



Niveles de cortocircuito de la Red Nacional de Transmisión 2020

Dirección de Operación y Planeación
del Sistema
Subdirección de Planeación

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*Capacidad de cortocircuito en las subestaciones eléctricas del Sistema Eléctrico Nacional
calculados con base en el Estándar IEC 60909.*

Contenido

1. Objetivo
2. Fundamento legal
3. Consideraciones de cálculo
4. Niveles de cortocircuito reportados por nivel de tensión y por Gerencia de Control Regional
5. Referencias
6. Niveles de cortocircuito de la Red Nacional de Transmisión
 - 6.1 Gerencia de Control Regional Central
 - 6.2 Gerencia de Control Regional Oriental
 - 6.3 Gerencia de Control Regional Occidental
 - 6.4 Gerencia de Control Regional Noroeste
 - 6.5 Gerencia de Control Regional Norte
 - 6.6 Gerencia de Control Regional Noreste
 - 6.7 Gerencia de Control Regional Baja California
 - 6.7.1 Sistema Baja California
 - 6.7.2 Sistema Baja California Sur
 - 6.7.3 Sistema Mulegé
 - 6.8 Gerencia de Control Regional Peninsular

1. Objetivo

Determinar los niveles de cortocircuito máximos y mínimos en las subestaciones eléctricas de la Red Nacional de Transmisión.

2. Fundamento legal

De conformidad con los Criterios INTG 11, así como CONE 5, de las Disposiciones Administrativas de carácter general que contienen los criterios de eficiencia, calidad, confiabilidad, continuidad, seguridad y sustentabilidad del Sistema Eléctrico Nacional: Código de Red, publicadas en el Diario Oficial de la federación el 8 de abril de 2016, corresponde al Centro Nacional de Control de Energía (CENACE) calcular y publicar anualmente los niveles de cortocircuito máximos y mínimos en los puntos de interconexión de Centrales Eléctricas y conexión de Centros de Carga.

3. Consideraciones de cálculo

Los niveles de cortocircuito se calcularon con base en lo siguiente:

- a) A fin de calcular los valores máximos y mínimos en los puntos de interconexión de Centrales Eléctricas y conexión de Centros de Carga, se analizaron los escenarios esperados para 2020.
- b) Para el escenario de mínima capacidad, se considera red completa (sin contingencia) y las condiciones esperadas para invierno de 2020.
- c) Para el escenario de máxima capacidad, se consideran cerrados todos los interruptores y elementos de transmisión que pueden estar en servicio en la Red Nacional de Transmisión, con la máxima generación esperada para 2020.
- d) Los modelos eléctricos del Sistema Eléctrico Nacional (SEN) contemplan las obras indicadas en el Programa de Ampliación y Modernización de la Red Nacional de Transmisión y Redes Generales de Distribución del Mercado Eléctrico Mayorista (PRODESEN) 2017-2031.
- e) Los modelos eléctricos del SEN se desarrollaron con base en la información proporcionada por los Transportistas y Distribuidores.
- f) Los modelos de las Centrales Eléctricas y de los Centros de Cargas programados en los escenarios de estudio son con base en la información proporcionada en las

solicitudes de interconexión y de conexión respectivamente que fueron consideradas para el PRODESEN 2017-2031.

- g) El método de cálculo es el establecido en el Estándar IEC 60909.
- h) Para efectos de cálculo se utiliza la herramienta de software PSS®E, con los siguientes parámetros:
 - Taps de los transformadores unitarios.
 - Reactores de Líneas de Transmisión (LT) y barra en servicio y sin cambio.
 - Susceptancia de las LT sin cambio.
 - Para el escenario de máxima capacidad se considera el factor $C = 1.1$.
 - Para el escenario de mínima capacidad se considera el factor $C=1.0$.
- i) Se reporta la magnitud de la corriente simétrica inicial I_k'' (r.m.s.)

Los niveles de cortocircuito calculados pueden variar dependiendo de las impedancias de las unidades de las Centrales Eléctricas, transformadores, autotransformadores, transformadores defasadores, reactores, etc., que tienen fecha de entrada en operación entre 2017 y 2020.

4. Niveles de cortocircuito reportados por nivel de tensión y por Gerencia de Control Regional

En la figura 1 se muestran los niveles de cortocircuito reportados por nivel de tensión. Se observa que el nivel de tensión con el mayor número de subestaciones eléctricas es 115 kV, con aproximadamente el 68% de los valores reportados.

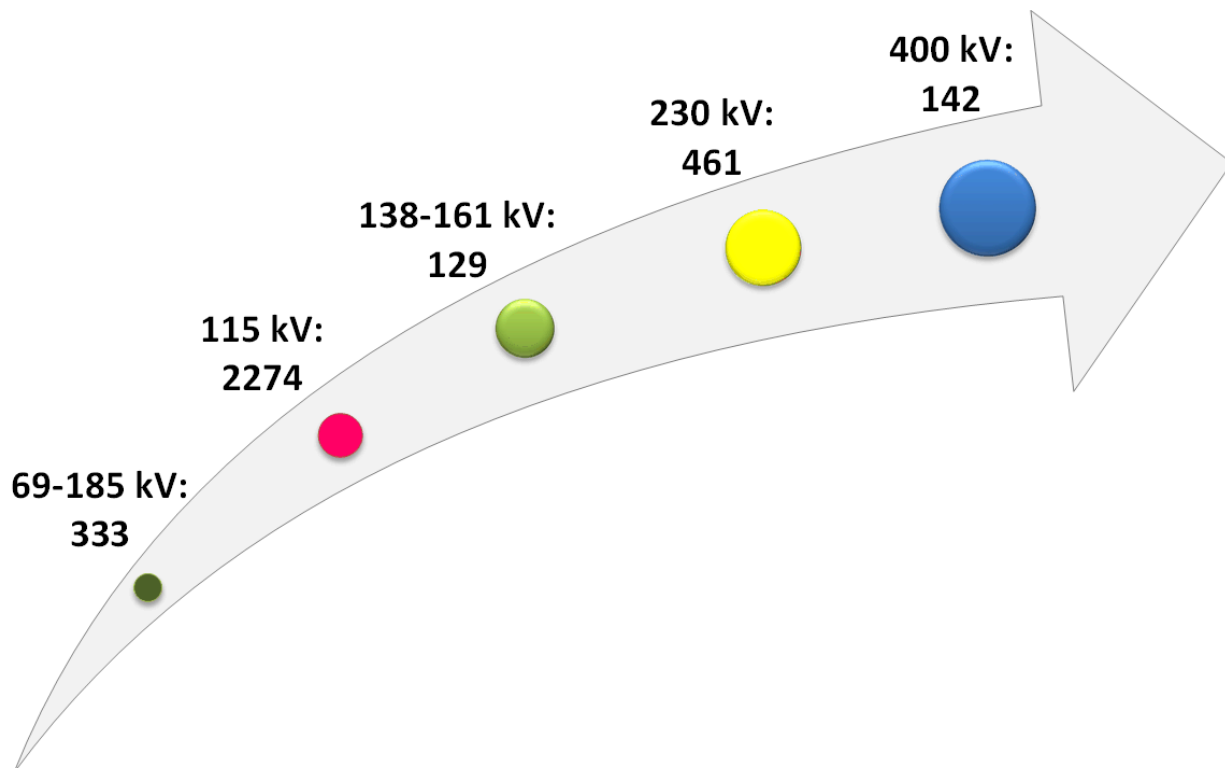
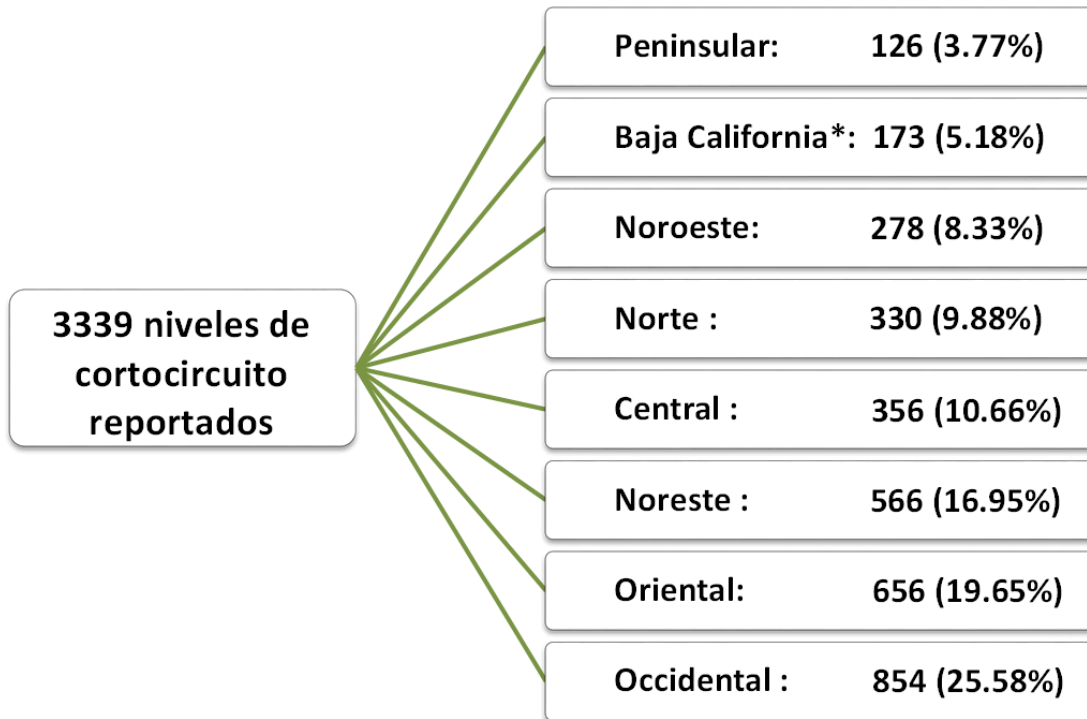


Figura 1: Niveles de cortocircuito por nivel de tensión

Considerando las diferentes Gerencias de Control Regional, en la figura 2 se indica el número de subestaciones eléctricas reportadas por Gerencia de Control, por ejemplo, el 25.58% de los niveles de cortocircuito reportados corresponde a la Gerencia de Control Regional Occidental.



* Incluye los sistemas Baja California, Baja California Sur y Mulegé

Figura 2: Niveles de cortocircuito por Gerencia de Control Regional

5. Referencias

- [1] Ley de la Industria Eléctrica. DOF: 11/08/2014.
- [2] Reglamento de la Ley de la Industria eléctrica. DOF: 31/10/14.
- [3] Disposiciones Administrativas de carácter general que contienen los criterios de eficiencia, calidad, confiabilidad, continuidad, seguridad y sustentabilidad del Sistema Eléctrico Nacional: Código de Red. DOF: 08/04/2016.
- [4] Programa de Ampliación y Modernización de la Red Nacional de Transmisión y Redes Generales de Distribución del Mercado Eléctrico Mayorista 2017-2031.
- [5] Estándar IEC 60909 Short-circuit currents in three-phase a.c. systems.
- [6] IEEE Standard 551-2006. Recommended Practice for Calculating Short-Circuit Currents in Industrial and Commercial Power Systems.

Niveles de cortocircuito de la Red Nacional de Transmisión por Gerencia de Control Regional



Gerencia de Control Regional Central



[Regresar a mapa del SEN](#)

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
ACEROS CAMESA	ACM-85	85	20.99	6.54	0.438+j2.297	2.337+j17.733	24.41	8.57	0.336+j2.186	2.894+j14.231
ACEROS CORSA	ACC-85	85	13.88	5.50	0.700+j3.466	2.625+j19.597	15.59	7.93	0.625+j3.405	2.879+j13.249
ACEROS CORSA	ACS-230	230	9.28	6.64	2.437+j14.102	6.284+j30.907	10.79	7.48	1.995+j13.392	6.312+j31.103
ACEROS NACIONALES	ACN-85	85	17.71	6.29	0.626+j2.699	2.190+j17.789	20.20	8.70	0.537+j2.617	2.614+j13.035
ACOLMAN	ACO-230	230	22.67	17.39	1.555+j5.648	2.020+j11.194	27.04	19.69	1.225+j5.262	2.062+j11.391
ACTOPAN	AAN-85	85	6.00	2.40	1.951+j7.937	7.739+j44.347	6.57	2.70	1.933+j7.983	8.410+j42.681
ACULCO	AUO-115	115	1.57	1.14	9.080+j41.346	18.363+j87.915	1.73	1.26	8.870+j41.156	18.294+j87.554
AEROPUERTO	ATO-85	85	7.52	3.38	1.573+j6.333	2.927+j30.396	8.23	3.83	1.553+j6.375	3.664+j28.988
AGUAVIVA	AGV-85	85	5.74	1.85	1.902+j8.335	9.731+j61.470	6.25	2.00	1.879+j8.431	10.130+j62.774
ÁGUILAS	AGU-230	230	26.73	28.77	1.446+j4.752	0.675+j4.017	32.47	33.40	0.989+j4.388	0.696+j4.164
AGUSTÍN MILLÁN	ANM-115	115	16.51	12.58	0.743+j3.952	1.239+j7.658	21.79	15.28	0.525+j3.311	1.273+j7.515
ALMOLOYA	AML-400	400	12.08	10.58	3.621+j18.779	2.204+j27.455	15.64	12.69	2.167+j16.093	2.350+j27.657
ALPURA	ALR-85	85	18.34	5.92	0.512+j2.626	2.117+j19.449	21.47	7.66	0.397+j2.483	2.674+j15.936
ALTAMIRANO (115 KV)	ATM-115	115	2.75	1.62	7.105+j23.065	20.142+j71.932	3.33	2.14	6.000+j21.071	15.052+j57.199
AMOMOLULCO	AMO-85	85	9.33	4.92	1.197+j5.119	2.570+j19.150	10.20	5.41	1.149+j5.167	2.614+j19.017
APAPLASTIC	AAP-85	85	9.69	5.03	1.122+j4.940	2.786+j18.851	10.58	5.54	1.075+j4.988	2.829+j18.718
APASCO	APA-85	85	20.61	4.61	0.367+j2.352	1.479+j27.137	21.96	5.16	0.349+j2.434	1.966+j26.407
APASCO	APA-230	230	20.37	18.59	1.140+j6.418	0.960+j8.448	23.78	20.82	0.838+j6.086	1.034+j8.781
APM TERMINALS	ATS-115	115	11.66	12.81	0.844+j5.632	0.484+j4.136	13.34	14.31	0.813+j5.412	0.522+j4.331
ARAGÓN	ARA-230	230	18.78	18.92	1.435+j6.925	1.117+j7.014	33.00	30.22	0.845+j4.345	1.540+j5.573
ARCELIA NUEVA	ANU-69	69	2.31	2.86	4.041+j16.775	0.530+j7.072	2.51	3.08	3.841+j17.050	0.594+j7.750
ARCELIA NUEVA	ANU-115	115	2.37	1.44	9.508+j26.314	26.864+j77.438	2.75	1.72	8.787+j25.038	24.446+j70.393
ARMEX	ARX-230	230	24.32	19.64	1.038+j5.361	1.932+j9.273	28.88	22.53	0.733+j5.005	1.948+j9.239
ARTEAGA	ATG-69	69	2.20	1.58	3.461+j17.758	7.644+j38.614	2.36	1.69	3.700+j18.234	7.825+j39.752
ARTEAGA	ATG-115	115	2.68	1.63	5.298+j24.232	17.166+j70.640	2.98	1.80	5.243+j23.972	17.166+j70.646
ATENCO	ATE-85	85	16.09	8.03	0.646+j2.982	1.088+j12.145	17.49	8.85	0.596+j3.029	1.131+j12.013
ATENCO	ATE-230	230	16.88	18.18	2.097+j7.581	0.632+j6.204	20.18	20.93	1.537+j7.073	0.667+j6.442
ATIZAPÁN	ATI-230	230	21.33	18.42	1.443+j6.057	1.676+j9.172	25.37	20.99	1.028+j5.664	1.710+j9.309
ATLACOMULCO	ATU-115	115	8.05	5.75	1.633+j8.085	3.292+j17.800	8.94	6.31	1.531+j8.027	3.333+j18.029
ATLACOMULCO INDUSTRIAL	AIN-115	115	6.28	4.28	2.341+j10.306	5.339+j24.799	6.96	4.70	2.238+j10.249	5.381+j25.030
ATLACOMULCO POTENCIA	AMP-115	115	15.70	15.04	0.627+j4.183	0.369+j4.782	17.54	16.34	0.526+j4.130	0.406+j5.067
ATLACOMULCO POTENCIA	AMP-400	400	9.62	8.55	4.138+j23.641	3.161+j33.141	12.03	9.99	2.660+j20.943	3.439+j34.038
ATOTONILCO	ANL-85	85	2.96	1.38	4.229+j16.038	13.738+j72.444	3.25	1.54	4.210+j16.079	14.488+j70.223
AURORA	AUR-85	85	21.87	4.58	0.387+j2.210	1.321+j27.670	23.71	4.97	0.339+j2.252	1.348+j28.011
AURORA	AUR-230	230	30.32	32.36	1.167+j4.221	0.552+j3.697	38.16	38.40	0.744+j3.754	0.579+j3.827
AUTOMETALES	AUM-85	85	13.74	5.46	0.721+j3.498	2.717+j19.681	15.54	8.13	0.639+j3.415	2.845+j12.725
AVANDARO	AVA-115	115	6.96	4.69	2.739+j9.142	6.724+j22.307	8.27	5.40	2.490+j8.476	6.706+j21.922
AVANTE TEXTIL	AVT-85	85	13.82	7.27	0.766+j3.468	1.310+j13.047	15.11	8.04	0.713+j3.501	1.354+j12.889
AYOTLA	AYO-85	85	18.24	3.35	0.457+j2.651	4.854+j38.306	19.60	3.62	0.418+j2.722	4.986+j38.878
AYOTLA	AYO-230	230	20.43	20.77	1.458+j6.333	0.750+j6.297	24.13	23.46	1.044+j5.962	0.797+j6.612
AZCAPOTZALCO	AZC-230	230	37.30	40.79	1.128+j3.376	1.173+j2.547	47.74	49.42	0.700+j2.979	1.199+j2.629
AZTECA	ATK-230	230	27.97	27.39	1.137+j4.610	0.757+j5.192	35.78	32.92	0.739+j4.015	0.825+j5.209

Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
BANCOMER	BBV-230	230	22.41	12.11	1.417+j5.753	2.115+j21.145	26.80	13.62	0.997+j5.358	2.152+j21.285
BÁRBARA (SANTA)	BBR-115	115	7.38	4.93	2.015+j8.763	4.551+j21.882	9.72	8.14	1.463+j7.374	1.581+j11.898
BARRIENTOS	BAR-85	85	20.53	6.92	0.552+j2.326	1.772+j16.465	23.56	9.83	0.463+j2.244	2.196+j11.711
BECTON DICKINSON	BDK-85	85	18.02	5.87	0.522+j2.673	2.147+j19.594	21.10	7.58	0.405+j2.526	2.703+j16.080
BOSQUES	BOS-230	230	25.10	21.71	1.410+j5.100	1.493+j7.775	30.32	24.86	0.965+j4.720	1.533+j7.940
CAMPO MORADO	CMO-115	115	1.79	1.08	11.278+j35.287	32.340+j105.028	2.05	1.26	10.554+j34.013	29.895+j97.937
CAMPOS HERMANOS	CHE-85	85	18.92	6.57	0.592+j2.525	1.995+j17.172	21.64	9.19	0.503+j2.443	2.419+j12.418
CANCHESDA NUEVA	CSN-115	115	3.05	1.91	5.692+j20.992	15.433+j58.737	3.37	2.10	5.588+j20.937	15.479+j58.975
CARACOL	CRO-230	230	23.11	19.49	1.257+j5.608	1.861+j8.928	27.90	22.37	0.893+j5.159	1.912+j9.049
CARBONER	CSR-115	115	7.83	6.48	1.569+j8.337	3.142+j13.439	8.84	7.19	1.538+j8.116	3.164+j13.584
CAREAGA	CAR-85	85	22.05	6.42	0.493+j2.171	2.189+j18.397	24.79	9.83	0.428+j2.135	2.199+j11.929
CARTAGENA	CTG-230	230	28.29	26.42	1.110+j4.562	0.656+j5.837	34.27	30.41	0.739+j4.198	0.673+j5.966
CARTÓN Y PAPEL DE MÉXICO	CPM-230	230	28.92	26.15	1.138+j4.449	1.175+j6.131	38.85	32.24	0.719+j3.691	1.256+j6.072
CAYACAL	CAY-115	115	8.83	9.26	1.392+j7.393	0.951+j6.405	10.00	10.24	1.356+j7.180	1.011+j6.706
CEILÁN	CEI-230	230	24.01	22.96	1.227+j5.394	1.079+j6.353	29.02	26.27	0.809+j4.968	1.116+j6.625
CEMENTOS ANÁHUAC	CAH-85	85	17.67	6.37	0.624+j2.706	1.952+j17.522	20.18	8.71	0.534+j2.622	2.448+j13.053
CEMENTOS APASCO	CEA-85	85	10.85	3.08	0.864+j4.442	5.014+j38.424	11.76	3.43	0.845+j4.513	5.501+j37.691
CEMENTOS FORTALEZA	CFZ-85	85	2.56	1.16	4.250+j18.658	16.139+j87.219	2.82	1.29	4.231+j18.703	16.811+j85.549
CEMENTOS TOLTECA	TLT-85	85	10.16	2.76	0.906+j4.746	6.470+j43.240	11.00	3.06	0.888+j4.828	6.958+j42.506
CERRO DEL CAMPO	CCM-115	115	3.41	2.32	5.990+j18.522	14.747+j44.309	3.94	2.68	5.577+j17.681	14.257+j42.319
CERRO GORDO	CRG-85	85	25.17	8.31	0.373+j1.914	0.975+j13.846	28.86	12.30	0.298+j1.847	1.498+j9.345
CERRO GORDO	CRG-230	230	37.98	41.05	1.013+j3.347	0.471+j2.880	50.41	50.79	0.624+j2.829	0.511+j2.923
CERVECERÍA MODELO	CVM-85	85	22.55	5.25	0.434+j2.133	3.835+j23.388	26.02	7.59	0.359+j2.043	3.821+j16.791
CHALCO	CHA-85	85	13.11	2.75	0.743+j3.670	6.421+j45.531	14.08	2.97	0.715+j3.767	6.621+j46.294
CHALCO	CHA-85B	85	13.11	2.75	0.743+j3.670	6.421+j45.531	14.08	2.97	0.715+j3.767	6.621+j46.294
CHALCO	CHA-230	230	16.26	16.82	2.595+j7.744	2.070+j7.191	18.99	18.95	2.182+j7.377	2.133+j7.513
CHAPINGO	CPG-230	230	35.96	34.19	0.916+j3.577	0.784+j4.407	43.92	39.53	0.584+j3.274	0.801+j4.508
CHICOLOAPAN	CHC-230	230	21.75	17.88	1.290+j5.967	1.641+j10.126	25.70	20.22	0.916+j5.608	1.680+j10.299
CHIMALHUACÁN	CHN-230	230	25.00	21.18	1.196+j5.175	1.397+j8.263	29.99	24.20	0.816+j4.802	1.420+j8.377
CHIMALPA	MLP-230	230	26.86	22.92	1.345+j4.758	1.474+j7.504	32.70	26.32	0.903+j4.375	1.513+j7.660
CHIMALPA DOS	MLD-230	230	34.81	36.89	1.141+j3.641	0.518+j3.294	43.88	43.72	0.707+j3.253	0.548+j3.425
CHIMALPA DOS	MLD-400	400	23.58	24.67	2.786+j9.388	1.295+j8.853	31.14	30.16	1.529+j8.014	1.349+j9.120
CHRYSLER DE MÉXICO	KDM-85	85	13.06	7.40	0.800+j3.672	1.130+j12.315	14.40	8.23	0.741+j3.676	1.177+j12.098
COAPA	COA-230	230	17.88	16.44	1.667+j7.239	1.660+j9.424	21.98	19.08	1.144+j6.546	1.719+j9.649
COFRADÍA UNO	CFI-230	230	27.87	26.23	1.164+j4.620	0.743+j5.787	33.97	30.34	0.766+j4.231	0.763+j5.909
COMALCO	COM-115	115	3.70	2.42	4.282+j17.405	10.719+j45.315	4.09	2.65	4.178+j17.355	10.758+j45.590
CONDESA	CDS-85	85	9.80	3.15	1.175+j4.866	16.778+j32.962	10.05	4.45	1.250+j5.224	10.495+j23.599
CONDESA	CDS-230	230	21.17	6.70	1.710+j6.034	1.853+j47.279	25.13	7.19	1.247+j5.678	1.963+j49.539
CONTADERO	CTD-230	230	22.17	20.20	1.548+j5.785	1.468+j7.768	26.45	22.99	1.097+j5.412	1.519+j7.975
CONTRERAS	CRS-230	230	15.61	13.89	1.839+j8.303	1.184+j11.789	18.18	15.56	1.380+j7.916	1.231+j12.130
COVADONGA	CVD-85	85	12.53	2.77	0.767+j3.842	6.226+j44.758	13.51	3.00	0.735+j3.928	6.407+j45.466
COYOACÁN	COY-230	230	22.72	24.12	1.632+j5.613	1.611+j4.703	27.13	27.62	1.169+j5.256	1.683+j4.936

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
COYOTEPEC	CYO-85	85	12.79	4.81	0.871+j3.737	4.013+j22.663	15.91	6.14	0.623+j3.336	4.561+j19.117
CRUZ AZUL	CCZ-230	230	25.24	19.82	0.892+j5.184	2.118+j9.456	29.95	22.89	0.605+j4.840	2.091+j9.275
CUAJIMALPA	CJM-230	230	22.97	22.89	1.490+j5.585	0.756+j5.958	27.41	26.17	1.036+j5.228	0.782+j6.131
CUAUHTÉMOC	CMC-230	230	33.13	36.52	1.203+j3.824	1.122+j2.854	41.94	43.90	0.778+j3.395	1.160+j2.943
CUAUTTLÁN	CTT-85	85	18.18	5.91	0.549+j2.643	2.164+j19.466	21.77	7.68	0.412+j2.445	2.718+j15.939
CULHUACÁN	LUN-230	230	18.75	9.05	1.642+j6.889	1.545+j30.159	23.40	10.07	1.120+j6.142	1.647+j31.177
DEACERO	DCO-85	85	20.54	6.94	0.519+j2.332	1.780+j16.427	23.67	9.42	0.427+j2.240	2.338+j12.462
DEPORTIVA	DVA-230	230	16.98	18.58	1.648+j7.646	0.389+j5.917	19.80	20.94	1.170+j7.285	0.421+j6.233
DEPORTIVA	DVA-400	400	14.78	13.57	3.291+j15.276	1.261+j20.165	19.06	16.21	1.869+j13.198	1.370+j20.524
DIANA	DNA-230	230	21.15	7.37	1.718+j6.038	1.843+j41.841	25.10	7.87	1.255+j5.682	1.956+j44.246
DONATO GUERRA	DOG-115	115	24.73	23.34	0.437+j2.649	0.224+j3.128	36.13	30.69	0.228+j2.009	0.264+j3.067
DONATO GUERRA	DOG-115B	115	25.60	24.16	0.441+j2.556	0.234+j3.025	37.70	32.02	0.232+j1.923	0.272+j2.939
DONATO GUERRA	DOG-400	400	15.67	15.08	3.055+j14.414	1.327+j16.618	25.22	21.68	1.431+j9.969	1.726+j15.018
DOS CARLOS	DCA-85	85	5.89	2.43	1.932+j8.105	6.121+j43.488	6.45	2.76	1.913+j8.146	6.871+j41.269
ECATEPEC	ECA-230	230	22.64	19.93	1.299+j5.719	1.516+j8.334	27.66	23.06	0.905+j5.203	1.560+j8.445
EL CARMEN	CRM-85	85	5.43	1.58	2.521+j8.675	14.442+j73.620	6.81	3.91	2.262+j7.602	6.803+j24.998
EL CERRILLO	ECR-230	230	12.79	11.87	2.489+j10.079	1.657+j12.701	14.88	13.46	1.952+j9.620	1.662+j12.802
EL GALLO	ELG-115	115	2.11	1.30	7.241+j30.566	19.879+j88.561	3.18	3.47	3.911+j22.664	1.396+j20.704
EL ROSAL	RSL-230	230	15.46	13.64	1.816+j8.393	1.264+j12.141	18.03	15.30	1.356+j7.986	1.308+j12.469
EL SALTO	SAO-85	85	8.85	1.50	0.880+j5.476	18.631+j84.873	15.20	16.79	0.361+j3.534	0.227+j3.070
EL SALTO	SAO-230	230	5.68	6.26	3.953+j23.044	1.563+j16.999	7.56	7.85	2.409+j19.169	1.731+j18.156
EL VIDRIO	EVD-230	230	14.44	11.28	1.872+j9.003	2.772+j16.810	16.68	12.60	1.496+j8.630	2.866+j17.122
ESMERALDA	ESR-85	85	10.67	2.95	0.453+j4.575	0.000+j40.859	11.81	3.24	0.383+j4.553	0.000+j40.859
ESMERALDA	ESR-230	230	18.48	19.23	1.448+j7.040	0.992+j6.464	34.27	33.10	0.840+j4.178	1.484+j4.624
ESMERALDA	ESR-230B	230	18.48	19.23	1.448+j7.040	0.992+j6.464	34.27	33.10	0.840+j4.178	1.484+j4.624
ESTADIO	EST-230	230	15.73	16.15	1.731+j8.265	0.660+j7.888	18.27	18.14	1.254+j7.898	0.697+j8.214
ESTRELLA	ETR-230	230	22.38	21.27	2.015+j5.581	2.628+j6.512	29.45	25.95	1.501+j4.728	2.680+j6.553
ESTRELLA	ETR-230B	230	16.80	14.39	2.261+j7.573	3.152+j11.626	21.24	17.01	1.694+j6.666	3.183+j11.684
FERROCARRILES NACIONALES	FNL-230	230	32.54	34.25	1.042+j3.946	0.540+j3.595	40.35	40.26	0.650+j3.561	0.554+j3.712
FERTIMÉX	FTM-230	230	6.70	4.76	3.022+j19.577	11.081+j42.857	8.14	6.03	2.527+j17.761	9.020+j35.708
FISISA	FIS-230	230	15.55	13.28	1.790+j8.352	2.422+j12.856	18.70	15.19	1.282+j7.704	2.491+j13.108
FORD MOTOR COMPANY	FMC-85	85	23.33	7.05	0.409+j2.063	1.546+j16.680	27.40	9.39	0.305+j1.946	2.103+j13.176
FRANCISCO DE LOS REYES	FRR-115	115	1.87	1.14	9.664+j34.095	27.473+j99.643	2.07	1.26	9.560+j34.041	27.521+j99.885
FUNDIDORA MÉXICO	FUM-85	85	21.56	6.90	0.447+j2.231	1.455+j16.782	25.12	9.16	0.346+j2.121	2.012+j13.280
GENERAL MOTORS	GMC-85	85	13.43	7.52	0.780+j3.570	1.378+j12.185	14.82	8.37	0.720+j3.569	1.427+j11.958
GUACAMAYAS	GMY-115	115	11.30	11.46	0.887+j5.807	1.023+j5.539	12.84	12.87	0.846+j5.623	0.994+j5.561
GUADALUPE	GUA-85	85	15.18	5.82	0.683+j3.160	2.524+j18.738	17.60	10.08	0.580+j3.013	2.187+j9.764
HÉROES DE CARRANZA	HRC-230	230	10.44	7.55	2.246+j12.519	6.815+j26.648	12.40	8.78	1.782+j11.641	6.686+j25.743
HIPÓDROMO	HIP-85	85	22.86	5.47	0.439+j2.101	3.339+j22.427	26.13	7.98	0.369+j2.033	3.331+j15.847
HUASTECA	HTC-85	85	25.53	5.50	0.400+j1.880	3.737+j22.628	29.66	8.07	0.326+j1.790	3.724+j16.032
HUEHUETOCA	HTT-85	85	6.88	2.99	1.500+j6.979	7.635+j34.148	8.06	3.60	1.252+j6.578	8.183+j30.601
HUETAMO	HTM-69	69	2.65	3.39	2.880+j14.733	0.261+j5.217	3.17	4.02	2.127+j13.662	0.287+j5.739

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
HUETAMO	HTM-115	115	2.42	1.46	7.076+j26.539	19.251+j78.931	3.23	2.53	4.916+j22.104	7.723+j42.388
INDIANILLA	INN-85	85	20.67	4.88	0.522+j2.316	5.012+j24.934	27.22	7.17	0.377+j1.947	5.188+j17.922
INDUSTRIA DE LA DEFENSA NAL.	IDN-85	85	20.98	5.04	0.586+j2.265	7.724+j23.331	26.99	7.83	0.409+j1.958	5.434+j15.828
INDUSTRIA MILITAR	INM-85	85	10.43	3.96	1.075+j4.581	4.762+j27.407	11.57	5.24	1.012+j4.553	4.828+j21.041
INDUSTRIAL SAN CRISTÓBAL	ISC-85	85	14.96	5.47	0.600+j3.226	2.660+j20.257	16.84	7.23	0.526+j3.162	3.179+j15.720
INDUSTRIAS UNIDAS S. A.	INU-115	115	9.51	7.37	1.336+j6.851	2.422+j12.841	10.57	8.06	1.234+j6.799	2.460+j13.126
INFIERNILLO	IFR-69	69	0.89	0.55	20.594+j39.695	47.249+j119.823	1.00	0.61	20.222+j38.690	46.512+j118.886
INSURGENTES	INS-85	85	18.47	6.69	0.563+j2.597	1.690+j16.656	22.87	14.14	0.409+j2.324	0.915+j6.733
IROLO	IRO-230	230	10.26	8.92	2.127+j12.761	2.898+j18.686	11.79	9.90	1.784+j12.258	3.061+j19.419
IUSASOL 1	IUN-115	115	15.05	14.20	0.663+j4.361	0.445+j5.197	16.82	15.44	0.561+j4.307	0.483+j5.486
IXTAPALUCA	IXL-230	230	20.83	21.16	1.402+j6.218	0.650+j6.207	24.64	24.00	0.991+j5.845	0.677+j6.453
IXTAPAN DE LA SAL	IXS-115	115	2.38	1.37	6.074+j27.257	18.986+j88.163	2.68	1.52	5.774+j26.641	19.038+j87.838
IXTAPAN TONGO	IXT-115	115	10.21	7.24	1.377+j6.356	2.669+j14.212	14.01	11.60	0.903+j5.134	1.193+j8.446
IXTLAHUACA DOS	ITD-115	115	10.16	7.93	1.157+j6.430	1.763+j11.924	11.30	8.67	1.055+j6.378	1.801+j12.198
IZTAPALAPA	IZT-230	230	20.59	19.47	1.522+j6.267	0.946+j7.706	26.83	23.56	0.955+j5.360	0.977+j7.764
JABÓN LA CORONA	JLC-230	230	23.73	21.40	1.258+j5.453	1.326+j7.498	33.34	27.25	0.796+j4.308	1.477+j7.298
JAMAICA	JAM-85	85	25.10	5.25	0.371+j1.920	4.580+j23.724	29.29	7.58	0.303+j1.818	4.587+j17.097
JAMAICA	JAM-230	230	20.86	22.10	1.552+j6.174	0.722+j5.457	35.26	35.03	0.838+j4.057	1.041+j4.222
JASSO	JAS-85	85	16.82	2.95	0.348+j2.897	6.422+j43.636	17.73	3.27	0.336+j3.027	6.910+j42.900
JASSO	JAS-230	230	26.07	23.04	0.862+j5.020	1.127+j7.125	31.04	26.48	0.576+j4.671	1.172+j7.151
JILOTEPEC	JIL-115	115	8.09	5.73	1.555+j8.060	4.000+j17.844	9.12	6.44	1.371+j7.891	3.935+j17.569
JILOTEPEC INDUSTRIAL	JID-115	115	2.75	2.85	5.092+j23.638	4.663+j21.066	3.05	3.17	4.887+j23.444	4.596+j20.706
JILOTEPEC POTENCIA	JIP-115	115	8.47	6.10	1.440+j7.701	3.737+j16.541	9.61	6.90	1.243+j7.497	3.670+j16.182
JILOTEPEC POTENCIA	JIP-230	230	4.96	3.41	5.077+j26.310	14.716+j61.539	5.86	3.96	4.159+j24.588	14.449+j59.344
JOROBAS	JRB-230	230	25.31	20.73	1.006+j5.150	1.773+j8.654	30.15	23.83	0.700+j4.793	1.790+j8.620
JUANDO	JUA-85	85	7.20	2.63	1.542+j6.640	6.540+j41.723	7.85	2.94	1.524+j6.701	7.110+j40.626
JUCHITEPEC	JCP-85	85	6.67	2.02	1.587+j7.190	8.888+j57.448	7.24	2.18	1.563+j7.286	9.183+j58.469
JUGOS DEL VALLE	JDV-85	85	6.30	3.71	2.421+j7.410	4.004+j23.947	7.23	4.53	2.232+j7.120	4.554+j20.405
KILOMETRO 110	KMC-85	85	9.78	2.78	0.827+j4.948	4.341+j42.828	11.63	5.39	0.764+j4.578	3.939+j20.529
KILOMETRO 110	KMC-230	230	9.59	10.00	2.319+j13.644	1.658+j12.190	12.08	11.97	1.595+j11.989	1.748+j12.761
KILOMETRO 42	KCD-85	85	2.14	0.88	9.171+j21.058	49.963+j109.892	2.39	1.19	9.107+j20.685	44.038+j80.024
KILOMETRO CERO	KCR-230	230	33.10	36.10	1.194+j3.830	1.143+j2.978	41.96	43.38	0.769+j3.395	1.185+j3.067
LA CEIBA	LAC-115	115	2.56	1.58	6.246+j25.218	16.822+j72.348	3.67	3.43	3.746+j19.568	3.553+j26.233
LA COSTEÑA	LCT-85	85	17.97	6.38	0.509+j2.684	1.948+j17.584	20.35	8.73	0.434+j2.617	2.470+j13.062
LA ESTANCIA	LES-115	115	6.01	4.14	2.991+j10.626	6.891+j24.979	7.09	4.77	2.719+j9.941	6.828+j24.398
LA LOMA	LOM-85	85	15.20	5.49	0.746+j3.142	2.934+j20.221	17.10	7.59	0.669+j3.084	3.187+j14.717
LA MIRA	MIR-115	115	6.95	6.81	1.915+j9.357	1.721+j9.996	7.80	7.50	1.868+j9.181	1.786+j10.316
LA PAZ	LAP-230	230	26.70	30.85	1.211+j4.824	0.278+j3.131	32.33	35.69	0.803+j4.446	0.302+j3.331
LA PAZ	LAP-400	400	24.33	25.86	2.664+j9.110	0.887+j8.362	31.79	31.29	1.481+j7.853	0.941+j8.662
LA QUEBRADA	LAQ-85	85	17.52	6.38	0.613+j2.733	2.043+j17.433	20.04	8.52	0.522+j2.643	2.602+j13.427
LAFARGE	LFG-230	230	20.75	15.77	1.002+j6.321	1.889+j12.421	24.27	17.87	0.712+j5.977	1.900+j12.437
LAGO	LGO-230	230	22.44	23.97	1.160+j5.803	0.791+j4.900	29.56	29.81	0.753+j4.883	0.948+j4.851

