NON
3/23/2021	NRU-25		EF	UTR	18	2,098	NON
4/14/2021	NRU-25		SO	OCO	7	1,534	NON
4/14/2021	NRU-25		SO	UPT	1	121	NON

4/17/2021	NRU-25		BA	OTF	2	218	NON
5/9/2021	NRU-25		BA	OTF	2	237	NON
5/10/2021	NRU-25		EF	UHH	5	667	NON
5/20/2021	NRU-25		BA	OTF	2	171	NON
6/24/2021	NRU-25		EF	UHH	3	2,280	NON
7/2/2021	NRU-25		EF	UHH	1	59	NON
7/3/2021	NRU-25		BA	OTF	2	293	NON
7/8/2021	NRU-25		DU	USV	1	598	NON
7/14/2021	NRU-25		SO	UPT	5	1,070	NON
7/21/2021	NRU-25		SO	OFU	7	2,096	NON
8/8/2021	NRU-25	5	TV	SCB	846	148,137	NON
8/9/2021	NRU-25		CE	OCE	1	173	NON
8/13/2021	NRU-25		EF	UGV	1	115	NON
8/21/2021	NRU-25		EF	UPC	7	4,340	NON
9/2/2021	NRU-25		EF	UPC	7	2,295	NON
10/15/2021	NRU-25		SO	UHH	3	190	NON
10/24/2021	NRU-25	2	TV	SCB	874	290,437	MEJ
11/5/2021	NRU-25		SO	UEL	1	54	NON
11/18/2021	NRU-25		EF	USV	1	1,655	NMJ
11/30/2021	NRU-25		SO	OFU	7	616	NON
12/3/2021	NRU-25		SO	UTR	34	27,492	NON
12/4/2021	NRU-25		EF	UPC	42	14,283	NON
12/20/2021	NRU-25		EF	USV	1	63	NON
2/12/2021	NRU-26		SO	OPO	5	1,310	NON
4/18/2021	NRU-26		EF	UPS	24	3,468	NON
4/19/2021	NRU-26		EF	UGV	24	6,509	NON
8/8/2021	NRU-26	5	TV	SCB	783	120,582	NON
8/19/2021	NRU-26		EF	UPC	93	27,757	NON
10/24/2021	NRU-26	2	TV	SCB	810	269,152	MEJ
10/24/2021	NRU-26		TV	OCO	0	12,837	MEJ
4/5/2021	NRU-27		EF	UPC	66	7,773	NON
4/21/2021	NRU-27		BA	OTF	12	1,184	NON
5/4/2021	NRU-27		EF	UTF	27	3,506	NON
5/14/2021	NRU-27		SO	OPO	45	15,246	NON
5/17/2021	NRU-27		EF	UEL	9	4,197	NON
5/18/2021	NRU-27		EF	OFU	15	3,130	NON
5/18/2021	NRU-27		EF	OFU	18	2,223	NON
5/20/2021	NRU-27		BA	OTF	12	1,678	NON
6/18/2021	NRU-27		EF	UPC	17	927	NON
7/16/2021	NRU-27		BA	OTF	2	356	NON
8/5/2021	NRU-27		EF	UTR	11	4,313	NON
8/8/2021	NRU-27	5	TV	SCB	507	91,837	NON
8/14/2021	NRU-27		EF	UFJ	80	26,740	NON
9/4/2021	NRU-27		EF	UPC	27	8,783	NON

