

SUPPLEMENTAL MATERIALS

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Managing Interdependence-Induced Systemic Risks in Infrastructure Projects

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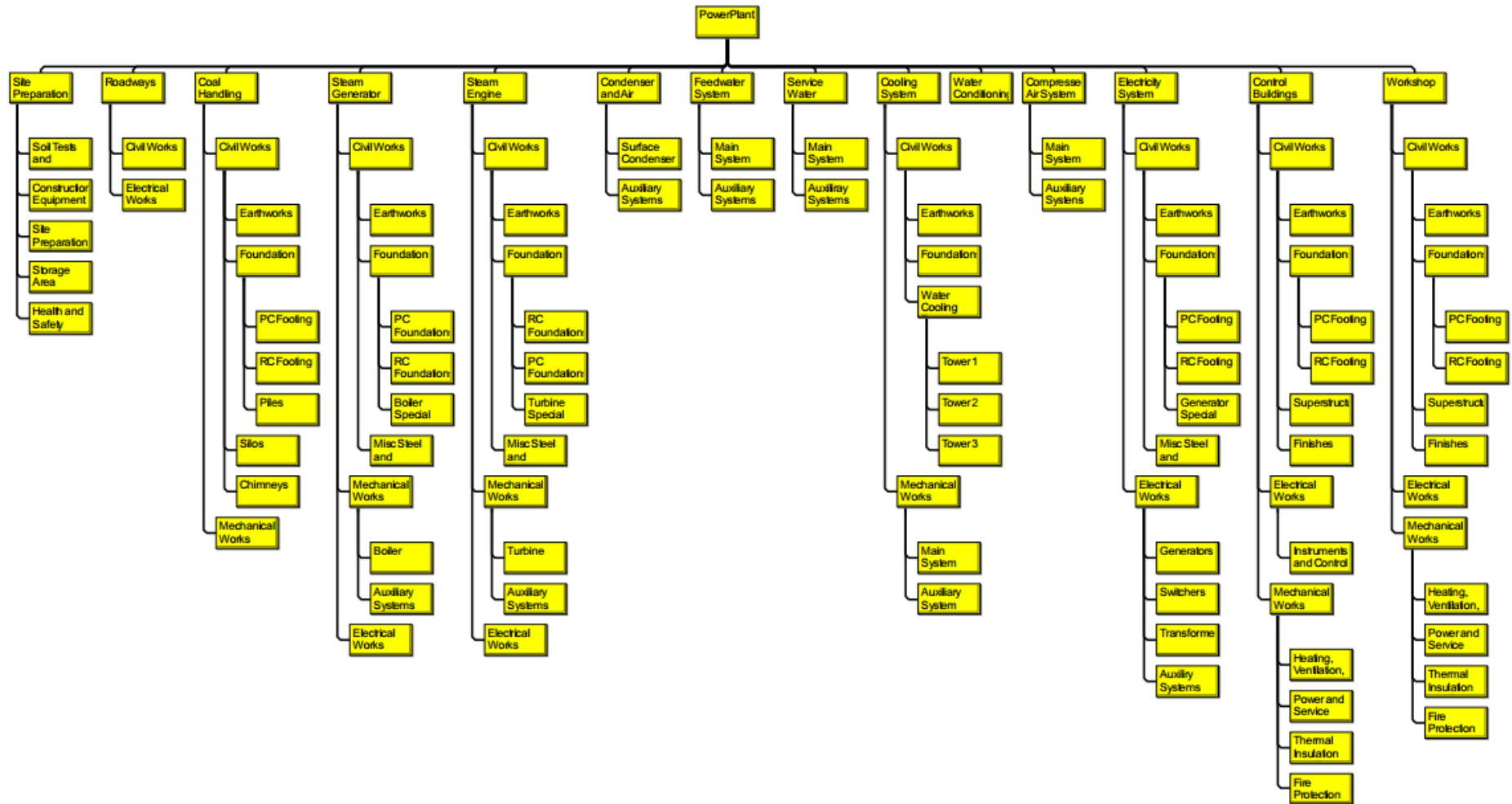


Fig. S1. Work break-down structure of the power plant project.

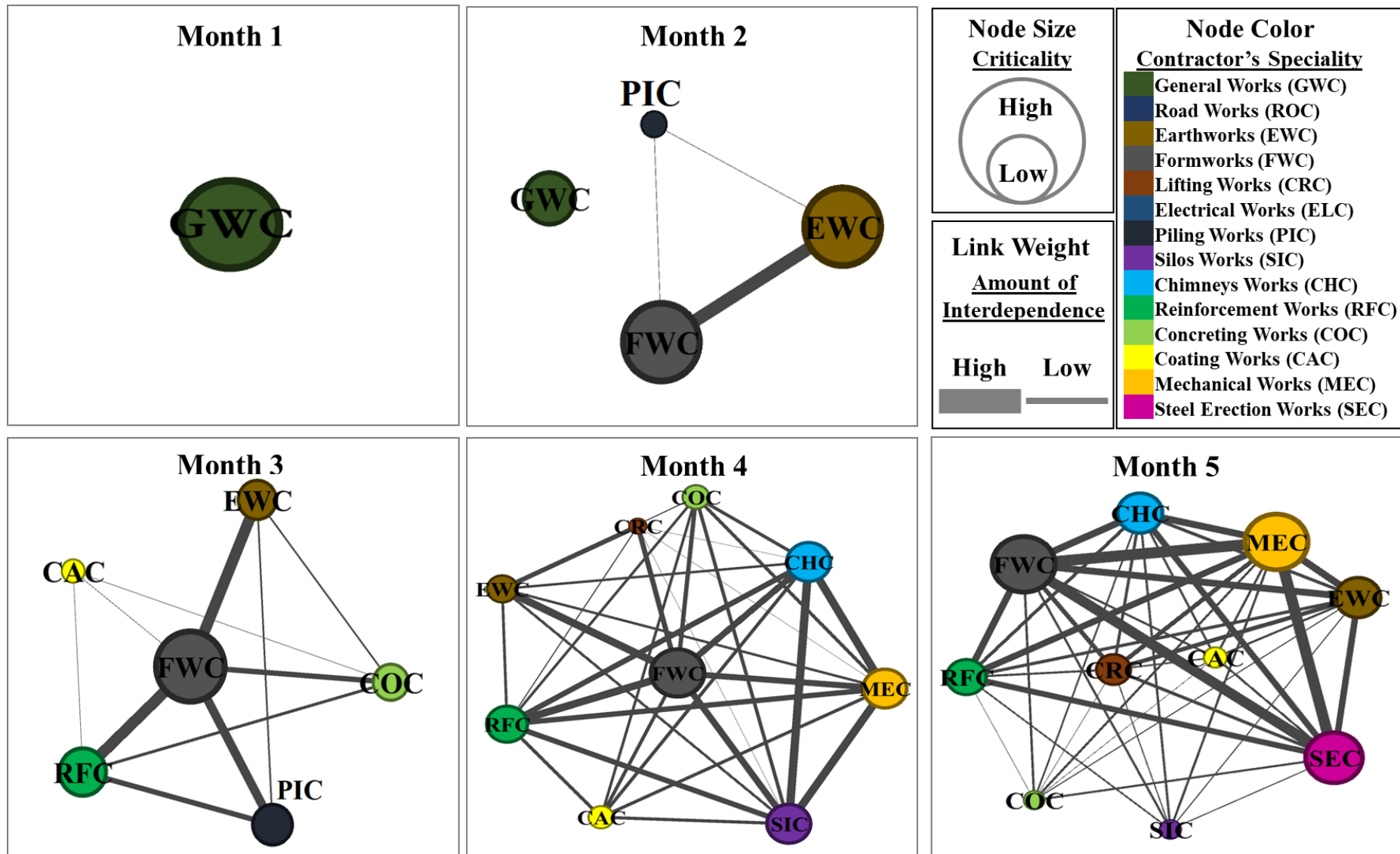


Fig. S2(a). Networks of months 1 to 5 of the project's duration.