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
LAGO	LGO-400	400	20.65	14.54	2.486+j10.906	3.657+j25.583	25.84	16.62	1.446+j9.724	3.992+j26.249
LAGO DE GUADALUPE	LGD-230	230	25.48	22.82	1.239+j5.062	0.990+j7.133	30.78	26.22	0.837+j4.671	1.015+j7.263
LAS AMÉRICAS	LAR-230	230	24.26	18.06	1.015+j5.380	2.284+j10.990	28.83	20.58	0.690+j5.020	2.310+j11.026
LAS CAÑAS	CÑA-69	69	1.52	0.95	11.104+j23.699	27.927+j67.404	1.75	1.08	10.739+j22.688	27.194+j66.469
LÁZARO CÁRDENAS DISTRIBUCIÓN	LCD-115	115	10.95	11.71	0.976+j5.986	0.782+j4.817	12.48	13.08	0.939+j5.776	0.807+j4.984
LÁZARO CÁRDENAS POTENCIA	LCP-115	115	17.37	19.53	0.315+j3.809	0.149+j2.553	20.33	22.27	0.293+j3.581	0.171+j2.647
LÁZARO CÁRDENAS POTENCIA	LCP-230	230	24.64	30.83	0.605+j5.356	0.067+j2.157	32.33	39.32	0.401+j4.500	0.096+j2.110
LÁZARO CÁRDENAS POTENCIA	LCP-400	400	19.71	23.38	1.157+j11.659	0.187+j6.244	29.60	33.78	0.630+j8.560	0.246+j5.409
LECHERÍA	LEC-85	85	25.48	7.88	0.422+j1.879	1.253+j14.857	29.75	11.03	0.328+j1.785	1.814+j10.944
LERMA	LER-85	85	0.87	0.46	14.716+j54.580	50.642+j198.035	2.30	3.01	2.697+j23.292	0.263+j8.820
LIQUIMEX	LQX-85	85	12.09	4.63	1.068+j3.917	4.060+j23.398	14.43	5.82	0.887+j3.634	4.609+j19.855
LOMAS VERDES	LVE-230	230	22.77	19.79	1.397+j5.663	1.558+j8.473	27.26	22.62	0.977+j5.268	1.595+j8.613
LOS REYES	RES-230	230	24.78	26.02	1.271+j5.207	0.707+j4.699	29.88	29.98	0.860+j4.812	0.730+j4.883
MADERO	MAD-230	230	23.65	24.34	1.214+j5.482	1.022+j5.216	30.03	29.31	0.809+j4.797	1.168+j5.219
MAGDALENA	MAG-85	85	21.28	4.47	0.432+j2.265	1.867+j28.295	23.83	4.89	0.352+j2.238	1.867+j28.559
MAGDALENA	MAG-230	230	25.77	28.37	1.324+j4.979	0.529+j3.888	34.67	35.46	0.805+j4.136	0.589+j3.998
MERCED	MER-230	230	18.77	18.86	1.726+j6.859	1.059+j7.106	34.34	33.00	0.864+j4.166	1.483+j4.676
MERCED	MER-230B	230	18.77	18.86	1.726+j6.859	1.059+j7.106	34.34	33.00	0.864+j4.166	1.483+j4.676
MILAGROS	MGR-85	85	12.90	3.68	0.789+j3.720	2.978+j32.279	14.18	4.02	0.732+j3.737	2.997+j32.599
MILLÁN DOS	MDO-400	400	14.93	13.82	3.123+j15.153	1.425+j19.339	23.76	19.73	1.483+j10.591	1.825+j17.255
MINERA TIZAPA	MTI-115	115	7.21	5.41	1.897+j9.006	3.296+j18.018	8.98	7.18	1.481+j8.000	2.335+j14.094
MOCTEZUMA	MZA-85	85	8.69	2.65	0.734+j5.597	1.135+j44.459	9.61	2.91	0.663+j5.576	1.135+j44.459
MORALES	MOS-85	85	26.88	5.81	0.373+j1.787	3.143+j21.483	30.93	8.66	0.303+j1.719	3.136+j14.904
MORALES	MOS-230	230	34.59	38.18	1.177+j3.655	1.148+j2.684	43.81	45.97	0.751+j3.248	1.177+j2.767
MORELOS	MOR-230	230	11.13	9.37	2.222+j11.726	3.399+j18.518	12.78	10.40	1.761+j11.296	3.523+j19.039
NACEL Y NACOBRE	NYN-85	85	12.72	5.22	0.866+j3.760	2.768+j20.334	14.05	6.74	0.809+j3.757	3.375+j16.028
NARVARTE	NAR-85	85	11.39	3.65	0.917+j4.208	9.796+j30.256	13.70	4.35	0.725+j3.873	5.415+j28.840
NARVARTE	NAR-230	230	21.79	23.12	1.729+j5.843	1.800+j4.872	25.94	26.43	1.265+j5.486	1.881+j5.111
NAUCALPAN	NAU-85	85	18.83	6.40	0.567+j2.543	1.692+j17.766	21.58	11.08	0.484+j2.454	1.374+j9.562
NECAXA	NEC-85A	85	8.09	1.46	1.085+j5.965	19.180+j86.775	13.49	13.89	0.535+j3.966	0.489+j4.186
NECAXA	NEC-85B	85	8.09	1.46	1.085+j5.965	19.180+j86.775	13.55	13.94	0.525+j3.949	0.489+j4.186
NECAXA	NEC-85C	85	8.09	1.46	1.085+j5.965	19.180+j86.775	13.54	13.94	0.527+j3.951	0.489+j4.186
NECAXA	NEC-85D	85	8.09	1.46	1.085+j5.965	19.180+j86.775	13.50	13.89	0.533+j3.963	0.489+j4.186
NESTLÉ	NLE-85	85	12.55	6.86	0.851+j3.817	1.628+j13.510	13.80	7.61	0.794+j3.830	1.675+j13.316
NETZAHUALCÓYOTL	NET-85	85	15.06	3.99	0.661+j3.192	2.355+j30.354	16.53	4.35	0.605+j3.209	2.374+j30.676
NISSAN	NIS-85	85	10.64	5.43	1.017+j4.501	2.656+j17.612	11.61	5.98	0.970+j4.548	2.699+j17.480
NOCHISTONGO	NOC-115	115	7.81	7.25	0.839+j8.460	0.756+j10.467	8.19	7.53	0.825+j8.883	0.818+j11.232
NOCHISTONGO	NOC-230	230	30.81	26.53	0.879+j4.219	1.260+j6.383	37.39	30.90	0.570+j3.865	1.265+j6.346
NONOALCO	NON-85	85	27.14	7.99	0.363+j1.772	1.202+j14.827	34.67	27.41	0.236+j1.539	0.091+j2.876
NOPALA	NOP-230A	230	29.80	30.57	1.183+j4.296	0.654+j4.229	36.61	35.52	0.760+j3.917	0.697+j4.403
NOPALA	NOP-230B	230	29.80	30.57	1.183+j4.296	0.654+j4.229	36.61	35.52	0.760+j3.917	0.697+j4.403
NOPALA	NOP-230C	230	29.89	30.64	1.180+j4.283	0.653+j4.225	36.73	35.60	0.757+j3.905	0.696+j4.399

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
NOPALA	NOP-400	400	25.16	28.03	2.719+j8.768	0.769+j6.781	33.77	34.90	1.466+j7.377	0.816+j7.021
NUEVO AEROPERTO INTERNACIONAL MANIOBRAS	NAI-230	230	21.91	23.39	1.217+j5.937	0.889+j5.009	28.14	28.54	0.809+j5.127	1.045+j4.991
NUEVO FANAL	NFA-85	85	19.96	6.84	0.536+j2.400	1.823+j16.595	22.97	9.25	0.443+j2.308	2.381+j12.624
NUTRIGO	NTG-115	115	8.19	6.04	1.585+j7.949	2.992+j16.496	9.09	6.61	1.483+j7.898	3.030+j16.771
OCEAÑÍA	OCE-230	230	17.60	16.71	1.875+j7.308	3.115+j8.403	30.92	27.27	1.013+j4.615	3.538+j5.973
OCEAÑÍA	OCE-230B	230	15.45	14.31	1.786+j8.410	5.787+j9.603	27.70	25.15	1.126+j5.152	4.414+j5.918
ODÓN DE BUEN	ODB-230	230	14.89	13.90	2.002+j8.691	1.760+j10.815	17.23	15.52	1.532+j8.339	1.847+j11.217
OLIVAR	OLI-230	230	22.85	24.12	1.579+j5.592	0.930+j4.956	27.29	27.65	1.116+j5.235	0.955+j5.146
OTUMBA	OTM-230	230	12.23	10.86	1.758+j10.719	2.064+j14.939	13.96	11.99	1.466+j10.357	2.218+j15.624
PACHUCA	PAC-85	85	9.40	3.50	1.298+j5.056	3.718+j31.390	10.27	4.05	1.278+j5.097	4.467+j29.174
PACHUCA POTENCIA	PHP-230	230	9.45	10.19	1.812+j13.927	1.083+j11.089	10.85	11.39	1.396+j13.395	1.152+j11.738
PACHUCA POTENCIA	PHP-400	400	10.78	8.47	2.828+j21.238	5.969+j38.963	12.72	9.61	1.872+j19.890	6.210+j39.294
PALIZADA	PLZ-115	115	7.90	5.25	2.256+j8.098	5.557+j20.409	9.09	5.88	2.099+j7.756	5.581+j20.421
PANTITLAN	PNT-85	85	11.00	3.39	0.995+j4.351	3.740+j34.294	12.14	3.71	0.930+j4.348	3.752+j34.596
PAPELERA EL NEVADO	PDO-115	115	4.02	2.55	3.563+j16.122	8.757+j44.299	4.61	2.86	3.324+j15.501	8.793+j44.176
PAPELERA SAN RAFAEL	PSR-85	85					4.39	1.63	3.182+j11.877	14.168+j73.326
PAPELES HIGIÉNICOS DEL CENTRO	PHC-230	230	9.94	8.02	2.185+j13.175	3.910+j22.738	11.44	8.93	1.829+j12.633	4.046+j23.377
PARQUE INDUSTRIAL	PQI-115	115	6.74	5.38	1.450+j9.747	2.961+j17.081	7.21	5.75	1.406+j10.037	3.003+j17.638
PARQUE INDUSTRIAL REFORMA	PIR-85	85	10.86	2.90	0.789+j4.448	6.392+j41.154	11.76	3.54	0.782+j4.524	7.587+j35.794
PASO DE CORTES	PDC-115	115	2.64	1.60	7.971+j23.858	22.506+j70.447	2.91	1.77	7.888+j23.791	22.512+j70.521
PATERA	PAT-85	85	13.90	5.54	0.694+j3.461	2.258+j19.427	15.35	7.23	0.637+j3.458	2.865+j15.122
PATLA	PTL-85	85	5.77	1.29	1.997+j8.274	22.455+j94.092	8.75	8.69	1.293+j6.029	1.122+j6.753
PEMEX	PEX-85	85	25.34	5.39	0.404+j1.894	4.849+j22.967	29.51	7.83	0.328+j1.800	4.822+j16.366
PEMEX	PEX-85B	85	25.34	5.39	0.404+j1.894	4.849+j22.967	29.51	7.83	0.328+j1.800	4.822+j16.366
PEMEX	PMX-230	230	28.24	27.43	0.823+j4.630	0.595+j5.203	33.97	33.44	0.546+j4.265	0.477+j4.589
PEMEX AZCAPOTZALCO	PXA-85	85	16.77	6.07	0.618+j2.861	1.829+j18.381	19.31	10.77	0.526+j2.745	1.353+j9.394
PEMEX -ZLCP	PMX-115	115	7.96	6.42	1.513+j8.201	3.315+j13.970	9.00	7.14	1.484+j7.978	3.333+j14.087
PEMEX -ZLCP	PMX-115	115	5.82	5.80	0.462+j11.406	0.405+j11.549	6.31	8.32	0.369+j11.561	0.147+j3.226
PENSADOR	PEN-230	230	29.84	28.29	1.298+j4.256	3.270+j4.483	37.26	33.43	0.872+j3.822	3.336+j4.575
PENWALT	PEW-85	85	19.67	7.09	0.482+j2.448	1.575+j15.749	25.19	11.01	0.352+j2.114	1.798+j10.296
PERALVILLO	PEV-230	230	17.46	16.68	1.513+j7.453	3.447+j8.277	34.12	32.69	0.855+j4.195	2.077+j4.593
PITIRERA	PIT-230A	230	13.69	15.38	0.956+j9.653	0.575+j6.494	17.16	19.31	0.678+j8.485	0.333+j5.668
PITIRERA	PIT-230B	230	13.69	15.38	0.956+j9.653	0.575+j6.494	17.16	19.31	0.678+j8.485	0.333+j5.668
PITIRERA	PIT-230C	230	13.69	15.38	0.956+j9.653	0.575+j6.494	17.16	19.31	0.678+j8.485	0.333+j5.668
PITIRERA	PIT-230D	230	13.69	15.38	0.956+j9.653	0.575+j6.494	17.16	19.31	0.678+j8.485	0.333+j5.668
PITIRERA	PIT-400	400	15.07	13.82	1.699+j15.235	2.940+j19.325	25.64	27.64	0.788+j9.878	0.524+j7.765
PLACERES DEL ORO	PLO-115	115	1.64	0.96	11.797+j38.754	34.888+j121.292	1.91	1.18	10.681+j36.771	29.594+j106.270
POLANCO	POO-230	230	36.11	39.54	1.150+j3.493	1.176+j2.631	46.00	47.74	0.722+j3.093	1.205+j2.713
PROCTER & GAMBLE	PYG-230	230	24.97	20.32	1.027+j5.218	1.980+j8.860	29.72	23.35	0.722+j4.862	1.996+j8.826
PRODUCTORA MEXICANA DE TUB.	PMT-115	115	8.05	7.74	1.571+j8.101	1.720+j9.079	9.09	8.56	1.535+j7.888	1.774+j9.358
PROPIMEX	PRO-85	85	12.92	6.90	0.833+j3.707	1.548+j13.610	14.16	7.64	0.779+j3.731	1.596+j13.444
PUERTA DE HIERRO	PTH-85	85	7.12	4.99	1.428+j6.740	1.539+j15.629	7.86	5.48	1.367+j6.732	1.628+j15.684

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(+)}$	$Z_{T(0)}$	3F	1F	$Z_{T(+)}$	$Z_{T(0)}$
PUESTO CENTRAL DE CONTROL	PCC-85	85	19.71	4.79	0.559+j2.426	5.130+j25.260	22.73	6.73	0.491+j2.324	5.136+j18.633
PUESTO CENTRAL DE CONTROL	PCC-85B	85	21.33	6.46	0.536+j2.237	6.106+j17.205	26.37	14.92	0.409+j2.006	4.971+j5.245
REFORMA	REF-85	85	12.74	4.57	0.923+j3.740	4.027+j24.220	14.17	6.25	0.859+j3.711	4.081+j17.829
REMEDIOS	REM-85	85	39.15	8.43	0.277+j1.223	1.101+j14.949	44.82	14.80	0.213+j1.185	1.112+j8.481
REMEDIOS	REM-230	230	39.43	46.76	1.091+j3.186	0.365+j1.905	50.94	57.23	0.661+j2.790	0.381+j1.988
ROBERT BOSCH	RBS-85	85	12.66	7.00	0.839+j3.785	1.543+j13.176	13.94	7.77	0.781+j3.793	1.590+j12.969
SAFIMEX	SAF-85	85	13.72	7.24	0.771+j3.493	1.315+j13.078	15.01	8.00	0.718+j3.525	1.358+j12.919
SAN ANDRÉS	ANS-85	85	14.50	3.77	0.693+j3.312	3.085+j32.156	16.15	4.13	0.612+j3.287	3.085+j32.421
SAN ÁNGEL	SNG-230	230	23.83	26.21	1.558+j5.350	0.792+j4.134	28.58	30.15	1.095+j4.992	0.816+j4.337
SAN BERNABÉ	BRN-230	230	28.21	32.57	1.321+j4.519	0.309+j2.963	34.33	37.92	0.870+j4.165	0.329+j3.122
SAN BERNABÉ	BRN-400	400	24.31	25.67	2.807+j9.076	1.073+j8.421	32.28	31.47	1.538+j7.718	1.119+j8.681
SAN DIEGO	SDI-85	85	7.20	5.04	1.413+j6.665	1.509+j15.460	7.95	5.54	1.351+j6.658	1.598+j15.511
SAN FELIPE DEL PROGRESO	FPG-115	115	4.32	2.81	3.758+j14.893	9.648+j39.105	4.78	3.08	3.656+j14.841	9.686+j39.390
SAN FRANCISCO	SSO-85	85	12.79	7.80	0.828+j3.747	0.990+j11.160	14.17	8.62	0.766+j3.733	1.056+j11.108
SAN ISIDRO	ISO-115	115	6.86	6.98	1.938+j9.476	1.352+j9.100	7.69	7.67	1.892+j9.301	1.433+j9.478
SAN MATEO	SMT-115	115	4.90	3.15	2.778+j13.264	6.495+j35.591	5.66	3.54	2.541+j12.642	6.531+j35.468
SAN SEBASTIÁN	SSE-115	115	4.24	2.86	3.717+j15.213	10.905+j36.688	4.70	3.16	3.603+j15.124	10.927+j36.707
SANTA CRUZ	CRU-230	230	30.64	37.16	1.206+j4.163	0.216+j2.243	43.21	49.00	0.692+j3.309	0.268+j2.283
SANTA CRUZ	CRU-400	400	23.87	25.51	2.746+j9.277	1.002+j8.342	31.43	31.07	1.515+j7.939	1.076+j8.625
SANTA FÉ	SFE-230	230	22.87	21.77	1.546+j5.598	1.234+j6.730	27.35	24.87	1.092+j5.229	1.277+j6.923
SANTIAGO TLAUTLA	STU-115	115	4.62	3.03	4.049+j13.795	10.961+j35.376	5.11	3.35	3.909+j13.744	10.932+j35.333
SECRETARÍA DE SEGURIDAD PÚBLICA	SSP-85	85	10.94	4.10	1.035+j4.364	4.540+j26.611	12.15	5.47	0.971+j4.336	4.602+j20.236
SMURFIT KAPPA	SKP-85	85	10.65	4.40	0.836+j4.533	3.581+j24.042	11.67	5.50	0.787+j4.557	4.210+j19.789
SUBESTACIÓN CINCO BOMBEO	ENB-115	115	11.14	7.53	1.086+j5.862	2.380+j14.198	14.99	9.07	0.755+j4.815	2.415+j14.108
SUBESTACIÓN CUATRO BOMBEO	ECB-115	115	22.10	19.11	0.522+j2.958	0.497+j4.347	32.40	24.83	0.287+j2.236	0.532+j4.254
SUBESTACIÓN DE TRACCIÓN 1 TIMT	ST1-230	230	14.87	12.05	1.848+j8.737	3.080+j14.987	17.25	13.57	1.383+j8.354	3.094+j15.124
SUBESTACIÓN DE TRACCIÓN 2 TIMT	ST2-230	230	20.81	19.85	1.581+j6.181	1.463+j7.301	24.63	22.63	1.123+j5.824	1.480+j7.445
SUBESTACIÓN DOS BOMBEO	EDB-115	115	12.39	8.93	1.036+j5.257	1.908+j11.384	16.91	11.61	0.693+j4.264	1.707+j10.087
SUBESTACIÓN SEIS BOMBEO	ESB-115	115	12.65	9.02	0.948+j5.162	1.821+j11.372	16.66	10.82	0.677+j4.331	1.856+j11.277
SUBESTACIÓN TRES BOMBEO	ETB-115	115	18.78	15.20	0.631+j3.479	0.793+j5.943	27.11	19.34	0.367+j2.669	0.828+j5.850
SUBESTACIÓN UNO BOMBEO	EUB-115	115	9.24	6.25	1.503+j7.024	3.106+j17.131	12.54	8.12	0.988+j5.741	2.723+j15.109
TACUBA	TAC-85	85	17.70	6.34	0.593+j2.708	1.717+j17.658	20.84	12.93	0.485+j2.544	0.965+j7.348
TACUBAYA	TYA-85	85	10.07	3.87	1.114+j4.742	5.069+j27.852	11.17	5.10	1.051+j4.716	5.150+j21.509
TACUBAYA	TYA-230	230	22.00	21.71	1.638+j5.810	1.023+j6.371	26.19	24.74	1.176+j5.453	1.056+j6.580
TAXQUEÑA	TAX-85	85	13.84	4.33	0.655+j3.486	1.128+j26.922	15.15	4.73	0.594+j3.514	1.125+j27.169
TAXQUEÑA	TAX-230	230	13.44	12.59	2.069+j9.664	1.609+j11.917	15.45	13.96	1.600+j9.316	1.725+j12.460
TAXQUEÑA	TAX-230B	230	13.44	12.59	2.069+j9.664	1.609+j11.917	15.45	13.96	1.600+j9.316	1.725+j12.460
TECÁMAC	TCM-230	230	16.18	12.66	1.314+j8.099	1.982+j15.063	18.68	14.03	0.992+j7.757	2.075+j15.543
TECAMACHALCO	TEH-230	230	24.56	21.10	1.445+j5.210	1.615+j8.052	29.61	24.13	1.001+j4.830	1.657+j8.222
TEJUPILCO	TJP-115	115	7.85	6.52	1.876+j8.251	2.653+j13.222	9.50	7.83	1.575+j7.528	2.547+j12.323
TEOLOAPAN	TLP-69	69	0.88	1.16	18.576+j41.416	1.213+j12.271	0.96	1.26	18.399+j41.690	1.374+j13.391
TENANGO DEL VALLE	TDV-85	85	5.39	4.10	2.217+j8.824	1.698+j17.690	6.00	4.50	2.134+j8.745	1.775+j17.927

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(1)}	3F	1F	Z _{TH(0)}	Z _{TH(1)}
TEOTIHUACÁN	TTH-230	230	32.97	34.83	0.964+j3.911	0.382+j3.543	40.35	40.37	0.636+j3.563	0.410+j3.718
TEOTIHUACÁN	TTH-400	400	27.03	27.61	2.239+j8.244	0.958+j8.537	35.34	33.49	1.218+j7.085	1.002+j8.678
TEPEXIC	TEP-85	85	7.29	1.40	1.408+j6.583	19.958+j89.264	11.92	11.79	0.776+j4.463	0.684+j5.193
TEXCALTITLAN	TTT-115	115	5.80	4.79	2.491+j11.180	3.688+j18.189	6.78	5.51	2.221+j10.543	3.740+j17.868
TEXCOCO	TEX-230	230	39.65	45.15	0.851+j3.239	0.231+j2.324	49.20	53.03	0.517+j2.924	0.249+j2.449
TEXCOCO	TEX-400	400	28.27	31.43	2.291+j7.840	0.653+j6.284	37.39	38.55	1.233+j6.682	0.688+j6.504
TIANGUISTENCO	TIA-230	230	10.14	8.80	2.933+j12.763	2.725+j18.927	11.72	9.82	2.358+j12.238	2.846+j19.475
TINGAMBATO	TIN-115	115	5.52	4.47	2.438+j11.774	3.864+j20.109	7.44	7.56	1.614+j9.685	1.063+j9.576
TIQUICHEO	TQC-115	115	1.89	1.15	8.273+j34.230	22.916+j100.070	2.50	1.98	5.757+j28.591	9.484+j53.650
TIZAPA MANIOBRAS	TMA-115	115	7.94	6.11	1.737+j8.185	2.836+j15.533	10.01	8.33	1.322+j7.179	1.875+j11.610
TIZAYUCA	TIZ-230	230	14.99	11.93	1.371+j8.751	1.997+j15.649	17.23	13.20	1.056+j8.413	2.101+j16.186
TLAPEHUALA	TPA-115	115	2.47	1.46	8.537+j25.521	24.419+j78.231	2.93	1.85	7.563+j23.787	20.211+j66.193
TLATELULCO MÓVIL	TTO-85	85	10.47	7.08	1.040+j4.572	0.950+j11.390	11.61	7.71	0.974+j4.548	1.052+j11.654
TOLUCA	TOL-85	85	15.72	9.12	0.636+j3.056	0.654+j9.877	17.41	10.21	0.575+j3.047	0.703+j9.619
TOLUCA	TOL-230	230	14.99	15.75	2.134+j8.600	0.561+j7.644	17.61	17.84	1.596+j8.141	0.600+j7.998
TOLUCA 2000	TDK-230	230	11.76	10.22	2.595+j10.989	1.995+j16.309	13.58	11.46	2.079+j10.553	2.042+j16.592
TOPILEJO	TOP-230	230	23.31	25.75	1.336+j5.538	0.393+j4.249	28.22	29.67	0.881+j5.102	0.424+j4.507
TOPILEJO	TOP-400	400	24.91	26.89	2.680+j8.874	1.155+j7.697	33.32	33.20	1.454+j7.484	1.208+j7.921
TOTOLTEPEC	TTC-230	230	14.26	13.73	2.314+j9.021	1.422+j10.328	16.75	15.60	1.766+j8.539	1.455+j10.546
TRATAMIENTO AGUAS RESIDUALES	RAT-230	230	25.37	19.43	0.901+j5.155	2.234+j9.897	30.10	22.37	0.611+j4.814	2.216+j9.755
TREN SUBURBANO	TSU-230	230	22.78	21.34	1.278+j5.688	1.659+j6.960	27.44	24.33	0.854+j5.254	1.757+j7.271
TRIMEX	TRX-85	85	19.17	6.08	0.502+j2.510	1.982+j19.042	22.74	7.93	0.378+j2.344	2.538+j15.520
TULA	TUL-230	230	35.80	41.70	0.680+j3.646	0.167+j2.251	44.06	51.79	0.405+j3.291	0.110+j1.940
TULA	TUL-400	400	26.01	24.40	2.041+j8.643	1.477+j10.940	35.29	35.43	1.022+j7.126	0.706+j7.410
TULANCINGO	TLG-85B	85	6.17	2.32	2.089+j7.670	7.554+j46.953	7.02	3.53	2.005+j7.418	7.573+j29.602
TULANCINGO	TLG-85	85	6.17	2.32	2.089+j7.670	7.554+j46.953	7.02	3.53	2.005+j7.418	7.573+j29.602
UNIVERSIDADES	UNI-85	85	9.14	3.30	1.275+j5.214	4.326+j33.669	9.99	3.84	1.257+j5.257	5.158+j30.914
VALLE DE MÉXICO (230 KV)	VAE-230	230	41.53	43.61	0.757+j3.107	0.313+j2.987	50.51	50.07	0.485+j2.851	0.339+j3.139
VALLE DE MÉXICO (85 KV)	VDM-85	85	11.88	4.14	0.640+j4.080	3.676+j27.123	13.23	5.22	0.570+j4.039	4.195+j22.549
VALLE SAN PEDRO	VAP-230	230	16.07	11.72	1.508+j8.125	2.337+j17.508	18.55	13.08	1.164+j7.788	2.382+j17.741
VALLE TULANCINGO	VTU-85	85	4.84	2.11	2.700+j9.774	7.898+j48.919	5.48	3.27	2.622+j9.489	7.661+j29.035
VALLEJO	VAJ-85	85	18.01	6.42	0.457+j2.687	1.548+j17.471	19.70	8.59	0.407+j2.710	2.177+j13.217
VALLEJO	VAJ-230	230	22.78	21.34	1.278+j5.688	1.659+j6.960	27.44	24.33	0.854+j5.254	1.757+j7.271
VERÓNICA	VRN-85	85	25.83	5.58	0.392+j1.859	3.517+j22.350	29.66	8.20	0.321+j1.792	3.504+j15.758
VERÓNICA	VRN-85B	85	24.20	5.28	0.423+j1.983	4.743+j23.356	28.70	7.66	0.340+j1.850	4.716+j16.749
VERÓNICA	VRN-230	230	33.37	37.02	1.198+j3.795	1.113+j2.759	42.18	44.49	0.775+j3.375	1.146+j2.846
VERTIZ	VER-230	230	20.16	20.37	1.587+j6.392	1.911+j6.286	33.48	30.99	0.873+j4.275	2.305+j5.121
VICTORIA	VIC-85	85	25.96	7.59	0.373+j1.853	1.234+j15.639	30.61	10.28	0.271+j1.742	1.791+j12.137
VICTORIA	VIC-230	230	36.08	41.33	0.994+j3.544	0.254+j2.442	45.42	49.29	0.603+j3.159	0.269+j2.559
VICTORIA	VIC-400	400	23.65	23.57	2.571+j9.420	1.425+j10.208	30.90	28.73	1.400+j8.101	1.479+j10.256
VIDRIERA LOS REYES	VLR-85	85	11.17	4.56	0.794+j4.322	3.391+j23.316	12.24	5.73	0.745+j4.346	4.020+j19.063
VIDRIERA TOLUCA	VDT-85	85	14.81	7.58	0.711+j3.236	1.256+j12.695	16.15	8.37	0.660+j3.276	1.299+j12.550

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
VIDRIO PLANO	VPM-85	85	11.87	5.12	0.826+j4.052	2.494+j20.370	13.20	6.63	0.761+j4.017	3.067+j15.984
VIGA TRIFILADOS	VIG-115	115	8.29	8.81	1.527+j7.863	1.242+j6.486	9.37	9.74	1.491+j7.650	1.326+j6.786
VILLA DE LAS FLORES	VDF-85	85	6.93	3.09	1.371+j6.945	5.192+j33.093	8.33	3.86	1.079+j6.389	5.704+j28.471
VILLA GUERRERO	VGU-115	115	1.95	1.12	8.016+j33.048	24.222+j107.093	2.19	1.25	7.713+j32.435	24.273+j106.768
VILLITA	VIL-115	115	12.98	14.51	0.658+j5.072	0.419+j3.480	14.78	16.47	0.616+j4.903	0.335+j3.409
VILLITA	VIL-230	230	14.50	12.92	1.368+j9.054	2.475+j12.293	20.05	22.19	0.884+j7.231	0.420+j5.153
VITO	VIT-85	85	11.63	2.92	0.673+j4.165	6.007+j41.623	12.51	3.24	0.663+j4.263	6.496+j40.888
VITRO FIBRAS	VFI-85	85	11.95	5.13	0.821+j4.025	2.518+j20.400	13.28	6.63	0.756+j3.994	3.094+j16.022
VOLCÁN GORDO	VOG-115	115	8.80	9.06	1.397+j7.414	0.444+j6.843	10.63	10.83	1.128+j6.776	0.495+j6.523
VOLCÁN GORDO	VOG-400	400	9.83	7.93	3.881+j23.172	2.989+j40.492	16.46	12.12	1.866+j15.323	3.818+j31.923
XALOSTOC	XAL-230	230	22.17	20.51	1.307+j5.846	1.256+j7.527	32.11	26.74	0.822+j4.474	1.453+j7.266
XICOTEPEC	XIP-85	85	7.01	1.39	1.427+j6.854	20.459+j89.659	10.96	10.03	0.869+j4.848	1.525+j6.650
XOCHIMILCO	XOC-230	230	19.68	18.78	1.592+j6.558	1.365+j7.791	24.72	22.13	1.070+j5.811	1.429+j7.980
XOCHITLA	XCH-230	230	23.51	17.63	1.114+j5.538	2.316+j11.198	27.99	20.04	0.749+j5.164	2.346+j11.306
YEBUCIBI	YBC-115	115	7.62	5.18	2.232+j8.417	5.348+j20.326	8.61	5.75	2.100+j8.217	5.376+j20.450
ZAPATA ENVASES	ZAE-85	85	18.84	6.01	0.514+j2.553	2.052+j19.234	22.38	7.82	0.388+j2.380	2.607+j15.711
ZARAGOZA	ZAR-230	230	24.30	19.39	1.330+j5.300	1.902+j9.606	31.02	22.77	0.855+j4.631	1.958+j9.740
ZICTEPEC	ZIC-85	85	5.35	3.22	2.243+j8.900	4.255+j27.035	6.02	3.56	2.127+j8.708	4.319+j27.220
ZIRANDARO	ZIR-69	69	1.47	1.11	12.570+j23.951	34.898+j41.649	1.70	1.25	11.818+j22.902	34.925+j42.172
ZUMPANGO	ZUM-85	85	8.32	2.84	1.187+j5.777	5.438+j39.682	9.04	3.16	1.171+j5.857	5.925+j38.951

