

Fuel Mix Disclosure Workbook

This workbook is for your use only. You do not need to submit it.

It is designed to help you determine the appropriate number of claims per resource which you then report using the online Fuel Mix Disclosure form. The calculation methods used in this workbook are in alignment with those described in the Fuel Mix Disclosure Guidelines.

It may be especially helpful to utilities that have used renewables to serve load or purchased RECs .

Step 1: Enter your retail load in the empty block on the red Main tab. The blue fields will self-populate as you enter power resources into Tabs A, B, C and/or D.

Step 2: Enter all power resources and RECs using the appropriate tabs (A, B, C and/or D). See notes on each tab to decide where to enter resources.

Step 3: Review the figures that have self-populated on the Main tab. The figure in Line 22 should match the figure in Line 4. If it does not, review your entries to see where there may be an error.

Questions? Workbook error? Contact Angela Burrell, 360-725-3125 or Angela.Burrell@commerce.wa.gov

1990 Fuel Mix Disclosure Workbook

The blue portions of this sheet will self-populate after Resource have been entered into Tabs A, B, C, D, where applicable.

Utility Mix

Retail Load Total (sales + losses) 17,556,554
 megawatt hours

You must enter the figure into this box.

Need Load

Total Power Resources 21,029,025

Combined Total of Tabs A, B, C, D

Resources Excepted from the Av Syst Mix Method -
 Eligible Renew, RECs, BPA Block

Combined Total of Tabs B, C, D

Removing Excepted Resources from Av Syst Mix Calculation
 Adjusted Load (Load minus Exceptions) 17,556,554
 Adjusted Power (Power minus Exceptions) 21,029,025

Resource Allocation
 Load divided by Power 0.83

Figuring Claims
 Standard Power Purchases Claim Total (see Tab A) 17,556,554
 Claims for Resources not in Ratio (see line 9) -
Total Claims 17,556,554

Tab A claims total multiplied by Average System Mix Ratio

Tab B, C, D claims at full value.

When all claims have been entered, this number should equal the Retail Load Total in Line 4.

Claims and Mix							Carbon Emissions		
Fuel Category	Claims by Percent	Specified Claims MWh	Unspecified Claims MWh	Total Claims MWh	Fuel Mix	CO2 Emissions Factor (short tons/MWh)	Emissions (short tons)	Emissions (metric tons)	
Hydro	54%	9,482,152	497,334	9,979,486	57%	0	-	-	
Coal	32%	5,683,976	437,815	6,121,792	35%	1.13	6,941,148	6,295,622	
Nuclear	8%	1,365,198	45,396	1,410,593	8%	0	-	-	
Cogen	0%	-	-	-	0%	0	-	-	
CCCT - Gas	0%	-	-	-	0%	0	-	-	
Simple-Cycle Gas	0%	723	9,079	9,802	0%	0.50	4,916	4,459	
Biomass	0%	15,715	19,167	34,882	0%	-	-	-	
Other	0%	-	-	-	0%	0	-	-	
Unspecified/Market	6%								
		16,547,763	1,008,791	17,556,554	100%		6,946,064	6,300,080	