9/18/2021	NRU-27		EF	UGF	67	19,159	MEJ
9/27/2021	NRU-27		EF	UPC	8	2,574	NON
9/30/2021	NRU-27		EF	UPC	48	18,682	NON
10/21/2021	NRU-27		TV	OCO	17	2,421	NON
10/24/2021	NRU-27	[2]	TV	SCB	524	174,056	MEJ
10/24/2021	NRU-27		TV	OCO	0	64,194	MEJ
10/25/2021	NRU-27		FI	OFU	30	24,446	MEJ
10/25/2021	NRU-27		TV	OSW	15	3,789	MEJ
10/26/2021	NRU-27		EF	UTR	1	909	NMJ
12/6/2021	NRU-27		SO	UEL	2	6	NON
12/6/2021	NRU-27		SO	UEL	5	1,092	NON
12/9/2021	NRU-27		SO	OFU	6	1,645	NON
1/6/2021	OVE-12		EF	USV	4	1,757	NON
1/10/2021	OVE-12		EF	OCN	1	196	NON
1/19/2021	OVE-12		AC	USV	4	672	NON
2/10/2021	OVE-12		EF	USV	5	652	NON
6/23/2021	OVE-12		DU	UHH	1	98	NON
6/28/2021	OVE-12		TV	OSV	1	1,207	NON
10/27/2021	OVE-12		VA	UMP	1	189	NON
12/1/2021	OVE-12		SO	OPO	2	438	NON
12/11/2021	OVE-12		EF	UTR	5	5,840	MEN
12/12/2021	OVE-12		EF	UTR	5	2,572	NON
12/12/2021	OVE-12		EF	UHH	5	1,675	NON
1/20/2021	OVE-15		BA	OFC	10	3,001	NON
1/21/2021	OVE-15		UN	OFU	1	59	NON
3/1/2021	OVE-15		DU	USV	1	111	NON
3/16/2021	OVE-15		EF	OSV	2	37	NON
3/30/2021	OVE-15		EF	UHH	1	623	NON
5/23/2021	OVE-15		TV	OPO	555	144,028	NON
5/25/2021	OVE-15		SO	OTR	2	178	NON
6/7/2021	OVE-15		EF	USV	1	122	NON
6/11/2021	OVE-15		EF	USV	1	436	NON
7/11/2021	OVE-15		EF	USV	1	440	NON
7/22/2021	OVE-15		OD	OCE	1	133	NON
8/2/2021	OVE-15		TV	SCB	552	55,936	NON
9/21/2021	OVE-15		EF	UPC	3	1,404	NON
10/21/2021	OVE-15		TV	OCO	44	5,635	NON
10/24/2021	OVE-15		TV	OCO	553	663,831	MEJ
10/28/2021	OVE-15		EF	OTR	4	4,334	NON
10/30/2021	OVE-15		EF	USV	4	451	NON
10/30/2021	OVE-15		EF	USV	2	1,010	NON
12/1/2021	OVE-15		TV	OFU	31	2,689	NON
1/8/2021	PHA-13		TV	OTF	6	432	NON
2/22/2021	PHA-13		EF	USV	1	1,012	NON

3/17/2021	PHA-13	BA	OFU	8	434	NON
5/15/2021	PHA-13	EF	OTF	5	451	NON
5/26/2021	PHA-13	BA	OTF	5	240	NON
6/3/2021	PHA-13	SO	OPO	66	30,930	NON
6/17/2021	PHA-13	SO	OTR	11	3,734	NON
7/17/2021	PHA-13	BA	OTF	4	248	NON
8/2/2021	PHA-13	BA	OFU	144	15,038	NON
8/12/2021	PHA-13	BA	OTF	4	530	NON
9/18/2021	PHA-13	TV	OTF	5	1,523	MEJ
9/28/2021	PHA-13	EF	OSV	1	217	NON
10/13/2021	PHA-13	EF	USV	1	937	NON
10/21/2021	PHA-13	TV	OFU	6	895	NON
11/8/2021	PHA-13	TV	OFU	77	64,780	NMJ
11/13/2021	PHA-13	EF	USV	1	341	NON
12/2/2021	PHA-13	AC	OSV	2	638	NON
1/13/2021	PHA-15	TV	OCO	38	54,046	MEJ
3/20/2021	PHA-15	TV	OSV	1	176	NON
9/20/2021	PHA-15	EF	OTF	4	343	NON
1/13/2021	PHA-16	TV	OTF	3	10,844	MEJ
1/14/2021	PHA-16	TV	OTF	4	4,955	MEJ
1/15/2021	PHA-16	TV	OTF	3	6,004	NMJ
1/18/2021	PHA-16	TV	OTF	3	363	NON
2/1/2021	PHA-16	EF	OTR	50	5,855	NON
2/26/2021	PHA-16	BA	OPO	21	1,603	NON
3/7/2021	PHA-16	EF	OSV	1	261	NON
3/17/2021	PHA-16	EF	OSV	4	42	NON
3/24/2021	PHA-16	SO	OTR	16	4,600	NON
3/24/2021	PHA-16	EF	OSV	1	164	NON
6/29/2021	PHA-16	EF	USV	1	175	NON
7/23/2021	PHA-16	BA	OTF	8	943	NON
7/25/2021	PHA-16	BA	OFU	43	5,482	NON
9/18/2021	PHA-16	TV	OSV	1	191	MEJ
10/24/2021	PHA-16	TV	OHR	1,380	459,653	MEJ
1/8/2021	PHA-17	TV	OCO	34	4,181	NON
1/13/2021	PHA-17	TV	OCO	21	74,593	MEJ
2/2/2021	PHA-17	TV	OFU	21	2,555	NON
4/16/2021	PHA-17	UN	USV	1	148	NON
5/14/2021	PHA-17	EF	UTF	14	4,706	NON
7/25/2021	PHA-17	BA	OTF	7	2,114	NON
2/9/2021	ROS-17	EF	USV	1	126	NON
6/14/2021	ROS-17	EF	OTF	6	289	NON
6/26/2021	ROS-17	EF	OTR	3	3,385	NON
6/27/2021	ROS-17	EF	UPT	16	8,521	MEN
6/27/2021	ROS-17	EF	UPT	7	10,401	MEN

