BEFORE THE

WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

UG-__

GENERAL RATE APPLICATION

OF

NORTHWEST NATURAL GAS COMPANY

December 18, 2020

Direct Exhibit of Robert J. Wyman

WEATHER NORMALIZED LOAD COST OF SERVICE STUDY RATE SPREAD & RATE DESIGN

Exh. RJW-4

The native version of this exhibit will be provided in the work papers.

NW Natural
Washington Jurisdictional Rate Case
Test Year Twelve Months Ended September 30, 2020
Proposed Base and Total Billing Rates by Rate Schedule and Block - Revenue Requirement Effects with Rate Mitigation Proposal
For Year One and Year Two of the Multi-Year Plan

		of the Multi-Y	car riair												Year	One				Year Two	
						Current	UG Proposed		С	urrent Tariff Rate			Rev Req	EDIT Amort Cr	Base	Historical EE	Block 24 Sale	Total	Rev Req	Astoria Sale	Total
			Block	Test	Test	Current	Proposed	Current	Current	Current	Current Rates:	Current	Proposed	Proposed	Year One	Proposed	Proposed	Year One Proposed	Proposed	Proposed	Year Two Proposed
ine No.	Schedule	Block	Volumes	Year Volumes	Year	Monthly Base	Monthly Base	Rates: Base Rate	Rates:	Rates:	Temporary	Billing Rates	Increase:	Decrease:	Proposed	Decrease:	Decrease:	Base + Temp	Increase:	Decrease:	Base + Temp
					Customers	Charge	Charge		Pipeline Capacity	Commodity	Adjustment		Base Rates	Base Rates	Base Rates	Temporary Rate	Temporary Rate	Rates	Base Rates	Temporary Rate	Rates
1	A 1R	n/a	n/a	D 214.704	E 911	\$5.50	G \$5.50	50.67653	\$0.10141	\$0,26333	\$0.11126	L = HK \$ 1.15253	M \$0.13225	(\$0.00910)	O = L+M+N \$1.27568	(\$0.03119)	(\$0.01724)	\$ = O+Q+R \$1.22725	\$0.06201	(\$0.00088)	V=S+T+U-(Q+R) \$1.33681
2	1C	n/a	n/a	46,539	34		\$7.00	\$0.67633	\$0.10141	\$0.26333	\$0.09306	\$ 1.13233	\$0.13223	(\$0.00756)	\$1.29170	(\$0.02594)	(\$0.01724)	\$1.25143	\$0.05157	(\$0.0008)	\$1.34254
3	2R	n/a	n/a	54,953,516	81,119	\$8.00	\$8.00	\$0.45816	\$0.10141	\$0.26333	\$0.06658	\$ 0.88948	\$0.08370	(\$0.00576)	\$0.96742	(\$0.01974)	(\$0.01091)	\$0.93677	\$0.03925	(\$0.00055)	\$1.00612
4	3 CFS 3 IFS	n/a	n/a n/a	17,867,211 283,652	6,318 24	\$22.00 \$22.00	\$22.00 \$22.00	\$0.44368 \$0.46249	\$0.10141 \$0.10141	\$0.26333 \$0.26333	\$0.05848 (\$0.00009)	\$ 0.86690 \$ 0.82714	\$0.07515 \$0.06808	(\$0.00517) (\$0.00469)	\$0.93688 \$0.89053	(\$0.01773) \$0.00000	(\$0.00980) (\$0.00887)	\$0.90935 \$0.88166	\$0.03524 \$0.03192	(\$0.00050) (\$0.00045)	\$0.97162 \$0.92200