Standard Power Purchases	Contract/Lump Sum/Block	MWh (megawatt hours)	Sales from Designated Unit (non-retail) None w/LU or RJ		Resource Allocation																Total					
			Resource Allocation (Load/Power)	Claims to Report (MWh)	Hydro	Coal	Nuclear	Cogen	CCGT Gas	Simple-Cycle Gas	Biomass	Other	Unknown/Market	Total	Hydro	Coal	Nuclear	Cogen	CCGT Gas	Simple-Cycle Gas		Biomass	Other	Unknown/Market		
Bids-to-Tenor				0.83	0																					
Spot Market Purchase Total				0.83	0																					
Standard Power Purchases (owned or purchased)																										
Hydro resources here - Use abbreviations per govwms, etc. This is for your records only.																										
Bluebell Hydro	1	1,460,000		0.83	1,218,921	100%																			1,218,921	
Centra	1	572,257		0.83	477,762	100%		100%																		477,762
Colling 1 & 2	1	2,895,894		0.83	1,833,291	100%																				1,833,291
Colling 3 & 4	1	2,387,732		0.83	1,993,452	100%																				1,993,452
Shuffleton	1	(895)		0.83	(580)	100%																				(580)
Coyote Mountain	1	246		0.83	205	100%																				205
Friedberg	1	1,387		0.83	1,141	100%																				1,141
Fossilization 1 & 2	1	1,528		0.83	4,615	100%																				4,615
South Whidbey	1	2,081		0.83	1,737	100%																				1,737
Whidbey 1	1	263		0.83	220	100%																				220
Whidbey 2 & 3	1	1,096		0.83	5,081	100%																				5,081
BC Hydro	2	17,309		0.83	14,451	83%		3%	2%												723	289				14,451
BPA - Net Contract	2	652,794		0.83	562,672	86.0%		11.0%																		562,672
BPA - SP Contract	2	657,134		0.83	548,773	86.0%		11.0%																		548,773
BPA - Supplemental Capacity	2	1,667		0.83	3,061	86.0%		11.0%																		3,061
BPA Firm - WPPSS Exchange	2	282,090		0.83	235,509	86.0%		11.0%																		235,509
Chelan PUD - Rock Island Syst #1	2	217,672		0.83	181,728	100%																				181,728
Chelan PUD - Rock Island Syst #2	2	2,556,750		0.83	2,134,560	100%																				2,134,560
Chelan PUD - Rocky Reach	1	2,677,449		0.83	2,235,329	100%																				2,235,329
CCFC	1	495,482		0.83	419,851	100%																				419,851
Douglas County PUD #1	4	4		0.83	0	100%																				0
Douglas PUD - Wells Project	1	1,112,078		0.83	1,112,078	100%																				1,112,078
Grant PUD - Fleet Report	4	489,469		0.83	392,396	100%																				392,396
Grant PUD - Wanouam	1	449,319		0.83	375,124	100%																				375,124
Grays Harbor PUD - Centra	1	337,003		0.83	273,006	100%																				273,006
Northwestern Energy/MPC Firm Contract	1	577,401		0.83	482,056	100%																				482,056
PPL - 15 Year Contract	4	925,660		0.83	438,809	100%																				438,809
PPL - 5 Year Contract	1	222,130		0.83	185,601	100%																				185,601
Skookumchuck Hydro	1	865		0.83	555	100%																				555
Snohomish PUD Conservation	2	2,968		0.83	2,438	100%																				2,438
WPPSS - Hartford Exchange	2	590,025		0.83	492,596	100%																				492,596
WPPSS - Hartford Extension	2	2,968		0.83	0	100%																				0
WPP - 15 Year APC Contract	4	667,460		0.83	548,895	100%																				548,895
WPP - 5 Year Contract	1	209,960		0.83	176,315	100%																				176,315
Purchases - FERPA	4	153,197		0.83	102,837	85%																				102,837
Purchases - Secondary	1	1,144,070		0.83	955,153	100%																				955,153
Interchange - In	4	151,152		0.83	94,467	100%																				94,467
Interchange - Out	4	(50,187)		0.83	(41,900)	100%																				(41,900)
Healthland Creek	2	5,917		0.83	4,940	100%																				4,940
Kahn, Louis	4	14		0.83	12	100%																				12
Kema Kulkhan Associates	1	8,343		0.83	6,965	100%																				6,965
Lechinco, James	1	1		0.83	1	100%																				1
Port Townsend Paper Co.	4	2,817		0.83	2,352	100%																				2,352
Reconco of Washington, Inc. (RWI)	2	3,116		0.83	2,602	100%																				2,602
Skagit Incinerator (MSW)	4	12,656		0.83	10,566	100%																				10,566
Skookumchuck Hydro	4	-		0.83	0	100%																				0
Snohomish PUD	2	149		0.83	125	100%																				125
Twin Falls Hydro	4	73,507		0.83	61,369	100%																				61,369
Wanauam Falls	4	114,656		0.83	113,905	100%																				113,905
Total Standard Power Purchases				0.83	17,556,554																					17,556,554

Hydro	Coal	Nuclear	Cogen	CCGT Gas	Simple-Cycle Gas	Biomass	Other	Total
6482,152	5,463,930	1,365,208			723	11,715		13,089,791
54%	32%	8%	0%	0%	0%	0%	0%	100%
497,134	437,813	45,396			0	15,922		9,929,496
9,929,496	6,121,792	1,410,593			8,802	34,882		17,556,554
57%	35%	8%	0%	0%	0%	0%	0%	100%
0	133	0	0	0	0	0		133
	6,983,148				4,916			6,988,064

Net Assumptions
 BC Hydro: 93.0%
 BPA: 86.0%
 Net WPP/Market Mix: 48.3%, 43.4%, 11.0%, 4.5%

Alignment of Unspecified Power to Fuel Categories of the NW NWP
 Unspecified plus Specified
 Fuel Mix Percentage
 Emissions Rate (short tons/per MWh)
 CO2 Emissions (short tons per MWh)

REFERENCES
 BC Hydro
 https://www2.cleddac.ca/media/publications/BC2012_report_10_data_Final_April_12_2013.pdf
 BPA
 BPA Staff
 Net WPP/Market Mix Methodology (for power showing in the Unknown Misc category above)
 Commerce imported the 1990 NW Power Pool Net System Mix based on 1990 NW Power Pool Generation from the EIA and 2000 NW Power Pool Net System Mix from the NW Commerce Council
 Emissions Rates
 Using 2000 Emissions Rates per the Commerce Fuel Mix Disclosure Program based on EIA Annual Outlook Appendix Table A3

Renewable Energy Credits from Plants	Units (1 REC= 1 MWh)
Total	-

List by plant name. Use abbreviations or acronyms, etc. This is for your records only.

17,556,554.00 BPA system claims after REC retirements are applied
bpa purchases minus recs
need to have a space to do this in the sheet so they know what to enter for bpa purchase
instructions should say: Enter RECs after entering purchase total on main page

need to set this up for BPA full requirements customers.

BPA Block Purchase	MWh (megawatt hours)
Block	
Total	0

BPA customers:

Load Following/Full Requirements (100% BPA served): your information is being supplied directly by BPA.

Slice Customers: Enter your BPA purchase on Tab A.

Only one utility in Washington is a BPA block customer as defined by BPA.