Gerencia de Control Regional Oriental



Regresar a mapa del SEN

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
AB CALSA	ABL-115	115	1.40	0.77	10.625+j46.309	42.908+j158.893	2.13	1.18	7.423+j33.501	32.186+j112.350
ABENT 3T	ABT-230	230	7.49	8.82	2.744+j17.510	0.979+j11.435	9.16	10.21	1.851+j15.838	1.099+j12.164
ACACOYAU	AYA-115	115	2.91	2.61	6.380+j21.909	8.581+j29.739	3.61	3.06	4.926+j19.594	8.773+j30.137
ACAHUIZOTLA	AHZ-115	115	1.95	1.34	9.438+j32.764	17.171+j78.413	2.31	1.53	7.700+j30.618	17.192+j78.310
ACAJETE	ACJ-115	115	5.22	3.23	2.663+j12.434	7.097+j35.610	5.88	3.59	2.453+j12.170	7.116+j35.668
ACALA	AAA-115	115	4.46	3.36	3.705+j14.421	9.883+j28.088	5.48	3.96	2.909+j13.009	9.718+j27.162
ACAPULCO	APC-115	115	5.25	6.76	4.428+j11.844	1.309+j3.839	7.06	8.86	2.829+j9.949	1.364+j3.930
ACATLÁN	ACA-115	115	2.84	1.68	7.291+j22.256	16.816+j69.353	3.13	1.85	7.164+j22.180	16.832+j69.463
ACATZINGO	ACZ-115	115	4.38	2.76	5.541+j14.099	10.697+j40.677	4.85	3.04	5.450+j14.023	10.723+j40.840
ACAYUCAN	ACY-115	115	10.54	7.45	1.476+j6.124	3.117+j14.038	12.93	8.78	1.193+j5.520	2.978+j13.430
ACEROS TLAXCALA	ATX-230	230	6.56	4.85	3.915+j19.870	9.278+j40.997	7.48	5.42	3.419+j19.235	9.341+j41.134
ACTOPAN	AOC-115	115	3.27	2.12	5.674+j19.479	11.785+j52.545	3.66	2.34	5.483+j19.177	11.794+j52.644
ADOLFO RUIZ CORTINEZ	ARC-115	115	5.20	6.42	4.517+j11.954	1.390+j5.172	6.96	8.31	2.909+j10.081	1.444+j5.261
AEROPUERTO	ARP-69	69	5.09	3.49	2.247+j7.500	4.598+j18.060	6.16	4.22	2.079+j6.799	4.514+j16.671
AGRONITROGENADOS	ARG-115	115	6.66	4.40	1.735+j9.810	4.920+j25.155	7.84	5.06	1.501+j9.193	4.738+j24.293
AGUA DULCE DOS	ADD-115	115	5.33	4.03	2.787+j12.144	5.640+j23.813	6.04	4.49	2.657+j11.800	5.644+j23.762
AGUA FRÍA	AGF-69	69	2.87	2.57	4.794+j13.022	5.051+j18.081	3.33	3.03	4.614+j12.330	4.967+j16.693
AGUA SANTA	AGA-115	115	9.55	5.80	1.407+j6.806	5.345+j19.789	10.64	6.40	1.323+j6.739	5.353+j19.873
AGUA ZARCA	AZA-115	115	1.77	1.06	13.073+j35.201	32.708+j108.488	2.03	1.19	11.638+j34.097	32.760+j108.588
ALMACENAMIENTOS SUBTERRÁNEOS DEL SURESTE, S.A. DE C.V.	ASG-115	115	24.21	27.82	0.562+j2.684	0.324+j1.824	34.72	36.29	0.305+j2.081	0.336+j1.827
ALMECATLA	LML-115	115	35.48	31.41	0.367+j1.835	0.476+j2.643	40.42	34.65	0.297+j1.782	0.483+j2.729
ALTOTONGA DOS	TTG-115	115	9.28	10.38	1.305+j7.031	0.622+j5.040	10.89	12.19	1.073+j6.621	0.598+j4.778
ALTZAYANCA	AZY-115	115	5.44	3.50	3.258+j11.768	7.527+j31.699	6.06	3.87	3.149+j11.640	7.548+j31.756
ALTZAYANCA MANIOBRAS	AZM-230	230	6.87	5.17	3.428+j19.024	9.652+j37.549	8.05	6.07	2.806+j17.933	9.056+j35.346
ALUMINIO	AMN-115	115	15.59	16.56	0.895+j4.163	0.749+j3.609	21.54	21.79	0.562+j3.344	0.716+j3.450
ALVARADO DOS	AVD-115	115	2.45	2.16	7.409+j26.048	7.248+j37.492	2.82	2.44	6.759+j24.960	7.371+j37.511
AMATLAN DOS	ATD-115	115	15.89	18.28	0.823+j4.096	0.245+j2.676	19.02	21.22	0.645+j3.786	0.278+j2.768
AMATLAN DOS	ATD-230	230	7.76	8.07	3.178+j16.813	1.531+j15.601	9.25	9.23	2.453+j15.596	1.705+j16.304
AMOZOC	AMZ-115	115	7.27	4.72	3.236+j8.546	6.312+j23.182	8.08	5.20	3.149+j8.477	6.327+j23.301
ANA CHIAUTEMPAN SANTA	ANC-115	115	14.13	9.27	1.083+j4.572	2.949+j11.805	15.82	10.24	1.001+j4.507	2.956+j11.863
ANDRÉS DOS SAN	ADS-115	115	2.30	1.53	9.559+j27.232	16.173+j70.617	2.99	2.84	6.899+j23.466	4.275+j29.205
ANGOSTURA	ANG-115	115	9.18	9.48	1.511+j7.071	0.682+j6.796	13.10	13.40	0.681+j5.532	0.303+j5.309
ANGOSTURA	ANG-400	400	5.25	5.48	10.809+j42.599	6.720+j41.334	13.64	17.55	1.685+j18.546	0.402+j7.566
ANTUÑANO	AUN-115	115	18.87	12.79	0.931+j3.392	1.654+j8.457	21.29	14.13	0.847+j3.324	1.662+j8.538
APAXTLA SWITCHEO	AXS-115	115	2.30	1.54	9.778+j27.201	18.286+j69.617	2.77	1.80	7.968+j25.099	17.623+j67.238
APIZACO DOS	API-115	115	11.10	7.77	1.450+j5.804	3.553+j13.285	12.38	8.57	1.356+j5.740	3.565+j13.378
AQUASISTEMAS	ASI-115	115	2.54	2.18	6.097+j25.415	8.823+j38.456	3.26	2.59	4.560+j21.937	8.829+j38.591
ARRIAGA	ARR-115	115	2.67	2.83	6.398+j24.029	3.011+j20.769	3.35	3.34	5.049+j21.220	3.113+j21.762
ATENCINGO	AEN-115	115	1.81	1.05	11.711+j34.772	28.571+j112.502	2.00	1.15	11.602+j34.711	28.581+j112.586
ATEXCACO	AXO-115	115	3.43	2.80	4.737+j18.785	11.071+j30.916	4.38	4.74	3.514+j16.293	2.108+j13.577
ATLIHUETZIA	ATZ-115	115	16.66	12.11	0.985+j3.862	2.015+j8.317	18.70	13.38	0.901+j3.799	2.027+j8.395
ATLIXCO	ATC-115	115	7.96	4.78	1.867+j8.125	6.240+j24.303	8.85	5.26	1.782+j8.060	6.247+j24.380

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			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
ATLIXCOYOTL	AXT-115	115	20.95	13.53	0.814+j3.063	1.931+j8.232	23.69	14.96	0.731+j2.995	1.937+j8.305
AUTO MANUFACTURAS	AMF-115	115	16.22	12.35	0.732+j4.028	1.954+j7.772	18.04	13.58	0.660+j3.995	1.953+j7.856
AYUTLA	AYT-115	115	1.92	1.17	10.372+j32.999	29.028+j97.116	2.23	1.32	8.810+j31.595	29.084+j97.221
BALSAS	BAA-115	115	3.22	2.32	6.796+j19.457	10.981+j43.331	4.06	2.81	5.033+j17.255	10.329+j40.970
BARRA NORTE	BRN-115	115	3.03	3.44	5.119+j21.300	3.070+j14.044	3.35	3.77	5.043+j21.191	3.183+j14.498
BELISARIO DOMÍNGUEZ	BDZ-115	115	5.42	5.12	3.415+j11.766	3.483+j14.121	7.32	6.47	2.125+j9.749	3.387+j13.608
BELISARIO DOMÍNGUEZ II	BDD-115	115	2.11	1.47	9.833+j29.876	24.808+j68.259	2.50	1.68	8.429+j27.975	24.728+j67.803
BENITO JUÁREZ	BJU-115	115	7.35	6.91	1.540+j8.903	1.769+j11.420	8.62	7.75	1.368+j8.363	1.859+j11.856
BENTELER	BEN-115	115	15.78	9.72	1.097+j4.063	2.188+j11.963	17.72	10.71	1.012+j3.996	2.199+j12.067
BII HIOXO	BII-115	115	4.95	5.88	1.430+j13.344	0.611+j8.138	6.56	7.13	1.086+j11.073	0.677+j8.788
BII HIOXO	BII-115B	115	3.59	4.53	2.153+j18.351	0.602+j8.440	5.72	6.37	1.246+j12.711	0.667+j9.139
BII NEE STIPA	BNS-115	115	7.76	10.61	1.513+j8.416	0.265+j2.137	11.24	14.44	0.840+j6.443	0.280+j2.271
BII STINÚ I	BSU-115	115	7.31	9.76	1.707+j8.926	0.302+j2.701	10.42	13.04	1.028+j6.936	0.324+j2.869
BII STINÚ II	BSD-230	230	5.77	6.68	2.314+j22.899	2.104+j18.671	8.22	8.15	1.504+j17.699	2.299+j19.692
BIO PAPEL PRINTING	BPP-115	115	6.89	6.47	1.939+j9.439	1.391+j11.975	9.12	8.04	1.487+j7.865	1.599+j11.644
BOCA DEL RIO	BDR-115	115	11.56	8.86	1.323+j5.589	2.299+j10.952	16.90	13.34	0.800+j4.247	1.473+j7.993
BOCHIL	BCH-115	115	3.51	2.31	4.658+j18.319	10.403+j47.583	4.15	2.62	4.001+j17.118	10.385+j47.385
BONFIL	BNL-115	115	4.87	5.18	4.970+j12.704	2.352+j10.995	6.37	6.41	3.355+j10.971	2.398+j11.148
BOSQUES	BOE-115	115	18.98	13.51	0.736+j3.421	1.691+j7.633	21.38	14.87	0.652+j3.353	1.707+j7.761
BRIDGESTONE	BDG-115	115	8.44	7.26	1.418+j7.738	2.118+j11.552	9.34	7.93	1.266+j7.718	2.162+j11.835
BUENA VISTA	BVI-115	115	6.55	4.36	2.144+j9.909	6.537+j24.690	7.76	5.03	1.937+j9.214	6.437+j24.255
BUGAMBILIAS	BGB-115	115	17.45	10.69	0.975+j3.679	2.804+j10.727	19.66	11.81	0.889+j3.607	2.811+j10.805
BUGAMBILIAS SF6	BGS-115	115	17.27	10.55	0.988+j3.714	2.849+j10.893	19.46	11.66	0.902+j3.643	2.856+j10.972
CACTUS PEMEX	CAX-115	115	7.60	7.68	1.671+j8.574	1.569+j8.967	8.84	8.55	1.474+j8.130	1.704+j9.469
CACTUS SWITCHCO	CSX-115	115	16.17	19.08	0.680+j4.049	0.205+j2.671	19.26	21.63	0.519+j3.756	0.228+j2.864
CALPULALPAN	CPL-115	115	4.07	3.98	4.280+j15.760	3.275+j17.560	4.40	4.27	4.393+j16.025	3.366+j18.271
CANTICAS	CIC-115	115	13.52	11.01	0.987+j4.812	1.629+j8.371	16.64	12.67	0.760+j4.323	1.646+j8.477
CARACOL	CRL-115	115	1.77	1.14	12.201+j35.552	25.500+j95.741	2.08	1.32	10.383+j33.461	24.832+j93.355
CARACOL	CRL-230	230	3.29	2.72	10.641+j38.990	14.483+j64.133	8.20	9.93	2.025+j17.709	0.475+j9.657
CARDEL	CAE-115	115	4.87	4.85	2.950+j13.300	2.633+j14.766	5.45	5.32	2.847+j13.097	2.690+j15.244
CÁRDENAS	CDN-115	115	10.46	9.50	1.403+j6.193	1.918+j8.352	12.54	10.86	1.121+j5.718	1.943+j8.492
CÁRDENAS DOS	CDD-115	115	12.54	13.13	0.997+j5.202	0.603+j4.861	15.28	15.24	0.710+j4.728	0.612+j4.972
CÁRDENAS DOS	CDD-230	230	8.02	8.27	3.221+j16.232	2.456+j16.153	10.64	10.26	1.935+j13.597	2.436+j15.803
CÁRDENAS SUR	CSU-115	115	7.98	7.06	1.968+j8.079	3.281+j11.406	9.36	7.96	1.695+j7.617	3.348+j11.638
CARLOS A. CARRILLO	CAC-115	115	3.94	2.69	5.000+j16.098	11.511+j39.076	4.69	3.13	4.522+j14.885	11.081+j37.483
CATEMACO	CTO-115	115	2.44	1.57	9.166+j25.570	16.618+j70.836	3.22	3.18	6.474+j21.703	3.170+j24.538
CAVERNAS TUZANDEPETL	CVN-115	115	13.02	9.96	1.165+j4.963	1.994+j9.772	16.40	11.62	0.907+j4.360	2.006+j9.775
CAYACO	CAY-115	115	5.99	7.02	4.134+j10.277	0.997+j6.174	8.27	9.16	2.532+j8.462	1.040+j6.303
CAZONES	CZN-115	115	8.44	6.17	1.217+j7.768	3.328+j16.323	10.40	7.44	0.980+j6.951	3.235+j15.488
CD. HIDALGO. CHIAPAS.	CGO-115	115	2.02	2.18	10.603+j31.107	4.551+j25.636	2.49	2.55	8.251+j28.164	4.959+j27.007
CD. INDUSTRIAL VILLAHERMOSA	CIH-115	115	12.11	10.81	1.176+j5.357	1.368+j7.682	14.87	12.48	0.834+j4.840	1.386+j7.803
CEBADAS Y MALTA	CBM-115	115	3.88	3.69	4.546+j16.518	4.039+j19.881	4.19	3.96	4.660+j16.783	4.130+j20.592

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(1)}	3F	1F	Z _{TH(0)}	Z _{TH(1)}
CECILIO DEL VALLE	CCL-69	69	2.01	2.44	2.466+j19.650	0.684+j9.229	2.78	3.76	1.262+j15.693	0.206+j4.615
CEFERESO	CFS-85	85	2.59	1.73	3.617+j18.627	8.575+j46.225	2.80	1.88	3.609+j18.957	8.596+j46.731
CEFERESO VILLACOMALTITLAN	CFV-115	115	2.81	2.81	6.436+j22.772	4.454+j23.398	3.52	3.32	4.835+j20.161	4.810+j24.241
CELANESE	CLS-115	115	11.63	8.57	1.365+j5.543	2.455+j11.746	14.42	9.91	1.104+j4.944	2.468+j11.749
CELCSA MANIOBRAS	CCB-115	115	12.85	12.32	0.904+j5.087	0.767+j6.096	15.46	14.00	0.722+j4.668	0.807+j6.324
CEMENTOS APASCO (TABASCO)	CEM-115	115	5.40	3.97	2.683+j11.999	8.942+j24.512	6.44	4.65	2.165+j11.135	8.597+j23.245
CEMENTOS CRUZ AZUL (OAXACA)	CCA-115	115	4.51	3.26	4.516+j14.028	7.753+j31.018	5.43	3.71	4.034+j12.819	7.780+j31.226
CEMENTOS HOLCIM APASCO	CEN-115	115	5.85	7.41	4.246+j10.530	0.491+j4.158	8.05	9.83	2.639+j8.677	0.538+j4.283
CEMENTOS MOCTEZUMA (MORELOS)	CUM-230	230	12.34	12.05	2.190+j10.538	2.243+j11.479	14.72	13.81	1.529+j9.803	2.320+j11.787
CEMENTOS MOCTEZUMA(APAZAPAN)	CMT-115	115	4.64	3.06	2.853+j14.022	5.583+j36.348	5.21	3.39	2.669+j13.764	5.601+j36.454
CEMENTOS TOLTECA	TOC-230	230	8.71	6.91	2.273+j15.081	5.778+j26.871	9.83	7.63	1.904+j14.738	5.825+j27.307
CEMENTOS VERACRUZ	CVE-115	115	10.56	8.42	1.266+j6.158	2.731+j10.886	12.25	9.54	1.100+j5.858	2.744+j10.818
CENTENARIO	CIO-85	85	3.91	2.66	2.297+j12.333	4.932+j29.827	4.19	2.87	2.282+j12.666	4.952+j30.332
CENTRAL EÓLICA SURESTE UNO FASE DOS	SUD-230	230	10.40	16.93	1.455+j12.689	0.740+j3.458	17.73	23.83	0.713+j8.208	0.757+j3.660
CENTRO DE EXPOSICIONES Y CONVENCIONES FUERTES	CEF-115	115	15.25	9.03	1.122+j4.206	2.580+j13.169	17.12	9.96	1.037+j4.138	2.591+j13.273
CERRO AZUL DOS	CDO-115	115	4.06	2.40	3.806+j15.913	19.570+j46.711	4.50	2.65	3.744+j15.808	19.583+j46.798
CERRO DE ORO	EDO-115	115	17.65	18.50	0.479+j3.730	0.257+j3.531	23.77	23.21	0.271+j3.061	0.286+j3.553
CERRO DE ORO	EDO-400	400	14.36	17.02	3.360+j15.727	1.443+j11.506	24.52	24.19	1.318+j10.275	1.492+j11.577
CERVECERÍA DEL TRÓPICO	CVT-115	115	6.51	4.81	1.841+j10.030	4.447+j21.175	7.62	5.41	1.647+j9.445	4.498+j21.382
CERVECERÍA MOCTEZUMA (ORIZABA)	CMA-115	115	11.47	8.88	1.628+j5.558	2.919+j10.611	13.79	12.34	1.403+j5.109	1.630+j7.188
CHAPULCO	CPO-115	115	8.67	5.05	1.482+j7.511	5.491+j23.585	9.64	5.56	1.396+j7.443	5.500+j23.684
CHICONTEPEC	CHI-115	115	2.62	3.23	5.595+j24.758	1.746+j10.781	2.89	3.55	5.550+j24.693	1.789+j11.085
CHIGNAHUAPAN	CHH-115	115	2.78	1.71	6.868+j22.848	19.381+j66.433	3.07	1.88	6.761+j22.803	19.404+j66.598
CHILAPA	CIP-115	115	2.42	1.85	7.077+j26.494	14.631+j50.420	2.93	2.15	5.277+j24.355	14.664+j50.343
CHILAPAN	CHP-115	115	2.38	1.55	9.384+j26.223	16.582+j71.182	3.20	3.44	6.374+j21.923	1.454+j19.405
CHILPANCINGO	CHG-69	69	1.97	2.16	2.216+j20.068	0.378+j15.080	2.25	2.73	1.513+j19.417	4.934+j10.570
CHILPANCINGO	CHG-115	115	4.49	4.34	4.571+j14.062	2.921+j16.101	6.02	5.46	2.819+j11.805	2.940+j15.956
CHILPANCINGO DOS	CCS-115	115	5.17	5.67	3.888+j12.235	1.275+j9.438	7.14	7.42	2.183+j9.991	1.289+j9.256
CHILPANCINGO POTENCIA	CGP-115	115	5.31	6.26	3.739+j11.928	0.687+j6.828	7.36	8.31	2.046+j9.708	0.719+j6.755
CHILPANCINGO POTENCIA	CGP-230	230	3.36	3.56	12.236+j37.544	4.929+j32.720	5.16	5.06	5.731+j27.732	5.129+j30.265
CHINAMECA DOS	CHD-115	115	18.51	15.88	0.715+j3.515	0.892+j5.502	24.68	19.35	0.456+j2.924	0.875+j5.381
CHINAMECA POTENCIA	CHM-115	115	20.69	20.26	0.602+j3.152	0.446+j3.591	28.09	25.06	0.352+j2.576	0.453+j3.563
CHINAMECA POTENCIA	CHM-400	400	8.06	8.10	5.052+j28.190	4.546+j30.283	13.29	11.13	2.224+j18.979	4.691+j30.439
CHONTALPA	CHT-115	115	3.92	2.91	4.089+j16.451	12.589+j32.591	4.45	3.24	3.802+j15.982	12.614+j32.731
CIA. GRESS	GRE-115	115	12.70	8.10	1.147+j5.102	3.375+j13.792	14.19	8.94	1.066+j5.037	3.381+j13.848
CICLO COMBINADO CENTRO (HUEXCA)	CBE-400	400	16.59	18.36	2.434+j13.708	1.013+j10.691	20.74	21.59	1.487+j12.157	1.142+j11.294
CINCO DE MAYO	CIY-115	115	14.28	8.96	1.233+j4.481	3.396+j12.562	16.04	9.88	1.145+j4.408	3.404+j12.651
CINTALAPA DOS	CIT-115	115	4.70	3.29	3.299+j13.732	6.595+j31.894	5.72	3.79	2.632+j12.492	6.579+j31.713
CIUDAD PEMEX	CPX-115	115	7.64	5.32	1.414+j8.572	3.881+j20.130	9.47	6.23	0.930+j7.660	3.774+j19.692
CIVAC	CIV-115	115	10.60	10.43	1.132+j6.162	0.910+j6.549	11.74	11.35	0.980+j6.142	0.954+j6.832
CLEMEX	CLX-115	115	15.01	13.02	0.955+j4.320	1.341+j6.382	16.79	14.32	0.855+j4.265	1.361+j6.530
CLORO DE TEHUANTEPEC	CLO-115	115	12.75	9.50	1.030+j5.104	1.877+j10.548	15.95	11.03	0.757+j4.516	1.890+j10.552

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			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
COAPAN	CPA-115	115	4.51	2.75	3.852+j14.207	10.106+j41.743	5.02	3.03	3.720+j14.073	10.129+j41.867
COATEPEC	COP-115	115	4.70	3.72	2.998+j13.804	5.354+j24.893	5.25	4.11	2.805+j13.621	5.400+j25.155
COATZACOALCOS DOS	CTS-115	115	24.96	26.13	0.456+j2.621	0.276+j2.491	34.87	33.25	0.233+j2.081	0.279+j2.440
COATZACOALCOS DOS	CTS-400	400	9.64	10.75	4.684+j23.497	2.294+j18.761	16.87	15.86	1.618+j14.974	2.418+j18.316
COATZINTLA	CZT-115	115	11.49	10.74	0.999+j5.692	2.027+j6.817	15.14	14.21	0.747+j4.767	1.923+j5.921
COGENERACIÓN DE ENERGÍA LIMPIA DE COSOLEACAQUE	CGC-115	115	11.47	11.86	0.976+j5.707	0.447+j5.575	13.54	13.27	0.814+j5.332	0.500+j5.926
COGENERACIÓN NUEVO PEMEX	CNX-115	115	16.17	19.08	0.680+j4.049	0.205+j2.671	19.26	21.63	0.519+j3.756	0.228+j2.864
COLOTLIPA	CLT-69	69	0.95	1.06	12.517+j40.068	23.335+j21.390	1.19	1.91	9.121+j35.607	0.553+j4.607
COMALCALCO	COM-115	115	8.16	7.36	1.812+j7.928	3.082+j10.663	9.62	8.33	1.513+j7.443	3.128+j10.843
COMALCALCO ORIENTE	CAO-115	115	8.47	8.21	1.560+j7.682	1.818+j8.695	9.98	9.29	1.257+j7.210	1.876+j8.926
COMALCALCO POTENCIA	CMP-115	115	8.77	8.96	1.436+j7.435	1.143+j7.307	10.35	10.14	1.132+j6.968	1.208+j7.566
COMALCALCO POTENCIA	CMP-230	230	5.37	5.14	4.655+j24.272	5.064+j28.970	6.63	5.98	3.352+j21.787	5.316+j29.503
COMITÁN	CJT-115	115	1.42	0.98	15.180+j44.333	42.619+j101.390	1.63	1.10	13.896+j42.700	42.222+j99.881
COMPLEJO PETROQUÍMICO CANGREJERA	CGJ-115	115	7.32	4.74	2.077+j8.827	5.556+j23.482	9.41	5.65	1.570+j7.604	5.374+j22.620
COMPLEJO PETROQUÍMICO COSOLEACAQUE	CPQ-115	115	6.81	4.37	2.049+j9.526	5.721+j25.684	9.29	6.98	1.328+j7.745	2.062+j15.440
COMPLEJO PETROQUÍMICO INDEPENDENCIA	PEI-115	115	10.45	8.24	1.304+j6.217	2.005+j11.370	11.85	10.30	1.175+j6.051	1.261+j8.981
COMPLEJO PETROQUÍMICO MORELOS	PMO-115	115	8.58	8.72	1.076+j7.660	0.542+j8.217	9.78	9.52	0.983+j7.401	0.620+j8.748
CONEJOS	CNJ-115	115	1.42	0.81	13.460+j44.679	34.815+j149.467	1.59	0.89	12.885+j44.011	34.837+j149.599
CONTLA	CNU-115	115	20.89	14.32	0.662+j3.109	1.716+j7.436	23.57	15.84	0.584+j3.043	1.722+j7.497
CÓRDOBA	COR-115	115	11.74	8.83	1.080+j5.551	2.680+j11.085	13.72	10.01	0.908+j5.246	2.693+j11.065
CÓRDOBA DOS	CBS-115	115	13.67	12.14	0.955+j4.761	1.407+j6.694	16.15	13.87	0.778+j4.454	1.432+j6.743
COSCOMATEPEC	CSE-115	115	4.75	2.86	2.542+j13.740	11.842+j40.160	5.35	3.18	2.365+j13.442	11.852+j40.103
COSOLAPA	CSL-115	115	4.11	3.20	2.613+j15.950	4.011+j30.289	4.92	3.96	2.192+j14.672	4.039+j28.172
COSTA AZUL	CAZ-115	115	5.51	6.37	4.362+j11.236	1.156+j7.078	7.42	8.15	2.757+j9.450	1.199+j7.241
COYUCA	CYC-115	115	4.61	4.55	4.667+j13.611	2.851+j14.721	6.34	5.88	2.963+j11.141	2.861+j14.037
CRISOL TEXTIL	CTX-115	115	10.31	6.86	1.154+j6.337	3.912+j15.762	11.44	7.52	1.080+j6.294	4.007+j15.936
CRISTÓBAL SAN	CRI-115	115	4.56	3.23	3.871+j14.028	9.352+j31.385	5.56	3.75	3.116+j12.752	9.312+j30.853
CRUCES	CRC-69	69	6.72	7.25	1.874+j5.622	1.920+j4.205	8.55	8.89	1.274+j4.965	1.995+j4.224
CRUCES GENERACIÓN	CUG-115	115	5.97	6.98	4.111+j10.332	1.052+j6.242	8.25	9.13	2.506+j8.489	1.100+j6.340
CRUZ AZUL MANIOBRAS	CZM-400	400	10.43	8.14	3.418+j21.885	8.150+j40.957	12.99	9.43	2.151+j19.435	8.314+j41.410
CRUZ GRANDE	CGN-115	115	2.04	1.30	10.789+j30.769	28.396+j84.163	2.37	1.46	9.250+j29.396	28.451+j84.267
CRYO INFRA DOS	CRX-115	115	7.10	5.01	2.449+j9.026	4.569+j20.722	8.38	5.67	2.180+j8.438	4.582+j20.725
CRYO_INFRA	CRY-115	115	14.61	13.73	0.910+j4.451	0.770+j5.668	18.41	15.94	0.651+j3.914	0.809+j5.897
CRYOINFRA - PRAXAIR	CYX-115	115	8.55	8.45	1.114+j7.687	0.575+j8.882	9.75	9.24	1.020+j7.419	0.656+j9.391
CRYOINFRA CÁRDENAS	ICD-115	115	10.12	9.08	1.459+j6.399	2.142+j8.861	12.09	10.36	1.177+j5.924	2.167+j9.001
CUAUHTÉMOC	CTM-115	115	8.45	5.78	1.814+j7.650	4.194+j18.342	9.41	6.37	1.714+j7.570	4.209+j18.448
CUAUTLA	CUA-115	115	9.35	7.91	1.458+j6.949	1.672+j10.913	10.30	8.57	1.361+j6.956	1.745+j11.307
CUAUTLA DOS	CUS-115	115	7.33	4.99	1.943+j8.849	4.301+j21.398	8.07	5.46	1.847+j8.857	4.321+j21.625
CUAUTLA INDUSTRIAL	CIL-115	115	6.60	4.57	2.283+j9.792	4.845+j23.056	7.27	4.99	2.187+j9.800	4.883+j23.347
CUCHAPA PEMEX	CUH-115	115	8.77	6.05	1.747+j7.366	3.682+j17.628	10.44	6.87	1.518+j6.830	3.685+j17.577
CUERNAVACA	CUE-85	85	6.00	4.75	1.581+j8.024	1.974+j14.539	6.35	5.04	1.569+j8.352	1.994+j15.042
CUETZALAN	CTZ-115	115	4.94	3.22	2.390+j13.236	9.436+j33.949	5.56	3.58	2.240+j12.938	9.454+j33.883

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CUICATLAN	CUX-115	115	1.71	1.21	11.125+j37.183	21.383+j84.579	1.89	1.33	10.881+j36.992	21.424+j84.924
CUICHAPA DOS	CCP-115	115	9.01	6.18	1.694+j7.173	3.606+j17.308	10.74	7.03	1.465+j6.637	3.610+j17.257
CUITLÁHUAC	CTH-115	115	4.57	2.87	2.692+j14.292	9.039+j39.554	5.14	3.18	2.511+j13.984	9.072+j39.646
CUNDUACÁN	DUA-115	115	5.74	3.94	2.128+j11.366	5.763+j27.111	6.63	4.41	1.830+j10.871	5.774+j27.188
CYCNA DE ORIENTE	CYR-400	400	8.10	6.06	3.951+j28.219	11.181+j57.193	9.80	6.90	2.675+j25.778	11.466+j57.990
DISTRITO INDUSTRIAL	DIN-69	69	9.20	9.15	0.555+j4.293	0.467+j4.433	12.13	12.18	0.402+j3.592	0.535+j3.902
DONAJI	DOJ-115	115	4.00	2.54	4.226+j16.046	10.196+j44.578	4.65	2.84	3.882+j15.223	10.195+j44.635
DOS BOCAS CICLO COMBINADO	DBC-115	115	12.86	11.68	1.145+j5.034	1.574+j6.734	20.32	22.91	0.588+j3.546	0.307+j2.776
DOS BOCAS CICLO COMBINADO	DBC-230	230	8.95	7.90	2.893+j14.558	4.432+j20.854	11.64	9.68	1.883+j12.407	4.365+j20.364
DOS BOCAS PEMEX	DBX-115	115	4.49	3.84	3.366+j14.390	8.390+j21.145	5.12	4.28	3.055+j13.930	8.451+j21.396
DPA DRAEXLMAIER, PARTES AUTOMOTORAS DE MÉXICO	DXM-115	115	11.13	7.34	1.092+j5.864	3.814+j14.790	12.37	8.05	1.017+j5.816	3.921+j14.975
EASTMAN (CHEMICAL)	EAS-115	115	6.59	4.30	3.081+j9.597	6.342+j25.655	7.73	4.86	2.819+j9.013	6.326+j25.534
EJUTLA	EJT-115	115	2.78	2.71	6.186+j23.049	5.450+j25.553	3.10	2.98	5.894+j22.810	5.526+j26.044
EL CARMEN	CNM-115	115	12.92	13.59	0.849+j5.068	0.545+j4.693	15.55	15.50	0.594+j4.658	0.576+j4.921
EL CARMEN	CNM-230	230	8.56	9.65	2.762+j15.270	1.625+j11.606	10.94	11.58	1.697+j13.241	1.688+j11.964
EL CASTILLO	ELC-115	115	7.78	9.02	1.808+j8.337	0.447+j5.168	8.79	10.02	1.615+j8.147	0.500+j5.456
EL CASTILLO	ELC-230	230	4.93	4.92	5.330+j26.386	3.539+j27.355	5.78	5.61	4.428+j24.864	3.981+j28.115
EL CERRO	CEO-115	115	6.78	4.27	2.137+j9.552	5.691+j26.643	7.65	4.74	1.938+j9.343	5.720+j26.789
EL CONDE	ECN-115	115	20.17	15.02	0.776+j3.200	1.268+j6.635	22.76	16.59	0.696+j3.132	1.276+j6.720
EL GIRASOL	GIS-115	115	1.49	1.02	12.381+j42.880	25.229+j103.996	1.65	1.12	12.136+j42.690	25.271+j104.342
EL GUAYABO	GYB-115	115	2.60	1.48	5.022+j24.989	18.752+j81.649	10.30	6.86	1.352+j6.958	4.197+j17.596
EL JÍCARO	JIC-115	115	3.95	2.36	3.150+j16.492	11.153+j50.055	6.31	3.82	1.964+j11.405	7.257+j33.748
EL MORAL (OAXACA)	MOR-115	115	2.42	1.84	8.138+j26.231	12.124+j52.215	2.68	2.03	7.896+j26.038	12.164+j52.558
EL MORAL (PUEBLA)	MOA-115	115	9.87	6.52	1.205+j6.620	3.894+j16.676	10.93	7.17	1.132+j6.585	3.935+j16.784
EL SABINO	SAB-115	115	14.03	14.49	1.012+j4.623	0.478+j4.576	21.45	20.37	0.386+j3.383	0.430+j4.031
EL SABINO	SAB-400	400	6.45	6.94	8.477+j34.789	4.160+j31.501	15.28	14.03	1.472+j16.564	3.669+j22.002
EL TEJAR	TJR-115	115	12.80	11.53	1.152+j5.059	1.602+j6.903	20.06	21.53	0.603+j3.591	0.441+j3.269
EL TREINTA	ETT-115	115	5.05	5.10	4.640+j12.312	2.498+j12.565	6.74	6.37	3.021+j10.404	2.551+j12.636
EL TULE	TLE-115	115	3.40	2.85	5.257+j18.790	6.956+j30.603	3.80	3.14	4.993+j18.534	6.995+j30.971
EL ZOPO	ZOP-115	115	5.94	4.43	2.434+j10.908	7.708+j21.708	7.15	5.24	1.908+j10.035	7.363+j20.441
EMILIANO ZAPATA	EMZ-115	115	2.53	1.45	6.944+j25.255	18.584+j82.872	2.86	1.62	6.654+j24.618	18.521+j82.614
ENCANTO	ECT-115	115	4.41	4.79	3.585+j14.623	2.173+j11.553	5.14	5.81	3.179+j13.846	1.475+j9.439
ENTABLADERO	ETD-115	115	6.29	4.01	2.044+j10.357	9.884+j27.046	6.99	4.43	1.980+j10.263	9.929+j27.105
ESCÁMELA	ECM-115	115	10.79	8.51	1.199+j6.038	2.520+j10.950	12.59	9.81	1.024+j5.711	2.448+j10.596
ESFUERZO	ESF-115	115	3.32	2.96	4.797+j19.437	7.996+j26.359	3.67	3.26	4.720+j19.325	8.044+j26.644
ESPERANZA	ERZ-115	115	7.27	6.25	2.285+j8.839	2.283+j13.497	8.10	6.80	2.192+j8.748	2.401+j14.036
ETLA	ETX-115	115	3.45	2.89	5.515+j18.424	6.566+j30.273	3.85	3.18	5.263+j18.208	6.609+j30.656
EXCELOPOLIS	EXE-115	115	18.53	11.41	0.900+j3.468	2.418+j10.075	20.90	12.61	0.815+j3.397	2.423+j10.150
FENO QUIMIA	FNQ-115	115	6.89	4.34	2.087+j9.412	5.830+j26.233	8.47	5.32	1.705+j8.451	4.916+j23.416
FERMEX	FEM-115	115	10.73	7.96	1.701+j5.949	3.700+j12.241	12.77	10.21	1.487+j5.525	2.907+j9.777
FLORES MAGÓN	FLM-115	115	3.40	2.60	5.117+j18.853	13.343+j35.420	4.12	3.07	4.115+j17.225	12.955+j33.922
FORJAMEX	FJM-115	115	11.90	9.54	1.217+j5.446	2.285+j9.537	13.27	10.48	1.121+j5.389	2.306+j9.695

Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Oriental

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
FORTÍN	FOR-115	115	13.72	10.66	0.913+j4.752	2.207+j8.877	16.19	12.18	0.743+j4.449	2.218+j8.821
FRAMBOYANES	FRY-115	115	16.18	22.58	0.847+j4.016	0.236+j0.744	22.05	30.78	0.539+j3.269	0.235+j0.698
FRONTERA	FRT-115	115	1.45	1.00	12.403+j44.162	42.881+j98.997	1.61	1.11	12.040+j43.686	42.905+j99.153
FRONTERA COMALAPA	FCM-115	115	0.99	0.59	19.554+j64.307	57.060+j194.152	1.12	0.66	18.037+j62.461	56.971+j193.676
FUERTES	FUE-115	115	16.37	10.77	1.049+j3.917	2.002+j10.273	18.41	11.87	0.964+j3.849	2.013+j10.376
GABINO BARREDA	GBA-115	115	9.10	7.25	1.400+j7.158	3.072+j12.938	11.66	8.71	1.113+j6.167	3.110+j12.614
GARITA	GAR-115	115	5.64	6.35	4.141+j11.014	1.300+j7.715	7.72	8.20	2.543+j9.115	1.351+j7.800
GESTAMP PUEBLA II S.A. DE C.V.	GEP-115	115	22.19	16.61	0.703+j2.908	1.135+j5.968	25.13	18.30	0.618+j2.840	1.150+j6.096
GIRANDAS PEMEX	GIR-115	115	5.26	3.67	2.778+j12.316	7.222+j28.447	6.02	4.09	2.522+j11.864	7.239+j28.556
GLICOMEX	GLI-115	115	10.52	8.05	1.393+j6.156	2.972+j11.836	11.71	8.85	1.298+j6.099	2.993+j11.994
GLOBAL DENIM	GDM-115	115	18.57	14.99	0.627+j3.520	1.296+j6.065	20.67	16.49	0.554+j3.489	1.303+j6.141
GRAN PRIDECO	GRA-115	115	12.98	12.79	1.121+j4.991	1.632+j5.275	16.90	15.81	0.815+j4.243	1.631+j5.229
GRIJALVA	GIA-115	115	5.89	4.04	2.973+j10.875	5.517+j26.503	7.43	4.78	2.236+j9.566	5.411+j25.765
GUADALUPE ANALCO	GAN-115	115	17.44	11.83	0.937+j3.690	2.103+j9.057	19.68	13.06	0.847+j3.614	2.112+j9.155
GUTIÉRREZ ZAMORA DOS	GZD-115	115	5.82	4.12	1.844+j11.265	5.460+j25.080	6.51	4.57	1.743+j11.090	5.466+j25.005
HELIPUERTO	HEL-115	115	2.45	2.47	6.561+j26.241	4.177+j26.370	2.99	2.89	4.781+j23.951	4.250+j26.919
HUAJUAPAN	HJP-115	115	1.80	1.08	11.154+j35.138	25.686+j107.430	1.99	1.19	10.989+j35.036	25.705+j107.559
HUAMANTLA DOS	HUA-115	115	8.93	6.18	1.643+j7.253	3.891+j16.960	9.96	6.82	1.544+j7.170	3.907+j17.067
HUAMUXTITLAN	HUU-115	115	0.90	0.56	21.115+j70.652	50.633+j201.870	1.02	0.62	19.191+j68.625	50.667+j201.789
HUATULCO	HCO-115	115	1.42	0.81	13.984+j44.621	34.874+j148.017	1.59	0.89	13.418+j44.008	34.897+j148.155
HUATUSCO	HTU-115	115	3.49	2.04	3.482+j18.722	16.639+j57.568	3.90	2.26	3.303+j18.427	16.650+j57.511
HUAUTLA DE JIMÉNEZ	HUJ-115	115	1.01	0.64	17.011+j63.493	40.196+j174.396	1.12	0.71	16.762+j63.306	40.238+j174.745
HUEJOTZINGO	HJO-115	115	11.90	8.08	1.029+j5.486	3.621+j13.073	13.22	8.85	0.955+j5.440	3.744+j13.280
HUEYAPAN	HYN-115	115	2.74	2.15	6.142+j23.485	15.524+j41.936	3.39	3.24	4.912+j21.000	6.558+j24.595
HUEYAPAN DE OCAMPO	HOC-115	115	3.30	1.98	6.621+j19.029	14.622+j59.097	4.02	2.84	5.521+j17.301	8.806+j40.403
HUIMANGUILLO	HMG-115	115	5.75	4.89	2.850+j11.188	5.650+j17.097	6.61	5.44	2.583+j10.736	5.776+j17.436
HUIXTLA	HUX-115	115	3.19	2.50	6.307+j19.868	13.232+j35.753	3.93	2.93	4.957+j17.932	13.157+j35.305
HUMEROS DOS	HMD-115	115	6.03	7.21	2.342+j10.767	0.847+j6.265	6.92	8.31	2.181+j10.322	0.901+j5.887
HUMEROS LOS	HMS-115	115	4.00	4.37	3.484+j16.249	2.401+j12.917	4.56	5.22	3.279+j15.694	1.652+j10.550
HUMEROS TRES	HMT-115	115	5.85	6.73	2.354+j11.100	0.930+j7.648	6.66	7.58	2.218+j10.735	1.025+j7.642
IDESA	IDE-115	115	9.08	8.48	1.067+j7.237	0.987+j9.554	10.45	9.36	0.957+j6.924	1.055+j9.937
IGUALA	IGU-115	115	2.41	2.80	6.857+j26.700	1.414+j16.038	2.93	3.28	5.064+j24.427	1.565+j17.049
INDEPENDENCIA	IPD-115	115	3.26	2.22	5.132+j19.738	10.412+j48.203	3.93	2.57	4.165+j18.089	10.157+j47.135
INDUSTRIAL	INT-115	115	18.11	12.25	0.924+j3.548	1.736+j8.833	20.40	13.50	0.839+j3.481	1.749+j8.949
INDUSTRIAL CUAUTLA DOS	ICS-115	115	6.55	4.48	2.302+j9.878	4.960+j23.690	7.21	4.90	2.206+j9.886	4.995+j23.970
INDUSTRIAL PATRONA	IPA-115	115	13.60	11.52	0.962+j4.786	1.643+j7.480	16.06	13.14	0.785+j4.479	1.668+j7.530
INFONAVIT	IFN-115	115	13.81	12.42	1.104+j4.678	1.329+j6.482	19.38	16.68	0.712+j3.701	1.124+j5.780
INFRA VILLA HERMOSA	IVH-115	115	11.28	9.72	1.343+j5.732	1.823+j8.866	13.76	11.18	1.001+j5.214	1.841+j8.986
INGENIO LA GLORIA	GLR-115	115	4.24	5.14	3.353+j15.301	0.677+j9.140	4.69	5.56	3.316+j15.224	0.760+j9.895
INGENIO SAN NICOLÁS	ISN-115	115	3.31	1.86	3.349+j19.756	16.013+j65.301	4.11	4.75	2.621+j17.593	1.571+j17.352
IQUISA	IQU-115	115	15.22	15.32	0.852+j4.279	0.437+j4.572	19.28	17.86	0.593+j3.742	0.480+j4.823
ISLA	ISL-115	115	2.64	1.59	6.873+j24.166	21.386+j72.168	2.99	1.77	6.602+j23.532	21.358+j71.887

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
ITUNDUJIA	ITU-115	115	0.76	0.45	24.002+j83.994	58.451+j256.411	0.84	0.50	23.787+j83.857	58.479+j256.634
IXHUATLAN DE MADERO	IXH-115	115	1.46	1.30	7.952+j44.736	24.530+j59.123	1.61	1.43	7.873+j44.605	24.545+j59.246
IXTAPA POTENCIA	ITP-115	115	6.08	5.16	1.238+j10.848	2.876+j16.514	8.85	7.08	1.206+j8.164	2.741+j14.193
IXTAPA POTENCIA	ITP-230	230	6.78	4.86	2.926+j19.364	10.850+j41.511	8.54	6.04	2.283+j16.948	9.837+j37.246
IXTEPEC	IXP-115	115	3.86	3.04	4.070+j16.691	7.071+j30.742	4.85	3.55	3.341+j14.691	7.076+j30.838
IXTEPEC POTENCIA	IPO-115	115	19.15	28.60	0.298+j3.454	0.118+j1.497	30.54	37.30	0.115+j2.389	0.127+j1.610
IXTEPEC POTENCIA	IPO-230	230	11.98	20.79	1.077+j11.032	0.213+j2.564	22.04	30.91	0.349+j6.618	0.227+j2.762
IXTEPEC POTENCIA	IPO-400	400	8.63	17.01	3.352+j26.560	0.880+j6.570	17.09	26.76	0.986+j14.830	0.935+j6.972
IXTLAN DE JUÁREZ	IXJ-115	115	2.83	1.99	5.761+j22.720	11.686+j52.285	3.17	2.20	5.517+j22.401	11.717+j52.535
IZUCAR DE MATAMOROS	Izm-115	115	2.83	1.65	7.999+j22.028	19.135+j71.198	3.13	1.82	7.891+j21.965	19.144+j71.281
IZUCAR DE MATAMOROS DOS	Izd-115	115	2.95	1.73	7.711+j21.165	18.679+j67.714	3.26	1.90	7.606+j21.102	18.689+j67.795
J. B. LOBOS	JBL-115	115	12.19	10.95	1.171+j5.317	1.610+j7.308	16.45	14.18	0.784+j4.370	1.447+j6.703
JALACINGO	JAL-115	115	9.48	10.78	1.264+j6.889	0.467+j4.648	11.13	12.69	1.032+j6.479	0.443+j4.385
JALACINGO	JAL-230	230	7.55	7.28	3.370+j17.267	3.154+j19.703	9.27	8.93	2.519+j15.556	3.000+j18.117
JALAPA DOS	JLD-115	115	4.83	3.90	2.951+j13.423	4.901+j23.164	5.40	4.31	2.755+j13.241	4.950+j23.436
JALPA	JAA-115	115	7.49	5.91	1.853+j8.663	4.527+j15.679	8.78	6.66	1.560+j8.174	4.547+j15.795
JARDÍN	JDN-115	115	16.41	18.20	0.859+j3.955	0.529+j2.976	23.07	24.63	0.522+j3.123	0.487+j2.775
JARDÍN	JDN-230	230	10.84	10.83	2.582+j11.977	2.082+j12.692	14.69	13.83	1.563+j9.822	1.998+j12.278
JIUTEPEC	JIU-115	115	9.86	8.94	1.115+j6.639	1.193+j8.778	10.97	9.75	0.980+j6.588	1.251+j9.090
JOJUTLA	JJT-115	115	6.57	4.71	2.129+j9.874	4.393+j21.733	7.35	5.19	1.964+j9.737	4.414+j21.905
JUCHITÁN DOS	JUD-115	115	8.35	11.79	1.412+j7.823	0.127+j1.472	12.37	16.49	0.740+j5.858	0.134+j1.581
JUCHITÁN DOS	JUD-230	230	5.27	7.03	4.250+j24.824	0.860+j7.898	8.94	10.72	1.860+j16.224	0.908+j8.397
JUCHITÁN UNO	JUC-115	115	6.53	7.11	2.091+j9.947	1.686+j7.999	9.07	9.02	1.373+j7.935	1.691+j8.094
JUILE	JUI-115	115	4.09	2.54	4.244+j15.651	10.140+j45.306	4.70	2.84	3.959+j15.027	10.057+j44.950
JUILE	JUI-230	230	10.30	13.07	1.625+j12.790	0.615+j6.748	14.32	16.18	0.683+j10.181	0.648+j7.148
JUILE	JUI-400	400	11.86	14.11	3.684+j19.116	2.995+j17.128	23.29	20.57	1.032+j10.857	3.072+j17.021
JUY JUY	JUY-115	115	10.89	11.89	1.304+j5.956	0.673+j4.805	15.12	15.32	0.702+j4.778	0.653+j4.701
KILOMETRO VEINTE	KLV-115	115	18.08	19.93	0.789+j3.587	0.339+j2.937	24.28	24.74	0.415+j2.979	0.348+j2.977
KILOMETRO VEINTE	KLV-230	230	10.85	11.79	2.798+j11.918	1.466+j10.360	16.28	15.86	1.194+j8.890	1.491+j10.124
KIMBERLEY CLARK	KIA-115	115	12.41	10.12	1.172+j5.218	1.677+j8.912	13.83	11.11	1.071+j5.170	1.700+j9.075
KIMBERLEY CLARK, PUÉ.	KIC-115	115	11.53	9.14	1.271+j5.619	1.959+j10.154	12.83	10.04	1.171+j5.570	1.981+j10.316
KIMBERLEY CLARK, VER.	KIM-115	115	12.74	11.54	0.958+j5.122	1.094+j6.882	15.06	13.09	0.778+j4.788	1.170+j7.068
KRUPP METALÚRGICA	KRU-115	115	13.98	9.00	0.846+j4.675	2.980+j12.351	15.61	9.95	0.772+j4.615	2.981+j12.382
LA BARRA	LBR-115	115	3.43	4.11	4.402+j18.843	1.535+j9.894	3.80	4.51	4.327+j18.734	1.589+j10.245
LA CHOCA	LCH-115	115	14.30	13.25	1.010+j4.533	1.127+j5.972	17.79	15.45	0.700+j4.046	1.140+j6.062
LA CIÉNEGA	CIG-115	115	5.07	5.76	3.450+j12.646	1.094+j8.785	5.70	6.33	3.187+j12.402	1.173+j9.309
LA CIÉNEGA	CIG-230	230	2.77	3.04	12.187+j46.329	4.974+j36.406	3.16	3.37	11.016+j44.940	5.321+j38.428
LA CURVA	LVA-115	115	8.12	5.93	1.382+j8.063	3.309+j17.273	10.02	6.96	0.908+j7.236	3.203+j16.835
LA GARZA	LGZ-115	115	1.86	1.12	10.177+j34.240	28.595+j102.549	2.12	1.25	9.471+j33.136	28.558+j102.208
LA GLORIA MANIOBRAS	GLM-115	115	4.27	5.11	3.345+j15.169	0.845+j9.594	4.73	5.53	3.304+j15.082	0.926+j10.330
LA GRANJA TRES	GRT-115	115	8.43	5.74	1.508+j7.727	4.320+j18.861	12.89	9.59	0.920+j5.589	2.431+j11.658
LA GUADALUPE	LGP-115	115	1.69	1.16	9.313+j38.282	28.418+j88.637	1.88	1.30	8.991+j37.706	28.017+j87.127

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
LA MALINCHE	MLC-115	115	17.85	18.62	0.748+j3.644	0.330+j3.334	19.92	20.25	0.659+j3.606	0.361+j3.547
LA MALINCHE	MLC-230	230	11.72	12.22	2.393+j11.078	1.214+j10.139	13.53	13.65	1.962+j10.613	1.314+j10.658
LA REFORMA	RFA-115	115	9.89	7.56	1.248+j6.593	2.669+j13.039	11.59	8.51	1.040+j6.214	2.682+j13.147
LA REINA	RNA-115	115	5.96	4.94	2.365+j10.886	2.847+j17.964	6.69	5.47	2.178+j10.699	2.887+j18.196
LA TINAJA	TNJ-115	115	1.60	0.88	9.576+j40.431	37.456+j139.099	2.58	1.43	6.394+j27.608	26.748+j92.581
LA TRINITARIA	TNI-115	115	0.70	0.41	24.286+j92.112	75.921+j283.498	0.78	0.46	22.759+j90.258	75.830+j283.018
LA UNIÓN	UNN-115	115	5.79	2.39	2.382+j11.211	16.478+j58.013	8.41	4.21	1.790+j8.499	9.243+j33.392
LA VENTA DOS	VED-115	115	4.95	3.82	2.912+j13.104	5.688+j24.287	5.54	4.24	2.842+j12.872	5.691+j24.235
LA VENTA DOS	LVD-230	230	4.56	5.88	4.667+j28.772	1.340+j10.993	7.60	8.78	2.129+j19.106	1.413+j11.625
LA VENTA MANIOBRAS	VMN-230	230	4.11	5.25	5.051+j31.899	1.088+j12.768	6.80	7.76	2.316+j21.348	1.196+j13.649
LA VENTA PEMEX	VEP-115	115	4.89	3.74	2.943+j13.268	5.886+j25.011	5.47	4.15	2.877+j13.044	5.890+j24.959
LACANJÁ	LCJ-115	115	0.72	0.48	25.729+j88.770	90.906+j210.673	0.81	0.54	24.536+j87.341	87.859+j203.478
LAGUNA DE TRES PALOS	LTP-115	115	4.79	5.12	4.974+j12.940	2.370+j11.020	6.25	6.32	3.356+j11.198	2.416+j11.173
LAGUNA VERDE	LAV-230	230	9.87	11.06	1.626+j13.353	0.573+j9.668	11.90	13.02	1.045+j12.229	0.532+j9.616
LAGUNA VERDE	LAV-400	400	11.64	13.83	2.913+j19.619	0.910+j12.154	16.61	20.51	1.365+j15.236	0.458+j8.127
LAMOSA	LOA-115	115	20.83	18.02	0.577+j3.135	0.834+j4.672	23.20	19.81	0.505+j3.108	0.846+j4.743
LAPSOLITE	LSL-115	115	15.21	11.35	0.797+j4.293	2.261+j8.605	16.90	12.48	0.724+j4.260	2.257+j8.692
LAS BRISAS	BRS-115	115	14.20	12.76	1.082+j4.551	1.112+j6.347	19.63	16.49	0.707+j3.652	1.027+j6.035
LAS CHOAPAS DOS	LHD-115	115	3.32	2.07	5.789+j19.141	12.425+j55.012	3.76	2.31	5.551+j18.614	12.429+j54.961
LAS JUNTAS	LJU-115	115	1.72	1.04	11.491+j36.751	26.647+j111.140	1.90	1.14	11.317+j36.642	26.667+j111.280
LAS MARGARITAS	MGs-115	115	4.55	3.02	2.731+j14.331	8.987+j35.861	5.18	3.39	2.512+j13.868	8.996+j35.692
LAS MATAS	MAS-115	115	11.39	7.92	1.116+j5.723	2.798+j13.422	15.16	10.74	0.735+j4.761	1.885+j10.606
LAS TRANCAS	TRN-115	115	6.34	5.60	2.256+j10.220	2.748+j14.511	7.13	6.21	2.067+j10.034	2.789+j14.759
LAS VIGAS DOS	VGS-115	115	4.62	2.87	2.919+j14.079	7.433+j40.111	5.21	3.20	2.699+j13.762	7.438+j40.064
LERDO	LRD-115	115	2.29	1.89	8.453+j27.780	8.959+j46.324	2.72	2.37	7.188+j25.910	7.146+j38.560
LIBERACIÓN MEXICANA	LMX-115	115	2.77	2.21	6.061+j23.230	8.399+j41.455	3.34	2.53	5.084+j21.269	8.449+j41.928
LIBRES	LIB-115	115	4.60	3.10	3.836+j13.926	8.166+j34.702	5.13	3.43	3.706+j13.732	8.205+j34.720
LOMA BONITA DOS	LBD-115	115	3.39	2.06	5.237+j18.864	17.233+j55.430	3.89	2.30	4.955+j18.090	17.246+j55.165
LOMAS COCOYOC	LOC-115	115	9.25	6.51	1.562+j7.009	3.197+j15.967	10.19	7.12	1.465+j7.015	3.212+j16.172
LOMAS DEL MAR	LMM-115	115	5.48	6.34	4.391+j11.282	1.202+j7.141	7.38	8.09	2.787+j9.496	1.245+j7.304
LÓPEZ MATEOS	LME-115	115	12.29	9.89	1.143+j5.281	1.820+j9.446	15.08	11.31	0.893+j4.761	1.851+j9.632
LOS AMATES	LAT-115	115	6.11	8.01	4.111+j10.049	0.276+j3.171	8.47	10.72	2.513+j8.251	0.319+j3.334
LOS AMATES	LAT-230	230	3.33	4.10	14.423+j37.222	1.887+j17.515	4.76	5.54	8.220+j29.562	2.149+j18.156
LOS ARCOS	AOS-115	115	14.01	15.30	0.698+j4.687	0.350+j3.573	15.51	16.64	0.591+j4.670	0.362+j3.764
LOS RÍOS	LRS-115	115	5.34	4.24	2.405+j12.198	4.929+j21.840	6.80	6.02	1.363+j10.646	2.277+j15.025
LOS RÍOS	LRS-230	230	3.87	2.84	7.874+j33.376	17.716+j70.479	5.90	4.99	3.373+j24.514	7.113+j38.818
MACTUMATZA	MAA-115	115	8.71	5.84	1.921+j7.376	3.063+j18.959	11.63	7.04	1.259+j6.151	3.011+j18.445
MACULTEPEC	MCL-115	115	6.56	5.35	2.441+j9.823	6.164+j16.280	7.64	6.02	2.102+j9.327	6.187+j16.434
MACUSPANA	MCP-115	115	6.10	4.63	2.365+j10.631	7.007+j20.510	7.31	5.41	1.865+j9.811	6.794+j19.690
MACUSPANA DOS	MCD-115	115	11.92	10.65	0.981+j5.484	1.199+j7.793	15.41	13.10	0.511+j4.712	1.093+j7.354
MACUSPANA DOS	MCD-230	230	8.59	7.63	3.469+j15.072	4.349+j21.966	12.66	10.33	1.507+j11.437	3.815+j19.552
MAGDALENA 1 MANIOBRAS	MAN-400	400	8.95	9.52	3.517+j25.556	1.965+j21.692	11.02	11.06	2.250+j22.942	2.173+j23.067

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
MAGDALENA 2 MANIOBRAS	MAN-230	230	7.98	8.60	2.746+j16.419	1.562+j13.138	9.59	9.89	2.099+j15.089	1.716+j13.891
MALINALTEPEC	MLN-115	115	1.05	0.62	16.418+j60.796	48.348+j189.312	1.19	0.69	14.919+j59.591	48.402+j189.414
MALPASO	MPS-115	115	5.95	7.17	1.988+j10.977	0.436+j5.722	6.84	8.00	1.695+j10.539	0.476+j6.111
MALPASO	MPS-400	400	10.09	10.91	5.349+j22.260	3.032+j20.624	27.08	31.60	0.720+j9.354	0.443+j6.205
MALPASO DOS	MPD-230	230	10.11	11.71	2.123+j12.963	0.742+j8.725	16.15	18.15	0.567+j9.027	0.351+j6.460
MALPASO TRES	MPE-115	115	5.86	6.93	2.032+j11.155	0.563+j6.307	6.73	7.73	1.739+j10.717	0.603+j6.695
MANDINGA	MDG-115	115	9.05	7.06	1.708+j7.134	3.667+j13.259	13.55	11.00	1.074+j5.280	2.431+j9.205
MANIOBRAS GENERADORES EÓLICOS DE MÉXICO	GEM-115	115	2.35	2.49	7.195+j27.335	3.910+j23.441	2.88	2.90	5.912+j24.661	4.026+j24.518
MANIOBRAS PRO MDF	MPR-115	115	6.54	6.10	2.448+j9.851	3.072+j12.243	7.56	6.79	2.192+j9.415	3.257+j12.698
MANLIO FABIO ALTAMIRANO	MFA-230	230	13.72	16.04	2.004+j9.468	0.665+j5.987	18.56	20.57	1.183+j7.781	0.721+j6.025
MANLIO FABIO ALTAMIRANO	MFA-400	400	8.24	8.60	4.564+j27.668	3.210+j25.904	10.87	10.70	2.549+j23.238	3.525+j25.730
MANUEL MORENO TORRES	MMT-115	115	12.09	15.12	1.137+j5.372	0.152+j2.485	17.23	20.33	0.542+j4.204	0.134+j2.402
MANUEL MORENO TORRES	MMT-400	400	8.63	9.47	6.632+j25.925	3.307+j23.081	28.82	36.83	0.619+j8.793	0.245+j4.264
MAPASTEPEC	MAP-115	115	3.64	2.89	5.192+j17.467	9.221+j31.239	4.56	3.41	3.954+j15.521	9.166+j30.973
MARTÍNEZ DE LA TORRE DOS	MDD-115	115	3.74	3.07	4.395+j17.179	8.839+j28.469	4.27	3.53	4.084+j16.597	8.444+j26.966
MARTÍNEZ DE LA TORRE TRES	MTT-115	115	3.66	2.84	4.259+j17.615	9.405+j32.927	4.16	3.24	3.977+j17.088	9.071+j31.644
MATAPIONCHE	MPH-115	115	1.68	0.95	9.217+j38.428	34.701+j127.288	2.78	1.60	6.081+j25.583	24.015+j80.813
MATÍAS ROMERO	MRO-115	115	6.64	5.48	2.273+j9.744	3.396+j16.341	8.40	6.40	1.803+j8.509	3.423+j16.549
MATÍAS ROMERO POTENCIA	MSP-115	115	9.22	9.92	1.239+j7.093	0.905+j5.984	12.07	11.92	0.830+j5.996	0.941+j6.272
MATÍAS ROMERO POTENCIA	MSP-230	230	5.86	6.22	3.819+j22.327	4.219+j19.988	8.46	7.95	2.158+j17.121	4.362+j20.517
MAZATAN	MAZ-115	115	4.51	3.94	3.553+j14.289	6.690+j20.295	5.73	4.71	2.468+j12.515	6.770+j20.094
MAZATEPEC	MZT-230	230	6.66	5.10	3.170+j19.670	8.915+j37.537	9.35	10.28	1.824+j15.514	1.219+j13.173
MEDIA LUNA	MLU-115	115	3.10	2.22	7.046+j20.204	11.641+j45.746	3.89	2.67	5.279+j18.009	10.989+j43.385
METALOIDES	MET-115	115	19.72	14.49	0.805+j3.269	1.356+j6.968	22.25	16.00	0.726+j3.202	1.363+j7.052
METEPEC	MEC-115	115	6.97	4.19	2.314+j9.247	7.391+j27.628	7.73	4.61	2.229+j9.183	7.398+j27.705
METLATONOC	MTL-115	115	0.84	0.51	22.061+j76.013	54.588+j221.378	0.95	0.57	20.136+j73.978	54.621+j221.297
MEZCALA	MZL-115	115	6.73	6.82	2.897+j9.427	1.616+j9.366	10.27	10.36	1.242+j7.003	0.982+j7.034
MEZCALA	MZL-230	230	4.49	4.45	9.600+j27.983	6.306+j29.789	8.51	8.41	3.291+j16.836	3.596+j18.136
MEZCALAPA	MEZ-115	115	5.99	4.87	2.571+j10.776	6.209+j18.040	6.92	5.45	2.290+j10.303	6.236+j18.220
MEZCALAPA SWITCHEO	MZW-230	230	7.17	6.05	3.344+j18.223	5.564+j29.364	10.03	8.11	1.746+j14.458	4.657+j25.139
MIAHUATLAN	MHT-115	115	1.89	1.35	10.508+j33.437	19.140+j75.606	2.10	1.48	10.170+j33.181	19.197+j75.973
MIAHUATLÁN DOS	MUD-115	115	2.00	1.47	9.775+j31.723	16.724+j66.958	2.22	1.62	9.448+j31.472	16.785+j67.349
MINAS	MIS-69	69	1.53	1.06	5.866+j25.405	15.149+j59.081	2.42	3.10	2.702+j17.924	0.570+j6.706
MINATITLÁN DOS	MID-115	115	25.03	28.77	0.501+j2.605	0.129+j1.798	36.22	37.70	0.243+j2.002	0.141+j1.802
MINATITLÁN DOS	MID-400	400	10.23	11.91	4.561+j22.100	1.642+j15.335	18.62	18.23	1.532+j13.557	1.773+j14.930
MINATITLÁN UNO	MIU-115	115	9.17	5.79	1.345+j7.116	4.350+j19.622	10.98	6.59	1.097+j6.560	4.341+j19.518
MINERA AUTLÁN, PUÉ.	MAU-115	115	7.35	8.35	1.921+j8.823	0.955+j6.049	8.96	10.17	1.551+j8.003	0.993+j5.561
MINERA CAPELA	MCA-115	115	1.54	0.97	15.171+j40.329	29.147+j115.685	1.80	1.11	13.304+j38.388	28.482+j113.300
MINERA CUZCATLAN	MCN-115	115	2.65	2.09	6.660+j24.187	9.599+j44.284	2.95	2.30	6.383+j23.949	9.678+j44.797
MINERA FILOS-BERMEJAL	MFB-115	115	4.76	3.93	3.964+j13.385	4.542+j22.400	6.51	5.13	2.299+j10.985	3.907+j20.068
MISANTLA DOS	MSD-115	115	2.07	1.62	8.745+j30.862	20.927+j55.767	2.32	1.82	8.424+j30.288	20.527+j54.258
MITLA	MTX-115	115	1.78	1.24	9.913+j35.873	19.715+j84.502	1.98	1.36	9.645+j35.624	19.754+j84.871

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
MOCAMBO	MCB-115	115	12.17	9.25	1.274+j5.305	1.968+j10.649	17.59	13.23	0.784+j4.077	1.346+j8.486
MOCAMBO	MCB-115B	115	12.17	9.25	1.274+j5.305	1.968+j10.649	17.59	13.23	0.784+j4.077	1.346+j8.486
MOTOZINTLA	MTO-115	115	1.58	1.04	13.512+j39.889	36.666+j101.187	1.83	1.17	12.062+j38.017	36.582+j100.725
MOZIMBA	MOZ-115	115	5.06	5.46	4.358+j12.367	1.794+j10.148	6.75	6.87	2.768+j10.461	1.843+j10.233
MUNDO IMPERIAL	MIP-115	115	4.65	4.60	5.112+j13.331	3.140+j14.530	6.03	5.61	3.494+j11.590	3.186+j14.684
NANCHITAL DOS	NND-115	115	9.62	6.71	1.757+j6.677	3.388+j15.726	11.66	7.66	1.490+j6.086	3.400+j15.730
NISSAN	NSN-115	115	10.28	10.02	1.229+j6.342	1.018+j6.936	11.39	10.91	1.077+j6.322	1.059+j7.207
NOCHIXTLAN	NCH-115	115	1.84	1.24	10.713+j34.361	21.804+j86.181	2.04	1.36	10.491+j34.199	21.834+j86.448
NOGALES	NGL-115	115	9.26	6.47	1.956+j6.902	3.928+j16.119	10.81	7.70	1.766+j6.521	3.537+j14.680
NORTE	NOR-115	115	33.16	28.09	0.456+j1.949	0.557+j3.117	37.95	31.11	0.380+j1.887	0.563+j3.196
NUEVO MORELOS	NMO-115	115	3.70	2.28	4.791+j17.282	11.681+j50.400	4.25	2.55	4.477+j16.584	11.649+j50.293
OAXACA	OAX-115	115	3.79	3.68	4.802+j16.830	4.470+j19.138	4.25	4.06	4.533+j16.576	4.513+j19.534
OAXACA DOS	OXD-115	115	4.64	4.60	3.905+j13.775	3.218+j14.808	5.22	5.08	3.643+j13.517	3.256+j15.176
OAXACA PONIENTE	OAP-115	115	4.03	4.38	4.581+j15.846	2.619+j12.784	4.51	4.83	4.314+j15.597	2.663+j13.190
OAXACA POTENCIA	OXP-115	115	5.14	6.48	3.499+j12.439	0.403+j5.489	5.78	7.14	3.243+j12.204	0.448+j5.914
OAXACA POTENCIA	OXP-230	230	2.83	3.21	11.973+j45.429	3.081+j31.929	3.22	3.55	10.804+j44.048	3.425+j34.090
OAXACA UNO	OAU-230	230	3.68	4.48	5.942+j35.577	2.204+j18.248	5.83	6.33	3.143+j24.873	2.346+j19.158
OCOZINGO	OCO-115	115	1.27	0.86	13.772+j50.383	47.778+j119.763	1.44	0.95	12.986+j49.185	47.756+j119.309
OCOZUCAUTLA	OCZ-115	115	6.12	4.33	2.772+j10.489	4.971+j24.142	7.64	5.06	2.126+j9.321	4.936+j23.806
OJO DE AGUA POTENCIA	OJP-115	115	20.46	21.47	0.571+j3.195	0.315+j2.896	25.01	25.54	0.406+j2.891	0.328+j2.829
OJO DE AGUA POTENCIA	OJP-400	400	11.57	12.74	3.785+j19.597	2.046+j15.998	17.87	16.56	2.136+j14.055	2.201+j18.053
OLINALA	OLN-115	115	1.04	0.65	17.519+j61.612	42.608+j170.574	1.19	0.73	15.629+j59.546	42.641+j170.493
OMEALCA	OME-115	115	3.58	1.87	3.076+j18.315	15.877+j68.211	4.32	3.45	2.535+j16.701	6.332+j33.470
OMETEPEC	OMT-115	115	1.54	0.92	15.332+j40.162	37.571+j126.133	1.75	1.03	13.979+j39.205	37.621+j126.231
ORIENTE	ORT-115	115	17.97	12.80	0.876+j3.590	1.625+j8.067	20.26	14.11	0.789+j3.518	1.638+j8.186
ORIZABA	ORI-115	115	14.90	12.42	0.929+j4.358	1.616+j7.088	18.27	17.53	0.715+j3.932	0.823+j4.624
PAGÉS	PAG-115	115	13.27	10.60	1.189+j4.859	1.539+j8.859	18.80	14.36	0.757+j3.810	1.202+j7.704
PAGÉS	PAG-115B	115	13.27	10.60	1.189+j4.859	1.539+j8.859	18.80	14.36	0.757+j3.810	1.202+j7.704
PAJARITOS DOS	PJD-115	115	15.67	15.93	0.821+j4.156	0.398+j4.324	19.97	18.64	0.560+j3.614	0.440+j4.566
PALENQUE	PLQ-115	115	2.09	1.48	7.012+j30.934	24.106+j68.188	2.44	1.76	5.963+j29.383	21.433+j61.351
PALMAR DE BRAVO	PLB-115	115	4.65	3.25	4.697+j13.485	8.013+j31.819	5.15	3.56	4.604+j13.399	8.092+j32.196
PALMAS	PMM-115	115	9.97	7.98	0.983+j6.589	2.218+j11.533	12.73	10.00	0.727+j5.692	2.115+j10.655
PANOTLA	PNA-115	115	11.84	7.89	1.616+j5.371	3.897+j13.554	13.21	8.71	1.534+j5.313	3.905+j13.606
PANTEPEC	PPC-115	115	8.33	9.68	1.380+j7.849	0.420+j4.732	9.30	10.63	1.309+j7.747	0.464+j5.048
PANTEPEC	PPC-230	230	5.33	5.17	4.149+j24.581	3.060+j27.368	6.09	5.73	3.757+j23.708	3.360+j28.746
PAPAGAYO	PPG-115	115	4.04	2.89	5.841+j15.384	14.552+j33.096	5.08	3.39	4.235+j13.731	14.609+j33.205
PAPALOTLA	PPL-115	115	19.51	13.28	0.662+j3.338	1.883+j8.062	21.93	14.65	0.588+j3.279	1.889+j8.134
PAPANOA	PPN-115	115	1.27	1.18	12.432+j50.664	39.461+j55.252	2.39	1.99	7.828+j29.605	25.596+j43.183
PAPANTLA POTENCIA	PPT-115	115	19.38	18.61	0.360+j3.407	0.569+j3.899	21.96	20.79	0.297+j3.313	0.614+j3.957
PAPANTLA POTENCIA	PPT-400	400	15.35	13.39	1.902+j14.924	4.365+j22.269	18.93	15.71	1.194+j13.369	4.515+j22.159
PAPELERA TUXTEPEC	PTU-230	230	4.98	3.64	4.080+j26.343	12.663+j55.614	5.87	4.15	3.305+j24.662	12.620+j54.851
PARAÍSO	PSO-115	115	6.66	6.59	2.078+j9.757	3.513+j10.061	7.72	7.41	1.771+j9.292	3.573+j10.312