5 6	3 IFS 27R	n/a n/a	n/a n/a	283,652 461,372	776		\$22.00	\$0.46249	\$0.10141	\$0.26333	\$0.00009)	\$ 0.82/14	\$0.06808	(\$0.00469)	\$0.89053	(\$0.00000	(\$0.00887)	\$0.88166	\$0.03192	(\$0.00045)	\$0.92200
7	41C Firm Sales	Block 1	2,000	1,777,065	91	\$250.00	\$250.00	\$0.34474	\$0.00000	\$0.26333		\$ 0.65150	\$0.05968	(\$0.00411)	\$0.70707	(\$0.01408)	(\$0.00778)	\$0.68521	\$0.02799	(\$0.00040)	\$0.73466
8		Block 2	all additional	1,974,656				\$0.30377	\$0.00000	\$0.26333	\$0.03717	\$ 0.60427	\$0.05259	(\$0.00362)	\$0.65324	(\$0.01240)	(\$0.00686)	\$0.63398	\$0.02466	(\$0.00035)	\$0.67755
9 10	41I Firm Sales	Block 1 Block 2	2,000 all additional	392,890 621,650	18	\$250.00	\$250.00	\$0.34416 \$0.30325	\$0.00000	\$0.26333 \$0.26333		\$ 0.60577 \$ 0.56396	\$0.05681 \$0.05005	(\$0.00391) (\$0.00344)	\$0.65867 \$0.61057	\$0.00000	(\$0.00740) (\$0.00652)	\$0.65127 \$0.60405	\$0.02664 \$0.02347	(\$0.00038) (\$0.00033)	\$0.68493 \$0.63371
11	41C Interr Sales	Block 1	2,000	-	-	\$250.00	\$250.00	\$0.34373	\$0.00000	\$0.26333		\$ 0.66025	\$0.04356	(\$0.00322)	\$0.70059	(\$0.01404)	(\$0.00610)	\$0.68045	\$0.02175	(\$0.00031)	\$0.72203
12		Block 2	all additional	-			·	\$0.30285	\$0.00000	\$0.26333	\$0.04699	\$ 0.61317	\$0.03838	(\$0.00284)	\$0.64871	(\$0.01237)	(\$0.00537)	\$0.63097	\$0.01917	(\$0.00027)	\$0.66761
13	41I Interr Sales	Block 1	2,000	-	-	\$250.00	\$250.00	\$0.34373	\$0.00000	\$0.26333	\$0.00875	\$ 0.61581	\$0.04356	(\$0.00322)	\$0.65615	\$0.00000	(\$0.00610)	\$0.65005	\$0.02175	(\$0.00031)	\$0.67759
14 15	41C Firm Transpt	Block 2 Block 1	all additional 2,000	168.721	8	\$500.00	\$500.00	\$0.30285 \$0.34791	\$0.00000	\$0.26333	\$0.00784 \$0.00155	\$ 0.57402	\$0.03838 \$0.06315	(\$0.00284) (\$0.00435)	\$0.60956 \$0.40826	\$0.00000 \$0.00000	(\$0.00537) (\$0.00823)	\$0.60419 \$0.40003	\$0.01917 \$0.02961	(\$0.00027) (\$0.00042)	\$0.62846 \$0.43745
16		Block 2	all additional	272,866	8	\$300.00	9300.00	\$0.30653	\$0.00000	\$0.00000	\$0.00135	\$ 0.30789	\$0.05564	(\$0.00383)	\$0.35970	\$0.00000	(\$0.00725)	\$0.35245	\$0.02609	(\$0.00037)	\$0.38542
17	41I Firm Transpt	Block 1	2,000	-	-	\$500.00	\$500.00	\$0.34791	\$0.00000	\$0.00000	\$0.00155	\$ 0.34946	\$0.04409	(\$0.00326)	\$0.39029	\$0.00000	(\$0.00617)	\$0.38412	\$0.02202	(\$0.00031)	\$0.41200