7/7/2021	ROS-17	TV	OSV	1	282	NON
8/3/2021	ROS-17	SO	UEL	2	212	NON
9/6/2021	ROS-17	BA	OTR	32	6,597	NON
10/25/2021	ROS-17	TV	OCO	107	174,553	MEJ
10/28/2021	ROS-17	EF	UTR	8	3,239	NON
11/11/2021	ROS-17	EF	USV	1	1,330	NON
12/10/2021	ROS-17	EF	UHH	9	724	NON
1/15/2021	SBE-22	TV	OCO	1	936	NMJ
4/9/2021	SBE-22	TV	OCO	5	278	NON
6/1/2021	SBE-22	DU	USV	3	147	NON
6/28/2021	SBE-22	EF	OTR	2	2,510	NON
8/3/2021	SBE-22	EF	OFC	1	254	NON
8/16/2021	SBE-22	UN	UOT	1	102	NON
12/6/2021	SBE-22	SO	UEL	1	4,396	NON
1/30/2021	SBE-23	SO	ACE	3	586	NON
2/24/2021	SBE-23	EF	UHH	7	5,211	NON
1/13/2021	SBE-25	TV	OCO	17	82,979	MEJ
1/16/2021	SBE-25	TV	OCO	72	2,491	NMJ
1/25/2021	SBE-25	CP	OSV	1	69	NON
4/3/2021	SBE-25	SO	UPT	3	765	NON
5/12/2021	SBE-25	EF	OSV	1	112	NON
5/21/2021	SBE-25	EF	OTR	5	1,656	NON
7/12/2021	SBE-25	SO	OTR	4	569	NON
10/24/2021	SBE-25	TV	OCO	110	132,941	MEJ
11/18/2021	SBE-25	TV	OSV	1	109	NMJ
12/4/2021	SBE-25	SO	UEL	1	286	NON
1/12/2021	SBE-26	ND	UOT	1	289	MEN
1/13/2021	SBE-26	TV	OCO	1,750	3,566,208	MEJ
1/13/2021	SBE-26	TV	OCO	45	228,690	MEJ
1/13/2021	SBE-26	TV	OCO	18	91,354	MEJ
1/13/2021	SBE-26	TV	OCO	21	81,783	MEJ
1/14/2021	SBE-26	TV	OCO	24	51,006	MEJ
1/14/2021	SBE-26	TV	OTF	2	4,616	MEJ
1/16/2021	SBE-26	EF	OCO	1	153	NMJ
1/17/2021	SBE-26	EF	OTF	2	85	NMJ
2/3/2021	SBE-26	EF	OSV	1	167	NON
2/5/2021	SBE-26	UN	USV	1	396	NON
2/8/2021	SBE-26	EF	OTR	1	337	NON
2/14/2021	SBE-26	TV	OFC	2	823	NON
2/16/2021	SBE-26	EF	OPO	5	3,586	NON
3/13/2021	SBE-26	DU	UPC	79	19,517	NON
3/15/2021	SBE-26	EF	UPC	52	27,550	NON
3/22/2021	SBE-26	EF	UOT	1	81	NON
3/22/2021	SBE-26	EF	OIN	136	12,029	NON

