

EXHIBIT 7

TPO CALCULATIONS

TOTAL POWER OUTPUT CALCULATIONS		
ITEM	DESCRIPTION/LENGTHS	GAIN/LOSS
Call Letters	KMWV/KTUP, Dallas, OR	
Freq.	98.3	
Date	9/15/2019	
Antenna Make/Model/Bays	Shively 6822-4-SS 4 bay 0.5 wave spaced	
Antenna Gain dB (loss negative)		1.220
Antenna Pwr Gain (multiplier)		1.32
Transmission Line Descrip	Andrew LDF7-50a	
Loss per 100ft	-0.203	
Length (f)	240	
Line Loss dB		-0.487
Other loss 1 - description/dB	BP FILTER	-0.390
Other loss 2 - description/dB	7/8" pigtail 19ft AVA5-50 (0.351/100ft)	-0.067
Other loss 3 - description/dB		0.000
Other loss 4 - description/dB		0.000
TOTAL SYSTEM GAIN dB (loss negative)		0.276
System ERP (W)		2,600.0
TRANSMITTER TPO (W)		2,440.0
105% Max. TPO (W)		2,562.02
90% Min. TPO (W)		2,318.02