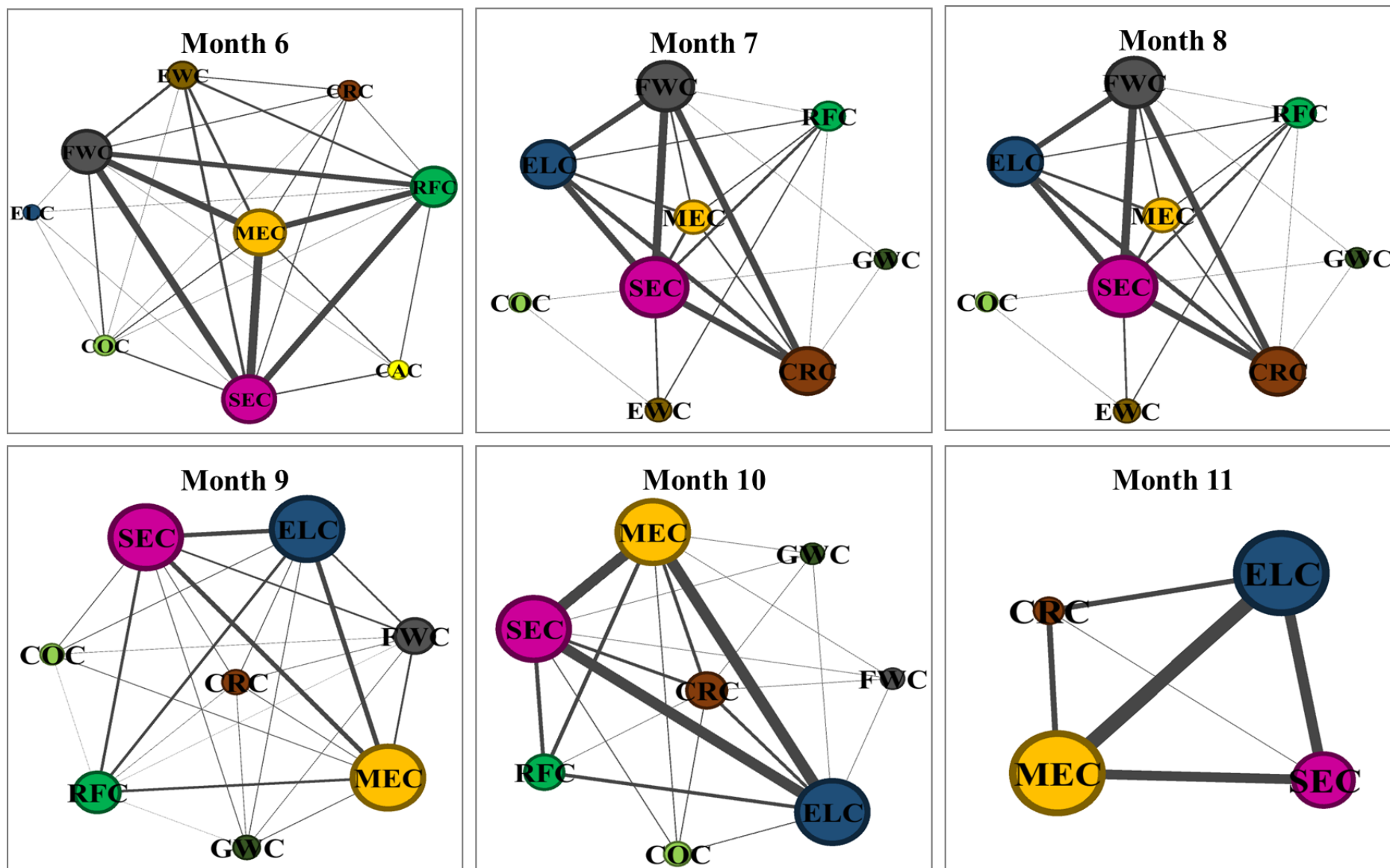


Fig. S2(b). Networks of months 6 to 11 of the project's duration.

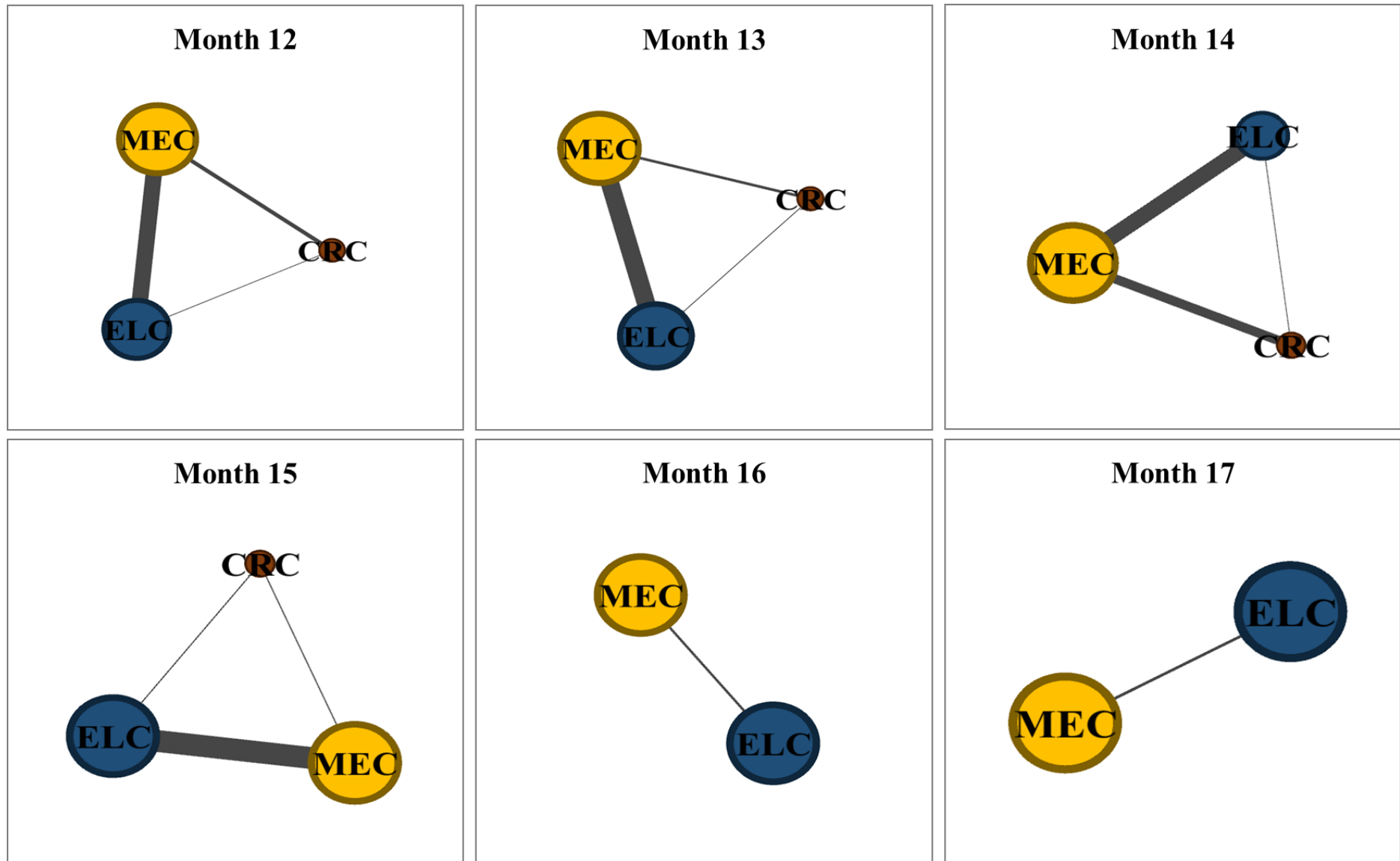


Fig. S2(c). Networks of months 12 to 17 of the project's duration.