18 19	42C Firm Sales	Block 2 Block 1	all additional 10,000	350,770		\$1,300.00	\$1,300.00	\$0.30653 \$0.15246	\$0.00000	\$0.00000 \$0.26333	\$0.00136 \$0.01956	\$ 0.30789 \$ 0.43535	\$0.03885 \$0.04495	(\$0.00287) (\$0.00309)	\$0.34387 \$0.47721	\$0.00000 (\$0.01060)	(\$0.00544) (\$0.00586)	\$0.33843 \$0.46075	\$0.01940 \$0.02108	(\$0.00028) (\$0.00030)	\$0.36299 \$0.49799
20	42C FIIIII JaieS	Block 2	20,000	303,089	5	\$1,500.00	\$1,500.00	\$0.13246	\$0.00000	\$0.26333	\$0.01956	\$ 0.43535	\$0.04495	(\$0.00309)	\$0.47721	(\$0.01060)	(\$0.00586)	\$0.43906	\$0.02108	(\$0.00030)	\$0.47239
21		Block 3	20,000	59,442				\$0.10467	\$0.00000	\$0.26333	\$0.01052	\$ 0.37852	\$0.03086	(\$0.00212)	\$0.40726	(\$0.00728)	(\$0.00402)	\$0.39596	\$0.01447	(\$0.00020)	\$0.42153
22		Block 4	100,000	3,615				\$0.08373	\$0.00000	\$0.26333		\$ 0.35361		(\$0.00170)	\$0.37659	(\$0.00582)	(\$0.00322)	\$0.36755	\$0.01157	(\$0.00016)	\$0.38800
23		Block 5 Block 6	600,000 all additional	-				\$0.05581 \$0.02092	\$0.00000 \$0.00000	\$0.26333		\$ 0.32038	\$0.01645 \$0.00617	(\$0.00113) (\$0.00042)	\$0.33570 \$0.28465	(\$0.00388) (\$0.00145)	(\$0.00215) (\$0.00080)	\$0.32967 \$0.28240	\$0.00771 \$0.00289	(\$0.00011) (\$0.00004)	\$0.34330 \$0.28750
25	421 Firm Sales	Block 1	10,000	1,093,724	12	\$1,300.00	\$1,300.00	\$0.02092	\$0.00000	\$0.26333	(\$0.00333)	\$ 0.40593	\$0.03998	(\$0.00275)	\$0.44316	\$0.00000	(\$0.00521)	\$0.43795	\$0.00289	(\$0.00027)	\$0.46164
26		Block 2	20,000	655,940		, ,	, ,	\$0.13177	\$0.00000	\$0.26333	(\$0.00511)	\$ 0.38999	\$0.03579	(\$0.00246)	\$0.42332	\$0.00000	(\$0.00467)	\$0.41865	\$0.01678	(\$0.00024)	\$0.43986
27		Block 3	20,000	81,241				\$0.10105	\$0.00000	\$0.26333	(\$0.00607)	\$ 0.35831	\$0.02744	(\$0.00189)	\$0.38386	\$0.00000	(\$0.00358)	\$0.38028	\$0.01287	(\$0.00018)	\$0.39655
28 29		Block 4 Block 5	100,000	9,320				\$0.08084 \$0.05391	\$0.00000	\$0.26333 \$0.26333	(\$0.00673) (\$0.00759)	\$ 0.33744 \$ 0.30965	\$0.02196 \$0.01464	(\$0.00151) (\$0.00101)	\$0.35789 \$0.32328	\$0.00000	(\$0.00286) (\$0.00191)	\$0.35503 \$0.32137	\$0.01030 \$0.00687	(\$0.00015) (\$0.00010)	\$0.36804 \$0.33005
30		Block 6	all additional					\$0.02020	\$0.00000	\$0.26333		\$ 0.27486	\$0.00549	(\$0.00038)	\$0.27997	\$0.00000	(\$0.00191)	\$0.27925	\$0.00257	(\$0.00010)	\$0.28250