3/22/2021	SBE-26		EF	OIN	1	85	NON
3/23/2021	SBE-26		BA	OTF	6	213	NON
3/26/2021	SBE-26		TV	OFU	3	183	NON
4/21/2021	SBE-26		EF	UPC	11	3,340	NON
5/1/2021	SBE-26		EF	UPC	47	5,158	NON
5/6/2021	SBE-26		SO	OTR	3	296	NON
6/5/2021	SBE-26		EF	OTF	8	717	NON
7/16/2021	SBE-26		EF	OCO	148	34,228	NON
8/19/2021	SBE-26		FI	OSV	1	392	NON
8/26/2021	SBE-26		SO	OTR	1	118	NON
9/11/2021	SBE-26		EF	UPC	11	3,891	NON
10/1/2021	SBE-26		EF	USV	1	289	NON
10/5/2021	SBE-26		EF	OFC	2	130	NON
10/24/2021	SBE-26		TV	OFU	30	6,260	MEJ
10/29/2021	SBE-26		TV	OSV	1	182	NON
11/4/2021	SBE-26		TV	OCO	11	2,279	NON
11/4/2021	SBE-26		TV	OCO	4	1,731	NON
12/12/2021	SBE-26		TV	OFC	39	8,718	NON
12/12/2021	SBE-26		TV	OFC	14	2,564	NON
1/13/2021	SOM-13		TV	OCO	284	282,864	MEJ
7/4/2021	SOM-13		EF	UPC	78	16,265	NON
9/14/2021	SOM-13		DU	USC	1	115	NON
10/1/2021	SOM-13		SO	UEL	20	2,133	NON
10/10/2021	SOM-13		CP	OPO	187	35,293	NON
10/12/2021	SOM-13		DU	USV	1	165	NON
10/26/2021	SOM-13	[2]	TV	OCO	187	2,313	NMJ
10/28/2021	SOM-13	[3]	EF	OCO	187	15,047	NON
11/14/2021	SOM-13		TV	OCO	187	28,733	NON
11/26/2021	SOM-13		EF	UHH	3	2,364	NON
3/2/2021	SOM-15		EF	UFJ	29	2,382	NON
4/13/2021	SOM-15		EF	UTR	1	155	NON
4/14/2021	SOM-15		EF	UTR	7	1,250	NON
4/30/2021	SOM-15		SO	UPT	925	24,173	NON
4/30/2021	SOM-15		EF	UPS	6	1,788	NON
6/4/2021	SOM-15		SO	UPT	2	612	NON
6/21/2021	SOM-15		EF	UHH	8	2,520	NON
8/11/2021	SOM-15		EF	UPC	30	5,340	NON
8/25/2021	SOM-15		EF	UPC	21	3,599	NON
9/27/2021	SOM-15		EF	USV	1	231	NON
10/6/2021	SOM-15		AV	UFJ	45	3,536	NON
10/13/2021	SOM-15		EF	USV	1	321	NON
10/28/2021	SOM-15		EF	UPT	54	6,132	NON
11/21/2021	SOM-15		BA	UTC	49	12,916	NON
12/3/2021	SOM-15		EF	UPC	47	7,757	NON