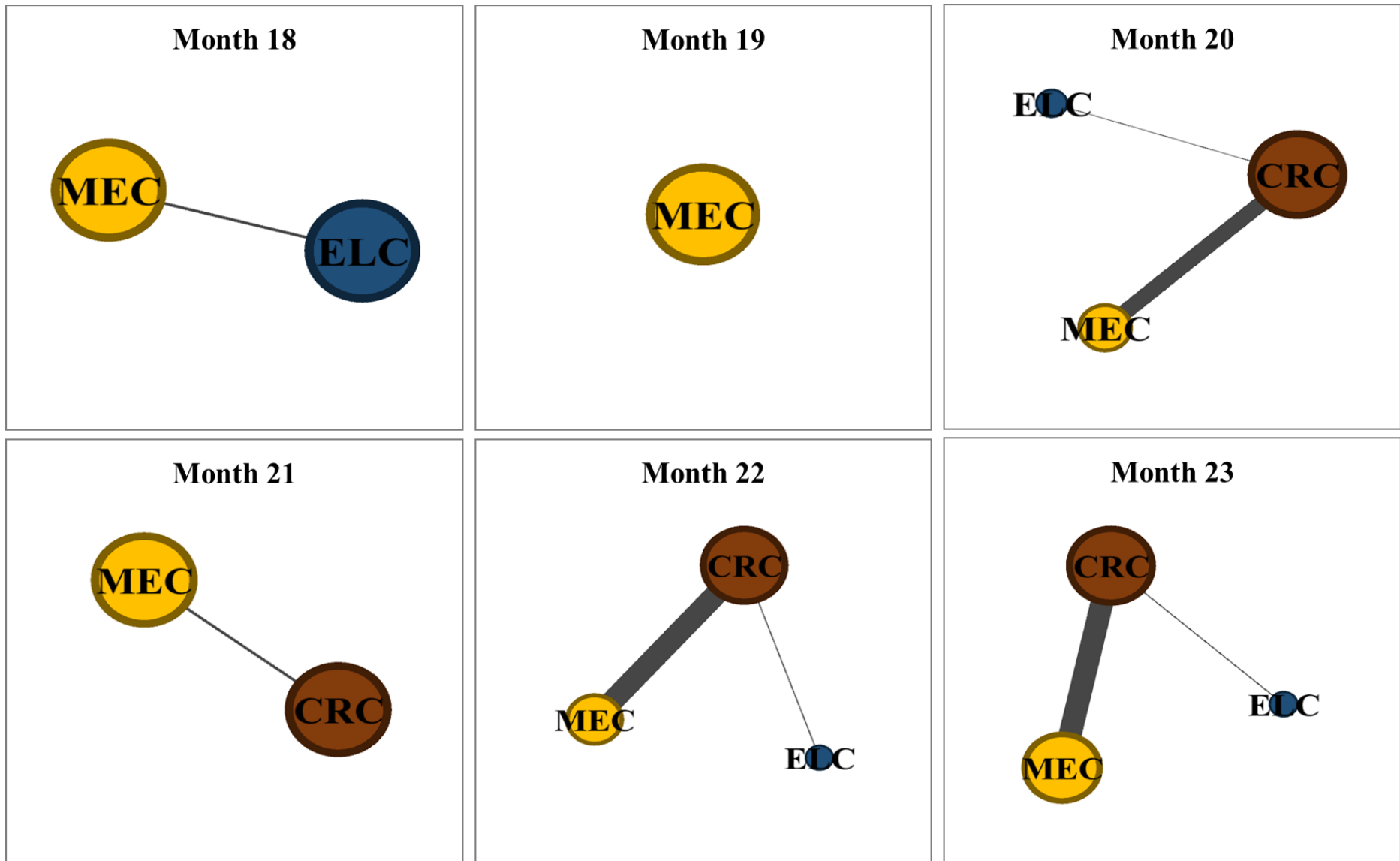


Fig. S2(d). Networks of months 18 to 23 of the project's duration.

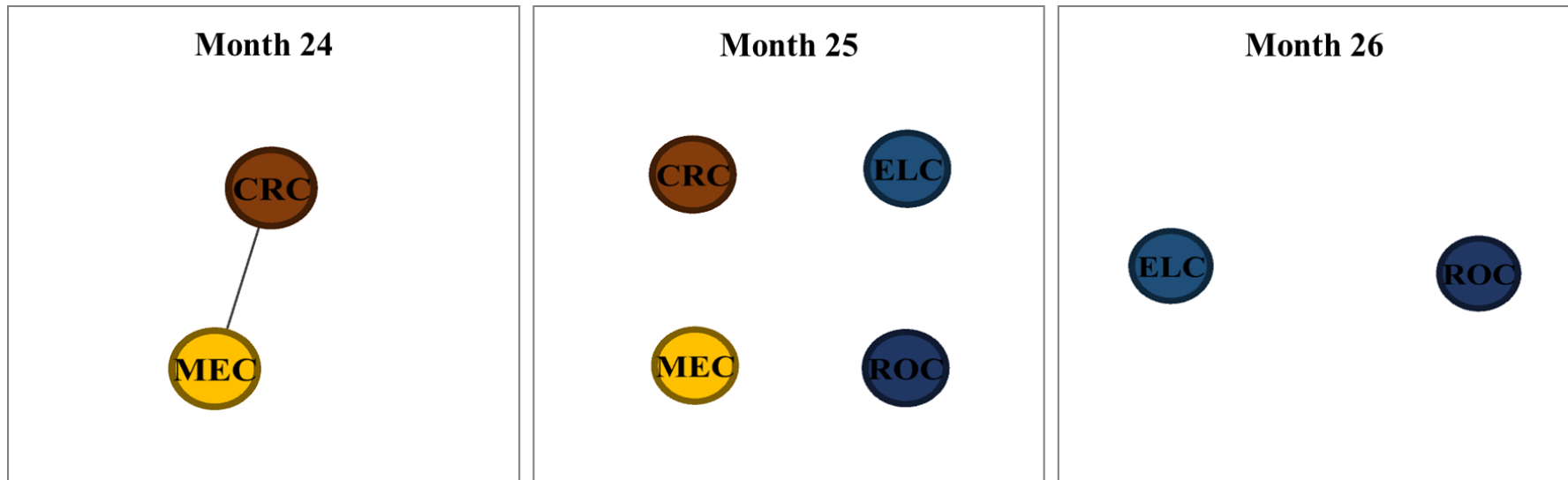


Fig. S2(e). Networks of months 24 to 26 of the project's duration.

Table S1. Activities with a non-zero free float

Contractor	Activity ID	Activity Name	Original Duration	Start	Finish	Free Float
CAC	A1200	Coating	2	2021-03-30	2021-03-31	4
CHC	A2700	Erecting Chimney 3	8	2021-05-10	2021-05-19	440
CRC	A1290	Receiving Package 3	1	2021-04-09	2021-04-09	14
	A1360	Receiving Package 3	1	2021-04-14	2021-04-14	1
	A4040	Receiving Boiler 3	2	2021-08-26	2021-08-27	46
	A2000	Receiving Package 1	1	2021-10-14	2021-10-14	24
	A4280	Receiving Feeder 3	2	2021-11-04	2021-11-05	8
	A2010	Receiving Package 2	1	2021-11-18	2021-11-18	9
	A4210	Receiving Condenser 3	2	2021-12-09	2021-12-10	38
	A1540	Receiving Package 1	1	2021-12-24	2021-12-24	21
	A1920	Receiving Package 1	1	2022-01-05	2022-01-05	20
	A1550	Receiving Package 2	1	2022-01-25	2022-01-25	21
	A1930	Receiving Package 2	1	2022-02-03	2022-02-03	20
	A4320	Receiving Package 2	2	2022-08-24	2022-08-25	3
	A2120	Receiving of Package 2	1	2022-09-01	2022-09-01	10
	A2940	Receiving Packages	3	2021-05-26	2021-05-28	7
	A4950	Receiving Packages	3	2021-06-15	2021-06-17	18
	A4700	Receiving Generator 3	2	2021-08-16	2021-08-17	24
	A4740	Receiving Switchers 3	2	2021-10-15	2021-10-18	28
	A4780	Receiving Transformers 3	2	2021-12-24	2021-12-27	14
ELC	A3910	Electrical Finishes	3	2021-06-30	2021-07-02	408
	A4310	Electrical Finishes	1	2022-05-04	2022-05-04	79
	A4250	Electrical Finishes	1	2022-06-13	2022-06-13	51
	A4390	Electrical Finishes	1	2022-10-21	2022-10-21	20
	A4820	Electrical Finishes	3	2022-03-31	2022-04-04	212
EWC	A4830	Excavation	5	2021-03-01	2021-03-05	41

FWC	A2400	Shuttering	5	2021-03-17	2021-03-23	1
	A2300	Shuttering	8	2021-03-25	2021-04-05	61
GWC	A2380	Finishes	3	2021-09-27	2021-09-29	359
	A4440	Finishes	3	2021-09-27	2021-09-29	359
	A4490	Finishes	3	2021-09-27	2021-09-29	345
MEC	A4050	Installing Main Boiler 3	25	2021-11-02	2021-12-06	58
	A4170	Mechanical Finishes	2	2022-05-19	2022-05-20	65
	A4590	Mechanical Finishes	2	2022-12-14	2022-12-15	29
	A3020	Installing Fire Protection System	14	2021-11-22	2021-12-09	11
	A5010	Installing Fire Protection System	14	2021-12-27	2022-01-13	269
PIC	A2390	Installing Piles	6	2021-02-24	2021-03-03	9
SIC	A1330	Erecting Silo 3	5	2021-04-30	2021-05-06	449