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
PAREDÓN PEMEX	PPX-115	115	2.54	1.83	6.547+j25.267	21.517+j52.752	2.86	2.03	6.259+j24.802	21.544+j52.932
PARQUE INDUSTRIAL	PRQ-115	115	5.43	3.71	2.307+j12.002	6.650+j28.817	6.25	4.15	2.010+j11.502	6.664+j28.899
PARRILLA	PLL-115	115	14.72	13.58	0.936+j4.413	0.994+j5.866	18.96	16.20	0.562+j3.810	1.003+j5.904
PASO DEL TORO	PDT-115	115	8.01	5.92	1.886+j8.067	4.524+j16.709	12.66	9.42	1.127+j5.658	3.003+j11.691
PE INGENIO	EIN-230	230	3.89	4.76	5.343+j33.735	1.986+j16.843	6.30	6.84	2.571+j23.036	2.105+j17.765
PEÑITAS	PEA-115	115	4.09	3.35	3.687+j15.797	9.725+j25.548	4.65	3.73	3.394+j15.324	9.746+j25.780
PEÑITAS	PEA-230	230	8.76	8.06	2.730+j14.907	3.524+j19.853	14.86	16.51	0.882+j9.787	0.613+j7.613
PEÑITAS DOS	PED-115	115	4.09	3.36	3.686+j15.819	9.696+j25.488	4.65	3.73	3.393+j15.347	9.718+j25.721
PEROTE DOS	PEE-115	115	4.83	3.69	2.688+j13.468	3.041+j26.632	5.47	4.14	2.467+j13.127	3.022+j26.437
PETATLÁN	PTT-115	115	1.98	1.78	7.448+j32.705	23.610+j39.603	3.05	2.60	5.746+j23.255	18.106+j32.478
PETROQUÍMICA ESCOLIN	PQS-115	115	11.60	10.96	0.991+j5.635	1.984+j6.564	15.32	14.57	0.739+j4.708	1.879+j5.667
PICHUCALCO	PCO-115	115	2.22	1.53	8.504+j28.730	27.752+j64.798	2.49	1.70	8.082+j28.182	27.762+j64.838
PIE DE LA CUESTA	PIC-115	115	6.15	8.02	3.738+j10.125	0.283+j3.241	8.63	10.85	2.200+j8.172	0.327+j3.392
PIE DE LA CUESTA	PIC-230	230	3.57	4.40	13.148+j34.751	1.897+j16.213	5.14	5.99	7.385+j27.440	2.140+j16.791
PIEDRAS NEGRAS	PNS-115	115	2.68	1.52	5.078+j24.273	18.647+j80.031	6.36	3.81	2.222+j11.260	8.163+j33.886
PIER II QUECHOLAC FELIPE ÁNGELES S.A. DE C.V.	PDQ-115	115	6.31	5.94	2.512+j10.221	1.524+j12.498	7.00	6.41	2.432+j10.151	1.680+j13.275
PINOTEPA NACIONAL	PIN-115	115	1.17	0.67	21.672+j52.435	48.853+j177.623	1.31	0.74	20.633+j51.853	48.896+j177.723
PLAYA DIAMANTE	PDI-115	115	4.91	5.21	4.829+j12.624	2.343+j10.990	6.44	6.46	3.213+j10.876	2.389+j11.144
PLAYA NORTE	PYN-115	115	13.96	11.75	1.106+j4.627	1.295+j7.520	19.70	15.74	0.704+j3.640	1.065+j6.717
PLAYA VICENTE	PVC-115	115	1.83	1.06	9.501+j34.960	35.889+j110.717	2.06	1.17	9.211+j34.191	35.902+j110.450
PLAYAS	PYS-115	115	4.66	4.95	4.712+j13.435	2.628+j11.338	6.11	6.16	3.113+j11.551	2.674+j11.423
POCHUTLA	POC-115	115	1.60	0.96	13.872+j39.072	29.870+j119.174	1.78	1.06	13.395+j38.705	29.905+j119.371
POLIDESÁ	PLS-115	115	10.56	8.06	1.388+j6.132	2.933+j11.853	11.76	8.86	1.293+j6.076	2.954+j12.011
POLIFIL	POF-115	115	17.68	14.36	0.756+j3.678	1.254+j6.305	19.67	15.79	0.684+j3.650	1.267+j6.376
POMOCA	PMC-115	115	14.43	15.57	0.969+j4.497	0.513+j3.892	18.06	18.30	0.639+j3.994	0.534+j4.038
PONIENTE	PON-115	115	23.43	16.72	0.713+j2.743	1.293+j6.189	26.57	18.50	0.631+j2.675	1.299+j6.263
PORCEL	POR-115	115	19.59	13.19	0.697+j3.318	1.865+j8.192	22.06	14.58	0.619+j3.252	1.870+j8.254
POTRERO DOS	PTD-115	115	6.36	4.66	3.144+j9.954	6.367+j21.060	7.24	5.20	2.965+j9.646	6.400+j21.152
POZA RICA	PRI-69	69	14.09	15.95	0.294+j2.812	0.096+j1.880	20.85	30.39	0.138+j2.097	0.013+j0.492
POZA RICA	PRI-115	115	16.15	19.15	0.547+j4.074	0.187+j2.267	23.46	30.67	0.283+j3.100	0.074+j1.352
POZA RICA	PRI-230	230	13.42	14.62	1.266+j9.810	0.954+j7.710	16.88	18.43	0.777+j8.619	0.773+j7.051
POZA RICA DOS	PRD-230	230	14.71	16.63	1.087+j8.962	0.537+j6.186	18.30	20.53	0.661+j7.956	0.511+j5.913
POZA RICA DOS	PRD-400	400	20.03	18.92	1.504+j11.434	2.433+j14.388	25.24	22.78	0.863+j10.028	2.433+j14.041
POZA RICA TRES	PRT-69	69	9.17	7.60	0.614+j4.299	1.170+j6.998	12.11	10.46	0.447+j3.592	1.086+j5.609
POZO RANEY	PZR-115	115	4.12	2.83	5.509+j15.156	27.326+j28.763	5.25	3.34	3.901+j13.352	27.382+j28.858
POZOS HUAZUNTLAN	POZ-115	115	5.29	3.46	4.412+j11.741	8.648+j31.540	6.14	3.89	4.151+j11.153	8.631+j31.419
PROCTER & GAMBLE MANUFACTURAS S DE R.L. DE C.V.	PGC-115	115	8.80	7.62	1.419+j7.410	1.297+j11.217	9.69	8.20	1.363+j7.415	1.408+j11.778
PROENERMEX SANTA GERTRUDIS	PSG-115	115	12.65	9.79	1.016+j5.148	2.258+j9.734	15.18	12.96	0.813+j4.741	1.399+j7.328
PUEBLA DOS	PBD-115	115	39.53	39.50	0.359+j1.641	0.160+j1.752	45.70	43.39	0.275+j1.574	0.176+j1.888
PUEBLA DOS	PBD-115B	115	39.53	39.50	0.359+j1.641	0.160+j1.752	45.70	43.39	0.275+j1.574	0.176+j1.888
PUEBLA DOS	PBD-230	230	17.99	19.46	1.262+j7.274	0.447+j5.914	20.64	21.39	0.903+j7.020	0.497+j6.410
PUEBLA DOS	PBD-400	400	20.27	22.76	2.757+j11.053	1.022+j8.493	26.82	27.39	1.603+j9.337	1.118+j9.274

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
PUEBLA DOS MIL	PDM-115	115	25.46	20.15	0.598+j2.539	0.836+j4.666	28.95	22.19	0.512+j2.470	0.851+j4.793
PUEBLA UNO SF6	PSF-115	115	18.93	12.69	0.911+j3.387	1.580+j8.612	21.36	14.01	0.826+j3.318	1.589+j8.707
PUENTE DE IXTLA	PTI-85	85	3.09	2.12	2.829+j15.608	6.351+j37.144	3.34	2.30	2.820+j15.938	6.371+j37.650
PUERTO CHIAPAS	PUC-115	115	3.09	2.79	6.623+j20.478	8.669+j27.037	3.82	3.28	5.123+j18.402	8.796+j27.323
PUERTO ESCONDIDO	PUE-115	115	1.19	0.69	20.610+j52.065	44.377+j172.039	1.32	0.76	20.016+j51.739	44.412+j172.190
PUERTO FRANCO	PFR-115	115	10.53	9.38	1.553+j6.111	1.624+j8.785	12.70	10.69	1.300+j5.601	1.657+j8.983
PUERTO MADERO	PTM-115	115	3.31	3.07	6.263+j19.087	7.216+j23.734	4.13	3.63	4.763+j17.009	7.343+j24.020
PUERTO MARQUEZ	PUM-115	115	5.60	6.58	4.292+j11.060	1.002+j6.481	7.57	8.46	2.691+j9.267	1.046+j6.643
PUNTA IXTAPA, GRO.	PUI-115	115	4.41	3.31	2.290+j14.887	6.386+j29.453	5.99	4.26	2.181+j11.989	6.173+j26.350
PUNTA LIMÓN	PLI-115	115	2.12	1.61	8.025+j30.270	13.038+j61.213	2.34	1.77	7.983+j30.183	13.120+j61.952
QUEMADO	QMD-69	69	8.14	10.93	1.447+j4.672	0.045+j1.166	10.68	14.11	0.848+j4.015	0.120+j1.185
QUEMADO	QMD-115	115	6.47	8.76	3.910+j9.481	0.150+j2.224	9.20	12.15	2.306+j7.592	0.207+j2.316
QUEMADO	QMD-230	230	3.41	4.35	14.241+j36.211	1.160+j13.993	4.93	5.98	8.046+j28.524	1.431+j14.574
REAL DEL BOSQUE	RDB-115	115	8.55	6.59	1.868+j7.541	2.778+j14.749	11.38	8.06	1.208+j6.301	2.722+j14.199
REFINERÍA LÁZARO CÁRDENAS RECONFIGURACIÓN	RLC-115	115	10.34	6.86	1.302+j6.288	3.529+j15.918	14.02	11.64	0.833+j5.143	0.985+j8.187
REFINERÍA MINATITLÁN	RMN-115	115	9.44	5.85	1.205+j6.927	4.385+j19.588	11.25	6.64	0.984+j6.415	4.385+j19.522
REFINERÍA PEMEX	RFP-115	115	10.54	7.01	1.263+j6.173	3.430+j15.556	14.28	11.77	0.806+j5.052	1.018+j8.172
REFINERÍA SALINA CRUZ	RSC-115	115	3.16	2.43	4.982+j20.395	8.728+j39.431	4.35	2.94	3.202+j16.500	8.734+j39.566
RENACIMIENTO	REN-115	115	5.95	7.62	4.197+j10.332	0.421+j3.850	8.24	10.16	2.590+j8.478	0.468+j3.974
RESURRECCIÓN	RSN-115	115	14.69	9.84	1.012+j4.406	2.365+j11.015	16.48	10.86	0.929+j4.334	2.374+j11.102
REYES MANTECÓN	RMC-115	115	4.26	4.12	3.998+j15.059	3.584+j17.225	4.78	4.54	3.733+j14.804	3.649+j17.686
RÍO BLANCO	RBO-115	115	8.99	6.33	1.649+j7.197	3.774+j16.413	10.44	7.35	1.466+j6.843	3.561+j15.547
RÍO COATAN	RCT-69	69	2.02	2.45	2.443+j19.602	0.669+j9.174	2.79	3.76	1.251+j15.666	0.226+j4.670
RÍO COATAN	RCT-115	115	3.77	3.34	4.972+j16.896	4.550+j24.112	4.95	4.27	3.365+j14.369	3.756+j21.743
RÍO MEDIO	RME-115	115	12.72	10.01	1.397+j5.031	1.394+j9.579	17.10	12.41	1.018+j4.147	1.325+j9.311
RODRÍGUEZ CLARA	RDC-115	115	2.64	1.63	6.835+j24.156	19.015+j69.462	2.98	1.82	6.565+j23.573	18.955+j69.131
SACRIFICIOS	SCF-115	115	11.77	8.35	1.340+j5.481	2.166+j12.591	16.71	11.44	0.859+j4.285	1.596+j10.625
SALINA CRUZ	SAC-115	115	3.48	2.78	4.405+j18.590	7.211+j33.026	4.75	3.37	2.869+j15.113	7.218+j33.161
SALOYA	SYA-115	115	13.75	12.37	1.095+j4.703	1.238+j6.662	17.04	14.36	0.781+j4.215	1.253+j6.763
SAMARIA	SMI-115	115	6.10	3.99	2.164+j10.664	6.320+j27.840	7.06	4.46	1.857+j10.179	6.329+j27.914
SAMARIA	SMI-115B	115	5.61	3.60	2.032+j11.659	6.674+j31.375	6.40	4.00	1.806+j11.262	6.684+j31.468
SAN CRISTÓBAL ORIENTE	SCO-115	115	4.01	2.77	4.264+j16.008	11.136+j37.339	4.81	3.18	3.522+j14.766	11.116+j36.890
SAN FELIPE OAXACA	SFO-115	115	3.77	3.58	4.755+j16.973	4.858+j20.232	4.22	3.95	4.488+j16.711	4.903+j20.626
SAN JACINTO TLACOTEPEC	JTL-115	115	1.10	0.74	12.079+j59.274	30.167+j144.861	1.21	0.82	11.783+j59.034	30.246+j145.361
SAN JERÓNIMO	JRN-115	115	1.74	1.37	11.411+j36.362	21.408+j65.432	2.77	2.13	7.052+j25.360	16.346+j47.702
SAN JOSÉ CHIAPA	JOC-230	230	4.93	3.54	4.517+j26.534	15.083+j57.283	5.67	4.06	3.886+j25.448	14.483+j55.074
SAN LORENZO	LRZ-115	115	39.14	37.36	0.333+j1.663	0.252+j2.012	44.76	41.23	0.262+j1.610	0.260+j2.097
SAN LUIS	SNL-115	115	1.77	0.99	8.712+j36.435	32.689+j121.333	3.01	1.74	5.585+j23.585	22.015+j74.879
SAN LUIS ACATLÁN	SLU-115	115	1.67	1.00	12.862+j37.706	33.879+j115.804	1.91	1.12	11.369+j36.504	33.933+j115.906
SAN LUIS MORELIA	SSM-115	115	1.13	0.65	17.706+j56.246	43.485+j182.017	1.24	0.72	17.575+j56.171	43.502+j182.130
SAN LUIS SAN PEDRO	SLS-115	115	1.01	0.83	16.304+j63.886	49.194+j96.348	2.27	1.73	8.528+j30.971	23.895+j58.234
SAN MARTIN	MAR-115	115	23.39	19.91	0.507+j2.793	0.742+j4.334	26.25	22.35	0.431+j2.749	0.718+j4.237

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
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			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
SAN MARTIN POTENCIA	MPT-115	115	26.24	24.45	0.443+j2.491	0.422+j3.126	29.28	26.85	0.371+j2.467	0.437+j3.195
SAN MARTIN POTENCIA	MPT-400	400	15.90	14.21	2.928+j14.224	3.332+j20.141	19.44	16.34	1.857+j12.937	3.406+j20.619
SAN MIGUEL	SMG-115	115	11.90	8.53	1.010+j5.485	4.213+j11.620	13.22	9.26	0.936+j5.444	4.458+j11.962
SAN MIGUEL SANTA FLOR	SMF-115	115	1.29	0.86	13.836+j49.391	29.521+j125.716	1.43	0.95	13.589+j49.202	29.562+j126.063
SAN PABLO HUIXTEPEC	HTP-115	115	3.71	3.83	4.492+j17.315	2.479+j16.546	4.15	4.21	4.221+j17.074	2.558+j17.062
SAN RAFAEL DOS	RFD-115	115	2.24	1.67	7.659+j28.595	19.908+j57.543	2.52	1.88	7.339+j28.019	19.509+j56.035
SÁNCHEZ TABOADA	SNT-115	115	1.60	0.94	11.328+j39.962	30.304+j125.659	1.79	1.04	11.008+j39.266	30.272+j125.552
SANTA ANITA	STN-115	115	15.27	12.92	0.967+j4.238	1.374+j6.694	17.03	14.14	0.887+j4.196	1.401+j6.866
SANTA FE	SNF-115	115	9.14	7.46	1.355+j7.137	2.967+j12.031	11.11	8.68	1.075+j6.488	2.967+j12.006
SANTA ROSA	RSO-115	115	1.08	0.62	23.098+j56.823	51.136+j192.317	1.20	0.68	22.296+j56.411	51.173+j192.433
SANTA SOFÍA	SNS-115	115	4.02	2.74	3.071+j16.246	9.124+j38.675	4.51	3.06	2.907+j15.947	9.022+j38.222
SANTO DOMINGO	STD-115	115	3.51	2.52	4.719+j18.310	9.467+j40.592	4.28	2.89	4.068+j16.586	9.476+j40.714
SARABIA	SRB-115	115	5.22	4.75	2.986+j12.355	3.420+j16.515	6.24	5.42	2.608+j11.402	3.451+j16.763
SCHPOINA	SCH-115	115	2.51	1.83	7.465+j25.423	20.681+j51.921	2.98	2.13	6.298+j23.646	20.289+j50.418
SIMOJOVEL	SMJ-115	115	1.21	0.77	15.236+j52.537	46.018+j141.541	1.35	0.85	14.798+j52.000	46.028+j141.582
SÍNTESIS ORGÁNICAS, TLAXCALA	SIA-115	115	10.04	7.64	1.466+j6.450	3.044+j12.574	11.17	8.40	1.371+j6.393	3.065+j12.732
SIVESA	SIV-115	115	10.78	8.20	1.695+j5.922	3.253+j11.684	12.92	11.67	1.466+j5.458	1.585+j7.519
SN. LORENZO POTENCIA	LRP-115	115	46.94	52.22	0.289+j1.385	0.072+j1.077	54.08	57.59	0.219+j1.333	0.080+j1.166
SN. LORENZO POTENCIA	LRP-115B	115	46.94	52.22	0.289+j1.385	0.072+j1.077	54.08	57.59	0.219+j1.333	0.080+j1.166
SN. LORENZO POTENCIA	LRP-400	400	20.20	22.48	2.727+j11.103	0.971+j8.760	26.31	26.88	1.604+j9.520	1.052+j9.436
SOLEDAD DE DOBLADO	SOD-115	115	3.88	2.32	4.107+j16.619	12.083+j50.231	4.47	2.61	3.789+j15.882	12.082+j50.184
SOYALÓ	SOY-115	115	5.08	3.62	3.220+j12.668	6.311+j28.436	6.22	4.19	2.560+j11.459	6.292+j28.222
SWITCHEO VILLACOMALTITLAN	SWV-115	115	2.89	2.97	6.325+j22.090	3.941+j21.034	3.64	3.52	4.724+j19.479	4.297+j21.878
TABACHINES	TBH-85	85	6.07	4.88	1.501+j7.944	1.856+j13.930	6.42	5.17	1.487+j8.273	1.876+j14.433
TABASCO POTENCIA	TSP-230	230	11.60	13.89	2.579+j11.155	0.679+j6.887	18.16	19.45	0.902+j7.993	0.738+j6.873
TABASCO POTENCIA	TSP-400	400	7.21	7.91	7.307+j31.183	2.854+j26.657	12.21	11.38	2.124+j20.697	3.118+j26.284
TABASQUILLO	TBQ-115	115	1.93	1.36	9.195+j33.126	31.142+j72.444	2.16	1.50	8.838+j32.647	31.165+j72.600
TACOTALPA	TCT-115	115	2.49	1.74	7.547+j25.585	24.165+j56.516	2.81	1.93	7.125+j25.035	24.174+j56.557
TAJÍN	TAJ-115	115	13.59	13.65	0.746+j4.829	1.283+j4.759	16.13	16.56	0.621+j4.485	1.257+j4.215
TALLERES Y ACEROS S.A. (TYASA)	TYS-115	115	12.09	9.12	0.494+j5.471	0.222+j10.989	13.50	9.58	0.369+j5.397	0.242+j12.106
TALLERES Y ACEROS S.A. (TYASA)	TYS-400	400	11.18	12.27	3.846+j20.288	2.060+j16.695	17.04	15.86	2.195+j14.747	2.216+j18.709
TAMARINDO DOS	TDD-115	115	7.54	6.13	1.708+j8.644	3.176+j14.971	8.73	6.90	1.501+j8.235	3.180+j15.089
TAMAZULAPAN DOS	TAD-115	115	1.66	1.02	11.885+j38.260	26.930+j111.780	1.83	1.12	11.692+j38.133	26.954+j111.958
TAMSA DOS	TSD-230	230	8.37	6.85	3.199+j15.547	5.704+j26.218	13.33	11.56	1.762+j10.813	3.229+j16.136
TAMSA DOS	TSD-230B	230	8.37	6.86	2.933+j15.595	5.656+j26.192	13.33	11.56	1.762+j10.813	3.229+j16.136
TAMULTE	TAT-115	115	14.32	12.32	0.951+j4.539	1.432+j7.109	17.54	14.20	0.696+j4.105	1.441+j7.183
TAMULTE MANIOBRAS	TMM-115	115	13.80	11.90	0.911+j4.726	1.451+j7.340	16.66	13.61	0.685+j4.329	1.461+j7.433
TAPACHULA	TCH-115	115	4.42	3.72	3.824+j14.509	4.686+j23.169	5.78	4.59	2.491+j12.386	4.476+j22.126
TAPACHULA AEROPUERTO	TAE-115	115	6.46	6.32	2.577+j9.948	1.901+j10.942	8.92	8.10	1.411+j8.066	1.916+j10.570
TAPACHULA NORTE	TNE-115	115	4.55	4.05	3.751+j14.109	3.762+j19.774	6.04	5.13	2.358+j11.862	3.418+j18.408
TAPACHULA ORIENTE	TOE-115	115	4.69	3.92	3.498+j13.712	4.408+j22.242	6.13	4.80	2.230+j11.704	4.305+j21.524
TAPACHULA POTENCIA	THP-115	115	7.58	8.27	2.066+j8.510	0.718+j6.722	10.74	10.91	0.988+j6.726	0.798+j6.521

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
TAPACHULA POTENCIA	THP-400	400	3.07	3.44	19.025+j72.846	6.327+j53.414	5.03	5.10	7.449+j50.002	7.337+j48.885
TAPANATEPEC	TNP-115	115	2.33	1.80	7.618+j27.402	11.391+j52.641	2.80	2.06	6.601+j25.239	11.453+j53.242
TAPIJULAPA	TPJ-115	115	2.05	1.42	9.259+j31.059	30.173+j69.929	2.30	1.57	8.830+j30.515	30.183+j69.970
TAXCO	TXO-115	115	2.28	2.00	7.092+j28.236	7.743+j40.507	2.76	2.32	5.308+j25.948	7.771+j40.814
TEAPA, TABASCO.	TTB-115	115	3.34	2.38	5.629+j19.067	17.182+j40.836	3.80	2.65	5.214+j18.510	17.192+j40.876
TEAPA, VERACRUZ	TEA-115	115	17.53	14.65	0.619+j3.736	1.026+j6.190	23.24	18.88	0.386+j3.119	0.845+j5.329
TECALI	TCL-115	115	26.32	24.65	0.465+j2.479	0.306+j3.096	29.74	26.75	0.378+j2.426	0.331+j3.300
TECALI	TCL-230	230	17.17	18.17	1.109+j7.654	0.682+j6.685	19.88	20.17	0.740+j7.311	0.729+j7.120
TECALI	TCL-400	400	18.41	18.46	2.768+j12.236	2.294+j13.236	25.82	22.99	1.511+j9.723	2.414+j13.702
TECAMACHALCO	TML-115	115	7.48	4.80	2.169+j8.604	4.995+j23.248	8.31	5.28	2.073+j8.537	5.014+j23.404
TECAMACHALCO II	TLD-115	115	7.16	4.60	2.172+j9.009	5.150+j24.257	7.95	5.06	2.078+j8.946	5.170+j24.425
TECNOLÓGICO	TNL-115	115	3.56	2.80	3.872+j18.248	7.196+j33.441	4.73	3.35	2.600+j15.207	7.201+j33.553
TECOMAXTLAHUACA	TCX-115	115	0.80	0.46	22.050+j80.504	61.353+j261.615	0.88	0.50	21.918+j80.430	61.370+j261.729
TECPAN	TCA-115	115	1.26	0.90	15.357+j50.209	31.736+j111.154	2.37	1.75	8.280+j29.630	21.349+j59.860
TEHUACÁN	THN-115	115	5.17	3.23	3.470+j12.370	8.226+j34.837	5.75	3.56	3.347+j12.252	8.256+j34.997
TEHUANTEPEC	THT-115	115	3.45	2.86	4.660+j18.669	6.697+j30.924	4.46	3.38	3.544+j15.996	6.708+j31.122
TEJALPA	TJA-115	115	10.57	10.27	1.136+j6.176	0.973+j6.798	11.72	11.19	0.984+j6.156	1.014+j7.069
TELMAC	TLM-115	115	15.66	13.94	0.908+j4.142	1.146+j5.771	17.53	15.32	0.807+j4.087	1.166+j5.922
TEMASCAL DOS	TMD-230	230	13.97	16.74	1.532+j9.382	0.405+j5.583	18.89	22.07	0.765+j7.696	0.363+j4.824
TEMASCAL DOS	TMD-400	400	14.77	17.53	3.351+j15.274	1.377+j10.977	25.46	25.37	1.321+j9.891	1.347+j10.810
TEMASCAL UNO	TMU-115	115	12.69	7.00	0.821+j5.166	3.765+j17.925	18.35	17.90	0.463+j3.952	0.339+j4.739
TEMASCAL UNO	TMU-230	230	11.42	11.64	1.921+j11.465	1.949+j11.618	15.38	17.11	1.051+j9.438	0.751+j7.156
TEMAXCALAC	TXB-115	115	18.60	15.02	0.626+j3.515	1.292+j6.049	20.71	16.52	0.553+j3.484	1.299+j6.125
TEMIXCO	TMX-85	85	6.47	5.08	1.373+j7.460	1.818+j13.724	6.82	5.37	1.353+j7.794	1.838+j14.227
TENOSIQUE	TNQ-115	115	1.48	1.02	12.123+j43.173	39.754+j98.515	1.69	1.19	10.978+j41.707	36.849+j91.455
TEPALCINGO	TPL-115	115	4.63	2.90	3.159+j14.004	8.381+j39.169	5.09	3.18	3.062+j14.012	8.396+j39.377
TEPEACA	TPE-115	115	7.50	4.99	1.473+j8.730	4.993+j21.693	8.31	5.48	1.386+j8.677	5.018+j21.897
TEPEJI	TPI-115	115	3.76	2.29	4.649+j17.018	11.200+j50.507	4.16	2.52	4.543+j16.952	11.219+j50.655
TEPEYAC, VERACRUZ	TPY-115	115	9.17	6.83	1.155+j7.145	3.053+j14.492	11.29	8.24	0.939+j6.401	2.971+j13.702
TEREFTALATOS	TRT-115	115	6.57	4.22	3.094+j9.628	6.560+j26.460	7.71	4.77	2.831+j9.043	6.544+j26.339
TERNIUM MÉXICO - LARGOS PUEBLA	TRP-230	230	7.01	5.15	3.623+j18.603	8.380+j38.355	7.83	5.67	3.260+j18.378	8.430+j38.851
TEZIUTLAN	TZT-69	69	3.56	3.86	0.864+j11.157	0.312+j8.695	4.34	4.67	0.678+j10.076	0.536+j8.106
TEZIUTLAN	TZT-115	115	7.67	8.97	1.808+j8.467	0.577+j5.189	9.39	11.01	1.438+j7.647	0.615+j4.701
TEZIUTLAN DOS	TZD-115	115	6.33	4.76	2.125+j10.272	4.304+j20.750	7.53	5.49	1.790+j9.536	4.328+j20.383
TEZOYUCA	TEZ-115	115	10.48	9.35	1.263+j6.211	1.481+j8.553	11.66	10.23	1.110+j6.165	1.520+j8.781
TIERRA BLANCA	TBL-115	115	3.86	2.30	4.270+j16.657	12.170+j51.262	4.87	2.93	3.645+j14.549	10.277+j44.050
TIERRA COLORADA	TIE-115	115	2.98	2.22	6.832+j21.177	9.580+j44.116	3.69	2.59	5.135+j19.130	9.608+j44.070
TIHUATLAN DOS	THD-115	115	7.88	5.59	1.541+j8.286	6.141+j17.943	8.81	6.19	1.467+j8.157	6.155+j18.064
TILAPA	TIL-115	115	1.73	1.00	9.158+j37.253	28.718+j118.927	1.91	1.10	9.022+j37.122	28.741+j119.051
TIXTLA	TIX-115	115	3.58	3.19	5.059+j17.848	6.257+j24.421	4.56	3.85	3.317+j15.666	6.289+j24.346
TLACOACHISTLAHUACA	THU-115	115	1.19	0.70	18.670+j52.558	46.797+j166.847	1.34	0.78	17.313+j51.610	46.848+j166.945
TLACOLULA	TLL-115	115	2.16	1.56	8.209+j29.573	15.028+j64.674	2.40	1.72	7.942+j29.322	15.068+j65.043

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
TLACOTALPAN	TTA-115	115	2.68	1.92	7.120+j23.719	14.192+j52.441	3.09	2.18	6.595+j22.669	14.117+j51.822
TLACOTEPEC	TTP-115	115	2.09	1.40	17.927+j26.273	29.685+j73.840	2.30	1.54	17.829+j26.210	29.705+j73.997
TLACOTEPEC	TCE-115	115	1.33	0.83	15.360+j47.636	34.413+j135.192	1.54	0.95	13.534+j45.552	33.743+j132.801
TLALTIZAPAN	TLZ-85	85	3.86	2.75	2.171+j12.532	4.516+j27.674	4.14	2.97	2.157+j12.864	4.536+j28.178
TLAPACOYAN	TLY-115	115	4.73	6.08	3.383+j13.615	0.610+j4.966	5.50	7.07	3.014+j12.931	0.562+j4.657
TLATLAHUQUITEPEC	TUQ-115	115	1.48	0.97	12.770+j43.148	28.947+j110.464	1.72	1.10	10.888+j41.076	28.980+j110.385
TLAXIACO	TXI-115	115	1.01	0.62	19.729+j62.764	44.301+j184.928	1.11	0.68	19.515+j62.627	44.329+j185.150
TONALÁ	TNA-115	115	1.73	1.58	10.156+j37.097	14.371+j47.197	2.05	1.80	8.836+j34.454	14.488+j48.275
TONANTZINTLA	TNZ-115	115	15.21	9.73	0.893+j4.273	2.745+j11.484	17.04	10.74	0.811+j4.208	2.752+j11.561
TRANSISTMICA (MANIOBRAS SEDENA)	SDM-115	115	4.21	4.78	3.625+j15.333	1.884+j10.415	5.50	5.85	2.715+j12.994	1.900+j10.666
TRES VALLES	TVS-115	115	7.37	6.94	1.785+j8.826	1.359+j11.101	9.95	8.82	1.317+j7.221	1.531+j10.551
TROY	TOY-115	115	7.14	4.53	1.672+j9.148	4.920+j25.155	9.06	8.35	1.242+j7.970	0.873+j9.988
TULIPÁN	TLN-115	115	6.69	6.03	2.559+j9.583	3.904+j12.928	7.76	6.75	2.298+j9.129	4.067+j13.252
TUXPAN DOS	TUD-115	115	3.47	2.83	4.733+j18.516	10.477+j30.577	3.85	3.12	4.656+j18.400	10.518+j30.830
TUXPAN VAPOR	TUV-400	400	11.31	7.71	2.534+j20.263	11.014+j48.660	13.32	8.73	1.735+j18.991	11.027+j48.650
TUXPANGO	TPG-115	115	9.88	6.73	1.352+j6.582	4.005+j15.811	11.85	10.40	1.102+j6.062	1.375+j8.858
TUXTEPEC DOS	TXD-115	115	6.61	4.89	1.805+j9.880	4.326+j20.818	7.74	5.51	1.610+j9.295	4.377+j21.025
TUXTEPEC TRES	TPS-115	115	8.65	6.74	1.354+j7.559	3.263+j14.306	10.60	7.83	1.122+j6.796	3.313+j14.263
TUXTLA GUTIÉRREZ	TGU-115	115	9.52	7.65	1.726+j6.760	2.304+j12.222	12.96	9.50	1.063+j5.535	2.253+j11.709
TUXTLA GUTIÉRREZ DOS	TGD-115	115	8.44	6.37	2.045+j7.594	3.134+j15.547	11.26	7.80	1.351+j6.343	3.064+j14.945
TUXTLA NORTE	TXN-115	115	9.58	7.65	1.697+j6.723	2.281+j12.289	13.07	9.53	1.026+j5.491	2.225+j11.745
TUXTLA SUR	TXS-115	115	11.04	9.58	1.328+j5.867	1.438+j8.950	15.61	12.32	0.689+j4.629	1.389+j8.426
UNILIVER	UNL-115	115	3.95	4.83	3.685+j16.386	1.145+j7.579	4.36	5.29	3.533+j16.366	1.186+j7.850
UNIÓN CARBIDE TEAPA	UCT-115	115	12.78	9.25	1.010+j5.097	2.152+j11.189	16.06	11.22	0.775+j4.481	1.970+j10.328
UXPANAPA DOS	UXD-115	115	5.91	3.85	2.711+j10.912	6.301+j28.818	6.85	4.32	2.481+j10.376	6.305+j28.767
UXPANAPA UNO	UXU-115	115	3.11	1.84	5.448+j20.622	14.530+j63.984	3.52	2.05	5.218+j20.086	14.534+j63.932
VALLE NACIONAL	VAN-115	115	3.09	2.08	4.745+j20.933	11.397+j52.369	3.48	2.30	4.542+j20.485	11.450+j52.644
VALSEQUILLO	VSE-115	115	7.94	4.82	1.533+j8.219	5.366+j24.098	8.82	5.30	1.446+j8.152	5.382+j24.219
VEGA DE ALATORRE	VDA-115	115	1.37	0.98	16.202+j45.683	31.239+j102.912	1.53	1.09	15.877+j45.113	30.837+j101.400
VENTA	VEN-69	69	2.45	2.88	6.274+j15.023	10.129+j4.699	3.32	4.38	4.082+j12.543	1.612+j4.072
VERACRUZ DOS	VRD-115	115	18.11	26.84	0.758+j3.588	0.111+j0.234	25.41	38.32	0.451+j2.839	0.110+j0.187
VERACRUZ DOS	VRD-230	230	11.65	12.30	2.432+j11.135	1.497+j10.073	16.03	16.08	1.433+j8.999	1.459+j9.548
VERACRUZ UNO	VRU-115	115	13.05	11.11	1.193+j4.945	1.602+j7.785	18.88	16.00	0.730+j3.800	1.125+j6.171
VETROTEX	VET-115	115	14.35	12.43	0.998+j4.519	1.183+j6.737	16.02	13.65	0.898+j4.471	1.205+j6.900
VIDRIERA DE TIERRA BLANCA	VTB-115	115	4.09	2.42	3.089+j15.950	12.394+j48.802	6.34	3.80	1.960+j11.360	8.425+j33.994
VILLA FLORES DOS	VFD-115	115	1.51	0.90	12.715+j42.127	36.429+j128.713	1.71	1.00	11.996+j41.038	36.392+j128.370
VILLAHERMOSA CENTRO	VHC-115	115	12.81	9.37	1.244+j5.032	2.267+j11.005	15.59	10.71	0.971+j4.583	2.274+j11.063
VILLAHERMOSA DOS	VID-115	115	12.30	10.30	1.170+j5.271	1.660+j8.713	15.30	11.99	0.805+j4.705	1.670+j8.765
VILLAHERMOSA NORTE	VHN-115	115	15.09	17.42	0.931+j4.299	0.296+j2.967	19.01	20.62	0.599+j3.795	0.318+j3.120
VILLAHERMOSA NORTE	VHN-230	230	9.20	9.59	2.999+j14.124	1.901+j13.768	12.49	11.84	1.605+j11.589	2.020+j14.126
VILLAHERMOSA PONIENTE	VIP-115	115	12.10	10.12	1.225+j5.351	2.178+j8.772	14.75	11.65	0.919+j4.864	2.186+j8.846
VILLAHERMOSA UNO	VIU-115	115	9.72	7.57	1.385+j6.690	2.505+j12.761	11.70	8.63	1.034+j6.156	2.520+j12.855

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			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(+)}$	$Z_{T(0)}$	3F	1F	$Z_{T(+)}$	$Z_{T(0)}$
VISTAMAR	VIS-115	115	10.26	8.15	1.505+j6.292	2.410+j11.558	12.32	9.25	1.259+j5.794	2.434+j11.711
VOLKSWAGEN	VWG-115	115	41.47	41.19	0.321+j1.569	0.222+j1.709	47.50	45.41	0.251+j1.517	0.230+j1.798
XALAPA DE DÍAZ	JDD-230	230	4.79	3.66	3.784+j27.446	15.092+j52.309	5.63	4.18	3.010+j25.760	15.049+j51.547
XICOTENCATL	XIT-115	115	17.20	16.30	0.796+j3.778	0.676+j4.522	19.26	17.89	0.696+j3.728	0.698+j4.682
XOCHICALCO	XCH-85	85	3.01	2.05	2.976+j16.022	6.634+j38.609	3.25	2.22	2.967+j16.353	6.655+j39.115
YAUTEPEC POTENCIA	YTP-115	115	19.55	20.61	0.450+j3.366	0.214+j2.918	21.56	22.20	0.352+j3.370	0.227+j3.115
YAUTEPEC POTENCIA	YTP-230	230	18.56	21.79	1.331+j7.029	0.353+j4.153	22.15	25.05	0.834+j6.542	0.374+j4.404
YAUTEPEC POTENCIA	YTP-400	400	21.14	22.93	2.578+j10.616	1.352+j8.925	29.07	29.16	1.405+j8.626	1.387+j8.918
YECAPIXTLA	YCP-230	230	10.47	9.55	2.022+j12.520	2.615+j16.310	12.02	10.61	1.547+j12.056	2.750+j16.900
YOLOMECATL	YOL-115	115	1.38	0.86	14.486+j45.769	31.983+j131.095	1.53	0.95	14.276+j45.629	32.009+j131.315
YUCUDAA	YUC-115	115	1.69	1.07	11.928+j37.517	25.812+j104.211	1.86	1.18	11.721+j37.375	25.838+j104.428
ZACAPOAXTLA	ZXP-115	115	2.55	2.07	6.198+j25.319	16.174+j42.245	2.85	2.31	6.031+j24.878	16.228+j41.866
ZACATEPEC	ZTP-115	115	1.99	1.24	7.738+j32.417	21.840+j91.377	2.21	1.37	7.604+j32.227	21.879+j91.396
ZANATEPEC	ZNT-115	115	2.49	1.71	7.102+j25.742	14.225+j61.694	2.94	1.94	6.348+j23.988	14.252+j61.971
ZAPATA	ZAP-85	85	8.48	8.44	0.881+j5.719	0.306+j5.896	8.83	8.70	0.858+j6.055	0.326+j6.399
ZAPATA	ZAP-115	115	15.67	18.31	0.707+j4.178	0.202+j2.441	17.42	19.97	0.555+j4.155	0.214+j2.609
ZAPATA	ZAP-230	230	14.34	14.70	2.100+j9.019	1.374+j8.625	17.63	17.24	1.364+j8.171	1.430+j8.844
ZAPATA DOS	ZPD-115	115	5.31	4.21	2.428+j12.276	5.019+j22.043	6.75	5.96	1.385+j10.724	2.367+j15.228
ZAPATA PONIENTE	EZA-115	115	2.28	1.61	7.295+j28.258	22.709+j61.349	2.66	1.95	6.193+j26.758	19.916+j54.396
ZIHUATANEJO	ZIH-115	115	3.98	2.89	2.791+j16.448	7.716+j34.678	5.36	3.71	2.629+j13.369	7.423+j30.877
ZIHUATANEJO DOS	ZHD-115	115	4.03	2.93	2.766+j16.255	7.299+j34.357	5.66	3.97	2.511+j12.656	6.810+j28.536
ZINACATEPEC	ZIP-69	69	1.99	2.33	2.600+j19.807	0.285+j11.407	2.08	2.41	2.580+j20.900	0.314+j12.548
ZINACATEPEC	ZIP-115	115	2.74	1.63	6.431+j23.334	18.404+j71.738	3.04	1.79	6.297+j23.202	18.427+j71.861
ZOCAC	ZOC-115	115	17.90	17.60	0.767+j3.629	0.548+j3.942	20.06	19.30	0.667+j3.579	0.570+j4.104
ZOCAC	ZOC-230	230	12.73	12.16	2.284+j10.178	2.196+j11.953	15.06	13.94	1.794+j9.531	2.259+j12.090
ZONGOLICA	ZGL-115	115	4.23	2.42	2.700+j15.478	12.752+j49.420	5.40	5.17	1.972+j13.383	2.460+j17.023