31	42C Firm Transpt	Block 1	10,000	480,000	4	\$1,550.00	\$1,550.00	\$0.13792	\$0.00000	\$0.00000	\$0.00060	\$ 0.13852	\$0.02540	(\$0.00175)	\$0.16217	\$0.00000	(\$0.00331)	\$0.15886	\$0.01191	(\$0.00017)	\$0.17391
32		Block 2	20,000	807,846				\$0.12347	\$0.00000	\$0.00000	\$0.00053	\$ 0.12400	\$0.02274	(\$0.00157)	\$0.14517	\$0.00000	(\$0.00296)	\$0.14221	\$0.01066	(\$0.00015)	\$0.15568
33 34		Block 3 Block 4	20,000 100.000	583,779 598,933				\$0.09467 \$0.07575	\$0.00000 \$0.00000	\$0.00000 \$0.00000		\$ 0.09508 \$ 0.07607	\$0.01744 \$0.01395	(\$0.00120) (\$0.00096)	\$0.11132 \$0.08906	\$0.00000 \$0.00000	(\$0.00227) (\$0.00182)	\$0.10905 \$0.08724	\$0.00818 \$0.00654	(\$0.00012) (\$0.00009)	\$0.11938 \$0.09551
35		Block 5	600,000	-				\$0.05050	\$0.00000	\$0.00000		\$ 0.05071	\$0.00930	(\$0.00064)	\$0.05937	\$0.00000	(\$0.00121)	\$0.05816	\$0.00436	(\$0.00006)	\$0.06367
36		Block 6	all additional	-				\$0.01893	\$0.00000	\$0.00000	\$0.00008	\$ 0.01901	\$0.00349	(\$0.00024)	\$0.02226	\$0.00000	(\$0.00045)	\$0.02181	\$0.00164	(\$0.00002)	\$0.02388
37 38	42I Firm Transpt	Block 1 Block 2	10,000 20.000	924,395 1.036,796	9	\$1,550.00	\$1,550.00	\$0.13941 \$0.12479	\$0.00000 \$0.00000	\$0.00000 \$0.00000	\$0.00059 \$0.00052	\$ 0.14000 \$ 0.12531	\$0.02574 \$0.02304	(\$0.00177) (\$0.00159)	\$0.16397 \$0.14676	\$0.00000 \$0.00000	(\$0.00336) (\$0.00300)	\$0.16061 \$0.14376	\$0.01207 \$0.01080	(\$0.00017) (\$0.00015)	\$0.17587 \$0.15741
39		Block 3	20,000	937,215				\$0.09569	\$0.00000	\$0.00000	\$0.00032	\$ 0.09610	\$0.02364	(\$0.00133)	\$0.11255	\$0.00000	(\$0.00230)	\$0.11025	\$0.00828	(\$0.00013)	\$0.12071
40		Block 4	100,000	2,390,318				\$0.07656	\$0.00000	\$0.00000	+	\$ 0.07688	\$0.01414	(\$0.00097)	\$0.09005	\$0.00000	(\$0.00184)	\$0.08821	\$0.00663	(\$0.00009)	\$0.09659
41 42		Block 5 Block 6	600,000 all additional	1,492,257				\$0.05104 \$0.01914	\$0.00000	\$0.00000	\$0.00021	\$ 0.05125	\$0.00942 \$0.00353	(\$0.00065) (\$0.00024)	\$0.06002 \$0.02251	\$0.00000	(\$0.00123) (\$0.00046)	\$0.05879 \$0.02205	\$0.00442 \$0.00166	(\$0.00006) (\$0.00002)	\$0.06438 \$0.02415
42	42C Interr Sales	Block 1	10,000	240,000	2	\$1,300.00	\$1,300.00	\$0.01914	\$0.00000	\$0.00000	\$0.00008	\$ 0.01922	\$0.00353	(\$0.00024)	\$0.02251	(\$0.00630)	(\$0.00348)	\$0.43857	\$0.00166	(\$0.00002)	\$0.02415