	A2300	2021-03-25	2021-06-18	2021-06-18	2021-06-18	2021-06-18	2021-06-18	2021-06-18
GWC	A2380	2021-09-27	2023-02-10	2023-02-10	2023-02-10	2023-02-10	2023-02-10	2023-02-10
	A4440	2021-09-27	2023-02-10	2023-02-10	2023-02-10	2023-02-10	2023-02-10	2023-02-10
	A4490	2021-09-27	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23
MEC	A4050	2021-11-02	2022-01-21	2022-01-21	2022-01-21	2022-01-21	2022-01-21	2022-01-21
	A4170	2022-05-19	2022-08-18	2022-08-18	2022-08-18	2022-08-18	2022-08-18	2022-08-18
	A4590	2022-12-14	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24
	A3020	2021-11-22	2021-12-07	2021-12-07	2021-12-07	2021-12-07	2021-12-07	2021-12-07
	A5010	2021-12-27	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06
PIC	A2390	2021-02-24	2021-03-09	2021-03-09	2021-03-09	2021-03-09	2021-03-09	2021-03-09
SIC	A1330	2021-04-30	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19

Table S3. Project schedule

			Work Breakdown Structure Schedule												Power Plant Project																				
Activity ID	Activity Name	Original Duration	Start	Qr 1, 2021			Qr 2, 2021			Qr 3, 2021			Qr 4, 2021			Qr 1, 2022			Qr 2, 2022			Qr 3, 2022			Qr 4, 2022			Qr 1, 2023							
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar					
PowerPlantX				556	01-01-2021																														
Site Preparation				33	01-01-2021																														
Soil Tests and Inspections				8	01-01-2021																														
A1000	Soil Tests	8	01-01-2021	Soil Tests																															
Construction Equipment Inspections				8	13-01-2021																														
A1010	Inspecting Construction Equipment	8	13-01-2021*	Inspecting Construction Equipment																															
Site Preparation				12	25-01-2021																														
A1120	Grading Site and Temporary Roads	8	29-01-2021	Grading Site and Temporary Roads																															
A1020	Fencing	4	25-01-2021	Fencing																															
Storage Area				5	10-02-2021																														
A1030	Preparing Storage Area	5	10-02-2021	Preparing Storage Area																															
Health and Safety Permissions				5	10-02-2021																														
A1040	Installing Signage and Lights	5	10-02-2021	Installing Signage and Lights																															
Roadways				14	31-01-2023																														
Civil Works				8	31-01-2023																														
A1050	Sub Grade	4	31-01-2023	Sub Grade																															
A1070	Asphalt Layer 2 (70 cm)	2	08-02-2023	Asphalt Layer																															
A1060	Asphalt Layer 1 (50 cm)	2	06-02-2023	Asphalt Layer																															
Electrical Works				6	10-02-2023																														
A3660	Installing Light Poles	4	10-02-2023	Installing Light Poles																															
A3670	Installing Light Poles Cables	2	16-02-2023	Installing Light Poles																															
Coal Handling and Storage System				98	17-02-2021																														
Civil Works				66	17-02-2021																														
Earthworks				42	17-02-2021																														
A1080	Excavation	5	17-02-2021	Excavation																															
A1100	Compaction	4	12-04-2021	Compaction																															
A1090	Filling	3	07-04-2021	Filling																															
Foundations				30	24-02-2021																														
PC Footing				26	24-02-2021																														
A1110	Shuttering	6	24-02-2021	Shuttering																															
A1150	Coating	2	30-03-2021	Coating																															
A1130	Concrete Casting	2	04-03-2021	Concrete Casting																															
A1140	Deshuttering	1	08-03-2021	Deshuttering																															
RC Footing				17	09-03-2021																														
A1170	RFT Placement	6	17-03-2021	RFT Placement																															
A1160	Shuttering	6	09-03-2021	Shuttering																															
A1200	Coating	2	30-03-2021	Coating																															
A1180	Concrete Casting	2	25-03-2021	Concrete Casting																															
A1190	Deshuttering	1	29-03-2021	Deshuttering																															
Piles				30	24-02-2021																														
A2390	Installing Piles	6	24-02-2021	Installing Piles																															
A2410	RFT Placement	5	25-03-2021	RFT Placement																															
A2400	Shuttering	5	17-03-2021	Shuttering																															
A2440	Coating	2	05-04-2021	Coating																															
A2430	Deshuttering	1	02-04-2021	Deshuttering																															
A2420	Concrete Casting	1	01-04-2021	Concrete Casting																															
Silos				22	07-04-2021																														
A1330	Erecting Silo 3	5	30-04-2021	Erecting Silo 3																															
A1320	Erecting Silo 2	5	23-04-2021	Erecting Silo 2																															
A1310	Erecting Silo 1	5	16-04-2021	Erecting Silo 1																															
A1290	Receiving Package 3	1	09-04-2021	Receiving Package 3																															
A1280	Receiving Package 2	1	08-04-2021	Receiving Package 2																															
A1270	Receiving Package 1	1	07-04-2021	Receiving Package 1																															
Chimneys				31	07-04-2021																														
A2700	Erecting Chimney 3	8	10-05-2021	Erecting Chimney 3																															
A2610	Erecting Chimney 2	8	28-04-2021	Erecting Chimney 2																															
A2490	Erecting Chimney 1	8	16-04-2021	Erecting Chimney 1																															
A2470	Receiving Package 3	1	09-04-2021	Receiving Package 3																															
A2460	Receiving Package 2	1	08-04-2021	Receiving Package 2																															
A2450	Receiving Package 1	1	07-04-2021	Receiving Package 1																															
Mechanical Works				60	12-04-2021																														
A3600	Installing Dust Control System	15	02-06-2021	Installing Dust Control System																															
A1810	Installing Built Conveyors	9	12-05-2021	Installing Built Conveyors																															
A1380	Installing Feeders	9	29-04-2021	Installing Feeders																															
A1370	Installing Track-Truck Hoppers	9	16-04-2021	Installing Track-Truck Hoppers																															
A3900	Mechanical Finishes	5	23-06-2021	Mechanical Finishes																															
A3910	Electrical Finishes	3	30-06-2021	Electrical Finishes																															
A3260	Installing Spouts and Chauts	3	28-05-2021	Installing Spouts and Chauts																															
A2710	Installing Bucket Elevator and Feeder	3	25-05-2021	Installing Bucket Elevator and Feeder																															
A1360	Receiving Package 3	1	14-04-2021	Receiving Package 3																															
A1350	Receiving Package 2	1	13-04-2021	Receiving Package 2																															
A1340	Receiving Package 1	1	12-04-2021	Receiving Package 1																															
Steam Generator System				392	24-02-2021																														
Civil Works				129	24-02-2021																														
Earthworks				61	24-02-2021																														