Gerencia de Control Regional Occidental



Regresar a mapa del SEN

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Occidental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
3M	P3M-115	115	15.23	14.34	1.080+j4.224	1.064+j5.117	18.19	16.90	0.865+j3.920	0.997+j4.913
ABASOLO	ABS-115	115	8.95	8.93	1.716+j7.219	1.545+j7.345	11.45	10.85	1.501+j6.198	1.634+j7.306
ABASOLO DOS	ABA-115	115	9.83	10.71	1.466+j6.596	0.527+j5.135	12.93	13.39	1.249+j5.510	0.619+j5.092
ABASOLO DOS	ABA-230	230	6.16	5.66	4.450+j21.091	3.542+j27.321	7.38	6.50	3.703+j19.434	3.890+j27.760
ABASTOS	ABT-115	115	8.26	7.19	2.118+j7.754	2.599+j11.561	9.11	7.85	2.051+j7.749	2.646+j11.803
ACÁMBARO	AQM-115	115	5.52	3.40	3.268+j11.577	9.911+j33.493	6.27	3.78	3.021+j11.248	9.938+j33.528
ACAPONETA	ACP-115	115	1.25	0.83	23.096+j47.994	52.841+j122.046	1.40	0.92	22.383+j47.301	52.827+j121.702
ACATLÁN	ATN-69	69	24.34	27.84	0.289+j1.611	0.046+j1.046	27.57	30.80	0.211+j1.576	0.055+j1.111
ACATLÁN	ATN-115	115	12.90	13.83	0.736+j5.093	0.208+j4.177	15.19	15.66	0.504+j4.782	0.245+j4.432
ACATLÁN	ATN-230	230	17.25	21.35	2.088+j7.411	0.336+j3.551	23.50	27.50	1.104+j6.116	0.369+j3.730
ACATLÁN	ATN-400	400	13.65	15.59	4.741+j16.246	1.475+j11.377	20.60	21.30	2.042+j12.163	1.592+j11.677
ACERLAN SA	ACR-69	69	12.64	10.90	0.810+j3.047	1.039+j4.571	15.72	12.79	0.679+j2.704	1.046+j4.608
ACERLAN SA	ACR-115	115	12.48	14.07	1.208+j5.180	0.608+j3.710	18.43	22.32	0.724+j3.896	0.291+j2.091
ACERO SAN LUIS	ACE-115	115	15.22	14.35	1.190+j4.196	1.180+j5.078	17.91	16.46	0.986+j3.956	1.184+j5.097
ACEROS JALISCO	ACJ-69	69	8.15	6.99	1.012+j4.783	1.255+j7.238	14.48	11.36	0.607+j2.965	1.075+j5.443
ACUEDUCTO	ACU-69	69	13.21	8.66	1.347+j2.698	1.621+j7.751	15.07	10.56	1.249+j2.626	1.368+j6.615
ACUEDUCTO II	AUD-115	115	2.90	2.54	4.769+j22.387	5.425+j32.267	5.25	4.39	2.971+j13.581	3.822+j21.993
AEROSPACIAL	ARL-115	115	9.27	6.20	2.367+j6.757	3.821+j17.634	10.68	6.99	2.201+j6.477	3.803+j17.481
AEROPUERTO	AER-115	115	5.33	4.07	3.289+j12.007	7.592+j23.174	5.85	4.46	3.256+j12.042	7.623+j23.369
AEROPUERTO ZACATECAS	AEZ-115	115	6.38	5.51	2.522+j10.094	3.145+j15.044	7.40	6.44	2.259+j9.613	2.917+j14.011
AEROTECH	AET-115	115	8.88	5.66	2.560+j7.029	4.494+j20.020	10.20	6.36	2.394+j6.750	4.475+j19.867
AGAVE	AVE-115	115	3.65	3.41	5.581+j17.305	5.553+j21.512	4.17	3.82	5.256+j16.713	5.596+j21.656
AGOSTADERITO	AGO-115	115	14.02	11.03	0.978+j4.633	0.747+j8.615	15.94	12.28	0.854+j4.501	0.751+j8.683
AGROGEN, S.A. DE C.V.	AGR-115	115	9.67	8.29	1.884+j6.604	1.299+j10.409	10.95	9.22	1.859+j6.406	1.332+j10.542
AGROINDUSTRIAL	AIL-115	115	6.27	3.97	2.919+j10.177	9.204+j27.535	7.16	4.43	2.795+j9.815	9.252+j27.555
AGUA AZUL	AGZ-230	230	11.72	10.45	2.833+j10.974	3.419+j15.337	14.73	12.37	1.829+j9.744	3.473+j15.490
AGUAMILPA	AGM-115	115	2.66	2.12	6.924+j24.009	18.775+j40.097	3.20	2.85	5.793+j22.077	11.407+j29.242
AGUAMILPA	AGM-400	400	5.89	5.41	8.731+j38.224	8.641+j49.373	12.58	15.30	1.936+j20.102	0.685+j11.114
AGUAPRIETA	APR-230	230	9.73	8.83	3.366+j13.228	3.355+j17.768	13.38	12.98	1.863+j10.756	1.763+j12.275
AGUAPRIETA	APR-230B	230	9.73	8.83	3.362+j13.232	3.355+j17.768	13.38	12.98	1.860+j10.758	1.757+j12.258
AGUASCALIENTES NORTE	AGN-115	115	19.42	14.98	0.788+j3.326	0.296+j6.532	22.30	16.73	0.672+j3.205	0.302+j6.606
AGUASCALIENTES ORIENTE	AGS-115	115	24.34	26.93	0.582+j2.665	0.176+j1.968	28.20	30.30	0.470+j2.547	0.184+j2.071
AGUASCALIENTES ORIENTE	AGS-230	230	17.86	18.89	1.686+j7.242	1.088+j6.205	21.98	22.22	1.179+j6.539	1.122+j6.402
AGUASCALIENTES PONIENTE	AGP-115	115	13.86	10.87	0.985+j4.689	0.547+j8.792	15.71	12.08	0.865+j4.569	0.552+j8.872
AGUASCALIENTES POTENCIA	APT-115	115	22.75	25.64	0.564+j2.864	0.186+j1.948	26.48	29.03	0.441+j2.722	0.192+j2.044
AGUASCALIENTES POTENCIA	APT-230	230	20.21	22.92	1.484+j6.401	0.532+j4.302	24.67	26.82	1.026+j5.831	0.570+j4.537
AGUASCALIENTES POTENCIA	APT-400	400	16.35	18.17	3.383+j13.710	1.355+j10.103	21.20	22.18	2.007+j11.814	1.424+j10.542
AGUASCALIENTES SUR	ASS-115	115	13.70	10.18	0.996+j4.743	1.603+j9.772	15.61	12.36	0.888+j4.594	1.205+j8.310
AGUASCALIENTES UNO	AGT-115	115	18.46	17.74	0.715+j3.525	0.373+j4.056	20.94	19.64	0.602+j3.435	0.379+j4.194
AGUASCALIENTES UNO	AGT-230	230	13.57	12.42	2.074+j9.563	2.378+j12.350	16.16	14.22	1.571+j8.902	2.434+j12.581
AGYDSA	AGY-69	69	21.59	19.26	0.524+j1.769	0.413+j2.524	24.92	21.61	0.432+j1.704	0.428+j2.566
AHRESTY	ART-115	115	6.97	6.35	2.685+j9.139	3.066+j11.940	8.37	7.41	2.415+j8.388	3.083+j11.720

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
AHUACATLAN	AHN-115	115	1.29	1.24	12.948+j49.786	19.708+j54.582	2.29	2.05	8.013+j30.853	14.711+j40.816
ALAMEDA	ALA-69	69	9.22	5.88	1.103+j4.176	2.627+j11.397	10.49	6.57	0.985+j4.061	2.618+j11.381
ALAMOS	ALS-69	69	11.30	13.11	0.701+j3.455	0.119+j2.100	18.43	19.69	0.467+j2.331	0.170+j1.949
ALAMOS	ALS-230	230	11.92	10.70	2.791+j10.784	2.947+j14.939	15.08	12.70	1.773+j9.526	3.003+j15.090
ALFA NISSAN	ALF-115	115	13.86	12.60	0.983+j4.687	0.947+j6.186	15.78	14.06	0.859+j4.548	0.953+j6.276
ALFA NISSAN MANIOBRAS	AIS-115	115	15.90	15.93	0.863+j4.087	0.505+j4.152	18.19	17.84	0.738+j3.947	0.511+j4.241
ALKANOVA	ALK-69	69	6.36	4.81	1.326+j6.118	2.482+j12.098	12.51	8.87	0.718+j3.428	1.757+j7.643
ALMERIA	ALM-69	69	3.28	2.08	4.995+j11.054	11.984+j30.909	3.70	2.97	4.917+j10.776	5.964+j19.870
ALTEN ENERGÍAS RENOVABLES MANIOBRAS	AEM-230	230	8.41	9.31	3.136+j15.473	1.243+j11.273	10.63	11.11	2.217+j13.566	1.352+j11.937
ALUPRINT	ALU-115	115	17.69	18.62	0.992+j3.620	0.463+j3.226	21.49	22.31	0.779+j3.308	0.438+j3.077
ALZA	ALZ-115	115	6.13	5.56	3.670+j10.194	4.081+j13.614	7.52	6.60	3.288+j9.133	3.891+j13.257
ALZADA	AZA-115	115	3.42	2.46	5.854+j18.493	11.228+j40.735	3.96	3.00	5.299+j17.652	9.467+j35.136
AMATITÁN	AMT-69	69	3.30	1.84	4.038+j11.359	10.578+j39.615	5.71	5.29	1.759+j7.476	2.616+j9.393
AMECA	AMK-115	115	2.29	1.47	6.577+j28.206	19.950+j75.466	3.73	2.61	4.409+j19.075	10.388+j43.739
AMERI AXLE& MANUF DE MEX SA	AXL-115	115	8.06	6.31	2.202+j7.937	4.620+j14.426	8.94	6.95	2.133+j7.882	4.632+j14.528
AMISTAD BAJÍO	AMB-115	115	18.50	9.92	0.643+j3.531	3.063+j12.570	21.47	11.10	0.620+j3.345	3.075+j12.602
ANDARES	ADS-69	69	13.67	10.81	1.338+j2.588	0.805+j5.358	15.61	14.12	1.241+j2.517	0.462+j3.834
ANGAMACUTIRO DOS	ARD-115	115	2.67	1.80	7.569+j23.668	16.569+j58.895	3.12	2.46	7.054+j22.353	9.615+j41.831
ANTEA	NTA-115	115	13.96	12.73	1.426+j4.537	0.228+j6.325	16.14	14.42	1.346+j4.321	0.234+j6.328
ANTÚNEZ	ANN-69	69	3.37	4.54	2.967+j11.425	0.163+j2.770	4.64	6.18	2.064+j9.213	0.164+j2.730
ANTÚNEZ	ANN-115	115	2.87	3.19	6.906+j22.057	1.698+j16.395	3.80	4.01	4.690+j18.646	1.866+j16.895
APA	APA-115	115	16.01	16.61	0.842+j4.060	0.539+j3.696	18.39	18.59	0.692+j3.911	0.560+j3.852
APASCO	APP-115	115	5.49	4.04	3.552+j11.554	8.355+j23.859	6.37	4.56	3.226+j10.996	8.363+j23.885
APASEO	APS-115	115	17.92	15.14	0.728+j3.633	1.127+j5.671	22.94	19.24	0.710+j3.104	0.975+j4.963
APASEO ORIENTE	APO-115	115	8.83	6.40	2.416+j7.119	4.664+j15.452	15.74	10.34	1.569+j4.366	3.595+j11.402
APATZINGÁN	APZ-115	115	3.71	4.14	5.358+j17.068	1.598+j12.442	5.00	5.38	3.451+j14.202	1.657+j12.104
APATZINGÁN	APZ-161	161	2.56	2.54	10.039+j34.956	4.289+j37.159	3.40	3.18	6.465+j29.333	4.476+j37.414
ARANCIA	ARA-115	115	13.69	16.38	0.952+j4.757	0.258+j2.691	17.10	20.71	0.801+j4.196	0.258+j2.254
ARANDAS	ARS-115	115	3.19	2.73	6.439+j19.772	8.938+j30.258	3.63	3.05	6.108+j19.173	8.979+j30.368
ARBOLEDAS	ABL-115	115	7.59	7.07	1.970+j8.521	2.322+j10.483	9.78	8.59	1.809+j7.247	2.411+j10.347
ARELLANO	ARE-115	115	12.73	9.69	1.077+j5.105	1.646+j10.011	14.45	10.79	0.953+j4.965	1.649+j10.072
ARIO DE ROSALES	ADR-69	69	1.63	1.16	8.823+j22.752	20.557+j50.622	2.19	1.42	7.065+j18.700	20.508+j48.848
ARMERÍA	AIA-115	115	5.43	3.81	2.865+j11.877	8.417+j26.665	6.30	4.30	2.553+j11.306	8.423+j26.688
ARRAYANAL	AYL-115	115	6.76	4.94	2.501+j9.501	5.403+j20.088	7.94	5.60	2.192+j8.931	5.408+j20.131
ARTEVA SPECIAL TES S.R.L. C.V.	ATV-115	115	14.85	13.86	1.045+j4.347	1.036+j5.394	23.37	23.48	0.745+j3.035	0.522+j3.110
ASMOLES	ASM-115	115	5.58	4.19	3.621+j11.345	6.881+j22.782	6.47	4.73	3.293+j10.804	6.899+j22.839
ASUNCIÓN	ASU-115	115	18.95	17.09	0.732+j3.426	0.632+j4.645	21.78	19.09	0.622+j3.295	0.646+j4.760
ATENQUITE GUADALAJARA	TIT-69	69	12.56	8.27	1.036+j2.999	2.127+j7.857	14.20	9.17	0.949+j2.937	2.133+j7.912
ATEQUIZA	ATQ-69	69	19.03	25.05	0.489+j2.035	0.029+j0.616	25.35	32.19	0.361+j1.691	0.036+j0.653
ATEQUIZA	ATQ-230	230	17.24	20.65	2.077+j7.416	0.453+j4.173	22.55	25.54	1.195+j6.366	0.491+j4.424
ATEQUIZA	ATQ-400	400	14.49	16.34	4.171+j15.386	1.603+j11.362	20.52	21.19	1.937+j12.225	1.696+j11.822
ATOTONILCO	ATO-115	115	4.90	6.30	3.984+j12.957	0.516+j4.623	5.66	7.18	3.670+j12.367	0.561+j4.794

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
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			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
AUTLÁN	AUT-115	115	1.16	0.77	16.160+j54.736	38.716+j138.579	1.29	0.85	15.832+j54.179	38.728+j138.672
ALUMINICASTE	AUT-115	115	7.85	5.75	1.776+j8.270	3.482+j17.517	9.06	7.06	1.606+j7.901	2.881+j14.756
AVENTEC	AVN-115	115	15.18	14.27	1.088+j4.237	1.061+j5.161	18.15	16.84	0.872+j3.929	0.989+j4.945
AYALA	AYA-115	115	17.06	16.15	0.900+j3.786	0.885+j4.506	19.46	18.13	0.837+j3.658	0.904+j4.532
AYOTLAN	AYN-115	115	3.66	3.20	5.353+j17.332	7.827+j24.895	4.19	3.60	5.021+j16.698	7.848+j24.925
AYUNTAMIENTO	AYU-115	115	12.94	9.37	1.043+j5.024	1.793+j10.883	14.71	11.16	0.933+j4.875	1.450+j9.622
AZUFRES SWITCHEO	AZS-115	115	10.68	13.20	1.120+j6.117	0.410+j3.329	11.51	14.05	1.140+j6.242	0.431+j3.558
BANDERAS	BAN-115	115	4.09	4.01	5.710+j15.193	5.237+j16.396	4.99	4.71	4.788+j13.816	5.263+j16.563
BAÑON	BON-115	115	2.49	1.76	11.072+j24.267	20.161+j56.792	2.86	1.97	10.243+j23.355	20.181+j56.880
BARRACUDA	BCD-115	115	11.22	9.06	1.382+j5.756	1.865+j10.025	13.00	10.28	1.172+j5.493	1.862+j9.994
BELTICOS S.A. DE C.V.	BEL-69	69	18.17	13.95	0.589+j2.112	0.954+j4.100	22.03	16.96	0.466+j1.934	0.843+j3.705
BICENTENARIO	BCT-115	115	7.60	7.63	2.091+j8.480	1.690+j8.598	8.91	8.70	1.774+j8.007	1.721+j8.765
BMW	BMW-230	230	9.15	7.62	3.362+j14.125	5.441+j22.763	11.68	9.66	2.382+j12.277	4.864+j20.124
BOCAS	BOC-115	115	4.44	3.61	3.423+j14.558	8.140+j24.037	4.95	3.99	3.265+j14.378	8.160+j24.201
BOLAÑOS	BLA-115	115	0.72	0.53	45.333+j80.760	50.197+j187.859	1.00	0.67	36.408+j63.522	51.416+j174.922
BONLAN	BNL-115	115	15.11	13.51	1.104+j4.254	1.212+j5.888	18.10	15.94	0.887+j3.937	1.129+j5.640
BOQUILLA	BOQ-115	115	1.86	1.06	11.565+j33.718	32.920+j111.899	5.56	4.46	3.158+j12.744	4.579+j22.627
BOTELLO	BOT-115	115	3.93	2.87	4.882+j16.160	9.402+j34.687	4.72	4.55	4.383+j14.836	2.493+j17.684
BUENAVISTA	BNA-115	115	10.98	8.52	1.608+j5.829	1.614+j11.303	12.42	9.58	1.522+j5.679	1.586+j11.116
BUENAVISTA NORTE	BVN-115	115	10.64	8.19	1.556+j6.043	1.987+j11.793	12.04	9.27	1.465+j5.887	1.913+j11.470
BUGAMBILIAS	BUG-69	69	10.76	6.94	1.034+j3.556	2.118+j9.610	12.08	7.69	0.946+j3.501	2.121+j9.651
BURNER S	BRN-115	115	7.14	5.88	3.289+j8.694	4.837+j14.538	7.93	6.48	3.252+j8.619	4.859+j14.673
C. H. SANTA ROSA	SRO-69	69	3.73	2.10	3.636+j10.055	9.171+j34.401	7.57	9.93	1.132+j5.679	0.102+j1.954
C.H. LA YESCA	LYE-400	400	5.07	3.50	6.840+j45.056	23.999+j105.045	9.34	10.82	1.896+j27.127	1.013+j18.398
CABLESA	CAB-115	115	8.11	8.18	1.882+j7.970	1.213+j7.951	16.19	16.18	1.151+j4.361	0.786+j4.538
CALERA	CAL-115	115	10.28	13.10	1.700+j6.228	0.180+j2.338	11.93	14.89	1.516+j5.930	0.200+j2.511
CALERA	CAL-230	230	6.49	7.49	5.434+j19.741	1.343+j12.345	7.68	8.58	4.658+j18.450	1.467+j13.063
CALERA INDUSTRIAL	CAI-115	115	6.48	6.02	3.775+j9.519	3.825+j12.034	7.49	7.13	3.464+j9.115	3.413+j10.739
CALVILLO	CVO-115	115	3.18	1.91	4.074+j20.465	12.867+j61.458	4.66	3.35	3.474+j15.289	5.279+j33.807
CAMPESTRE	CPE-115	115	8.35	7.57	2.085+j7.670	2.205+j10.351	9.23	8.28	2.002+j7.654	2.237+j10.586
CAÑADA	KDA-115	115	20.02	20.85	0.580+j3.266	0.237+j2.948	23.35	23.36	0.500+j3.088	0.259+j3.141
CAÑADA	KDA-230	230	19.20	23.24	1.412+j6.772	0.332+j3.377	23.36	27.29	0.957+j6.179	0.359+j3.603
CAÑADA	KDA-400	400	15.01	16.49	3.432+j14.997	1.468+j11.423	19.13	19.83	2.125+j13.106	1.566+j11.986
CAPILLA DE GUADALUPE	CIA-115	115	2.13	1.31	9.453+j29.677	24.195+j87.030	2.62	1.61	8.241+j26.677	21.167+j77.591
CARAPAN POTENCIA	CRP-115	115	13.50	16.53	0.900+j4.835	0.125+j2.297	17.81	21.09	0.756+j4.029	0.171+j2.306
CARAPAN POTENCIA	CRP-230	230	13.60	16.56	2.070+j9.543	0.404+j4.714	16.55	19.55	1.453+j8.707	0.443+j4.997
CARAPAN POTENCIA	CRP-400	400	10.51	10.58	4.361+j21.526	2.422+j21.854	12.85	12.24	2.896+j19.557	2.645+j23.000
CARTONES PODEROSA S.A. DE	PON-115	115	13.59	15.36	1.050+j4.771	0.512+j3.398	18.01	21.92	0.773+j3.980	0.292+j2.096
CASTILLO	CST-69	69	18.55	19.35	0.583+j2.068	0.414+j1.859	23.86	23.90	0.450+j1.780	0.408+j1.806
CASTRO DEL RIO	CDR-115	115	11.07	8.69	1.391+j5.833	2.320+j10.755	12.32	9.50	1.324+j5.778	2.409+j11.016
CATARINA	CTA-69	69	4.39	2.85	3.616+j8.313	8.234+j22.324	4.99	4.55	3.538+j8.034	2.215+j11.285
CD. HIDALGO	CDH-115	115	5.54	4.80	3.123+j11.573	4.796+j17.159	6.12	5.23	3.089+j11.529	5.019+j17.637

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
CELANECE (OCOTLAN)	CME-115	115	7.45	6.48	2.484+j8.555	2.752+j12.844	9.43	7.62	2.036+j7.472	2.867+j13.112
CELANESE (CARAPAN)	CME-115	115	5.04	4.27	4.048+j12.538	5.081+j19.954	5.97	5.28	3.789+j11.631	4.314+j16.922
CELAYA AEROPUERTO	CAE-115	115	14.09	12.07	1.110+j4.578	1.648+j6.924	17.04	14.04	1.051+j4.155	1.676+j6.874
CELAYA DOS	CYA-115	115	22.73	24.58	0.578+j2.864	0.250+j2.289	25.72	27.13	0.542+j2.788	0.272+j2.424
CELAYA DOS	CYA-230	230	16.66	15.57	1.736+j7.778	1.574+j9.683	19.16	17.37	1.478+j7.478	1.666+j10.004
CELAYA I	CLY-115	115	16.43	13.63	0.971+j3.922	1.626+j6.363	20.48	16.53	0.910+j3.449	1.569+j5.956
CELAYA III	CEY-115	115	18.11	19.57	0.756+j3.587	0.296+j2.879	22.50	23.37	0.702+j3.169	0.341+j2.918
CELAYA III	CEY-230	230	16.44	15.92	1.951+j7.838	1.490+j8.946	19.19	18.01	1.634+j7.435	1.555+j9.173
CELAYA INDUSTRIAL	CYI-115	115	17.32	14.40	0.907+j3.726	1.480+j6.019	19.61	16.11	0.868+j3.622	1.494+j6.008
CELAYA PONIENTE	CLP-115	115	12.26	9.50	1.341+j5.246	2.778+j9.787	14.12	10.68	1.276+j5.011	2.798+j9.835
CELAYA SUR	CYS-115	115	11.89	8.46	1.399+j5.406	3.460+j11.915	14.12	9.78	1.341+j4.997	3.422+j11.615
CEMENTOS MOCTEZUMA (MATEHUALA)	CMZ-115	115	1.21	0.86	24.416+j49.097	34.909+j118.526	1.36	0.95	23.416+j48.394	35.185+j119.742
CEMEX MÉXICO SA DE CV (C.D GUZMÁN)	CMX-115	115	3.88	3.14	4.685+j16.450	6.699+j28.611	4.31	3.44	4.437+j16.352	6.755+j29.018
CEMEX MÉXICO SA DE CV (GUADALAJARA)	CMX-69	69	6.03	4.33	1.705+j6.381	3.253+j14.039	12.35	9.40	0.915+j3.430	2.020+j6.618
CEMEX MÉXICO SA DE CV (HUICHAPAN)	CMX-230	230	5.35	3.78	5.178+j24.254	12.823+j54.439	6.59	4.56	4.075+j21.804	12.378+j50.728
CENTRAL FOTOVOLTAICA SANTIAGO MANIOBRAS	CFM-230	230	6.10	6.53	4.244+j21.345	2.715+j17.352	7.46	7.65	3.252+j19.307	2.806+j18.018
CENTRO LOGÍSTICO JALISCO	CLJ-115	115	6.33	5.11	2.423+j10.201	6.230+j17.057	7.21	5.69	2.178+j9.891	6.258+j17.262
CEPAMISA	CMS-115	115	7.59	7.06	2.232+j8.456	2.187+j10.648	8.40	7.72	2.134+j8.430	2.222+j10.916
CERRO BLANCO	CBL-400	400	7.94	7.52	7.054+j28.220	7.053+j33.863	15.82	16.38	1.767+j15.963	2.772+j15.482
CERRO HUECO	CHC-69	69	0.98	0.69	19.564+j35.664	37.773+j83.649	1.20	0.81	17.668+j32.085	37.530+j81.523
CERVECERÍA MODELO DE GUADALAJARA	MOD-69	69	11.50	7.14	1.000+j3.318	2.267+j9.571	12.97	7.92	0.908+j3.255	2.274+j9.616
CH ZIMAPAN	ZMN-115	115	4.16	5.01	3.017+j15.659	0.613+j7.961	6.82	8.17	1.869+j10.547	0.254+j5.724
CH ZIMAPAN	ZMN-230	230	3.64	3.41	7.910+j35.628	5.690+j43.848	6.43	7.18	3.455+j22.461	1.093+j16.979
CHAMELA	CML-115	115	1.42	1.07	13.441+j44.690	35.304+j85.454	1.59	1.19	13.115+j44.137	35.316+j85.546
CHAPALA	CHA-69	69	2.61	1.52	4.723+j14.503	12.295+j46.364	3.98	2.29	3.225+j10.516	9.103+j34.326
CHAPALILLA	CPI-115	115	1.77	2.05	7.993+j36.643	5.200+j21.985	2.66	2.89	6.029+j26.760	5.030+j20.510
CHARAPAN	CHN-115	115	2.84	2.17	8.248+j21.909	17.286+j41.515	3.26	2.45	7.859+j20.969	17.298+j41.492
CHARAPAN	CHN-230	230	6.31	6.43	3.321+j20.772	2.351+j19.792	7.32	7.21	2.803+j19.748	2.561+j20.876
CHARCAS	CAK-115	115	6.40	6.96	2.200+j10.143	1.552+j7.820	7.50	8.56	1.907+j9.549	0.927+j6.182
CHARCAS POTENCIA	CHK-115	115	7.31	9.01	1.707+j8.920	0.274+j4.073	8.02	9.75	1.653+j8.957	0.304+j4.381
CHARCAS POTENCIA	CHK-230	230	3.88	4.25	6.246+j33.651	2.063+j25.576	4.30	4.61	5.915+j33.426	2.311+j27.435
CHILATÁN	CHL-115	115	1.62	1.21	13.353+j38.753	20.770+j80.445	2.13	2.22	9.333+j33.008	4.031+j31.720
CHIPILO	CHI-115	115	7.69	6.56	1.320+j8.527	2.450+j12.984	8.90	7.61	1.164+j8.123	2.398+j12.233
CIA MINERA LAS TORRES	MTO-115	115	6.04	4.01	3.478+j10.421	7.217+j26.774	6.69	4.42	3.408+j10.371	7.239+j26.879
CICLO COMBINADO TIERRA MOJADA S DE RL DE CV	CTM-400	400	14.58	17.22	3.902+j15.346	0.951+j9.603	20.23	22.08	1.827+j12.423	1.058+j10.166
CIENEGUILLAS	CGS-115	115	4.71	4.05	3.807+j13.559	5.584+j20.230	6.39	5.72	3.113+j11.005	4.268+j14.847
CIFUNSA DEL BAJÍO SA DE CV	CIF-115	115	22.81	23.41	0.719+j2.820	0.452+j2.712	25.75	25.94	0.659+j2.759	0.468+j2.797
CIHUATLAN	CHT-115	115	3.59	2.81	5.041+j17.820	11.076+j32.103	4.08	3.14	4.732+j17.261	11.088+j32.196
CIMATARIO	CIM-115	115	11.75	10.71	1.459+j5.461	0.226+j7.462	13.25	11.90	1.392+j5.334	0.231+j7.567
CIUDAD GUZMÁN	CGM-115	115	6.77	7.94	2.345+j9.524	0.522+j5.569	7.57	8.69	2.097+j9.419	0.578+j5.976
CIUDAD GUZMÁN	CGM-230	230	4.75	4.72	6.799+j27.108	3.748+j28.697	5.58	5.31	5.613+j25.558	4.131+j30.305
CNH DE MÉXICO SA DE CV	HOL-115	115	15.59	14.53	0.967+j4.148	0.965+j5.160	23.15	23.30	0.742+j3.066	0.525+j3.119

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			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(0)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(0)}$	$Z_{TH(0)}$
COAHUAYANA	CHY-115	115	2.08	1.30	9.584+j30.487	24.671+j86.075	2.33	1.44	9.240+j29.946	24.680+j86.105
COALCOMÁN	CMN-115	115	1.27	0.83	20.129+j48.427	48.365+j125.760	1.48	1.16	18.065+j45.965	26.952+j88.170
COBANO	CBN-69	69	3.45	3.75	2.894+j11.193	0.680+j8.828	6.42	6.32	1.438+j6.674	0.869+j7.517
COBANO	CBN-161	161	3.20	3.39	7.544+j28.032	2.545+j24.371	4.61	4.56	4.086+j21.791	2.829+j24.293
COCULA	CLA-115	115	4.90	3.80	3.274+j13.148	8.712+j23.939	6.57	4.95	2.419+j10.844	7.100+j21.055
COLIMA DOS	CMD-115	115	9.35	11.29	1.594+j6.924	0.339+j3.557	11.11	13.09	1.280+j6.447	0.370+j3.724
COLIMA DOS	CMD-230	230	6.60	6.82	4.383+j19.634	2.680+j18.479	8.32	8.11	3.145+j17.267	2.890+j19.142
COLIMA NORTE	CNO-115	115	6.21	5.54	2.735+j10.339	3.238+j14.328	7.19	6.25	2.412+j9.872	3.270+j14.495
COLIMILLA	CLL-69	69	10.98	7.53	0.937+j3.506	2.290+j8.323	13.80	14.13	0.687+j3.100	0.394+j3.075
COLINAS	COI-115	115	10.24	7.88	1.448+j6.323	2.217+j12.163	11.79	8.88	1.239+j6.070	2.221+j12.167
COLOMO	COL-115	115	15.53	18.86	0.753+j4.208	0.167+j2.149	19.93	23.16	0.475+j3.634	0.179+j2.244
COLOMO	COL-230	230	10.44	12.45	2.063+j12.553	0.992+j7.039	14.73	16.63	1.012+j9.865	1.013+j6.932
COLOMO DISTRIBUCIÓN	CDI-115	115	15.35	18.52	0.773+j4.257	0.195+j2.236	19.66	22.71	0.495+j3.682	0.207+j2.330
COLON	CLN-230	230	13.50	13.47	2.795+j9.431	2.062+j9.983	17.21	16.13	1.811+j8.292	2.104+j10.218
COMPOSTELA	CMP-115	115	2.41	1.57	11.585+j25.044	24.215+j67.927	3.67	2.43	8.157+j18.177	17.025+j47.526
CONTICÓN	CON-115	115	11.24	10.11	1.199+j5.786	1.907+j7.685	15.18	12.94	1.089+j4.687	1.818+j7.135
CONDEMBARO	CON-115	115	1.97	1.64	10.127+j32.082	16.443+j51.815	2.43	1.98	7.976+j29.015	15.849+j48.993
CONDUCTORES MONTERREY	CDM-115	115	16.49	15.67	1.041+j3.891	0.780+j4.658	21.15	20.98	0.779+j3.365	0.519+j3.582
CONIN	CNI-115	115	17.64	21.00	0.744+j3.689	0.108+j2.028	19.82	23.25	0.687+j3.620	0.114+j2.139
CONIN	CNI-230	230	15.24	15.50	1.833+j8.521	0.985+j8.500	18.73	18.59	1.438+j7.664	1.021+j8.283
CORONA	CRN-115	115	8.85	9.69	1.986+j7.234	1.137+j5.458	10.19	10.92	1.802+j6.936	1.156+j5.632
CORONEO	COO-115	115	2.39	2.01	10.290+j25.747	12.562+j42.183	2.83	2.28	10.150+j23.740	12.820+j42.878
CORPORACIÓN DE OCCIDENTE	COC-69	69	13.60	12.38	0.758+j2.829	0.844+j3.725	17.09	14.67	0.627+j2.486	0.851+j3.762
CORTÁZAR	CZR-115	115	8.03	7.48	1.825+j8.066	2.524+j9.808	11.10	9.92	1.561+j6.391	2.297+j8.687
COTIJA	CTJ-115	115	4.61	3.01	3.813+j13.904	9.231+j36.254	5.24	3.35	3.657+j13.456	9.265+j36.321
CRUCERO	CCR-115	115	1.95	1.49	11.276+j32.095	13.723+j64.482	2.55	2.45	8.009+j27.545	5.867+j33.119
CRUZ AZUL	CZA-230	230	5.87	4.22	4.577+j22.156	12.770+j47.532	6.68	4.71	4.026+j21.483	12.807+j47.720
CRYOINFRA	CRY-115	115	19.84	22.51	0.841+j3.239	0.399+j2.184	25.47	28.40	0.680+j2.785	0.335+j2.023
CUAUHTÉMOC	SCC-115	115	3.87	2.86	4.807+j16.480	8.914+j34.365	4.44	3.32	4.379+j15.838	8.338+j32.356
CUERÁMARO	CUE-115	115	7.25	5.12	2.055+j8.924	6.915+j19.544	8.43	5.76	1.948+j8.441	6.939+j19.601
CUITZEO MORELIA	CTZ-115	115	5.20	2.97	3.585+j12.251	11.290+j40.185	5.75	3.26	3.515+j12.204	11.312+j40.298
CUITZEO OCOTLAN	CZO-115	115	8.25	7.30	2.255+j7.723	2.475+j11.084	10.63	8.71	1.800+j6.629	2.560+j11.275
CUITZILLOS	CZS-115	115	6.19	4.95	2.847+j10.346	5.780+j18.188	6.80	5.41	2.802+j10.364	5.824+j18.410
CUMBRES	CUB-115	115	18.33	18.82	0.760+j3.541	0.419+j3.348	21.00	21.06	0.645+j3.418	0.426+j3.445
CUMMINS FILTRACIÓN	CSF-115	115	11.22	8.04	1.375+j5.757	2.375+j12.784	12.99	9.07	1.166+j5.502	2.380+j12.785
CUPATITZIO	CPT-161	161	3.79	3.83	5.339+j23.954	3.889+j23.424	5.42	6.03	2.757+j18.674	1.513+j14.547
CUPRO	CPO-115	115	17.73	18.79	1.042+j3.598	0.609+j3.109	21.09	21.82	0.840+j3.359	0.614+j3.135
CUQUIO	CQO-115	115	2.02	1.33	10.138+j31.264	29.466+j78.450	2.45	1.64	8.938+j28.412	26.547+j69.452
DAIDO METAL	DAI-69	69	5.82	3.34	1.641+j6.647	4.837+j21.535	6.47	3.69	1.554+j6.590	4.841+j21.573
DAL-TILE MÉXICO S.DER.L. DEC.V	DLT-115	115	17.77	16.93	0.763+j3.657	0.819+j4.265	20.72	19.47	0.697+j3.454	0.843+j4.206
DANISCO MEXICANA	DAM-115	115	5.48	3.99	3.491+j11.595	8.413+j24.451	6.36	4.50	3.164+j11.039	8.421+j24.479
DANONE DE MÉXICO SA DE CV	DNN-115	115	9.94	7.90	1.671+j6.464	3.478+j11.417	11.06	8.67	1.607+j6.407	3.553+j11.608