12/3/2021	SOM-15	EF	OCN	1	84	NON
1/13/2021	SOM-16	TV	OTF	4	18,412	MEJ
2/10/2021	SOM-16	EF	USV	1	769	NON
2/19/2021	SOM-16	EF	UTR	1	485	NON
4/21/2021	SOM-16	DU	USV	3	577	NON
6/8/2021	SOM-16	EF	UHH	7	976	NON
6/25/2021	SOM-16	SO	UPT	2	231	NON
6/27/2021	SOM-16	EF	UTR	91	106,886	MEN
7/1/2021	SOM-16	CP	UPT	5	414	NON
7/7/2021	SOM-16	BA	OCO	84	7,501	NON
7/12/2021	SOM-16	EF	UPC	218	46,737	NON
7/12/2021	SOM-16	EF	OCN	1	185	NON
7/24/2021	SOM-16	BA	OFU	9	1,188	NON
8/15/2021	SOM-16	EF	UTR	23	6,282	NON
9/17/2021	SOM-16	EF		105	23,214	MEN
10/4/2021	SOM-16	SO	OSW	6	2,800	NON
10/26/2021	SOM-16	EF	OFU	291	186,286	NMJ
10/27/2021	SOM-16	EF	UFJ	171	49,330	NMJ
10/27/2021	SOM-16	EF	USV	1	472	NON
10/27/2021	SOM-16	EF	USV	1	728	NON
12/1/2021	SOM-16	EF	OCN	1	138	NON
12/4/2021	SOM-16	SO	OFU	213	55,675	NON
12/4/2021	SOM-16	SO	OFU	213	17,164	NON
12/10/2021	SOM-16	EF	USV	1	345	NON
12/20/2021	SOM-16	EF	UPC	71	15,586	NON
12/20/2021	SOM-16	SO	UPT	10	2,434	NON
1/3/2021	SOM-17	EF	USV	1	374	NON
1/13/2021	SOM-17	TV	OCO	226	553,003	MEJ
2/1/2021	SOM-17	EF	USV	1	93	NON
2/18/2021	SOM-17	UN	UTR	8	5,142	NON
2/20/2021	SOM-17	EF	UOT	167	27,759	NON
3/2/2021	SOM-17	EF	USV	1	119	NON
3/26/2021	SOM-17	EF	UHH	3	54	NON
4/7/2021	SOM-17	EF	OCN	1	122	NON
6/7/2021	SOM-17	BA	UOT	19	2,097	NON
6/16/2021	SOM-17	EF	UHH	1	37	NON
7/16/2021	SOM-17	FI	UPT	16	1,562	NON
8/6/2021	SOM-17	EF	USV	1	315	NON
8/16/2021	SOM-17	DU	USV	1	175	NON
8/18/2021	SOM-17	EF	OTR	4	382	NON
8/23/2021	SOM-17	BA	OFU	56	5,175	NON
8/23/2021	SOM-17	EF	USV	1	422	NON
10/24/2021	SOM-17	TV	OSV	15	1,994	MEN
10/24/2021	SOM-17	TV	OCO	1,425	262,556	MEJ

11/27/2021	SOM-17	EF	UHH	1	520	NON
12/2/2021	SOM-17	EF	SCB	1,426	136,776	NON
12/14/2021	SOM-17	SO	ACE	5	46	NON

Totals	92,064	41,747,972
Substation and transmission outages	27,587	3,404,203
Totals excluding substation & transmission outages	64,477	38,343,769
Scheduled outages	3,834	468,124

Notes:

1 Tree in overhead distribution line
2 Tree in transmission line
3 Substation switchgear failure
4 Broken insulator caused transmission outage
5 Tree limb in substation switchgear

Storm Codes:

MEJ	Not included in SAIDI or SAIFI calculations
MEN	Not included in SAIDI calculation, included in SAIFI calculation
NMJ	Included in SAIDI calculation, not included in SAIFI calculation
NON	Included in SAIDI & SAIFI calculations

2021 RELIABILITY REPORT CODES LEGEND

DISTRIBUTION SUBSTATION CODES	
ARD	ARDMORE (REDMOND)
BTR	BRIDLE TRAILS
CEN	CENTER
CLY	CLYDE HILL
COL	COLLEGE
EGT	EASTGATE
EVE	EVERGREEN (REDMOND)
FAC	FACTORIA
GOO	GOODES CORNER (ISSAQUAH)
HAZ	HAZELWOOD (NEWCASTLE)
HOU	HOUGHTON (KIRKLAND)
KWH	KENILWORTH (REDMOND)
LHL	LAKE HILLS
LOC	LOCHLEVEN
MED	MEDINA (MEDINA)
MLK	MIDLAKES
NOB	NORTH BELLEVUE
NRU	NORTHRUP
OVE	OVERLAKE (MEDINA)
PHA	PHANTOM LAKE
ROS	ROSE HILL (REDMOND)
SBE	SOUTH BELLEVUE
SOM	SOMERSET