Actual Work Remaining Work Critical Remaining Work

Activity ID	Activity Name	Original Duration	Start	Qtr 1, 2021			Qtr 2, 2021			Qtr 3, 2021			Qtr 4, 2021			Qtr 1, 2022			Qtr 2, 2022			Qtr 3, 2022			Qtr 4, 2022			Qtr 1, 2023		
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
A1390	Excavation	5	24-02-2021			█	Excavation																							
A1410	Compaction	4	14-05-2021																											
A1400	Filing	3	17-05-2021																											
Foundations		44	17-03-2021																											
PCFoundations		44	17-03-2021																											
A1420	Shuttering	9	17-03-2021																											
A1460	Coating	2	14-05-2021																											
A1440	Concrete Casting	2	30-03-2021																											
A1450	Deshuttering	1	01-04-2021																											
RCFoundations		32	02-04-2021																											
A1480	RFT Placement	9	15-04-2021																											
A1470	Shuttering	9	02-04-2021																											
A1510	Coating	2	14-05-2021																											
A1490	Concrete Casting	2	28-04-2021																											
A1500	Deshuttering	1	30-04-2021																											
Boiler Special Footing		10	03-05-2021																											
A3980	RFT Placement	3	06-05-2021																											
A3970	Shuttering	3	03-05-2021																											
A3990	Concrete Casting	2	11-05-2021																											
A4010	Coating	1	14-05-2021																											
A4000	Deshuttering	1	13-05-2021																											
Misc Steel and Finishes		71	17-05-2021																											
A3010	Erecting Main Steel Frames	25	20-05-2021																											
A3680	Erecting Side Girts	9	21-07-2021																											
A3190	Base Mat RFT Placement	8	06-07-2021																											
A3180	Base Mat Shuttering	8	24-06-2021																											
A3700	Painting the Structure against Corrosion	5	10-08-2021																											
A3690	Erecting End Girts	5	03-08-2021																											
A3710	Installing Claddings	3	17-08-2021																											
A1520	Receiving Packages	3	17-05-2021																											
A3720	Finishes	2	20-08-2021																											
A3220	Base Mat Finishes	1	20-07-2021																											
A3210	Base Mat Deshuttering	1	19-07-2021																											
A3200	Base Mat Concrete Casting	1	16-07-2021																											
Mechanical Works		263	20-08-2021																											
Boiler		77	20-08-2021																											
A4050	Installing Main Boiler 3	25	02-11-2021																											
A4030	Installing Main Boiler 2	25	28-09-2021																											
A1820	Installing Main Boiler 1	25	24-08-2021																											
A4040	Receiving Boiler 3	2	26-08-2021																											
A4020	Receiving Boiler 2	2	24-08-2021																											
A1530	Receiving Boiler 1	2	20-08-2021																											
Auxiliary Systems		169	30-12-2021																											
A1570	Installing Coal Burners	15	02-03-2022																											
A1640	Installing Air Recovery Equip and Pre	12	21-06-2022																											
A1630	Installing Draft Fans, Ducts, and Flues	12	03-06-2022																											
A1600	Installing Pulverizers	12	22-04-2022																											
A1590	Installing Coal Burner Mgmt System	12	06-04-2022																											
A1580	Installing Coal Burner Air Guide Regis	10	23-03-2022																											
A3480	Installing Control Instruments	9	09-08-2022																											
A3270	Installing Piping and Valves	9	27-07-2022																											
A2560	Installing Flue Gas Cleanup System	9	14-07-2022																											
A1620	Installing Ash Hopper	9	23-05-2022																											
A1610	Installing Stokers and Gates	9	10-05-2022																											
A1650	Installing Stacks	5	07-07-2022																											
A4060	Mechanical Finishes	2	22-08-2022																											
A1560	Receiving Package 3	1	01-03-2022																											
A1550	Receiving Package 2	1	28-01-2022																											
A1540	Receiving Package 1	1	30-12-2021																											
Electrical Works		2	24-08-2022																											
A3240	Electrical Finishes	1	25-08-2022																											
A3230	Installing Telephone Lines	1	24-08-2022																											
Steam Engine Turbine		388	03-03-2021																											
Civil Works		190	03-03-2021																											
Earthworks		100	03-03-2021																											
A1660	Excavation	5	03-03-2021																											
A1680	Compaction	4	15-07-2021																											
A1670	Filing	3	12-07-2021																											
Foundations		47	06-05-2021																											
RC Foundations		34	24-05-2021																											
A1750	RFT Placement	9	04-06-2021																											
A1740	Shuttering	9	24-05-2021																											
A1780	Coating	2	07-07-2021																											
A1760	Concrete Casting	2	17-06-2021																											
A1770	Deshuttering	1	21-06-2021																											
PC Foundations		44	06-05-2021																											

Activity ID	Activity Name	Original Duration	Start	Qtr 1, 2021			Qtr 2, 2021			Qtr 3, 2021			Qtr 4, 2021			Qtr 1, 2022			Qtr 2, 2022			Qtr 3, 2022			Qtr 4, 2022			Qtr 1, 2023		
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
A3340	Installing Closed Type Feedwater Heater	10	30-09-2021																											
A4280	Receiving Feeder 3	2	04-11-2021																											
A4260	Receiving Feeder 2	2	02-11-2021																											
A1990	Receiving Feeder 1	2	28-09-2021																											
Auxiliary Systems		137	14-10-2021																											
A2050	Installing Thermocouple and Test Well	18	07-01-2022																											
A2030	Installing Shell and Tube Relief Valve	18	17-12-2021*																											
A3620	Installing Control System	17	28-03-2022																											
A2040	Installing Thermometer	15	17-12-2021*																											
A3360	Installing Boiler Feed Suction Discharge Pipes	8	16-03-2022																											
A3350	Installing Boiler Feedwater Pumps	8	04-03-2022																											
A2070	Installing Drain Outlet	8	14-02-2022																											
A2060	Installing Steam Inlet	8	02-02-2022																											
A2080	Installing Pressure Gauges	6	24-02-2022																											
A4300	Mechanical Finishes	2	20-04-2022																											
A4310	Electrical Finishes	1	22-04-2022																											
A2020	Receiving Package 3	1	15-12-2021*																											
A2010	Receiving Package 2	1	18-11-2021																											
A2000	Receiving Package 1	1	14-10-2021																											
Service Water System		45	25-08-2022																											
Main System		24	25-08-2022																											
A4360	Installing Circulating Water Pumps 3	10	14-09-2022																											
A4330	Installing Circulating Water Pumps 2	10	05-09-2022																											
A2100	Installing Circulating Water Pumps 1	10	29-08-2022																											
A4370	Installing Temperature Controls 3	5	14-09-2022																											
A4340	Installing Temperature Controls 2	5	05-09-2022																											
A3410	Installing Temperature Controls 1	5	29-08-2022																											
A4350	Receiving Package 3	2	12-09-2022																											
A4320	Receiving Package 2	2	29-08-2022																											
A2090	Receiving Package 1	2	25-08-2022																											
Auxiliary Systems		38	05-09-2022																											
A3420	Installing Pipes	12	22-09-2022																											
A3630	Installing Switches and Instrumentation	10	10-10-2022																											
A4380	Mechanical Finishes	2	24-10-2022																											
A4390	Electrical Finishes	1	26-10-2022																											
A3370	Receiving of Package 3	1	21-09-2022																											
A2120	Receiving of Package 2	1	06-09-2022																											
A2110	Receiving of Package 1	1	05-09-2022																											
Cooling System		446	10-03-2021																											
Civil Works		146	10-03-2021																											
Earthworks		107	10-03-2021																											
A2250	Excavation	5	10-03-2021																											
A2270	Compaction	4	02-08-2021																											
A2260	Filling	3	28-07-2021																											
Foundations		95	17-03-2021																											
A2310	RFT Placement	14	30-06-2021																											
A2300	Shuttering	8	25-03-2021																											
A2290	Installing Piles	6	17-03-2021																											
A2500	Coating	3	23-07-2021																											
A2320	Concrete Casting	2	20-07-2021																											
A2330	Deshuttering	1	22-07-2021																											
Water Cooling Towers		39	06-08-2021																											
Tower 1		39	06-08-2021																											
A2350	RFT Placement	15	27-08-2021																											
A2340	Shuttering	15	06-08-2021																											
A2380	Finishes	3	27-09-2021																											
A2370	Deshuttering	3	22-09-2021																											
A2360	Concrete Casting	3	17-09-2021																											
Tower 2		39	06-08-2021																											
A4410	RFT Placement	15	27-08-2021																											
A4400	Shuttering	15	06-08-2021																											
A4440	Finishes	3	27-09-2021																											
A4430	Deshuttering	3	22-09-2021																											
A4420	Concrete Casting	3	17-09-2021																											
Tower 3		39	06-08-2021																											
A4460	RFT Placement	15	27-08-2021																											
A4450	Shuttering	15	06-08-2021																											
A4490	Finishes	3	27-09-2021																											
A4480	Deshuttering	3	22-09-2021																											
A4470	Concrete Casting	3	17-09-2021																											
Mechanical Works		45	22-09-2022																											
Main System		22	22-09-2022																											
A3380	Installing Cooling Water Pumps	8	27-09-2022																											
A4500	Installing Heat Exchangers	6	07-10-2022																											
A4510	Installing Temperature Controls	5	17-10-2022																											
A2150	Receiving Package 3	1	26-09-2022																											