44		Block 2	20,000	467,511	_	7 -,000.00	7-,	\$0.12247	\$0.00000	\$0.26333		\$ 0.40680	\$0.02390	(\$0.00164)	\$0.42906	(\$0.00564)	(\$0.00312)	\$0.42030	\$0.01121	(\$0.00016)	\$0.44011
45		Block 3	20,000	218,004				\$0.09391	\$0.00000	\$0.26333		\$ 0.37361		(\$0.00126)	\$0.39068	(\$0.00432)	(\$0.00239)	\$0.38397	\$0.00859	(\$0.00012)	\$0.39915
46 47		Block 4 Block 5	100,000	18,208				\$0.07513	\$0.00000	\$0.26333 \$0.26333		\$ 0.35180 \$ 0.32269	\$0.01466 \$0.00978	(\$0.00101) (\$0.00067)	\$0.36545 \$0.33180	(\$0.00346) (\$0.00231)	(\$0.00191) (\$0.00127)	\$0.36008 \$0.32822	\$0.00688 \$0.00458	(\$0.00010) (\$0.00006)	\$0.37223 \$0.33632
48		Block 6	all additional	-				\$0.03009	\$0.00000	\$0.26333		\$ 0.32263	\$0.00378	(\$0.00025)	\$0.28974	(\$0.00231)	(\$0.00127)	\$0.28839	\$0.00438	(\$0.00002)	\$0.33632
49	42I Interr Sales	Block 1	10,000	156,740	2	\$1,300.00	\$1,300.00	\$0.14584	\$0.00000	\$0.26333	\$0.00697	\$ 0.41614	\$0.03684	(\$0.00254)	\$0.45044	\$0.00000	(\$0.00480)	\$0.44564	\$0.01728	(\$0.00024)	\$0.46748
50 51		Block 2 Block 3	20,000 20,000	159,690				\$0.13055 \$0.10011	\$0.00000 \$0.00000	\$0.26333 \$0.26333	\$0.00635 \$0.00514	\$ 0.40023 \$ 0.36858	\$0.03298 \$0.02529	(\$0.00227) (\$0.00174)	\$0.43094 \$0.39213	\$0.00000 \$0.00000	(\$0.00430) (\$0.00330)	\$0.42664 \$0.38883	\$0.01546 \$0.01186	(\$0.00022) (\$0.00017)	\$0.44618 \$0.40382
51 52		Block 4	100,000	-				\$0.10011	\$0.00000	\$0.26333		\$ 0.36858	\$0.02529	(\$0.00174)	\$0.39213	\$0.00000	(\$0.00330)	\$0.38883 \$0.36397	\$0.01186	(\$0.00017) (\$0.00013)	\$0.40382
53		Block 5	600,000	-				\$0.05339	\$0.00000	\$0.26333	\$0.00330	\$ 0.32002	\$0.01349	(\$0.00093)	\$0.33258	\$0.00000	(\$0.00176)	\$0.33082	\$0.00632	(\$0.00009)	\$0.33881
54		Block 6	all additional	-		44.851.11	4	\$0.02002	\$0.00000	\$0.26333	\$0.00195	\$ 0.28530	\$0.00506	(\$0.00035)	\$0.29001	\$0.00000	(\$0.00066)	\$0.28935	\$0.00237	(\$0.00003)	\$0.29235
55 56	42C Inter Transpt	Block 1 Block 2	10,000 20,000		-	\$1,550.00	\$1,550.00	\$0.13403 \$0.11998	\$0.00000 \$0.00000	\$0.00000 \$0.00000	\$0.00057 \$0.00051	\$ 0.13460 \$ 0.12049	\$0.01699 \$0.01521	(\$0.00126) (\$0.00112)	\$0.15033 \$0.13458	\$0.00000 \$0.00000	(\$0.00238) (\$0.00213)	\$0.14795 \$0.13245	\$0.00848 \$0.00759	(\$0.00012) (\$0.00011)	\$0.15869 \$0.14206