OUTAGE CAUSE CODES	
AC	ACCIDENT
AO	ACCIDENT OTHER, WITH FIRES
AV	ACCIDENT/VANDALISM NOT RESULTING IN DC
BA	BIRD OR ANIMAL
CE	CUSTOMER EQUIPMENT
CP	CAR POLE
DU	DIG UP UNDERGROUND
EF	EQUIPMENT FAILURE
EO	ELECTRICAL OVERLOAD
EQ	EARTHQUAKE
FI	FAULTY INSTALLATION
LI	LIGHTNING
ND	NATURAL DISASTER
OD	OUTSIDE DISTURBANCE
OE	OPERATING ERROR
PO	PARTIAL OUTAGE
SO	SCHEDULED OUTAGE
TF	TREE - OFF RIGHT OF WAY
TO	TREE - ON RIGHT OF WAY
TV	TREE - RIGHT OF WAY UNKNOWN
UII	USER - IMPROPER INSTALLATION
UN	UNKNOWN CAUSE
VA	VANDALISM

STORM CODES	
MEJ	IEEE MED & MAJOR STORM
MEN	IEEE MED but NON STORM
NMJ	NON IEEE MED but MAJOR STORM
NON	NON IEEE MED & NON STORM

EQUIPMENT CODES	
ACE	ALL CUSTOMER EQUIPMENT
ARR	SURGE ARRESTER
CC	CAPACITOR CAN
CDH	CONDUCTOR DOWN & HOT
CFD	CAPACITOR BANK FUSED DISCONNECT
CHG	CHARGER
CON	CONNECTIONS
CTX	TRANSFORMER INSTRUMENT (CURRENT)
DNO	DID NOT OPERATE
ELT	ELBOW - TRANSFORMER
ERC	RECLOSER CONTROLLER
FCC	FUSE - CAPACITOR CAN
FHV	FUSE - HIGH VOLTAGE (POWER)
FLV	FUSE - LOW VOLTAGE (CONTROL)
GAR	GUY ANCHOR ROD
GCB	GAS CIRCUIT BREAKER (POWER)
INS	INSULATOR
LTC	LOAD TAP CHANGER
MAN	MANUAL OPERATION
MOT	MOTOR OPERATOR
MTR	METER
OAL	OVERHEAD AREA LIGHT
OAN	OVERHEAD ANCHOR
OAR	OVERHEAD ARRESTER
OAT	OVERHEAD AUTO TRANSFORMER (EDOT110)
OCA	OVERHEAD CAPACITOR (EDOC100)
OCB	CIRCUIT BREAKER (POWER) - OIL
OCE	CUSTOMER EQUIPMENT
OCN	OVERHEAD SECONDARY CONNECTOR
OCO	OVERHEAD CONDUCTOR
OCR	OVERHEAD CROSSARM
OFC	OVERHEAD CUT-OUT
OFI	OVERHEAD FAULT INDICATOR
OFL	OVERHEAD FLOOD LIGHT
OFS	OVERHEAD FIRE SIGNAL
OFU	OVERHEAD LINE FUSE / FUSE LINK
OGD	OVERHEAD DOWN GUY
OGS	OVERHEAD SPAN GUY
OHR	OVERHEAD RECLOSER (EDOR100)
OHS	OVERHEAD SECTIONALIZER (EDOX100)
OIN	OVERHEAD INSULATOR
OJU	OVERHEAD JUMPER WIRE
OMP	OVERHEAD METER POINT (EDOM100)
ONI	OVERHEAD NEUTRAL ISOLATOR
OPB	OVERHEAD POLE BRACE (EDOP110)
OPI	OVERHEAD INSULATOR PIN
OPO	OVERHEAD POLE (EDOP100)
OPS	OVERHEAD POLE STUB (EDOP120)
ORE	OVERHEAD REGULATOR (EDOG100)
OSL	OVERHEAD STREET LIGHT (EDOL100)