Actual Work
 Critical Remaining Work
 Remaining Work

Activity ID	Activity Name	Original Duration	Start	Qtr 1, 2021			Qtr 2, 2021			Qtr 3, 2021			Qtr 4, 2021			Qtr 1, 2022			Qtr 2, 2022			Qtr 3, 2022			Qtr 4, 2022			Qtr 1, 2023		
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
A2850	Installing Generator 1	14	12-08-2021																											
A4700	Receiving Generator 3	2	16-08-2021																											
A4680	Receiving Generator 2	2	12-08-2021																											
A2720	Receiving Generator 1	2	10-08-2021																											
Switchers		50	11-10-2021																											
A4750	Installing Switchers 3	16	26-11-2021																											
A4730	Installing Switchers 2	16	04-11-2021																											
A3500	Installing Switchers 1	16	13-10-2021																											
A4740	Receiving Switchers 3	2	15-10-2021																											
A4720	Receiving Switchers 2	2	13-10-2021																											
A2730	Receiving Switchers 1	2	11-10-2021																											
Transformers		29	27-12-2021																											
A4790	Installing Transformers 3	9	24-01-2022																											
A4770	Installing Transformers 2	9	11-01-2022																											
A3510	Installing Transformers 1	9	29-12-2021*																											
A4780	Receiving Transformers 3	2	27-12-2021*																											
A4760	Receiving Transformers 2	2	27-12-2021*																											
A2740	Receiving Transformers 1	2	27-12-2021*																											
Auxiliary Systems		47	04-02-2022																											
A3590	Installing Auxiliary Transformers	15	07-03-2022																											
A4820	Electrical Finishes	3	07-04-2022																											
A4810	Mechanical Finishes	3	04-04-2022																											
A3650	Installing Electrical Cables	3	28-03-2022																											
A3520	Intalling Transformer Alarms	3	02-03-2022																											
A2800	Installing Oil Circuit Tank and Breaker	3	25-02-2022																											
A2790	Installing Structures and Buses	3	22-02-2022																											
A2780	Installing Station Service Switchgear	3	17-02-2022																											
A2770	Receiving Package 3	3	14-02-2022																											
A2760	Receiving Package 2	3	09-02-2022																											
A2750	Receiving Package 1	3	04-02-2022																											
A4800	Installing Telephone Lines	2	31-03-2022																											
Control Buildings		209	22-02-2021																											
Civil Works		145	22-02-2021																											
Earthworks		70	22-02-2021																											
A2810	Excavation	5	22-02-2021																											
A2830	Compaction	4	25-05-2021																											
A2820	Filling	3	20-05-2021																											
Foundations		27	13-04-2021																											
PC Footing		25	13-04-2021																											
A2840	Shuttering	6	13-04-2021																											
A2880	Coating	2	14-05-2021																											
A2860	Concrete Casting	2	21-04-2021																											
A2870	Deshuttering	1	23-04-2021																											
RC Footing		18	26-04-2021																											
A2900	RFT Placement	6	04-05-2021																											
A2890	Shuttering	6	26-04-2021																											
A2930	Coating	2	18-05-2021																											
A2920	Deshuttering	1	13-05-2021																											
A2910	Concrete Casting	1	12-05-2021																											
Superstructure		54	26-05-2021																											
A2950	Erecting Main Steel Frames	25	09-06-2021																											
A3930	Base Mat RFT Placement	8	26-07-2021																											
A3920	Base Mat Shuttering	8	14-07-2021																											
A2940	Receiving Packages	3	26-05-2021																											
A3960	Base Mat Finishes	1	09-08-2021																											
A3950	Base Mat Deshuttering	1	06-08-2021																											
A3940	Base Mat Concrete Casting	1	05-08-2021																											
Finishes		26	06-08-2021																											
A3040	Painting the Structure against Corrosion	9	10-08-2021																											
A3060	Erecting End Girts	5	30-08-2021																											
A3050	Erecting Side Girts	5	23-08-2021																											
A3070	Installing Claddings	3	06-09-2021																											
A3540	Finishes	2	09-09-2021																											
A3030	Receiving Packages	2	06-08-2021																											
Electrical Works		25	09-09-2021																											
Instruments and Control Systems		25	09-09-2021																											
A2960	Installing Control System	20	09-09-2021																											
A3550	Installing Telephone Comm System	3	07-10-2021																											
A4960	Electrical Finishes	2	12-10-2021																											
Mechanical Works		66	09-09-2021																											
Heating, Ventilation, and Air Conditioning		30	09-09-2021																											
A2970	Installing Heating and Air Conditioning	17	09-09-2021																											
A2980	Installing Ventilation System	13	04-10-2021																											
Power and Service Piping Systems		12	21-10-2021																											
A2990	Installing Power and Service Piping System	12	21-10-2021																											
Thermal Insulation and Freeze Protections		10	08-11-2021																											

Activity ID	Activity Name	Original Duration	Start	Qr 1, 2021												Qr 2, 2021			Qr 3, 2021			Qr 4, 2021			Qr 1, 2022			Qr 2, 2022			Qr 3, 2022			Qr 4, 2022			Qr 1, 2023		
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Jan	Feb	Mar	Jan	Feb	Mar	Jan	Feb	Mar	Jan	Feb	Mar	Jan	Feb	Mar	Jan	Feb	Mar			
General Works Contractor				206	01-01-2021																																		
A1120	Grading Site and Temporary Roads	8	29-01-2021	Grading Site and Temporary Roads																																			
A1010	Inspecting Construction Equipment	8	13-01-2021*	Inspecting Construction Equipment																																			
A1000	Soil Tests	8	01-01-2021	Soil Tests																																			
A1040	Installing Signage and Lights	5	10-02-2021	Installing Signage and Lights																																			
A1030	Preparing Storage Area	5	10-02-2021	Preparing Storage Area																																			
A1020	Fencing	4	25-01-2021	Fencing																																			
A4490	Finishes	3	27-09-2021	Finishes																																			
A4440	Finishes	3	27-09-2021	Finishes																																			
A2380	Finishes	3	27-09-2021	Finishes																																			
A5140	Base Mat Finishes	1	13-09-2021	Base Mat Finishes																																			
A3960	Base Mat Finishes	1	09-08-2021	Base Mat Finishes																																			
A3840	Base Mat Finishes	1	06-07-2021	Base Mat Finishes																																			
A3250	Mats Finishes	1	15-10-2021	Mats Finishes																																			
A3220	Base Mat Finishes	1	20-07-2021	Base Mat Finishes																																			
Road Works Contractor				8	31-01-2023																																		
A1050	Sub Grade	4	31-01-2023	Sub Grade																																			
A1070	Asphalt Layer 2 (70 cm)	2	08-02-2023	Asphalt Layer																																			
A1060	Asphalt Layer 1 (50 cm)	2	06-02-2023	Asphalt Layer																																			
Earthworks Contractor				122	17-02-2021																																		
A4830	Excavation	5	01-03-2021	Excavation																																			
A2810	Excavation	5	22-02-2021	Excavation																																			
A2250	Excavation	5	10-03-2021	Excavation																																			
A1660	Excavation	5	03-03-2021	Excavation																																			
A1390	Excavation	5	24-02-2021	Excavation																																			
A1080	Excavation	5	17-02-2021	Excavation																																			
A4850	Compaction	4	14-06-2021	Compaction																																			
A2830	Compaction	4	25-05-2021	Compaction																																			
A2270	Compaction	4	02-08-2021	Compaction																																			
A1680	Compaction	4	15-07-2021	Compaction																																			
A1410	Compaction	4	14-05-2021	Compaction																																			
A1100	Compaction	4	12-04-2021	Compaction																																			
A4840	Filling	3	09-06-2021	Filling																																			
A2820	Filling	3	20-05-2021	Filling																																			
A2590	Compaction	3	30-04-2021	Compaction																																			
A2580	Filling	3	27-04-2021	Filling																																			
A2570	Excavation	3	17-02-2021	Excavation																																			
A2260	Filling	3	28-07-2021	Filling																																			
A1670	Filling	3	12-07-2021	Filling																																			
A1400	Filling	3	17-05-2021	Filling																																			
A1090	Filling	3	07-04-2021	Filling																																			
Formworks Contractor				169	22-02-2021																																		
A4450	Shuttering	15	06-08-2021	Shuttering																																			
A4400	Shuttering	15	06-08-2021	Shuttering																																			
A2340	Shuttering	15	06-08-2021	Shuttering																																			
A2650	Shuttering	9	10-03-2021	Shuttering																																			
A2600	Shuttering	9	22-02-2021	Shuttering																																			
A1740	Shuttering	9	24-05-2021	Shuttering																																			
A1690	Shuttering	9	06-05-2021	Shuttering																																			
A1470	Shuttering	9	02-04-2021	Shuttering																																			
A1420	Shuttering	9	17-03-2021	Shuttering																																			
A5100	Base Mat Shuttering	8	18-08-2021	Base Mat Shuttering																																			
A3920	Base Mat Shuttering	8	14-07-2021	Base Mat Shuttering																																			
A3800	Base Mat Shuttering	8	09-06-2021	Base Mat Shuttering																																			
A3180	Base Mat Shuttering	8	24-06-2021	Base Mat Shuttering																																			
A2530	Mats Shuttering	8	20-09-2021	Mats Shuttering																																			
A2300	Shuttering	8	25-03-2021	Shuttering																																			
A4900	Shuttering	6	14-05-2021	Shuttering																																			
A4860	Shuttering	6	04-05-2021	Shuttering																																			
A2890	Shuttering	6	26-04-2021	Shuttering																																			
A2840	Shuttering	6	13-04-2021	Shuttering																																			
A1160	Shuttering	6	09-03-2021	Shuttering																																			
A1110	Shuttering	6	24-02-2021	Shuttering																																			
A2400	Shuttering	5	17-03-2021	Shuttering																																			
A4630	Shuttering	3	08-04-2021	Shuttering																																			
A4480	Deshuttering	3	22-09-2021	Deshuttering																																			
A4430	Deshuttering	3	22-09-2021	Deshuttering																																			
A4070	Shuttering	3	22-06-2021	Shuttering																																			
A3970	Shuttering	3	03-05-2021	Shuttering																																			
A2370	Deshuttering	3	22-09-2021	Deshuttering																																			
A5130	Base Mat Deshuttering	1	10-09-2021	Base Mat Deshuttering																																			
A4930	Deshuttering	1	02-06-2021	Deshuttering																																			
A4880	Deshuttering	1	13-05-2021	Deshuttering																																			
A4660	Deshuttering	1	19-04-2021	Deshuttering																																			
A4100	Deshuttering	1	02-07-2021	Deshuttering																																			

