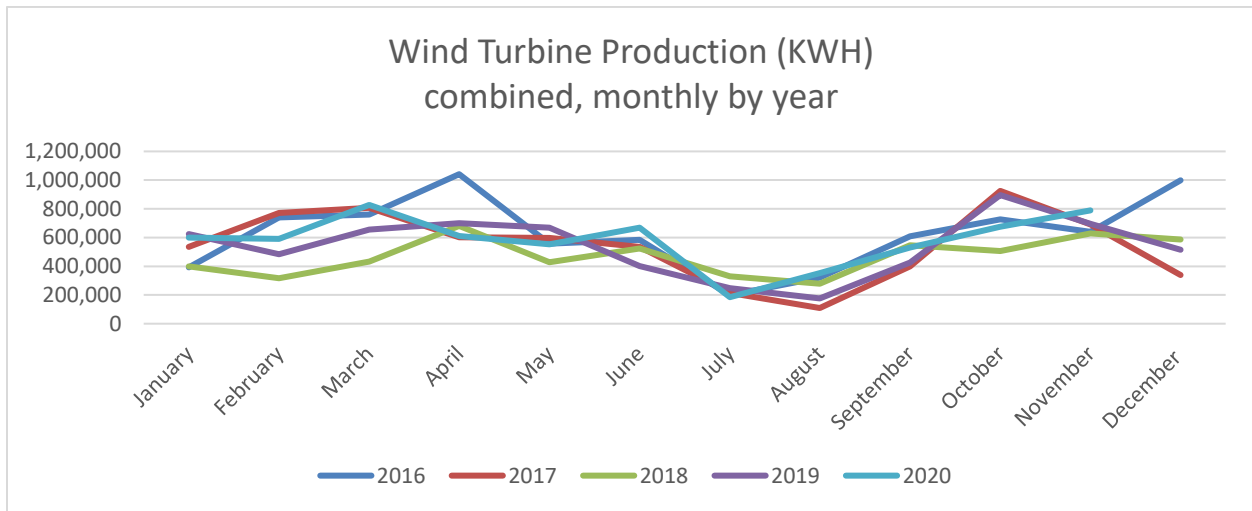




WILLMAR MUNICIPAL UTILITIES

November 2020 Wind Turbine Report

“Willmar Municipal Utilities will provide safe, reliable & quality utility services at competitive rates for their customers.”



	Production (KWH)		Availability (%)		Total	Major Outages
	#3	#4	#3	#4	KWH	
Nov 2020	338,578	449,624	73.7	95.3	788,202	#3 Electrical Fault
Oct 2020	319,328	356,215	94.8	97.2	675,543	
Sept 2020	253,039	278,032	95.2	96.1	531,071	
Aug 2020	179,044	173,200	96.3	91.5	352,244	#3 Blade and Hub damage
July 2020	40,398	144,376	59.2	86.2	184,774	
June 2020	311,237	356,661	97.7	94.7	667,898	
May. 2020	274,916	277,606	97.1	96.1	552,522	
April. 2020	307,030	304,139	96.2	99.6	611,169	
Mar. 2020	406,025	421,180	99.6	95.9	827,205	
Feb. 2020	297,009	293,951	99.7	97.3	590,960	
Jan. 2020	292,889	305,779	99.6	98.4	598,668	#4 Blade Repairs
Dec. 2019	249,759	265,099	98.9	99.4	514,858	#4 Blade Repairs
Nov. 2019	347,262	347,746	100.0	99.4	695,008	
2020 Total	3,019,493	3,360,763			6,380,256	

Month	2016	2017	2018	2019	2020
January	393,477	534,867	398,844	624,884	598,668
February	740,655	771,227	317,618	484,162	590,960
March	761,028	806,936	432,165	656,272	827,205
April	1,041,382	601,823	681,026	699,956	611,169
May	557,947	598,108	427,219	668,434	552,522
June	583,043	534,662	523,406	400,456	667,898
July	199,043	214,304	330,556	247,502	184,774
August	321,326	109,215	278,651	176,047	352,244
September	609,004	400,210	545,469	426,860	531,071
October	727,379	925,000	505,906	895,781	675,543
November	640,522	690,847	628,416	695,008	788,202
December	998,977	338,980	587,263	514,858	
Total	7,573,783	6,526,179	5,656,539	6,490,220	6,380,256

