

APPENDIX B: TABLES FOR ELD WITHOUT TRANSMISSION LINE LOSSES FOR NINE UNITS

Table IV. 9-unit system Lambda method without losses

Demand (MW)	P1 (MW)	P2 (MW)	P3 (MW)	P4 (MW)	P5 (MW)	P6 (MW)	P7 (MW)	P8 (MW)	P9 (MW)	Fuel Cost (Rs/hr)	Lambda
700	103.72	113.66	50	50	57.977	50	156.44	50	68.198	7907.1	8.2319
900	100	100	50	50	50	50	93.175	50	50	7036	8.0168
1100	191.35	187.45	58.576	62.466	128.08	68.721	180	105.07	118.27	11258	8.5123
1400	246.42	233.83	76.933	97.711	172.14	98.093	180	145.13	149.74	13839	8.6868
1700	301.5	280.21	95.29	132.96	216.2	127.46	180	185.18	181.21	16472	8.8648

Table V. 9-unit system PSO method without losses

Demand (MW)	P1 (MW)	P2 (MW)	P3 (MW)	P4 (MW)	P5 (MW)	P6 (MW)	P7 (MW)	P8 (MW)	P9 (MW)	Fuel Cost (Rs/hr)
700	103.72	113.66	50	50	57.977	50	156.44	50	68.198	7907.1
900	150.64	153.2	50	50	95.542	50	180	75.539	95.074	9568.2
1100	191.35	187.45	58.576	62.466	128.08	68.721	180	105.07	118.27	11258
1400	246.42	233.83	76.933	97.711	172.14	98.093	180	145.13	149.74	13839
1700	301.5	280.21	95.29	132.96	216.2	127.46	180	185.18	181.21	16472

Table VI. 9-unit system GA method without losses

Demand (MW)	P1 (MW)	P2 (MW)	P3 (MW)	P4 (MW)	P5 (MW)	P6 (MW)	P7 (MW)	P8 (MW)	P9 (MW)	Fuel Cost (Rs/hr)
700	109.74	109.89	51.073	50.783	56.344	51.297	151.14	52.619	67.113	7908
900	154.26	152.42	55.748	60.809	84.711	58.509	173.11	77.808	82.625	9571.3
1100	194.96	178.99	67.791	65.001	120.66	67.746	174.11	118.37	112.38	11261
1400	250.84	235.79	79.337	98.807	169.85	96.15	178.79	147.56	142.89	13839
1700	310.42	288.8	100.12	133.29	211.39	132.54	177.83	175.5	170.12	16474

Table VII. Cost per Hour for Different Methods at Varying Demands

SL (NO)	Demand (MW)	Cost (Rs/hr) GA	Cost (Rs/hr) Lambda	Cost (Rs/hr) PSO
1	700	7908	7907.1	7907.1
2	900	9571.3	7036	9568.2
3	1100	11261	11258	11258
4	1400	13839	13839	13839
5	1700	16474	16472	16472