■ Sub Grade
■ Asphalt Layer
■ Asphalt Layer

■ Actual Work
■ Critical Remaining Work
■ Remaining Work

Activity ID	Activity Name	Original Duration	Start	Contractors Schedule												Power Plant Project																	
				Qtr 1, 2021			Qtr 2, 2021			Qtr 3, 2021			Qtr 4, 2021			Qtr 1, 2022			Qtr 2, 2022			Qtr 3, 2022			Qtr 4, 2022			Qtr 1, 2023					
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar			
A4000	Deshuttering	1	13-05-2021						Deshuttering																								
A3950	Base MatDeshuttering	1	06-08-2021										Base MatDeshuttering																				
A3830	Base MatDeshuttering	1	05-07-2021									Base MatDeshuttering																					
A3210	Base MatDeshuttering	1	19-07-2021									Base MatDeshuttering																					
A3130	Mats Deshuttering	1	14-10-2021											Mats Deshuttering																			
A2920	Deshuttering	1	13-05-2021						Deshuttering																								
A2870	Deshuttering	1	23-04-2021					Deshuttering																									
A2680	Deshuttering	1	07-04-2021				Deshuttering																										
A2630	Deshuttering	1	09-03-2021		Deshuttering																												
A2430	Deshuttering	1	02-04-2021		Deshuttering																												
A2330	Deshuttering	1	22-07-2021								Deshuttering																						
A1770	Deshuttering	1	21-06-2021								Deshuttering																						
A1720	Deshuttering	1	21-05-2021								Deshuttering																						
A1500	Deshuttering	1	30-04-2021					Deshuttering																									
A1450	Deshuttering	1	01-04-2021		Deshuttering																												
A1190	Deshuttering	1	29-03-2021		Deshuttering																												
A1140	Deshuttering	1	08-03-2021		Deshuttering																												
Reinforcement Works Contractor		149	17-03-2021																														
A4460	RFT Placement	15	27-08-2021																														
A4410	RFT Placement	15	27-08-2021																														
A2350	RFT Placement	15	27-08-2021																														
A2310	RFT Placement	14	30-06-2021																														
A2660	RFT Placement	9	23-03-2021																														
A1750	RFT Placement	9	04-06-2021																														
A1480	RFT Placement	9	15-04-2021																														
A5110	Base MatRFT Placement	8	30-08-2021																														
A3930	Base MatRFT Placement	8	26-07-2021																														
A3810	Base MatRFT Placement	8	21-06-2021																														
A3190	Base MatRFT Placement	8	06-07-2021																														
A2540	Mats RFT Placement	8	30-09-2021																														
A4910	RFT Placement	6	24-05-2021																														
A2900	RFT Placement	6	04-05-2021																														
A1170	RFT Placement	6	17-03-2021																														
A2410	RFT Placement	5	25-03-2021																														
A4640	RFT Placement	3	13-04-2021																														
A4080	RFT Placement	3	25-06-2021																														
A3980	RFT Placement	3	06-05-2021																														
Concrete Works Contractor		160	04-03-2021																														
A4470	Concrete Casting	3	17-09-2021																														
A4420	Concrete Casting	3	17-09-2021																														
A2360	Concrete Casting	3	17-09-2021																														
A4090	Concrete Casting	2	30-06-2021																														
A3990	Concrete Casting	2	11-05-2021																														
A3820	Base MatConcrete Casting	2	01-07-2021																														
A2860	Concrete Casting	2	21-04-2021																														
A2670	Concrete Casting	2	05-04-2021																														
A2620	Concrete Casting	2	05-03-2021																														
A2550	Mats Concrete Casting	2	12-10-2021																														
A2320	Concrete Casting	2	20-07-2021																														
A1760	Concrete Casting	2	17-06-2021																														
A1710	Concrete Casting	2	19-05-2021																														
A1490	Concrete Casting	2	28-04-2021																														
A1440	Concrete Casting	2	30-03-2021																														
A1180	Concrete Casting	2	25-03-2021																														
A1130	Concrete Casting	2	04-03-2021																														
A5120	Base MatConcrete Casting	1	09-09-2021																														
A4920	Concrete Casting	1	01-06-2021																														
A4870	Concrete Casting	1	12-05-2021																														
A4650	Concrete Casting	1	16-04-2021																														
A3940	Base MatConcrete Casting	1	05-08-2021																														
A3200	Base MatConcrete Casting	1	16-07-2021																														
A2910	Concrete Casting	1	12-05-2021																														
A2420	Concrete Casting	1	01-04-2021																														
Piling Works Contractor		21	24-02-2021																														
A2390	Installing Piles	6	24-02-2021																														
A2290	Installing Piles	6	17-03-2021																														
Coating Works Contractor		86	30-03-2021																														
A2500	Coating	3	23-07-2021																														
A4940	Coating	2	07-06-2021																														
A4890	Coating	2	03-06-2021																														
A2930	Coating	2	18-05-2021																														
A2880	Coating	2	14-05-2021																														
A2690	Coating	2	22-04-2021																														
A2640	Coating	2	20-04-2021																														
A2440	Coating	2	05-04-2021																														