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Occidental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
DAÑU	DAN-230	230	8.36	6.56	3.339+j15.536	6.227+j28.441	11.03	8.52	2.267+j13.047	5.784+j24.734
DE ACERO MORELIA	DEO-115	115	8.47	7.51	2.052+j7.566	2.544+j10.801	9.33	8.18	1.994+j7.569	2.603+j11.059
DE ACERO CELAYA	DEA-230	230	13.48	11.62	2.306+j9.574	2.924+j14.479	15.56	13.05	1.984+j9.177	2.988+j14.707
DELCO REMY	DLC-115	115	14.75	13.59	1.092+j4.368	1.195+j5.583	17.44	15.76	0.881+j4.094	1.164+j5.486
DENSO	DEN-115	115	7.11	6.44	2.472+j9.008	2.404+j12.069	7.86	7.04	2.406+j8.974	2.483+j12.370
DESCANSADERO	DSC-69	69	1.53	0.98	11.102+j23.556	25.767+j64.830	1.77	1.12	10.646+j22.300	24.932+j63.536
DESTILADERAS	DST-115	115	3.72	3.51	5.884+j16.857	6.560+j20.098	4.48	4.07	4.955+j15.535	6.582+j20.263
DICUMSA	DIC-115	115	16.46	15.61	1.042+j3.896	0.785+j4.690	21.17	21.02	0.777+j3.360	0.516+j3.570
DISTEX	DTX-115	115	16.02	15.22	1.128+j3.988	0.914+j4.785	23.97	23.92	0.730+j2.958	0.519+j3.095
DOLORES HIDALGO	DHD-115	115	6.63	4.41	2.025+j9.803	4.653+j24.743	7.35	4.86	1.975+j9.735	4.656+j24.811
DOMINICA	DMN-115	115	5.08	6.44	1.214+j13.002	0.070+j4.873	5.42	6.80	1.235+j13.427	0.077+j5.314
DOMO SAN PEDRO	DSP-115	115	1.73	2.22	7.462+j37.696	0.948+j13.361	2.46	3.01	6.030+j29.039	1.245+j13.759
DON VASCO	DVO-115	115	2.68	1.85	8.068+j23.427	19.798+j54.821	3.01	2.05	7.757+j23.028	19.704+j54.792
DRAEXELMAIER	DXM-115	115	11.50	9.62	1.356+j5.610	1.700+j9.067	13.32	10.88	1.148+j5.360	1.714+j9.101
EATON	EAT-115	115	14.69	13.55	1.094+j4.384	1.216+j5.585	17.35	15.67	0.884+j4.116	1.193+j5.512
EDOSA	EDO-69	69	7.27	4.85	1.628+j5.234	3.366+j13.268	10.22	5.90	1.073+j4.153	3.374+j13.305
EFFEM DE MÉXICO	EFE-115	115	9.09	6.52	2.313+j6.933	3.821+j15.699	10.43	7.34	2.151+j6.662	3.803+j15.576
EFFEM MEX INC Y CIA SENNC DE	EFF-115	115	3.27	2.13	4.579+j19.791	11.347+j51.878	5.19	3.12	3.147+j13.726	9.887+j41.041
EL ARBOLITO	ABO-115	115	3.80	2.73	6.242+j16.314	12.634+j35.867	4.26	3.04	6.016+j16.039	12.641+j35.806
EL CAJÓN	CJN-400	400	6.94	6.07	7.389+j32.443	10.530+j46.911	13.76	15.26	1.783+j18.380	1.399+j14.487
EL CAMPANARIO	CAM-115	115	12.23	13.13	1.679+j5.162	3.743+j3.169	14.10	14.91	1.590+j4.931	3.747+j3.182
EL CUARENTA	ELC-69	69	23.71	26.27	0.301+j1.653	0.090+j1.214	26.84	29.06	0.223+j1.617	0.098+j1.278
EL GRANJENO	EGJ-115	115	13.18	11.21	1.417+j4.835	2.036+j7.454	19.07	16.96	1.040+j3.687	1.346+j5.121
EL GRULLO	GRU-115	115	0.79	0.50	26.106+j79.698	64.378+j225.695	0.88	0.55	25.778+j79.142	64.391+j225.788
EL MARQUEZ	MRQ-115	115	13.38	12.38	1.177+j4.819	1.215+j6.116	14.97	13.67	1.118+j4.750	1.221+j6.227
EL MARQUEZ ORIENTE	MQO-115	115	12.50	11.31	1.166+j5.180	1.440+j6.896	13.96	12.49	1.107+j5.111	1.446+j7.007
EL MIRADOR	MRR-115	115	5.25	4.59	3.528+j12.146	3.635+j17.857	6.49	5.54	2.775+j10.912	3.410+j17.087
EL POTOSÍ	EPS-115	115	19.90	20.96	0.610+j3.280	0.242+j2.854	22.54	23.08	0.501+j3.201	0.267+j3.042
EL POTOSÍ	EPS-230	230	14.97	17.68	1.840+j8.677	0.506+j4.883	18.29	20.92	1.305+j7.878	0.565+j5.127
EL POTOSÍ	EPS-400	400	11.30	11.69	3.946+j20.047	2.241+j18.534	13.69	13.51	2.720+j18.355	2.454+j19.412
EL REALITO	ELR-115	115	2.51	1.46	5.545+j25.846	16.049+j82.180	2.77	1.60	5.496+j25.815	16.062+j82.317
EL SALTO	ESJ-69	69	21.02	19.86	0.466+j1.837	0.477+j2.198	27.13	25.24	0.357+j1.575	0.453+j1.949
EL SAUCITO	MSU-115	115	6.69	6.22	2.760+j9.528	1.801+j12.125	7.57	6.91	2.581+j9.299	1.833+j12.345
EL SAUZ	SAU-115	115	19.26	23.57	0.617+j3.391	0.107+j1.824	22.15	26.83	0.532+j3.253	0.100+j1.837
EL SAUZ	SAU-230	230	13.85	14.11	1.828+j9.412	0.951+j9.457	18.36	20.51	1.216+j7.864	0.435+j6.115
EL SOL	SOL-69	69	17.17	12.78	0.658+j2.225	1.081+j4.614	21.76	16.59	0.499+j1.951	0.866+j3.825
EL SOL	SOL-69B	69	17.56	13.21	0.634+j2.178	1.029+j4.419	22.09	16.96	0.486+j1.923	0.838+j3.718
EL SOL (CARAPAN)	ESO-115	115	4.65	3.34	4.439+j13.571	9.993+j29.538	6.39	4.52	3.613+j10.847	8.322+j24.301
EL TARAY	TAY-115	115	3.68	2.73	5.422+j17.225	1.044+j37.619	5.03	3.40	3.608+j14.051	1.278+j35.847
EL TORO	TOO-115	115	6.16	3.95	2.585+j10.471	7.373+j27.907	6.75	4.32	2.532+j10.523	7.409+j28.168
EL ZAPOTILLO	EZP-115	115	2.22	1.38	7.385+j29.002	22.859+j81.685	2.98	1.89	5.208+j23.936	16.136+j64.925
ELECTROQUÍMICA	ELE-115	115	11.76	9.78	1.447+j5.458	2.004+j8.908	13.52	10.96	1.266+j5.253	2.037+j9.020

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
EMMAN TABLEROS SA DE CV	EMM-115	115	5.89	4.46	2.874+j10.894	4.809+j21.819	7.71	5.40	2.264+j9.196	4.791+j21.253
EMPAQUES MODERNOS DE	EMP-69	69	8.85	6.05	1.683+j4.175	3.756+j10.100	10.48	7.03	1.562+j3.880	3.708+j9.688
ENCARNACIÓN DE DÍAZ	ENC-115	115	6.04	4.09	2.521+j10.692	7.650+j25.714	6.81	4.55	2.393+j10.453	7.657+j25.611
ENVASES INNOVATIVOS	ENV-69	69	13.18	9.28	0.756+j2.927	1.669+j6.648	16.70	11.66	0.624+j2.548	1.508+j5.857
ENVASES UNIVERSALES DE	EVS-69	69	13.31	11.91	0.777+j2.889	0.910+j3.973	16.68	14.06	0.647+j2.547	0.917+j4.010
ENVASES Y TAPAS	EYT-115	115	6.30	5.75	3.861+j9.814	4.107+j12.955	7.26	6.78	3.550+j9.411	3.695+j11.660
EÓLICA CERRITOS (Mesa Morenos) MANIOBRAS	ECM-230	230	5.89	5.92	4.231+j22.142	3.377+j22.039	7.06	6.79	3.377+j20.425	3.583+j22.944
EÓLICA HUIMILPAN (San Pedro) MANIOBRAS IXMIQUILPAN	HUM-115	115	1.42	0.98	17.745+j43.379	28.508+j106.014	1.87	1.22	15.116+j36.059	27.015+j97.740
EÓLICA HUIMILPAN (San Pedro) MANIOBRAS HUIMILPAN	HUM-115	115	3.73	3.95	5.697+j16.871	2.035+j14.840	4.61	4.65	5.592+j14.841	2.292+j15.534
EÓLICA LA BUFA	ELB-230	230	5.88	6.02	4.667+j22.095	3.086+j20.915	6.70	6.67	4.174+j21.411	3.237+j21.863
EÓLICA SANTIAGO MANIOBRAS	ESM-230	230	7.41	6.48	3.097+j17.647	4.721+j25.352	8.97	7.67	2.373+j16.110	4.651+j24.403
ESTADIO CORREGIDORA	ECO-115	115	16.35	11.28	0.816+j3.978	0.830+j9.585	18.37	12.42	0.762+j3.901	0.855+j9.747
ESTANCIA DE ANIMAS	EDA-115	115	3.19	2.21	7.448+j19.409	14.726+j46.400	4.13	2.85	6.080+j16.585	12.420+j39.751
ESTANCITA	ETA-115	115	0.80	0.84	25.780+j79.190	11.560+j70.332	3.26	2.52	5.150+j21.824	8.807+j41.281
EXPERIENCIA	EXP-69	69	8.11	5.37	1.116+j4.782	3.195+j12.055	9.18	5.98	0.999+j4.669	3.188+j12.044
EZEQUIEL MONTES	EZM-115	115	5.79	3.51	3.589+j10.888	10.106+j32.457	7.87	4.95	2.679+j8.890	7.341+j24.824
FAJAS	FAJ-115	115	0.65	0.46	40.381+j94.314	83.659+j216.173	0.71	0.50	40.158+j94.171	83.713+j216.503
FERIA-DELPHI	ALM-115	115	10.41	8.70	1.567+j6.180	2.381+j9.918	11.60	9.60	1.509+j6.111	2.387+j10.029
FERTIMEX	FER-69	69	5.09	3.49	2.116+j7.529	4.438+j18.078	9.20	6.37	1.325+j4.578	3.205+j10.657
FEVISA	FVS-115	115	12.92	11.01	1.242+j4.987	1.283+j7.771	15.18	12.65	1.030+j4.700	1.267+j7.674
FIBERWEB DE MÉXICO SA DE CV	VTC-115	115	6.22	4.77	1.587+j10.556	4.594+j20.050	7.15	5.75	1.397+j10.114	4.104+j17.317
FLAMINGOS	FLA-115	115	4.99	5.76	4.414+j12.554	1.604+j7.915	6.26	6.96	3.492+j11.127	1.638+j8.101
FLEXTRONICS PLANTA SUR	SLT-69	69	9.77	6.17	1.150+j3.910	2.479+j10.987	10.96	6.82	1.062+j3.855	2.483+j11.028
FLUVIAL	FLU-115	115	4.65	4.92	4.956+j13.407	2.478+j11.798	5.67	5.79	4.014+j12.231	2.498+j11.999
FORJAS	FRJ-115	115	13.53	12.45	1.051+j4.795	1.189+j6.128	19.27	18.50	0.854+j3.693	0.832+j4.250
FRESNILLO INDUSTRIAL	FRI-115	115	6.60	6.33	2.953+j9.624	2.684+j11.050	7.45	7.02	2.779+j9.406	2.716+j11.290
FRESNILLO NORTE	FRN-115	115	7.36	8.40	2.388+j8.702	0.776+j5.657	8.29	9.29	2.226+j8.520	0.816+j5.962
FRESNILLO POTENCIA	FSO-115	115	7.58	9.07	2.285+j8.459	0.415+j4.492	8.54	10.02	2.123+j8.282	0.456+j4.807
FRESNILLO POTENCIA	FSO-230	230	4.52	4.83	7.345+j28.414	2.864+j23.901	5.21	5.38	6.578+j27.279	3.135+j25.291
FRESNILLO SUR	FNO-115	115	7.24	6.90	2.635+j8.783	2.101+j10.377	8.22	7.68	2.454+j8.539	2.128+j10.574
FRESNO	FRE-69	69	13.12	8.46	0.864+j2.911	1.848+j7.877	14.85	9.38	0.773+j2.848	1.854+j7.923
GENERADORA ELÉCTRICA SAN RAFAEL, S.A.P.I. DE C.V.	SRA-115	115	4.26	3.62	4.156+j15.030	9.701+j22.060	5.45	5.83	3.011+j13.057	1.993+j10.695
GENERAL MOTORS DE MÉXICO	GMC-115	115	7.62	5.59	2.457+j8.358	5.032+j17.562	8.41	6.13	2.398+j8.344	5.049+j17.708
GENERAL MOTORS DE MÉXICO	GMC-230	230	9.91	8.33	2.997+j13.054	4.617+j20.762	11.20	9.23	2.665+j12.764	4.693+j21.110
GENERAL TIRE	GRP-115	115	14.90	13.82	1.165+j4.300	0.892+j5.503	17.78	16.15	0.951+j3.997	0.869+j5.368
GUARAPO	GRP-115	115	6.33	4.08	2.580+j10.161	8.061+j26.742	7.06	4.51	2.519+j10.036	8.099+j26.823
GKN	GKN-115	115	11.71	10.87	1.155+j5.553	1.726+j6.804	15.96	14.08	1.045+j4.454	1.638+j6.254
GÓMEZ PORTUGAL	GOP-115	115	8.85	6.21	1.711+j7.305	3.583+j16.694	9.95	6.88	1.605+j7.161	3.593+j16.791
GRAHAM PACKAGING PLASTIC	GRH-115	115	9.85	7.84	1.707+j6.523	3.489+j11.448	10.95	8.61	1.643+j6.467	3.564+j11.639
GRÁN JARDÍN	GJA-115	115	9.18	6.97	1.547+j7.065	3.288+j13.759	10.09	7.62	1.482+j7.088	3.310+j13.914
GUADALAJARA DOS	GUD-69	69	24.99	28.55	0.341+j1.557	0.084+j1.023	32.31	35.74	0.248+j1.333	0.100+j0.986
GUADALAJARA DOS	GUD-161	161	6.18	8.47	1.745+j14.949	0.106+j2.941	6.58	8.97	1.341+j15.485	0.115+j3.216

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			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
GUADALAJARA DOS	GUD-230	230	15.33	17.69	2.385+j8.330	0.789+j5.437	19.96	21.85	1.444+j7.175	0.818+j5.601
GUADALAJARA INDUSTRIAL	GUI-69	69	21.32	24.84	0.490+j1.804	0.078+j1.120	24.11	27.37	0.413+j1.770	0.085+j1.207
GUADALAJARA INDUSTRIAL	GUI-230	230	11.70	11.76	3.077+j10.922	1.754+j11.372	14.55	13.79	2.083+j9.824	1.854+j11.801
GUADALAJARA NORTE	GUN-69	69	20.69	24.22	0.398+j1.883	0.088+j1.107	24.56	28.50	0.279+j1.762	0.072+j1.081
GUADALAJARA NORTE	GUN-230	230	10.88	10.52	3.144+j11.793	2.170+j13.556	15.17	15.38	1.695+j9.480	1.193+j9.596
GUADALAJARA ORIENTE	GDO-69	69	23.34	26.00	0.339+j1.673	0.089+j1.207	27.92	30.29	0.236+j1.552	0.097+j1.235
GUADALAJARA ORIENTE	GDO-230	230	14.03	15.10	2.489+j9.134	1.172+j7.649	18.80	19.07	1.403+j7.642	1.216+j7.645
GUADALAJARA UNO	GDU-69	69	28.83	31.76	0.367+j1.332	0.093+j1.033	33.61	35.68	0.281+j1.273	0.101+j1.104
GUADALAJARA UNO	GDU-230	230	14.06	15.21	2.714+j9.047	1.199+j7.523	18.07	18.38	1.718+j7.899	1.268+j7.822
GUADALCAZAR	GDL-115	115	1.38	1.02	21.322+j42.990	28.177+j95.219	1.56	1.13	20.338+j42.240	28.452+j96.434
GUADALUPE	GPE-115	115	6.73	6.39	3.413+j9.251	3.180+j11.018	8.24	7.55	3.076+j8.315	3.098+j10.883
GUADALUPE MANIOBRAS	GLM-230	230	13.86	14.04	2.124+j9.346	1.315+j9.359	16.17	15.80	1.770+j8.861	1.420+j9.788
GUANAJUATO	GTO-115	115	7.72	5.08	1.942+j8.375	5.231+j21.471	8.56	5.59	1.871+j8.325	5.253+j21.575
GUANAJUATO SUR	GSU-115	115	9.22	6.34	1.653+j7.011	4.040+j16.556	10.23	6.98	1.583+j6.961	4.064+j16.666
GUARDIÁN INDUSTRIE VP	GDI-115	115	7.53	5.71	2.804+j8.357	5.134+j16.629	8.55	6.39	2.670+j8.119	5.122+j16.564
GUASCARO	GSO-115	115	4.53	3.00	3.974+j14.114	9.267+j35.874	5.19	3.36	3.814+j13.536	9.309+j35.897
GUAYABITOS	GYS-115	115	1.79	1.27	14.506+j34.182	26.201+j79.100	3.14	2.17	9.067+j21.408	17.762+j51.508
GUEVARA	GVA-115	115	0.89	1.04	23.268+j71.220	5.320+j41.639	3.23	2.95	5.159+j22.047	5.384+j28.639
HACIENDA	HDA-115	115	12.73	9.80	1.351+j5.037	2.734+j9.541	14.57	10.97	1.290+j4.844	2.752+j9.596
HACIENDA NUEVA	HNV-115	115	4.54	4.02	4.492+j13.904	6.591+j19.250	6.21	5.48	3.613+j11.195	5.012+j15.729
HERDEZ	HER-115	115	15.97	13.61	1.073+j4.017	1.081+j6.293	21.02	18.81	0.784+j3.386	0.730+j4.725
HIGUERILLAS	HIG-69	69	15.28	9.87	0.998+j2.409	1.277+j6.896	17.28	10.80	0.915+j2.366	1.323+j7.079
HILASAL MEXICANA S.A.B. DE C.V.	HYL-69	69	6.45	4.74	2.311+j5.726	4.792+j11.958	21.45	17.47	0.504+j1.980	0.916+j3.341
HIROTEC MÉXICO SA DE CV	AVT-115	115	8.25	6.90	2.150+j7.759	3.855+j12.209	9.15	7.61	2.081+j7.705	3.866+j12.311
HITACHI	HTA-115	115	9.25	6.79	1.733+j6.969	2.651+j14.850	10.42	7.64	1.642+j6.813	2.576+j14.527
HITCHINER	HIT-115	115	14.01	12.56	1.201+j4.585	1.174+j6.326	16.52	14.46	0.989+j4.309	1.174+j6.279
HONDA CELAYA	HND-115	115	13.99	10.37	0.931+j4.652	2.274+j9.497	16.58	11.94	0.894+j4.315	2.263+j9.305
HONDA DE MÉXICO S.A. DE C.V. EL SALTO	HON-69	69	18.35	15.76	0.553+j2.099	0.735+j3.181	23.67	20.12	0.435+j1.799	0.687+j2.769
HORUS	HRS-230	230	8.72	8.17	2.952+j14.935	4.030+j17.909	10.23	9.22	2.398+j14.076	4.274+j18.568
HUACANA	HUC-69	69	1.42	0.99	13.332+j24.747	28.819+j57.683	1.82	1.20	11.613+j21.110	28.212+j54.837
HUANIMARO	HNM-115	115	3.76	2.90	4.758+j17.027	12.004+j31.106	4.39	3.29	4.524+j16.021	12.093+j31.067
HUENTITÁN	HUN-69	69	10.50	7.20	1.074+j3.639	2.473+j8.697	12.66	10.70	0.892+j3.345	1.533+j5.245
HUICHAPAN	HCH-115	115	1.31	0.76	17.417+j47.660	42.318+j154.299	1.62	1.03	14.580+j42.626	30.367+j119.069
HUNTSMAN INTERNATIONAL DE	HMA-115	115	1.36	0.03	9.244+j47.813	7.796-j7924.247	4.92	2.80	3.331+j14.462	12.765+j47.099
IBERDROLA COGENERACIÓN BAJÍO MANIOBRAS	ICM-115	115	13.67	13.50	1.017+j4.750	0.762+j5.232	16.01	16.59	0.915+j4.468	0.772+j4.257
IBÍDEM	IBD-115	115	9.64	8.84	1.830+j6.644	1.986+j8.628	11.11	9.96	1.614+j6.374	2.058+j8.732
IBM DE MÉXICO S.A. DE C.V.	IBM-69	69	22.21	22.60	0.383+j1.752	0.272+j1.703	28.44	27.85	0.287+j1.514	0.282+j1.637
IBM-ALKA	IBA-69	69	23.42	25.00	0.364+j1.661	0.186+j1.392	30.26	31.20	0.268+j1.423	0.196+j1.326
IMMSA	IMM-115	115	4.95	4.54	3.332+j12.991	4.521+j16.523	5.72	5.37	3.038+j12.399	3.896+j14.885
INDEPENDENCIA	INE-115	115	8.00	7.29	2.140+j8.018	2.247+j10.653	8.85	7.97	2.051+j7.997	2.278+j10.897
INDUSTRIAL SAN FRANCISCO	ISF-115	115	10.89	8.08	1.262+j5.964	2.106+j12.311	12.35	8.97	1.169+j5.797	2.122+j12.453
INDUSTRIAS GOSA S.A. DE C.V.	GOS-69	69	12.38	10.54	0.834+j3.107	1.125+j4.793	15.36	12.35	0.704+j2.764	1.132+j4.831

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Occidental**

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			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
INGENIO TALA	ING-69	69	3.75	2.02	3.435+j10.044	9.493+j36.794	6.19	6.49	1.570+j6.909	0.887+j6.215
INGUARAN	ING-69	69	0.95	0.64	20.677+j36.402	45.370+j92.403	1.16	0.75	18.927+j32.807	44.760+j89.553
INNOPACK	INN-115	115	10.10	7.15	1.593+j6.381	3.907+j14.220	11.41	7.96	1.527+j6.216	3.924+j14.238
INPAMEX	IMP-115	115	4.72	3.92	4.461+j13.337	6.169+j21.847	5.84	5.10	3.626+j11.977	4.195+j17.906
INVISTA	INV-115	115	16.90	19.15	1.060+j3.782	0.480+j2.565	24.63	26.11	0.713+j2.878	0.441+j2.491
IRAPUATO	IRP-115	115	20.90	18.46	0.840+j3.064	1.210+j4.324	23.53	20.43	0.773+j3.006	1.226+j4.403
IRAPUATO II	IRA-115	115	25.50	29.06	0.610+j2.532	0.185+j1.703	28.86	32.25	0.549+j2.470	0.200+j1.788
IRAPUATO II	IRA-230	230	18.98	19.68	1.695+j6.788	1.078+j6.428	22.00	22.19	1.394+j6.491	1.127+j6.641
IRAPUATO INDUSTRIAL	IRI-115	115	11.88	10.43	1.438+j5.403	2.082+j7.689	13.23	11.44	1.374+j5.346	2.157+j7.880
IRAPUATO PONIENTE	IPP-115	115	14.04	10.69	1.196+j4.576	2.470+j8.894	15.66	11.77	1.131+j4.526	2.488+j8.994
IRAPUATO VILLAS	IRV-115	115	16.28	12.48	1.080+j3.934	2.177+j7.542	18.21	13.78	1.014+j3.879	2.192+j7.628
ITALAISE	ITA-115	115	8.79	5.92	1.712+j7.353	3.669+j18.309	10.03	7.30	1.582+j7.108	2.770+j15.400
IXTLAHUACAN	ITC-400	400	9.36	7.46	5.257+j24.096	8.638+j43.369	14.83	12.12	1.938+j17.016	5.897+j29.030
IXTLAN	ITL-115	115	5.45	4.26	3.448+j11.679	8.073+j20.937	6.42	4.86	3.251+j10.895	8.119+j20.884
JABIL CIRCUIT DE MÉXICO	JBL-69	69	11.69	7.40	1.244+j3.174	2.139+j9.167	13.28	8.69	1.147+j3.095	1.964+j8.370
JACONA	JCN-115	115	8.41	7.18	1.778+j7.688	2.803+j11.677	10.47	8.47	1.638+j6.778	2.871+j11.615
JAGUAR	CBO-69	69	15.14	11.57	0.664+j2.547	1.074+j5.002	17.32	12.88	0.568+j2.466	1.095+j5.078
JALOSTOTITLAN	JLT-115	115	6.69	5.71	2.056+j9.715	3.579+j14.638	8.70	7.46	1.743+j8.208	3.122+j12.204
JALPA	JAP-115	115	1.35	1.14	17.583+j45.748	3.300+j78.985	2.51	1.78	9.618+j27.430	4.563+j66.302
JARAL DEL PROGRESO	JDP-115	115	4.82	2.98	3.672+j13.283	11.490+j37.707	5.35	3.28	3.609+j13.159	11.529+j37.788
JARRETADERAS	JDA-115	115	4.90	5.39	4.642+j12.722	2.500+j9.611	6.10	6.46	3.705+j11.379	2.523+j9.772
JATCO	JAT-115	115	11.42	8.39	1.246+j5.677	2.021+j11.974	12.93	9.33	1.122+j5.538	2.024+j12.034
JATCO II	JTC-115	115	12.31	10.43	1.095+j5.283	1.389+j8.221	13.95	11.61	0.971+j5.144	1.394+j8.311
JEREZ	JRZ-115	115	1.94	1.38	12.448+j31.964	24.430+j71.631	2.30	1.64	11.615+j29.532	23.076+j66.188
JESÚS DEL MONTE	JEM-115	115	10.93	8.01	1.345+j5.923	3.198+j12.362	12.16	8.81	1.282+j5.870	3.219+j12.474
JESÚS MARÍA	JMA-115	115	3.13	2.66	6.416+j20.205	10.201+j30.968	3.56	2.98	6.083+j19.590	10.233+j31.041
JIQUILPAN	JIQ-115	115	7.85	5.51	1.898+j8.243	4.203+j18.816	8.98	6.15	1.750+j7.940	4.231+j18.947
JOCOTEPEC	JCT-69	69	3.80	5.33	3.199+j9.975	0.185+j1.507	4.21	5.87	3.120+j9.942	0.194+j1.572
JOYUELA	JYU-115	115	5.57	3.61	3.342+j11.433	9.040+j30.082	6.18	3.98	3.273+j11.350	9.069+j30.149
JUAN JOSÉ ARREOLA	JJA-115	115	5.75	5.79	2.949+j11.158	3.092+j10.985	6.43	6.37	2.698+j11.031	3.142+j11.352
JUAN RULFO	JRU-115	115	2.05	1.35	9.746+j30.835	25.162+j79.388	2.28	1.48	9.479+j30.633	25.192+j79.628
JULIÁN CARRILLO	JCR-115	115	4.90	3.28	4.184+j12.897	10.086+j32.112	5.43	3.61	4.071+j12.812	10.109+j32.287
JURICA	JUR-115	115	10.85	9.01	1.938+j5.805	0.460+j10.128	12.35	10.11	1.856+j5.614	0.461+j10.105
KASAN	KAS-115	115	4.44	2.90	2.774+j14.709	9.721+j37.569	5.03	3.25	2.703+j14.273	9.670+j37.229
KELLOGG'S DE MÉXICO S.R.L. DE	KEL-115	115	7.77	7.51	2.027+j8.296	1.639+j9.356	15.03	14.08	1.292+j4.683	1.152+j5.811
KIMBERLY CLARK DE MÉXICO	KIM-115	115	13.98	13.84	0.991+j4.645	0.727+j5.088	16.43	17.19	0.886+j4.356	0.704+j4.036
KITAGAWA	KIT-115	115	11.45	8.52	1.250+j5.662	2.644+j11.514	12.98	9.47	1.126+j5.513	2.649+j11.593
KODAK DE MÉXICO S.A. DE C.V.	KDK-69	69	12.17	8.02	0.938+j3.137	2.008+j8.146	14.66	9.66	0.790+j2.882	1.816+j7.445
KRUPP	KRP-115	115	16.92	17.43	1.002+j3.795	0.603+j3.590	20.65	21.32	0.782+j3.449	0.490+j3.251
LA BARCA	BRC-115	115	7.87	6.62	2.520+j8.049	4.027+j12.692	9.32	7.53	2.263+j7.503	4.071+j12.867
LA CALIFORNIA	CLF-115	115	11.41	8.43	1.238+j5.687	2.650+j11.753	12.66	9.27	1.191+j5.645	2.658+j11.862
LA CUEVA	CUV-115	115	5.97	4.54	2.812+j10.753	7.260+j20.495	6.85	5.14	2.658+j10.327	7.204+j20.142

**Niveles de cortocircuito de la Red Nacional de Transmisión
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			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
LA ESPERANZA	LAE-115	115	5.76	5.17	3.357+j11.028	3.290+j15.195	7.23	6.56	2.605+j9.763	2.617+j13.314
LA ESTRELLA	ELA-115	115	3.56	2.59	5.353+j17.847	10.260+j38.518	4.17	3.32	4.700+j16.866	7.314+j30.567
LA FRAGUA	FRA-115	115	9.75	7.15	1.505+j6.640	2.776+j14.121	11.14	8.65	1.382+j6.408	2.215+j12.180
LA GRIEGA	GRI-115	115	7.83	5.99	2.814+j8.003	5.468+j15.426	8.87	6.70	2.700+j7.778	5.460+j15.389
LA HUERTA	LHT-115	115	2.04	1.52	9.313+j31.224	18.252+j63.292	2.29	1.69	8.990+j30.668	18.264+j63.384
LA JOYA	LJY-115	115	15.97	14.91	0.990+j4.038	0.993+j4.989	17.57	16.24	0.925+j4.052	1.009+j5.123
LA LOMA	LLM-115	115	10.63	10.20	1.728+j6.000	0.373+j7.249	12.00	11.49	1.683+j5.850	0.373+j7.096
LA MANGA	MAN-230	230	7.49	5.45	3.099+j17.458	8.457+j37.026	8.87	6.46	2.602+j16.262	8.168+j34.542
LA MANSIÓN	MNS-115	115	14.37	10.78	1.048+j4.500	1.807+j9.299	16.43	12.11	0.946+j4.344	1.810+j9.268
LA MINITA	LMN-115	115	1.52	1.01	16.265+j40.463	38.484+j103.027	1.80	1.49	14.207+j37.994	17.102+j65.460
LA PIEDAD	LPI-115	115	5.39	4.01	3.724+j11.745	8.615+j23.629	7.32	5.31	3.023+j9.515	7.354+j20.078
LA PIEDAD PONIENTE	LPP-115	115	4.52	3.24	4.605+j13.939	10.250+j30.422	6.28	4.47	3.735+j11.011	8.416+j24.472
LA PILA	SPI-115	115	17.89	19.76	0.911+j3.597	0.339+j2.708	21.38	23.12	0.704+j3.343	0.343+j2.712
LA PILA	SPI-230	230	11.30	12.19	2.653+j11.444	1.427+j9.242	14.52	15.34	1.790+j9.902	1.407+j8.629
LA RESOLANA	LRE-115	115	8.80	7.94	1.442+j7.409	2.645+j9.725	10.42	9.11	1.161+j6.911	2.608+j9.780
LA SOLEDAD	SDD-115	115	9.25	7.06	0.744+j7.140	3.273+j13.626	10.41	7.88	0.663+j6.982	3.271+j13.516
LA VEGA	LVG-69	69	2.00	1.06	6.467+j18.873	18.434+j70.840	2.65	1.73	4.601+j15.902	10.435+j41.740
LA VENTA	LVT-69	69	8.90	7.13	1.058+j4.348	2.683+j7.389	11.06	8.76	0.800+j3.879	2.390+j6.755
LA VENTILLA	VLT-115	115	4.78	4.00	3.310+j13.483	5.873+j21.477	5.31	4.44	3.102+j13.410	5.761+j21.338
LA VIRGEN	LVR-115	115	4.74	3.05	3.229+j13.622	8.412+j36.483	5.21	3.34	3.165+j13.647	8.434+j36.639
LA YERBABUENA	YBB-115	115	4.40	3.02	4.078+j14.518	9.742+j34.587	5.43	3.69	3.479+j12.982	9.135+j31.194
LABORATORIOS PISA	LBP-69	69	6.64	3.87	1.466+j5.819	4.158+j18.407	7.40	4.28	1.379+j5.763	4.162+j18.445
LAGOS DE MORENO	LGS-115	115	5.00	3.21	3.113+j12.918	7.759+j34.667	5.49	3.52	3.049+j12.943	7.781+j34.823
LAGOS GALERA	LGG-115	115	4.88	3.20	2.987+j13.278	8.243+j34.063	5.36	3.51	2.922+j13.302	8.265+j34.219
LAGUNA LARGA	LGL-115	115	2.00	1.17	10.587+j31.387	31.159+j99.672	4.15	2.64	5.622+j16.683	15.703+j45.301
LAGUNA SAN VICENTE	LSV-230	230	9.70	8.41	3.049+j13.351	4.490+j19.623	12.41	10.66	2.104+j11.580	4.055+j17.423
LAGUNA SECA	LAS-115	115	4.27	3.45	5.376+j14.595	8.342+j25.237	4.92	3.89	4.961+j13.983	8.361+j25.325
LAGUNILLAS	LAG-115	115	3.74	2.68	5.103+j16.994	13.560+j36.533	4.20	2.98	4.848+j16.691	13.506+j36.612
LALA DERIVADOS LÁCTEOS SA D	LAL-115	115	10.10	8.15	1.634+j6.370	3.267+j10.855	11.23	8.95	1.569+j6.314	3.342+j11.047
LAMOSA	LAM-115	115	14.52	13.34	1.155+j4.423	1.020+j5.767	17.17	15.40	0.944+j4.147	1.020+j5.720
LAMPOTAL	LPL-115	115	4.92	3.89	3.419+j13.054	6.128+j23.459	5.74	4.40	3.125+j12.333	6.155+j23.523
LAPEM	LPM-115	115	9.88	8.33	1.887+j6.451	2.917+j10.108	10.98	9.14	1.822+j6.394	2.992+j10.299
LAS BRISAS	BRI-115	115	7.74	6.79	2.153+j8.299	2.531+j12.000	9.75	8.19	1.575+j7.324	2.522+j11.610
LAS COLINAS	LCN-115	115	8.94	7.71	2.107+j7.125	2.396+j10.767	9.93	8.46	2.035+j7.070	2.437+j10.968
LAS DELICIAS	LDE-230	230	18.85	22.47	0.929+j6.983	0.300+j3.982	21.51	25.01	0.796+j6.744	0.328+j4.252
LAS FRESAS	LFR-115	115	23.65	22.90	0.566+j2.750	0.407+j3.102	26.35	24.90	0.507+j2.724	0.437+j3.275
LAS FRESAS	LFR-400	400	14.96	14.65	3.532+j15.030	2.824+j16.609	17.84	16.75	2.544+j14.015	2.934+j17.158
LAS PINTAS	LPS-69	69	15.40	10.73	0.777+j2.467	1.119+j5.911	17.30	11.82	0.700+j2.435	1.125+j5.998
LAS TORRES	LTL-115	115	15.24	11.61	1.143+j4.204	2.677+j8.068	16.96	12.75	1.056+j4.174	2.734+j8.183
LAS VARAS	VRS-115	115	1.37	0.93	19.612+j44.239	38.210+j110.182	3.01	2.02	9.834+j22.144	20.212+j56.492
LATINCASA	LTI-115	115	17.14	17.51	0.997+j3.743	0.517+j3.658	20.74	20.86	0.784+j3.433	0.493+j3.513
LEAR CORP (SELVA)	LCO-115	115	14.35	13.07	1.170+j4.476	1.072+j5.954	16.95	15.07	0.959+j4.200	1.071+j5.907