57		Block 2 Block 3	20,000	-				\$0.11998	\$0.00000	\$0.00000		\$ 0.12049	\$0.01521	(\$0.00112)	\$0.13458	\$0.00000	(\$0.00213)	\$0.13245	\$0.00759	(\$0.00011)	\$0.14206
58		Block 4	100,000	-				\$0.07361	\$0.00000	\$0.00000	\$0.00031	\$ 0.07392	\$0.00933	(\$0.00069)	\$0.08256	\$0.00000	(\$0.00131)	\$0.08125	\$0.00466	(\$0.00007)	\$0.08715
59 60		Block 5 Block 6	600,000 all additional	-				\$0.04908 \$0.01839	\$0.00000 \$0.00000	\$0.00000 \$0.00000		\$ 0.04929 \$ 0.01846	\$0.00622 \$0.00233	(\$0.00046) (\$0.00017)	\$0.05505 \$0.02062	\$0.00000 \$0.00000	(\$0.00087) (\$0.00033)	\$0.05418 \$0.02029	\$0.00311 \$0.00116	(\$0.00004) (\$0.00002)	\$0.05812 \$0.02176
60 61	42I Inter Transpt	Block 1	10,000	844,078	7	\$1,550.00	\$1,550.00	\$0.01839	\$0.00000	\$0.00000	\$0.00007	\$ 0.01846	\$0.00233	(\$0.00017)	\$0.02062	\$0.00000	(\$0.00033)	\$0.02029	\$0.00116	(\$0.00014)	\$0.02176
62	I monspe	Block 2	20,000	1,445,175	'	,	,	\$0.11998	\$0.00000	\$0.00000	\$0.00051	\$ 0.12049	\$0.01939	(\$0.00143)	\$0.13855	\$0.00000	(\$0.00252)	\$0.13602	\$0.00909	(\$0.00014)	\$0.14751
63		Block 3	20,000	1,034,978				\$0.09200	\$0.00000	\$0.00000	\$0.00038	\$ 0.09238	\$0.01487	(\$0.00102)	\$0.10623	\$0.00000	(\$0.00194)	\$0.10429	\$0.00697	(\$0.00010)	\$0.11310
64 65		Block 4	100,000 600.000	3,359,916				\$0.07361 \$0.04908	\$0.00000 \$0.00000	\$0.00000		\$ 0.07392 \$ 0.04929	\$0.01189	(\$0.00082) (\$0.00055)	\$0.08499 \$0.05667	\$0.00000 \$0.00000	(\$0.00155) (\$0.00103)	\$0.08344 \$0.05564	\$0.00558 \$0.00372	(\$0.00008) (\$0.00005)	\$0.09049 \$0.06034
66		Block 5 Block 6	all additional	1,349,120				\$0.04908	\$0.00000	\$0.00000	\$0.00021	\$ 0.04929	\$0.00793	(\$0.00055) (\$0.00020)	\$0.05667	\$0.00000	(\$0.00103)	\$0.05564	\$0.00372	(\$0.00005)	\$0.06034
67	43 Firm Transpt	n/a	n/a	-		\$38,000.00	\$38,000.00	\$0.00491	\$0.00000	\$0.00000	\$0.00001	\$ 0.00492	\$0.00000	\$0.00000	\$0.00492	\$0.00000	\$0.00000	\$0.00492	\$0.00000	\$0.00002)	\$0.00492
68	43 Interr Transpt	n/a	n/a	-		\$38,000.00	\$38,000.00	\$0.00491	\$0.00000	\$0.00000	\$0.00001	\$ 0.00492	\$0.00000	\$0.00000	\$0.00492	\$0.00000	\$0.00000	\$0.00492	\$0.00000	\$0.00000	\$0.00492
69	Special Contract	n/a	n/a	2,895,114	1	\$0.00	\$0.00	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$ -	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000