

Exhibit 20

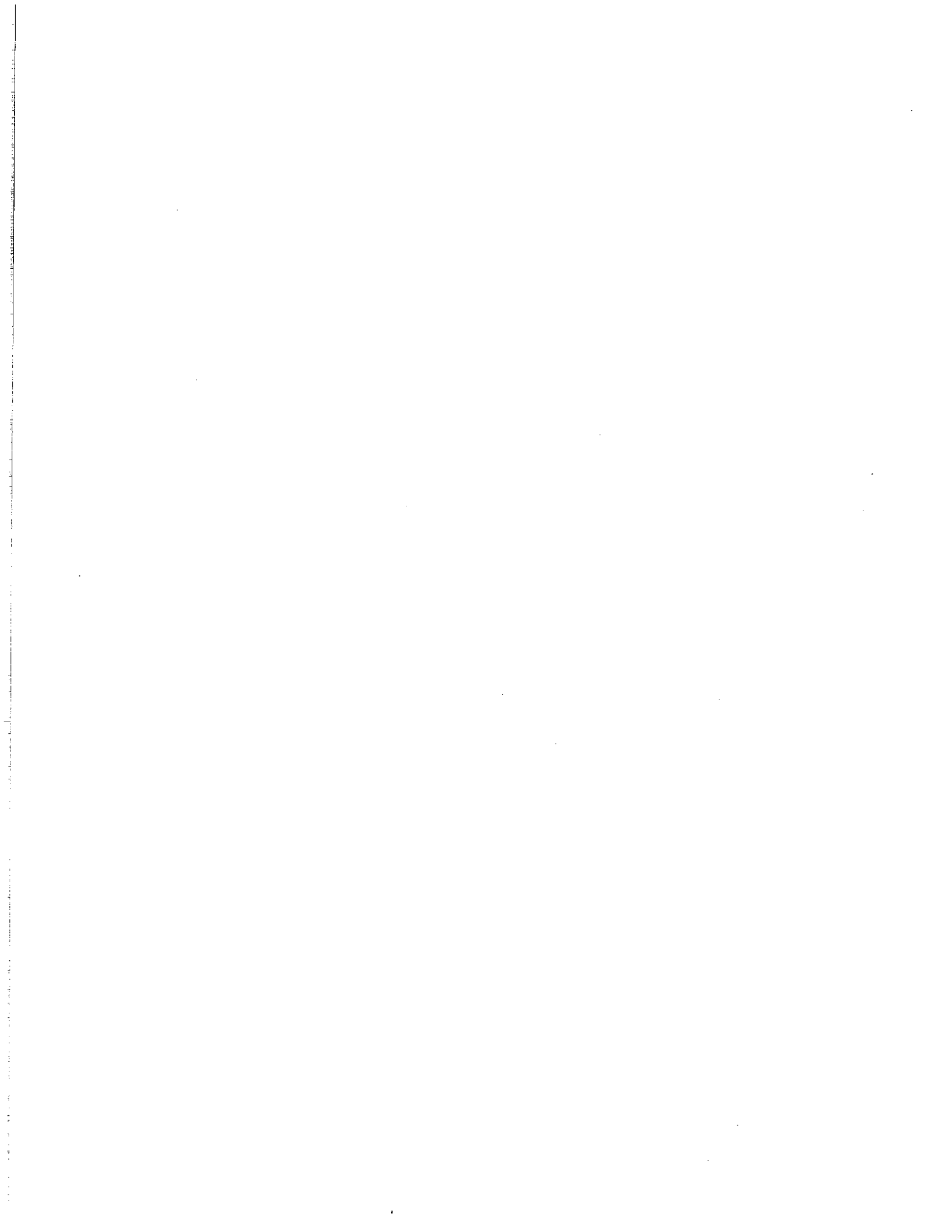
No. 2

1.34 For each generating unit that Mr. Schiffman included as part of NorthWestern's South Dakota Power System, describe how he modeled generator outages, including planned maintenance, if any, reliability criteria, generator maintenance requirements, forced outage rate, mean time to repair, and the probability distribution of any variables used in Promod IV's Monte Carlo simulation of generator availability.

See attached Excel spreadsheet labeled "NorthWestern Generator Settings.xlsx." Exhibit 1.

PMRG Modeling Assumptions - NorthWestern South Dakota System

Name	Unit Number	Category	Maximum Capacity (MW)	Minimum Capacity (%)	NonFirm Energy	Variable		Maint Req (Hrs)	Forced Outage Rate (%)
						O&M (\$/MWh)	Heat Rate (MBtu/MWh)		
Aberdeen GT:1	1	CT Oil	21	50		0.7	13.3	298	6.41
Aberdeen GT:2	2	CT Gas	52	50		0.7	11.172	359	3.6
Big Stone 1 - NWE	1	ST Coal	111	40		1.1	10.174	911	8.85
Coyote 1 -NWE	1	ST Coal	43	40		1.1	10.982	587	8.19
Huron:1	1	CT Gas	11	50		0.8	14.6	394	9
Huron:2	2	CT Gas	44	50		0.8	13.648	298	6.41
Neal 4 - NWE	1	ST Coal	56	40		0.9	10.275	867	7.72
Yankton	3	IC	7	20		1.2	10.8	298	6.41
Clarke (SD)	1	IC	3	20		1.2	10.8	298	6.41
NWE Mobile 2	2	IC	2	20		1.2	10.8	298	6.41
NWE Mobile 3	3	IC	3	20		1.2	10.8	298	6.41



Forced				
Outage	Minimum	Minimum		
Duration	Downtime	Runtime		
(Hrs)	(Hrs)	(Hrs)	Must Run	
58	1	1	FALSE	
58	1	1	FALSE	
46	8	12	FALSE	
46	8	12	FALSE	
58	1	1	FALSE	
58	1	1	FALSE	
46	8	14	FALSE	
58	1	1	FALSE	
58	1	1	FALSE	
58	1	1	FALSE	
58	1	1	FALSE	

PMRG Modeling Assumptions - NorthWestern South Dakota System

Resource	Capacity (MW)	Energy (GWh)
Beethoven Wind LLC:WT1 22	80	277.2
Juhl_Aurora1	20	92.6
Juhl_Brule1	20	91.0
Juhl_Davison1	20	88.9
Oak Tree Energy:WT1 11	20	64.6
Titan Wind Project:WT1 10	25	90.1