Activity ID	Activity Name	Original Duration	Start	Qtr 1, 2021			Qtr 2, 2021			Qtr 3, 2021			Qtr 4, 2021			Qtr 1, 2022			Qtr 2, 2022			Qtr 3, 2022			Qtr 4, 2022			Qtr 1, 2023		
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
A1780	Coating	2	07-07-2021																											
A1730	Coating	2	05-07-2021																											
A1510	Coating	2	14-05-2021																											
A1460	Coating	2	14-05-2021																											
A1200	Coating	2	30-03-2021																											
A1150	Coating	2	30-03-2021																											
A4670	Coating	1	26-04-2021																											
A4110	Coating	1	09-07-2021																											
A4010	Coating	1	14-05-2021																											
Lifting Works Contractor			461	07-04-2021																										
A4950	Receiving Packages	3	15-06-2021																											
A3780	Receiving Packages	3	30-04-2021																											
A2940	Receiving Packages	3	26-05-2021																											
A2770	Receiving Package 3	3	14-02-2022																											
A2760	Receiving Package 2	3	09-02-2022																											
A2750	Receiving Package 1	3	04-02-2022																											
A2210	Receiving Package 3	3	01-12-2022																											
A2200	Receiving Package 2	3	28-11-2022																											
A2190	Receiving Package 1	3	23-11-2022																											
A1790	Receiving Packages	3	16-07-2021																											
A1520	Receiving Packages	3	17-05-2021																											
A5020	Receiving Packages	2	10-09-2021																											
A4780	Receiving Transformers 3	2	27-12-2021*																											
A4760	Receiving Transformers 2	2	27-12-2021*																											
A4740	Receiving Switchers 3	2	15-10-2021																											
A4720	Receiving Switchers 2	2	13-10-2021																											
A4700	Receiving Generator 3	2	16-08-2021																											
A4680	Receiving Generator 2	2	12-08-2021																											
A4350	Receiving Package 3	2	12-09-2022																											
A4320	Receiving Package 2	2	29-08-2022																											
A4280	Receiving Feeder 3	2	04-11-2021																											
A4260	Receiving Feeder 2	2	02-11-2021																											
A4210	Receiving Condenser 3	2	29-12-2021*																											
A4180	Receiving Condenser 2	2	24-12-2021*																											
A4140	Receiving Turbine 3	2	26-11-2021																											
A4120	Receiving Turbine 2	2	24-11-2021																											
A4040	Receiving Boiler 3	2	26-08-2021																											
A4020	Receiving Boiler 2	2	24-08-2021																											
A3030	Receiving Packages	2	06-08-2021																											
A2740	Receiving Transformers 1	2	27-12-2021*																											
A2730	Receiving Switchers 1	2	11-10-2021																											
A2720	Receiving Generator 1	2	10-08-2021																											
A2090	Receiving Package 1	2	25-08-2022																											
A1990	Receiving Feeder 1	2	28-09-2021																											
A1900	Receiving Condenser 1	2	22-12-2021*																											
A1800	Receiving Turbine 1	2	22-11-2021																											
A1530	Receiving Boiler 1	2	20-08-2021																											
A4570	Receiving Package 3	1	09-12-2022																											
A4540	Receiving Package 2	1	01-12-2022																											
A1290	Receiving Package 3	1	09-04-2021																											
A3460	Receiving Package 3	1	11-01-2023																											
A3390	Receiving Package 3	1	26-10-2022																											
A3370	Receiving of Package 3	1	21-09-2022																											
A1280	Receiving Package 2	1	08-04-2021																											
A2470	Receiving Package 3	1	09-04-2021																											
A2460	Receiving Package 2	1	08-04-2021																											
A2450	Receiving Package 1	1	07-04-2021																											
A2240	Receiving Package 2	1	10-01-2023																											
A2230	Receiving Package 1	1	09-01-2023																											
A2180	Receiving Package 1	1	23-11-2022																											
A2170	Receiving Package 2	1	25-10-2022																											
A2160	Receiving Package 1	1	24-10-2022																											
A2150	Receiving Package 3	1	26-09-2022																											
A2140	Receiving Package 2	1	23-09-2022																											
A2130	Receiving Package 1	1	22-09-2022																											
A2120	Receiving of Package 2	1	06-09-2022																											
A2110	Receiving of Package 1	1	05-09-2022																											
A2020	Receiving Package 3	1	15-12-2021*																											
A2010	Receiving Package 2	1	18-11-2021																											
A2000	Receiving Package 1	1	14-10-2021																											
A1940	Receiving Package 3	1	23-03-2022																											
A1930	Receiving Package 2	1	22-02-2022																											
A1920	Receiving Package 1	1	24-01-2022																											
A1860	Receiving Package 3	1	17-12-2021*																											
A1850	Receiving Package 2	1	09-12-2021*																											
A1840	Receiving Package 1	1	07-12-2021*																											

Actual Work Critical Remaining Work
 Remaining Work

Activity ID	Activity Name	Original Duration	Start	Qr 1, 2021			Qr 2, 2021			Qr 3, 2021			Qr 4, 2021			Qr 1, 2022			Qr 2, 2022			Qr 3, 2022			Qr 4, 2022			Qr 1, 2023		
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
A1560	Receiving Package 3	1	01-03-2022																											
A1550	Receiving Package 2	1	28-01-2022																											
A1540	Receiving Package 1	1	30-12-2021*																											
A1360	Receiving Package 3	1	14-04-2021																											
A1350	Receiving Package 2	1	13-04-2021																											
A1340	Receiving Package 1	1	12-04-2021																											
A1270	Receiving Package 1	1	07-04-2021																											
Mechanical Works Contractor		466	16-04-2021																											
A4050	Installing Main Boiler 3	25	02-11-2021																											
A4030	Installing Main Boiler 2	25	28-09-2021																											
A1820	Installing Main Boiler 1	25	24-08-2021																											
A4150	Installing Main Turbine 3	22	28-01-2022																											
A4130	Installing Main Turbine 2	22	29-12-2021*																											
A3280	Installing Main Turbine 1	22	24-11-2021																											
A4220	Installing Main Condenser 3	18	22-02-2022																											
A4190	Installing Main Condenser 2	18	24-01-2022																											
A2050	Installing Thermocouple and Test Well	18	07-01-2022																											
A2030	Installing Shell and Tube Relief Valve	18	17-12-2021*																											
A1910	Installing Main Condenser 1	18	24-12-2021*																											
A4970	Installing Heating and Air Conditioning	17	14-10-2021																											
A3620	Installing Control System	17	28-03-2022																											
A2970	Installing Heating and Air Conditioning	17	09-09-2021																											
A3600	Installing Dust Control System	15	02-06-2021																											
A2040	Installing Thermometer	15	17-12-2021*																											
A1960	Installing Circulating Water Pumps	15	11-04-2022																											
A1880	Installing Valve Arrangements	15	11-03-2022																											
A1570	Installing Coal Burners	15	02-03-2022																											
A5010	Installing Fire Protection System	14	10-12-2021*																											
A3020	Installing Fire Protection System	14	22-11-2021																											
A4980	Installing Ventilation System	13	08-11-2021																											
A2980	Installing Ventilation System	13	04-10-2021																											
A4990	Installing Power and Service Piping System	12	25-11-2021																											
A3420	Installing Pipes	12	22-09-2022																											
A2990	Installing Power and Service Piping System	12	21-10-2021																											
A1950	Installing Tubes	12	24-03-2022																											
A1640	Installing Air Recovery Equip and Preheaters	12	21-06-2022																											
A1630	Installing Draft Fans, Ducts, and Flues	12	03-06-2022																											
A1600	Installing Pulverizers	12	22-04-2022																											
A1590	Installing Coal Bumer Mgmt System	12	06-04-2022																											
A3300	Installing Extraction System	11	27-04-2022																											
A5000	Installing Thermal and Freeze Insulations	10	22-11-2021																											
A4360	Installing Circulating Water Pumps 3	10	14-09-2022																											
A4330	Installing Circulating Water Pumps 2	10	05-09-2022																											
A4290	Installing Closed Type Feedwater Heater 3	10	18-11-2021																											
A4270	Installing Closed Type Feedwater Heater 2	10	04-11-2021																											
A3630	Installing Switches and Instrumentations	10	10-10-2022																											
A3400	Installing Pipes	10	27-10-2022																											
A3340	Installing Closed Type Feedwater Heater 1	10	30-09-2021																											
A3290	Installing Lubrication System	10	13-04-2022																											
A3000	Installing Thermal and Freeze Insulations	10	08-11-2021																											
A2100	Installing Circulating Water Pumps 1	10	29-08-2022																											
A1580	Installing Coal Bumer Air Guide Registers	10	23-03-2022																											
A3480	Installing Control Instruments	9	09-08-2022																											
A3330	Installing Atmospheric Relief Valves	9	03-06-2022																											
A3270	Installing Piping and Valves	9	27-07-2022																											
A2560	Installing Flue Gas Cleanup System	9	14-07-2022																											
A1810	Installing Built Conveyors	9	12-05-2021																											
A1970	Installing Howell Pumps	9	02-05-2022																											
A1620	Installing Ash Hopper	9	23-05-2022																											
A1610	Installing Stokers and Gates	9	10-05-2022																											
A1380	Installing Feeders	9	29-04-2021																											
A1370	Installing Track-Truck Hoppers	9	16-04-2021																											
A4160	Installing Operating Instruments	8	12-05-2022																											
A3610	Installing Inlet and Discharge Water Pipes	8	16-06-2022																											
A3380	Installing Cooling Water Pumps	8	27-09-2022																											
A3360	Installing Boiler Feed Suction Discharge Pipes	8	16-03-2022																											
A3350	Installing Boiler Feedwater Pumps	8	04-03-2022																											
A2070	Installing Drain Outlet	8	14-02-2022																											
A2060	Installing Steam Inlet	8	02-02-2022																											
A1980	Installing Air Removal Equipment	8	13-05-2022																											
A1890	Installing Gear Arrangements and Controls	8	01-04-2022																											
A1870	Installing Overspeed Governors	8	01-03-2022																											
A3640	Installing Switches and Instrumentations	7	10-11-2022																											
A3320	Installing Priming Ejectors	7	25-05-2022																											
A4600	Installing Air Dryers	6	30-12-2022																											
A4560	Installing Air Receivers	6	22-12-2022																											

