

Table 11. Unit Cost Summary at Proposed Rates of Return																
NORTHWEST NATURAL																
COST OF SERVICE STUDY																
Test Year Ended 12/31/99																
UNIT COST SUMMARY At Proposed Rates of Return																
	TOTAL COM1	2	TOTAL RES 3	4	TOT COM-IN 11	21	22	23	TOT HIGH V/24	27	55	90	SC			
Annual Throughput Including Trans. (Therms)	77014051	109424	29958498	13933442	3094463	22160398	64665	4990402	77426	1167099	23633221	17930261	1252510	9495699	2834672	10035751
PURCHASED GAS																
Demand	0.0769469	0.1076678	0.10651594	0.10500281	0.09358755	0.09671418	0.06881051	0.07737277	0.0801907	0.06847825	0.01689591	0.10574324	0.08329088	0.04121932	0	0
Customer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy	0.15344555	0.20189313	0.20189313	0.20189313	0.20189313	0.20118774	0.20189313	0.20189313	0.20189313	0.20189313	0.03399677	0.20189313	0.20189313	0.08260811	0	0
STORAGE	0.23039245	0.28125924	0.30956093	0.30840908	0.29548068	0.29790192	0.27070364	0.2792859	0.28206394	0.27137139	0.05089288	0.30763637	0.28518401	0.12382743	0	0
Demand	0.01740786	0.0264431	0.02790397	0.02774771	0.01997686	0.0421239	0.01250703	0.01661532	0.03241808	0	0.00012862	0.02764288	0.00858417	5.4439E-05	0	0
Customer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy	0.00134605	0.00117191	0.00144056	0.00237483	0.00220389	0.00226622	0.00049174	0.00205976	0.0024316	0.00148002	0.0003408	0.00140643	0.00081731	0.00082478	0	0
DISTRIBUTION	0.01875391	0.02761501	0.02934453	0.02916784	0.0223517	0.04441628	0.01299876	0.01867509	0.03484968	0.00148002	0.00046942	0.02904931	0.00940147	0.00087922	0	0
Demand	0.05063813	0.02053729	0.0571122	0.0554986	0.08807193	0.05385985	0.07729826	0.00674099	0.0427469	0.02333124	0.019763	0.05401364	0.02368564	0.01772865	0.04912157	0.01536384
Customer	0.13049176	0.40043309	0.26086315	0.23282913	0.10985611	0.06389908	0.10224422	0.34874106	0.07777727	0.04542543	0.02049227	0.21402294	0.18333603	0.02881479	0.02259617	0.01380643
Energy	0.07278264	0.05651951	0.0668589	0.06589988	0.11479955	0.08888547	0.10772853	0.03466814	0.10679032	0.09673752	0.0450631	0.06525653	0.05121546	0.05510645	0.0739317	0.03182276
DISTRIBUTION	0.25391252	0.47748989	0.38543425	0.35422761	0.32272759	0.20663612	0.287271	0.39015018	0.22731448	0.1654942	0.08531837	0.33329312	0.25823712	0.10164989	0.14564944	0.06099303
Demand	0.05063813	0.02053729	0.0571122	0.0554986	0.08807193	0.05385985	0.07729826	0.00674099	0.0427469	0.02333124	0.019763	0.05401364	0.02368564	0.01772865	0.04912157	0.01536384
Customer	0.13049176	0.40043309	0.26086315	0.23282913	0.10985611	0.06389908	0.10224422	0.34874106	0.07777727	0.04542543	0.02049227	0.21402294	0.18333603	0.02881479	0.02259617	0.01380643
Energy	0.07278264	0.05651951	0.0668589	0.06589988	0.11479955	0.08888547	0.10772853	0.03466814	0.10679032	0.09673752	0.0450631	0.06525653	0.05121546	0.05510645	0.0739317	0.03182276
TOTAL REV. REQS.	0.25391252	0.47748989	0.38543425	0.35422761	0.32272759	0.20663612	0.287271	0.39015018	0.22731448	0.1654942	0.08531837	0.33329312	0.25823712	0.10164989	0.14564944	0.06099303
Demand	0.14499289	0.12634649	0.19328337	0.18976225	0.22305616	0.18965979	0.19624565	0.08805853	0.15535568	0.09280949	0.03678753	0.18739976	0.11556068	0.05900242	0.04912157	0.01536384
Customer	0.13049176	0.40043309	0.26086315	0.23282913	0.10985611	0.06389908	0.10224422	0.34874106	0.07777727	0.04542543	0.02049227	0.21402294	0.18333603	0.02881479	0.02259617	0.01380643
Energy	0.22757424	0.25958456	0.2701926	0.26921315	0.31906752	0.29298249	0.31118249	0.23705301	0.3111505	0.30011068	0.07940067	0.2685561	0.2539259	0.13853933	0.0739317	0.03182276
Cost based Charges	0.50305888	0.78636414	0.72433972	0.69180453	0.65197523	0.54653308	0.60967236	0.53933971	0.544248	0.4363456	0.13668048	0.66997881	0.55282261	0.22635654	0.14564944	0.06099303
Customers/Class	36806.3319	245.574502	14367.18	31617.2218	3397.48912	27.9434949	3612.97801	24.9357897	161.61217	0.99743159	5	26	17250.0418	1304.5576	14	3
Monthly Customer Charge	22.5590257	14.8688722	18.1996039	18.3945246	37.5442391	589.605689	52.2600408	75.3647025	265.4708	503.124416	883.598617	1545.67062	18.5385409	14.6684596	16.16.58098	1329.29652
