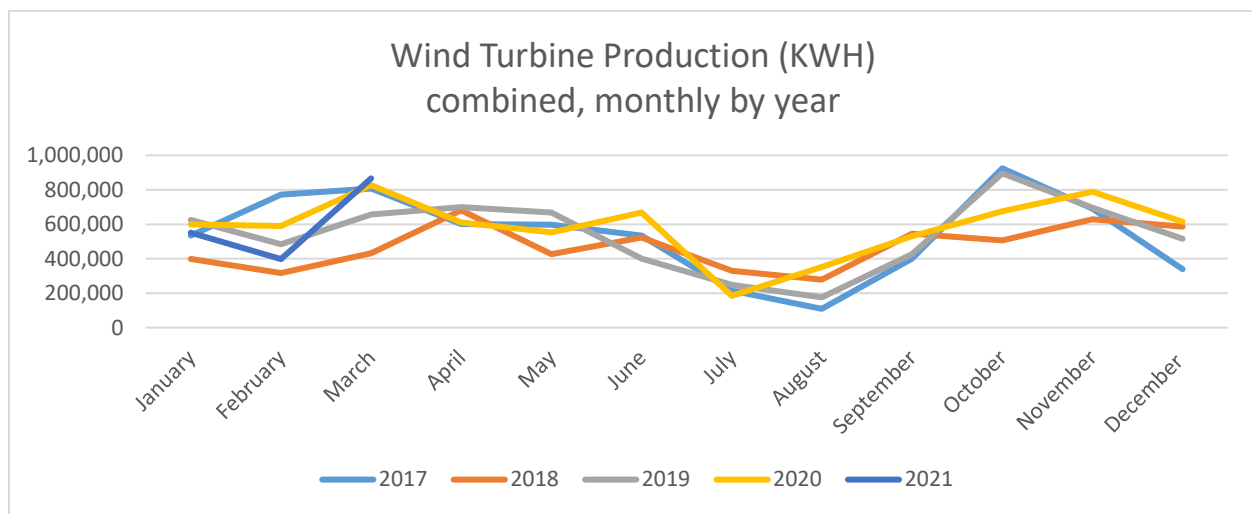




WILLMAR MUNICIPAL UTILITIES

March 2021 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	
Mar 2021	521,031	345,469	99.5	75.0	866,500	#4 gearbox speed sensor fault
Feb 2021	218,288	179,581	77.3	83.5	397,869	
Jan 2021	263,950	287,559	98.1	99.2	551,509	
Dec 2020	292,905	320,403	92.9	97.2	613,308	
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	
2021 Total	739,319	525,050			1,815,878	

Month	2017	2018	2019	2020	2021
January	534,867	398,844	624,884	598,668	551,509
February	771,227	317,618	484,162	590,960	397,869
March	806,936	432,165	656,272	827,205	866,500
April	601,823	681,026	699,956	611,169	
May	598,108	427,219	668,434	552,522	
June	534,662	523,406	400,456	667,898	
July	214,304	330,556	247,502	184,774	
August	109,215	278,651	176,047	352,244	
September	400,210	545,469	426,860	531,071	
October	925,000	505,906	895,781	675,543	
November	690,847	628,416	695,008	788,202	
December	338,980	587,263	514,858	613,308	
Total	6,526,179	5,656,539	6,490,220	6,993,564	1,815,878