OSP	OVERHEAD SPLICE PRIMARY
OSS	OVERHEAD SCHOOL SIGNAL
OST	OVERHEAD STEP TRANSFORMER (EDOT110)
OSV	OVERHEAD SERVICE
OSW	OVERHEAD SWITCH (EDOS100)
OTF	OVERHEAD TRANSFORMER FUSE
OTH	OVERHEAD OTHER
OTR	OVERHEAD TRANSFORMER
OTS	OVERHEAD TRAFFIC CONTROL SIGNAL
OUP	OVERHEAD TO UNDERGROUND
OUS	HOT OUS OVERHEAD TO
PED	DISCONNECT PEDESTAL
PFT	PADMOUNT FAST TRANSFORMER (EDUT130)
PMF	PADMOUNT SWITCH FUSE
PMJ	PADMOUNT J-BOX
PMP	PADMOUNT METER POINT (EDUM100)
PST	PADMOUNT STEP TRNSFORMER (EDUT120)
PTF	PADMOUNT TRANSFORMER FUSE
PTX	PADMOUNT TRANSFORMER INSTRUMENT
RLE	RELAY - ELECTROMECHANICAL
RLM	RELAY - MICROPROCESSOR
RLS	RELAY - SOLID STATE
SCB	POWER CIRCUIT BREAKER
SCS	CIRCUIT SWITCHER
SPT	STATION POWER TRANSFORMER
SRG	STATION REGULATOR
SWC	SWITCH - CAPACITOR BANK
SWD	SWITCH - DISTRIBUTION DISCONNECT
SWT	SWITCH - TRANSMISSION
TER	TERMINATION (POWER CABLE)
UCU	UNDERGROUND COMMUNICATION CABLE
UDC	UNDERGROUND DUST CAP
UEL	UNDERGROUND ELBOW
UFE	UNDERGROUND FUSED ELBOW
UFI	UNDERGROUND FAULT INDICATOR
UFJ	UNDERGROUND J-BOX
UFO	UNDERGROUND FIBER OPTICS
UFS	UNDERGROUND FIRE SIGNAL
UGF	UNDERGROUND SUBMERSIBLE FUSE
UGV	UNDERGROUND VAULT
UHH	UNDERGROUND HANDHOLE - SECONDARY
UHM	UNDERGROUND HAMMERHEADS
UIC	UNDERGROUND INDOOR STRESS CONE
UJU	UNDERGROUND PRIMARY JUMPER
UMP	UNDERGROUND SUBMERSIBLE METER POINT
UNK	UNDERGROUND UNKNOWN
UOT	UNDERGROUND OUTDOOR TERMINATION
UPC	UNDERGROUND PRIMARY CABLE
UPH	UNDERGROUND PADMOUNT PHASE SHIFTER
UPS	UNDERGROUND PADMOUNT SWITCH (EDUS100)
UPT	UNDERGROUND PADMOUNT TRANSFORMER
USC	UNDERGROUND SECONDARY CABLE
USE	UNDERGROUND SECONDARY CONNECT
USP	UNDERGROUND PRIMARY SPLICE
USS	UNDERGROUND SCHOOL SIGNAL
USV	UNDERGROUND SERVICE
UTC	UNDERGROUND TERMINAL FUSE
UTF	UNDERGROUND SUBMERSIBLE TRA
UTR	UNDERGROUND SUBMERSIBLE TRANSFORMER
UTS	UNDERGROUND TRAFFIC CONTROL SIGNAL
UUS	UNDERGROUND SUBMERSIBLE
UVS	UNDERGROUND VISTA SWITCH
VCB	VACUUM CIRCUIT BREAKER (POWER)
XFR	TRANSFORMER - UNKNOWN TYPE
XRT	NEUTRAL REACTOR
XSS	TRANSFORMER - STATION SERVICE