Transport Customers/ Class	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Transport Admin Charge	550.763049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand by Class	351.393.666	259.728314	72674.0388	176498.5	82013.6884	12989.4923	107074.397	71.1689384	11789.2057	210.841876	1788.40879	63655.6895	103824.461	3905.35073	19682.4696	29603.1211
Monthly Dem Chrg (\$/Thm)	2.64814335	4.43568335	2.86585958	9.79649415	3.15788401	3.76519206	10.492981	6.66759115	6.66759115	4.75418254	5.04721791	4.21406492	2.69696132	3.08851716	2.3721159	0.92226317
Energy Charge (\$/Therm)	0.22757424	0.25958456	0.2701926	0.26921315	0.31906752	0.29298249	0.31118249	0.23705301	0.3111505	0.30011068	0.07940067	0.2685561	0.2539259	0.13853933	0.0739317	0.03182276

Table 12. Unit Cost Summary at Equalized Proposed Rates of Return															
NORTHWEST NATURAL															
MARGIN COST OF SERVICE STUDY															
Test Year Ended 12/31/99															
UNIT COST SUMMARY At Equalized Proposed Rates of Return															
	TOTAL COM1	2	TOTAL RES 3	4	TOT COMAIN 11	21	22	23	TOT HIGH V 24	27	55	90	SC		
Annual Throughput Including Trans. (Therms)	77014051	109424	12028237	29958498	13833442	3094463	22160398	64685	1167099	23533221	17930261	1252510	9495699	2834672	10035751
PURCHASED GAS															
Demand	0.0769469	0.07936611	0.1076678	0.10651594	0.10500281	0.093358755	0.09699435	0.06881051	0.06947825	0.02007776	0.10574324	0.08329088	0.04121932	0	0
Customer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy	0.15344555	0.20189313	0.20189313	0.20189313	0.20189313	0.20189313	0.20189313	0.20189313	0.04334515	0.20189313	0.20189313	0.08260811	0	0	0
STORAGE															
Demand	0.01775773	0.03713335	0.03254773	0.03280875	0.01334754	0.03626138	0.01641876	0.02928788	2.8904E-05	0.02285767	0.03298386	0.01285767	7.1633E-05	0	0
Customer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy	0.00131539	0.00183904	0.00176328	0.00176328	0.0014527	0.00183195	0.00150427	0.00172155	0.00055816	0.00176695	0.00144208	0.00124758	0	0	0
DISTRIBUTION															
Demand	0.04822251	0.02818926	0.06718265	0.06544393	0.0654086	0.04642863	0.05380893	0.01410912	0.02685992	0.02180311	0.06427754	0.03586099	0.02393992	0.04906779	0.0124652
Customer	0.13531507	0.47851595	0.28155351	0.252418	0.09355104	0.06071798	0.08927511	0.63276307	0.08833888	0.0675511	0.23287289	0.22278757	0.03187146	0.02259077	0.0132714
Energy	0.07005563	0.07824777	0.07768859	0.07755358	0.07676273	0.07672997	0.07670725	0.074579	0.07659037	0.07633475	0.07747644	0.07717946	0.07473398	0.07385109	0.02577788
TOTAL REV. REQS.															
Demand	0.14292714	0.14468872	0.20739817	0.20476862	0.18375885	0.17627756	0.16721904	0.1122075	0.13386705	0.0879707	0.20300463	0.13180954	0.06523087	0.04906779	0.0124652
Customer	0.13531507	0.47851595	0.28155351	0.252418	0.09355104	0.06071798	0.08927511	0.63276307	0.08833888	0.0675511	0.23287289	0.22278757	0.03187146	0.02259077	0.0132714
Energy	0.22481657	0.28197994	0.28131952	0.28120999	0.28018556	0.28045505	0.28010465	0.28107259	0.2798864	0.28010005	0.27933215	0.0973299	0.28113652	0.28051467	0.15858966
Cost based Charges															
Customers/Class	0.50305878	0.90518462	0.77027119	0.73839661	0.55741845	0.51745059	0.5366988	1.02604316	0.48485524	0.4815182	0.40967586	0.16298513	0.71701405	0.63511178	0.25589199
Monthly Cust Chrg	36806.3319	245.574502	14367.18	31617.2218	3397.48912	27.9434949	3612.97801	24.9357897	161.61217	0.99743159	17250.0418	1304.5576	14	4	3
Transport Customers by Class															
Monthly Transport Admin Charge	23.4000564	17.7682432	19.643105	19.9312896	31.9718467	560.325859	45.631146	136.743292	227.3171	436.973311	824.224883	1760.64472	1789.34974	1328.97789	3688.48858
Transport Customers by Class															
Monthly Transport Admin Charge	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand by Class	351.393.666	259.728314	72674.0388	176498.5	82013.6884	12989.4923	107074.397	71.1689384	1769.2057	210.841876	1788.40879	63655.6895	103824.461	3905.35073	19682.4696
Monthly Dem Chrg (\$/Thm)	2.61041465	5.07980122	2.86052901	2.89641761	2.60159143	3.49952335	2.88400764	8.49609676	4.11493782	4.09658905	4.78407201	1.29115451	2.92153856	3.52278996	0.92125343
Energy Charge (\$/Therm)	0.22481657	0.28197994	0.28131952	0.28120999	0.28010856	0.28045505	0.28010465	0.28107259	0.2798864	0.28010005	0.27933215	0.09773299	0.28113652	0.28051467	0.15858966