TPO Calculation Summary
Main Antenna Operation

Call letters: KMFY
City of License: Grand Rapids, MN
Frequency: CH245C1 (96.9 MHz)
File No: BPH-20180307AAB
Facility ID: 34972
Applicant: Lamke Broadcasting, Inc.

Operating Effective Radiated Power (ERP): 100000.000 kW

Antenna Make: Dielectric
Antenna Model: DCR-M
No of Elements: 12
Antenna COR AGL: 102 meters AGL
Antenna COR AMSL: 564 meters AMSL
Max Input Power: 20.0 kW
Power Gain: 6.59
Log[power gain]*10 = **Antenna Gain:** 8.189 dBd
Calculated Antenna Input Power: 15174.507 kW

System Loss Info:

Description	Component Make/Model		Length	Loss
Din connectors	Generic (2@0.05 dB each)			-0.100 dBd
Rigid Jumper	Generic		12 ft	-0.010 dBd
Combiner	Dielectric			-0.157 dBd
Main Feedline (Tower)	Andrew HJ11-50 4" Heliax	(0.114 dB/100 ft)	318 ft	-0.363 dBd

TOTAL SYSTEM GAIN/LOSS: 7.56 dBd
1 / [[10^[dB/10]/ERP]] = **CALCULATED TRANSMITTER POWER OUTPUT:** 17539.5 kW

Munn–Reese
Broadcast Engineering Consultants
Coldwater, MI 49036