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			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
LECHERA GUADALAJARA S.A. DE	LEC-69	69	7.43	6.02	1.119+j5.247	1.639+j9.007	13.83	10.38	0.637+j3.105	1.299+j6.218
LEÓN ALFARO	LNA-115	115	12.97	11.77	1.199+j4.977	1.419+j6.581	14.93	13.30	1.090+j4.768	1.434+j6.571
LEÓN CUATRO	LNC-115	115	16.79	18.34	0.951+j3.838	0.383+j2.986	20.27	21.77	0.828+j3.506	0.404+j2.880
LEÓN CUATRO	LNC-230	230	10.55	10.30	2.989+j12.227	2.189+j13.511	12.00	11.50	2.597+j11.892	2.238+j13.769
LEÓN MALECÓN	LNM-115	115	11.79	11.29	1.294+j5.479	1.372+j6.283	13.17	12.45	1.208+j5.413	1.387+j6.392
LEÓN NORTE	LNN-115	115	16.11	11.03	1.086+j3.977	7.498+j7.352	17.81	12.13	1.009+j3.974	7.498+j7.461
LEÓN ORIENTE	LNO-115	115	12.37	10.86	1.353+j5.195	1.675+j7.459	18.76	16.82	1.034+j3.753	1.239+j5.132
LEÓN PONIENTE	LNP-115	115	15.77	14.05	0.994+j4.091	1.180+j5.677	17.54	15.44	0.930+j4.058	1.205+j5.779
LEÓN TRES	LNT-115	115	19.10	21.06	0.850+j3.370	0.337+j2.534	20.98	22.76	0.784+j3.392	0.358+j2.689
LEÓN TRES	LNT-230	230	13.31	13.05	2.255+j9.722	1.829+j10.545	15.07	14.42	1.905+j9.502	1.905+j10.970
LEÓN UNO	LNU-115	115	20.20	22.87	0.760+j3.197	0.215+j2.178	23.84	26.54	0.700+j2.982	0.239+j2.165
LEÓN UNO	LNU-230	230	14.51	15.28	2.276+j8.862	1.176+j7.869	16.48	16.96	1.946+j8.645	1.220+j8.193
LOGISTIK	LOG-115	115	9.82	9.13	1.805+j6.514	1.892+j8.193	11.33	10.29	1.589+j6.245	1.964+j8.298
LOMBARDÍA	LMB-69	69	3.23	3.32	3.381+j11.860	1.615+j11.302	5.70	5.26	1.936+j7.438	1.730+j9.868
LORETO	LOR-115	115	4.47	2.95	4.699+j14.082	10.242+j36.460	4.96	3.29	4.523+j14.004	9.983+j35.929
LOS HERNÁNDEZ	HDZ-115	115	1.37	0.95	19.899+j44.339	44.135+j104.425	1.54	1.05	19.052+j43.460	44.155+j104.513
LOS REYES	RYS-115	115	2.67	1.67	7.140+j23.834	17.766+j67.432	3.01	1.85	6.967+j23.262	17.809+j67.455
LOS SAUCES	LSA-115	115	9.05	6.05	2.304+j6.968	5.732+j17.393	10.72	6.98	2.060+j6.491	5.626+j16.905
LUIS MOYA	LMY-115	115	2.53	1.87	12.436+j23.153	8.614+j54.969	5.89	4.49	4.661+j11.481	5.042+j23.716
MABE LEISER (SLP)	MBL-115	115	15.68	15.09	1.058+j4.101	0.944+j4.689	18.83	17.95	0.841+j3.786	0.864+j4.448
MABE MÉXICO S. DE R.L. DE C.V. (MABE SANYO SLP)	MAB-115	115	14.94	12.87	1.142+j4.293	1.111+j6.558	21.08	20.88	0.779+j3.375	0.512+j3.612
MABE MÉXICO S. DE R.L. DE C.V. (CELAYA)	MAB-115	115	10.39	7.17	1.538+j6.204	4.313+j14.443	11.99	8.10	1.488+j5.909	4.310+j14.275
MABE MÉXICO S. DE R.L. DE C.V. (QUERETARO)	MBE-115	115	10.30	8.35	1.642+j6.235	2.551+j10.719	16.69	15.95	1.119+j4.230	0.977+j4.963
MAHLE	MAH-115	115	11.65	9.65	1.398+j5.524	3.161+j8.753	13.15	10.71	1.285+j5.405	3.169+j8.856
MALLA SAN	MLS-115	115	14.33	12.96	1.227+j4.469	1.404+j5.987	16.79	14.82	1.023+j4.228	1.406+j6.002
MALPASO	MPO-115	115	2.98	2.24	8.280+j20.674	11.786+j43.155	3.71	2.80	7.529+j18.182	10.452+j37.739
MANIOBRAS GETRAG	MGT-115	115	6.90	4.33	1.975+j9.412	5.686+j26.183	7.64	4.76	1.908+j9.369	5.706+j26.297
MANIOBRAS HONDA	MHN-115	115	14.13	10.50	0.923+j4.607	2.234+j9.348	16.75	12.10	0.886+j4.269	2.222+j9.156
MANIOBRAS KASAI	MKI-115	115	17.35	17.83	0.861+j3.728	0.670+j3.497	21.57	22.02	0.791+j3.292	0.619+j3.158
MANUFACTURAS KALTEX S.A. DE	KAL-115	115	11.46	7.63	1.389+j5.622	3.722+j14.291	13.15	8.65	1.292+j5.402	3.725+j13.988
MANUFACTURAS VITROMEX I	VTM-115	115	6.53	4.58	1.867+j9.991	4.936+j22.681	7.53	5.42	1.679+j9.553	4.583+j20.651
MANUFACTURAS VITROMEX II	VT2-115	115	6.67	5.12	1.729+j9.810	4.079+j18.661	7.69	6.10	1.542+j9.371	3.726+j16.632
MANZANILLO	MNZ-230	230	9.97	12.26	2.024+j13.170	0.482+j6.382	13.85	16.28	0.999+j10.496	0.488+j6.298
MANZANILLO	MNZ-400	400	9.70	12.35	4.056+j23.459	0.591+j10.270	18.38	24.05	1.163+j13.769	0.219+j5.559
MARAVATIO	MAV-115	115	2.24	1.44	8.504+j28.458	27.890+j74.219	2.49	1.59	8.251+j28.135	27.916+j74.254
MARGARITAS	MRS-115	115	16.58	14.91	0.817+j3.920	0.736+j5.336	19.03	16.64	0.713+j3.770	0.750+j5.466
MATEHUALA	MHS-115	115	2.39	2.13	9.277+j26.219	8.047+j38.497	2.62	2.30	9.284+j26.254	8.451+j39.844
MATEHUALA SUR	MHR-115	115	2.37	1.99	8.987+j26.544	10.362+j43.912	2.60	2.16	8.986+j26.586	10.681+j45.030
MAZAMITLA	MTA-400	400	10.38	8.16	4.155+j21.864	9.293+j39.884	13.37	9.73	2.362+j18.852	9.372+j39.827
MAZDA MANIOBRAS	MMZ-115	115	13.13	9.30	1.019+j4.954	2.739+j11.023	16.68	11.85	0.837+j4.299	2.390+j9.527
MEADWEST VACO (SAINT GO BAIN)	MEA-115	115	13.36	11.66	1.264+j4.806	1.378+j7.066	15.70	13.38	1.052+j4.530	1.378+j7.019
MELAUQUE	MLQ-115	115	3.51	3.34	5.282+j18.143	6.741+j20.973	4.00	3.74	4.967+j17.585	6.752+j21.063

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
METAL FOARMING	SMF-115	115	8.31	6.99	2.033+j7.730	2.784+j12.301	9.51	7.84	1.816+j7.460	2.856+j12.405
METALSA	MTL-115	115	14.21	12.80	1.178+j4.521	1.261+j6.148	16.94	15.05	0.961+j4.204	1.179+j5.900
MEXICHEM DERIVADOS	MCH-69	69	11.63	10.56	1.084+j3.249	1.430+j4.259	18.21	16.02	0.700+j2.303	1.079+j3.241
MEXICHEM DERIVADOS	MCH-115	115	9.35	6.78	1.623+j6.912	2.864+j15.038	10.60	7.84	1.517+j6.723	2.601+j14.061
MÉXICO	MXI-69	69	13.15	8.43	0.909+j2.889	1.590+j8.013	14.90	9.35	0.817+j2.826	1.605+j8.055
MEXSOLAR MANIOBRAS	MSM-115	115	7.25	7.75	1.584+j9.015	0.604+j7.489	8.52	9.07	1.365+j8.459	0.659+j7.085
MEXTICACAN	MXT-115	115	1.89	1.18	10.500+j33.500	28.579+j93.733	2.46	1.57	8.223+j28.522	21.828+j76.939
MEZQUITAN	MZI-115	115	1.11	0.77	15.944+j57.434	55.511+j128.892	1.42	0.92	12.497+j49.773	53.837+j125.962
MGK	MGK-115	115	11.90	11.12	1.139+j5.460	1.669+j6.590	16.30	14.46	1.029+j4.361	1.581+j6.039
MICHELIN	MIC-115	115	17.31	15.69	0.813+j3.748	0.917+j5.004	23.37	23.45	0.698+j3.046	0.524+j3.118
MICROPARQUE	MPQ-115	115	18.66	19.13	0.918+j3.438	0.731+j3.276	23.72	23.61	0.757+j2.985	0.667+j3.115
MIGUEL AUZA	MGU-115	115	0.58	0.40	45.988+j103.812	95.446+j247.583	0.64	0.45	45.762+j103.670	95.500+j247.913
MINA EL CORONEL	CNL-115	115	2.06	1.46	14.792+j28.614	14.520+j72.270	3.96	2.77	6.951+j17.060	10.943+j41.007
MINA FRESNILLO	CMF-115	115	6.10	5.38	3.067+j10.453	2.711+j15.097	6.87	5.96	2.888+j10.226	2.744+j15.316
MINA LA PAZ	MLP-115	115	2.15	1.99	10.542+j29.006	7.070+j39.464	2.36	2.14	10.583+j29.076	7.645+j41.270
MINA PEÑALES	PNO-115	115	1.80	1.82	6.550+j36.326	11.006+j34.073	2.41	2.87	4.658+j29.943	5.222+j15.111
MINA SANTA FRANCISCA	SFC-115	115	3.11	1.98	7.576+j19.950	15.169+j56.014	3.44	2.20	7.400+j19.873	14.910+j55.483
MINA SAUCITO	MST-115	115	4.80	3.81	3.955+j13.248	5.445+j24.014	5.39	4.22	3.774+j13.023	5.478+j24.234
MINATITLÁN	MTC-115	115	6.74	4.93	2.525+j9.522	5.685+j20.003	7.92	5.60	2.207+j8.955	5.688+j20.035
MINERA CAPSTON GOLD	CAG-115	115	4.08	3.45	5.226+j15.392	8.273+j23.773	5.45	4.55	4.344+j12.687	6.693+j20.252
MINERA PEÑASQUITO	PNQ-400	400	4.56	3.09	6.408+j50.257	28.745+j119.732	5.18	3.44	5.791+j48.694	28.828+j120.292
MINERA REAL DE ÁNGELES SA DE	MRA-115	115	2.70	1.83	8.604+j23.037	17.598+j57.193	3.27	2.20	7.524+j21.028	16.035+j52.621
LA MORA	MRA-115	115	10.78	8.25	1.473+j5.982	3.646+j11.309	12.03	9.11	1.411+j5.903	3.673+j11.378
MINERALES Y MINAS MEXICANAS BOLAÑOS	BOL-115	115	0.72	0.53	45.518+j80.823	50.387+j187.930	1.00	0.67	36.594+j63.587	51.605+j174.993
MINSA, S.A. DE C.V.	MIN-69	69	9.80	6.16	1.642+j3.720	3.054+j10.964	10.97	6.75	1.560+j3.677	3.100+j11.148
MIRAMAR	MRM-115	115	7.92	6.59	2.022+j8.133	3.778+j13.070	9.41	7.53	1.730+j7.568	3.789+j13.164
MIRAVALLE	MIL-69	69	16.08	8.95	0.921+j2.301	1.815+j8.271	18.19	9.90	0.837+j2.259	1.820+j8.324
MISIÓN HILLS	MHI-115	115	8.51	6.03	1.647+j7.624	3.624+j17.217	9.67	7.19	1.526+j7.396	3.063+j15.276
MOCTEZUMA	MZM-115	115	5.80	4.83	2.819+j11.097	4.438+j17.880	6.56	5.36	2.598+j10.830	4.462+j18.128
MOJONERA	MOJ-69	69	15.86	12.41	0.627+j2.433	0.956+j4.553	18.18	13.83	0.531+j2.352	0.977+j4.629
MONARCA	MNC-115	115	6.01	4.13	3.295+j10.550	7.457+j25.057	6.81	4.60	3.165+j10.252	7.499+j25.126
MORALETE	MTE-115	115	5.92	5.10	2.912+j10.830	3.763+j16.331	6.84	5.74	2.588+j10.364	3.794+j16.498
MORELIA	MEL-115	115	9.49	9.96	1.858+j6.744	1.283+j6.012	10.51	10.88	1.766+j6.720	1.314+j6.261
MORELIA DOS	MRD-115	115	8.38	7.92	2.059+j7.648	1.860+j9.278	9.27	8.66	1.966+j7.626	1.892+j9.530
MORELIA INDUSTRIAL	MOI-115	115	8.88	8.02	1.951+j7.218	2.133+j9.910	9.79	8.73	1.891+j7.220	2.193+j10.172
MORELIA NORTE	MOR-115	115	8.73	7.82	2.049+j7.320	2.811+j10.063	9.65	8.56	1.977+j7.308	2.838+j10.271
MORELIA POTENCIA	MRP-115	115	10.31	12.11	1.571+j6.244	0.332+j3.726	11.43	13.18	1.473+j6.218	0.367+j3.994
MORELIA POTENCIA	MRP-230	230	5.92	5.95	4.797+j21.913	2.513+j22.390	6.70	6.53	4.225+j21.393	2.774+j23.754
MORELOS	MRE-115	115	14.26	10.91	0.972+j4.553	1.437+j8.856	16.23	12.50	0.859+j4.417	1.321+j8.445
MOROLEON	MLO-115	115	5.42	2.80	3.421+j11.753	13.072+j44.993	6.01	3.08	3.352+j11.673	13.093+j45.073
MOTODIESEL	MDM-115	115	15.99	14.07	0.857+j4.064	0.830+j5.827	18.32	15.69	0.753+j3.914	0.843+j5.956
MUELLE	MLE-115	115	4.28	4.28	5.493+j14.521	3.644+j15.215	5.18	4.99	4.541+j13.347	3.664+j15.416

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			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
NAL DE CONDUCCION ELEC S.A DE C.V	CDT-115	115	14.65	17.39	0.886+j4.445	0.316+j2.606	18.20	22.15	0.749+j3.942	0.279+j2.074
NESTLÉ	NES-115	115	4.81	3.08	3.248+j13.407	8.175+j36.233	5.29	3.38	3.184+j13.432	8.196+j36.389
NESTLÉ MÉXICO SA DE CV	NST-115	115	10.17	6.89	1.671+j6.310	3.810+j15.442	16.39	11.66	1.148+j4.306	2.236+j9.686
NIÑOS HÉROES	NHE-230	230	9.09	7.91	3.385+j14.216	4.639+j20.875	11.28	9.28	2.213+j12.762	4.711+j21.069
NISSAN	NIS-115	115	11.76	8.75	1.233+j5.509	1.885+j11.349	13.31	9.73	1.110+j5.372	1.888+j11.405
NISSAN MANIOBRAS	NSS-115	115	11.84	8.81	1.181+j5.483	1.870+j11.261	13.40	9.80	1.058+j5.346	1.873+j11.316
NITROPISO	NTP-115	115	11.22	8.81	1.375+j5.757	1.967+j10.644	12.99	9.97	1.166+j5.502	1.972+j10.645
NOGALES	NGA-115	115	8.49	6.45	1.596+j7.653	2.932+j15.079	9.84	8.03	1.426+j7.284	2.331+j12.318
NOGALITO	NGT-115	115	3.95	3.84	5.921+j15.750	4.670+j17.657	4.75	4.46	4.938+j14.558	4.690+j17.858
NUEVA ITALIA	NVI-69	69	3.33	3.16	3.538+j11.411	3.302+j13.518	5.53	5.24	2.045+j7.650	1.841+j9.482
NUEVA JAUJA	JAU-115	115	6.79	5.65	2.444+j9.461	3.357+j15.454	8.61	6.86	1.876+j8.269	3.326+j14.724
NUEVA PEDREGAL	PDL-115	115	11.50	9.94	1.600+j5.545	0.911+j8.577	13.15	11.16	1.519+j5.344	0.918+j8.601
NUEVO VALLARTA POTENCIA	NVT-115	115	5.54	7.24	3.966+j11.299	0.348+j3.692	7.08	8.99	3.052+j9.849	0.385+j3.887
NUEVO VALLARTA POTENCIA	NVT-230	230	3.17	3.89	13.638+j39.588	2.243+j19.027	4.06	4.79	10.039+j34.555	2.424+j19.998
NYPRO KANAAK SA CV	NKA-69	69	13.01	9.24	0.727+j2.975	1.634+j6.631	14.98	10.40	0.613+j2.861	1.629+j6.622
OBLATOS	OBL-69	69	10.55	7.24	1.065+j3.623	2.464+j8.622	12.94	11.84	0.851+j3.277	1.082+j4.317
OCOTLÁN	OCN-115	115	12.63	13.78	1.337+j5.083	0.478+j4.029	15.67	16.27	1.082+j4.534	0.523+j4.204
OCOTLÁN	OCN-230	230	7.26	6.67	4.023+j17.848	3.328+j23.167	8.60	7.54	3.145+j16.687	3.603+j24.118
OJO CALIENTE	OCL-115	115	4.82	3.74	5.004+j12.819	8.029+j24.469	7.99	6.44	3.069+j8.605	4.428+j15.156
OJO SECO	OJO-115	115	10.49	7.26	1.518+j6.146	4.246+j14.228	12.11	8.21	1.468+j5.851	4.243+j14.060
OJUELOS	OJU-115	115	2.43	3.10	7.248+j26.304	2.195+j9.432	2.65	3.36	7.397+j26.572	2.217+j9.862
OJUELOS DOS	OJD-115	115	5.75	4.40	3.330+j11.065	6.614+j21.203	6.38	4.85	3.241+j10.975	6.622+j21.282
OMEGA	OMG-115	115	11.74	8.95	1.224+j5.523	2.465+j10.691	13.31	9.96	1.100+j5.374	2.471+j10.770
OMYA MÉXICO S.A. DE C.V.	OMY-115	115	12.30	6.78	1.226+j5.258	10.768+j15.962	14.41	7.85	1.076+j4.953	10.043+j15.444
P. H. TROJES	TJS-115	115	1.83	1.23	13.084+j33.927	30.309+j84.319	2.19	1.94	11.032+j31.451	8.999+j46.807
PABELLÓN	PAB-115	115	6.74	5.94	2.146+j9.621	1.955+j13.805	8.55	7.05	1.992+j8.306	2.073+j13.933
PACHAMAMA MANIOBRAS	PHM-400	400	12.82	12.77	3.635+j17.648	2.876+j18.234	16.12	15.12	2.246+j15.598	3.005+j18.881
PALO ALTO	PAO-115	115	5.69	3.94	3.710+j11.063	6.764+j26.390	6.33	4.35	3.609+j10.957	6.770+j26.453
PÁÑFILO NATERA	PFN-115	115	2.18	1.62	18.484+j24.194	27.767+j55.832	2.81	2.11	16.509+j20.091	24.121+j46.485
PAPEL POTOSÍ	PAP-115	115	17.57	17.98	0.978+j3.650	0.583+j3.534	21.90	22.75	0.747+j3.249	0.430+j3.015
PARQUE PIEL	PAP-115	115	14.81	13.61	1.098+j4.347	1.688+j5.456	17.03	15.38	1.036+j4.161	1.710+j5.454
PARACHO II	POD-115	115	5.36	4.22	3.410+j11.911	7.332+j21.265	6.42	4.87	3.024+j10.968	7.343+j21.242
PARDILLO	PRL-115	115	3.54	2.55	5.138+j18.016	11.450+j39.080	3.97	2.82	4.951+j17.721	11.470+j39.254
PARQUE CENTRAL GUANAJUATO	PCG-115	115	12.16	10.65	1.411+j5.273	2.149+j7.541	13.56	11.69	1.347+j5.216	2.215+j7.712
PARQUE DE TECNOLOGÍA	PTE-69	69	10.87	8.08	0.971+j3.535	1.467+j7.388	12.28	8.89	0.878+j3.459	1.526+j7.566
PARQUE INDUSTRIAL	PQI-69	69	17.44	13.90	0.538+j2.219	0.958+j3.937	22.67	17.97	0.418+j1.888	0.843+j3.368
PARQUE INNOVACIÓN	PQN-115	115	12.60	11.47	1.210+j5.127	1.465+j6.726	14.08	12.67	1.152+j5.058	1.470+j6.837
PARQUE LOGÍSTICO WTC	WTC-115	115	12.97	11.05	1.218+j4.973	1.578+j7.675	15.12	12.59	1.011+j4.722	1.579+j7.671
PÁTIZCUARO NORTE	PTN-115	115	3.28	2.07	5.940+j19.374	15.514+j53.610	3.73	2.32	5.522+j18.776	15.330+j53.337
PÁTIZCUARO SUR	PCS-115	115	3.30	2.14	5.912+j19.223	15.454+j50.558	3.74	2.39	5.543+j18.716	15.313+j50.401
PEDREGAL	PDG-115	115	6.94	6.32	2.530+j9.226	3.925+j11.906	7.72	6.95	2.405+j9.150	3.951+j12.146
PELETIZADORA ALZADA	PAL-115	115	3.43	2.46	5.841+j18.452	11.153+j40.749	3.96	2.98	5.309+j17.643	9.641+j35.670

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
PEMEX	PMX-115	115	14.64	16.22	0.999+j4.424	0.596+j3.211	19.22	22.52	0.753+j3.725	0.357+j2.372
PEMSA	PEM-115	115	10.61	7.99	2.018+j5.926	3.705+j11.900	12.56	9.17	1.956+j5.475	3.716+j11.748
PENAL	PNL-69	69	9.32	6.21	1.046+j4.146	2.587+j10.398	10.78	6.98	0.927+j3.956	2.594+j10.411
PEÑAMO	PNJ-115	115	3.88	2.73	5.255+j16.271	10.623+j37.373	6.47	4.51	3.341+j10.784	7.614+j24.961
PEÑA COLORADA	PEC-115	115	6.42	4.65	2.686+j9.980	6.072+j21.447	7.52	5.26	2.367+j9.415	6.075+j21.480
PEÑASCO	PNS-115	115	10.12	7.28	1.431+j6.405	2.791+j13.987	11.35	8.04	1.311+j6.301	2.810+j14.129
PEÑITAS	PEN-115	115	3.26	2.21	7.318+j18.989	14.810+j47.369	3.77	2.49	6.666+j18.191	14.799+j47.030
PEÑUELAS	PEN-115	115	11.76	8.83	1.198+j5.517	2.478+j11.015	13.35	9.84	1.074+j5.363	2.484+j11.084
PERFORMANCE FIBERS MÉXICO	PER-115	115	13.60	16.45	1.267+j4.716	0.438+j2.364	16.40	19.56	1.120+j4.310	0.418+j2.328
PERIBAN	PBN-115	115	2.17	1.34	8.815+j29.296	22.496+j85.049	2.43	1.48	8.639+j28.725	22.538+j85.072
PETROQUÍMICA	INP-69	69	9.40	7.75	1.447+j3.982	2.422+j6.531	17.22	14.08	0.766+j2.427	1.419+j4.027
PINAR	PNR-69	69	16.03	14.39	0.563+j2.421	0.563+j3.331	18.39	15.94	0.467+j2.337	0.600+j3.470
PINZÁNDARO	PIZ-115	115	1.98	1.90	11.040+j31.703	5.613+j37.530	2.49	2.33	8.556+j28.075	5.811+j35.874
PIRELLI NEUMÁTICOS SA DE CV	PIR-115	115	6.74	5.94	2.665+j9.491	3.024+j13.579	7.45	6.49	2.599+j9.458	3.103+j13.881
PITILLAL	PTL-115	115	4.90	5.43	4.572+j12.764	1.751+j9.519	6.02	6.44	3.645+j11.574	1.771+j9.720
PM CIGATAM PS S DE RL DE CV	CIG-69	69	11.89	7.78	0.973+j3.206	2.084+j8.436	14.30	9.35	0.824+j2.953	1.892+j7.735
POLIVIN	POL-115	115	7.40	4.98	3.145+j8.398	7.217+j20.893	8.22	5.48	3.108+j8.323	7.239+j21.028
PONCITLAN	PNC-115	115	1.18	0.03	12.582+j54.810	6.473-j7924.794	5.77	4.07	3.379+j12.202	8.318+j27.428
PORCELANITE SJI	POR-115	115	7.62	7.44	2.078+j8.466	1.606+j9.247	16.20	15.86	1.163+j4.357	0.919+j4.787
POTRERILLOS	POS-115	115	18.58	18.27	0.599+j3.522	0.369+j3.778	20.21	19.47	0.544+j3.573	0.404+j4.037
POTRERILLOS	POS-230	230	15.25	17.05	1.965+j8.481	0.641+j6.088	17.27	18.83	1.636+j8.298	0.689+j6.474
POTRERILLOS	POS-400	400	13.55	13.49	3.846+j16.605	2.597+j17.458	16.17	15.39	2.753+j15.467	2.767+j18.220
PPG	PPG-115	115	13.71	13.67	1.000+j4.739	1.109+j4.987	16.96	18.52	0.868+j4.218	0.694+j3.371
PRADERA	PAD-115	115	2.93	2.75	7.033+j21.538	5.416+j26.782	3.82	3.54	4.892+j18.461	4.825+j23.963
PRAXAIR MÉXICO S.A. DE C.V.	PRA-115	115	5.16	3.87	3.865+j12.275	8.859+j24.250	6.44	4.72	3.350+j10.832	8.253+j22.327
PRAXAIR MÉXICO S.A. DE C.V. (GUADALAJARA)	PRA-69	69	10.71	6.89	1.222+j3.515	2.433+j9.650	12.06	7.63	1.131+j3.452	2.440+j9.696
PRIMERO DE MAYO	PMY-400	400	8.72	9.32	3.078+j26.289	2.227+j21.351	10.93	11.05	2.138+j23.136	2.369+j22.413
PROCTER & GAMBLE MANIOBRAS (IRAPUATO)	PGM-115	115	11.66	4.97	1.471+j5.500	7.645+j27.712	13.05	5.48	1.401+j5.418	7.683+j27.784
PROCTER & GAMBLE QUERETARO	P&G-115	115	6.22	4.18	3.310+j10.147	7.362+j25.308	9.37	5.81	2.453+j7.401	6.293+j21.257
PROD FARMACÉUTICOS COLLINS	CNS-69	69	16.17	11.88	0.692+j2.364	1.143+j5.036	18.39	13.18	0.606+j2.305	1.151+j5.107
PROD MET MEX DE POSTES SA CV	AMX-69	69	12.70	8.52	1.150+j2.919	1.348+j7.774	14.27	9.27	1.070+j2.878	1.420+j8.031
PRODUCTORA NACIONAL DE PAPEL	PRO-115	115	5.21	4.86	3.025+j12.381	3.271+j15.500	5.77	5.36	2.840+j12.329	3.329+j15.640
PRODUCTOS GATORADE DE	GAT-69	69	3.75	2.08	2.896+j10.210	9.095+j35.092	5.58	3.26	2.198+j7.535	6.151+j23.903
PROSOLIA SAN LUIS DE LA PAZ MANIOBRAS	PRM-115	115	15.01	13.63	0.634+j4.378	0.825+j5.784	16.72	14.90	0.584+j4.328	0.856+j5.976
PROTEINOL	POT-115	115	8.16	5.59	2.801+j7.638	6.268+j18.359	9.07	6.15	2.765+j7.563	6.290+j18.494
PUEBLO NUEVO	PNV-115	115	6.14	4.27	2.995+j10.395	8.415+j23.640	7.09	4.80	2.847+j9.895	8.473+j23.641
PUENTE GRANDE	PGN-69	69	6.68	5.49	1.585+j5.749	1.374+j9.817	9.25	7.67	1.144+j4.600	0.928+j7.704
PUENTE GRANDE DOS	PTD-69	69	6.72	5.52	1.573+j5.712	1.359+j9.767	9.32	7.71	1.133+j4.564	0.921+j7.679
PUENTE GRANDE DOS	PTD-115	115	1.48	1.68	6.946+j44.370	0.725+j28.999	2.84	2.82	6.692+j24.818	2.074+j26.466
PUERTA GRANDE	PTG-115	115	7.04	5.99	2.320+j9.137	4.242+j13.836	8.67	7.02	2.154+j8.146	4.311+j13.754
PUERTO INTERIOR	PTI-115	115	7.49	6.86	2.390+j8.532	2.380+j11.153	8.29	7.50	2.323+j8.494	2.437+j11.398
PUERTO INTERIOR (FONDEPORT)	FDP-115	115	8.51	7.51	1.828+j7.589	3.718+j10.428	10.16	8.63	1.540+j7.023	3.729+j10.522

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
PURÉPECHA POTENCIA	PRH-115	115	16.66	15.89	0.662+j3.931	0.545+j4.577	19.12	17.59	0.542+j3.782	0.584+j4.825
PURÉPECHA POTENCIA	PRH-400	400	9.08	8.33	4.760+j24.971	5.287+j32.341	11.15	9.64	3.119+j22.564	5.601+j33.455
PURUANDIRO	PUR-115	115	2.66	1.79	7.629+j23.720	16.661+j59.138	3.11	2.44	7.112+j22.407	9.706+j42.074
PURUARÁN	PUU-69	69	1.37	0.96	13.579+j25.703	26.971+j60.893	1.76	1.15	11.775+j21.999	26.727+j58.767
QUERÉTARO I	QRO-115	115	24.99	31.43	0.589+j2.591	0.067+j1.092	30.39	37.51	0.511+j2.348	0.077+j1.107
QUERÉTARO I	QRO-230	230	18.33	20.05	1.580+j7.069	0.644+j5.579	22.13	23.44	1.278+j6.475	0.686+j5.705
QUERÉTARO INDUSTRIAL	QRI-115	115	8.30	8.52	1.849+j7.784	1.046+j7.362	16.21	16.22	1.146+j4.356	0.776+j4.513
QUERÉTARO MANIOBRAS	QMR-115	115	9.45	10.46	1.430+j6.877	0.515+j5.031	16.60	17.50	1.057+j4.272	0.502+j3.761
QUERÉTARO NORTE	QRN-115	115	14.08	13.92	1.404+j4.502	0.146+j5.055	16.23	15.76	1.324+j4.300	0.153+j5.079
QUERÉTARO ORIENTE	QRE-115	115	11.50	10.55	1.667+j5.529	0.228+j7.544	13.02	11.76	1.594+j5.378	0.233+j7.628
QUERÉTARO PONIENTE	QPE-115	115	10.12	9.33	1.777+j6.318	0.738+j8.387	11.48	10.43	1.751+j6.117	0.746+j8.449
QUERÉTARO POTENCIA	QRP-115	115	20.14	24.59	0.543+j3.252	0.075+j1.557	26.91	31.71	0.530+j2.662	0.098+j1.538
QUERÉTARO POTENCIA	QRP-230	230	23.63	26.61	1.056+j5.519	0.390+j3.857	27.29	29.95	0.861+j5.283	0.418+j4.052
QUERÉTARO POTENCIA	QRP-400	400	18.20	16.57	2.165+j12.505	2.099+j16.595	21.07	18.50	1.580+j11.954	2.235+j17.210
QUERÉTARO POTENCIA MANIOBRAS	QPM-400	400	19.31	15.66	1.925+j11.805	3.621+j20.253	22.37	17.63	1.383+j11.271	3.676+j20.432
QUERÉTARO SUR	QRS-115	115	12.06	11.92	1.235+j5.365	0.439+j5.800	14.22	13.71	1.198+j4.995	0.453+j5.811
QUINCEO	QCO-115	115	8.80	8.39	2.025+j7.271	2.343+j8.477	9.73	9.18	1.942+j7.252	2.370+j8.702
RANCHO GRANDE	RAG-115	115	2.53	1.76	8.561+j24.814	17.635+j58.319	2.81	1.93	8.386+j24.645	17.680+j58.634
REXAM BEVERAGE CAN AM S.A.	RXM-115	115	11.37	9.27	1.412+j5.668	2.245+j9.609	17.61	16.62	1.022+j4.020	0.976+j4.861
REXEL	RES-115	115	6.53	4.56	2.864+j9.758	6.518+j22.467	7.40	5.08	2.744+j9.477	6.572+j22.560
REYMA	RYM-115	115	14.45	11.53	1.089+j4.463	1.972+j7.880	16.60	12.97	1.026+j4.279	1.991+j7.886
RIO GRANDE	RGR-115	115	1.05	0.79	20.527+j59.909	45.453+j118.510	1.16	0.86	20.326+j59.755	45.503+j118.833
RIO GRANDE II	RIG-115	115	1.47	0.95	16.649+j42.031	42.130+j112.001	1.62	1.04	16.461+j41.874	42.179+j112.324
ROBERT BOSCH	BOS-115	115	13.60	11.91	1.228+j4.726	1.126+j6.933	16.08	13.78	1.015+j4.427	1.105+j6.810
ROMITA	RTA-115	115	9.49	7.74	1.765+j6.768	3.621+j11.246	10.49	8.48	1.705+j6.752	3.637+j11.391
S.I.A.P.A. (TOLUQUILLA)	SPB-69	69	16.78	11.78	0.696+j2.270	1.232+j5.292	19.13	13.09	0.609+j2.208	1.238+j5.349
S.I.A.P.A. PLANTA 2	STO-69	69	4.90	3.49	2.100+j7.853	4.712+j17.381	12.63	10.00	0.887+j3.353	1.925+j5.939
S.I.A.P.A. PTA BOMBEO STA CRUZ	SCH-69	69	2.46	1.26	4.246+j15.598	15.698+j60.208	5.19	2.96	2.314+j8.117	6.904+j26.727
SACH	BOG-69	69	15.70	16.23	0.634+j2.456	0.462+j2.267	20.17	19.70	0.504+j2.113	0.469+j2.304
SAHUAYO	SHY-115	115	7.38	5.27	2.048+j8.754	4.335+j19.361	8.46	5.89	1.878+j8.431	4.361+j19.499
SALAHUA	SLH-115	115	8.11	6.91	1.979+j7.939	3.915+j11.976	9.65	7.92	1.687+j7.376	3.926+j12.070
SALAMANCA	SLM-115	115	23.22	26.66	0.539+j2.809	0.114+j1.815	29.67	34.37	0.443+j2.422	0.123+j1.579
SALAMANCA	SLM-230	230	24.27	28.87	1.201+j5.338	0.285+j3.157	28.33	32.95	0.929+j5.071	0.296+j3.283
SALAMANCA	SLM-400	400	17.63	18.15	2.914+j12.774	1.551+j12.354	21.07	20.81	2.047+j11.884	1.637+j12.829
SALAMANCA COGENERACIÓN	SCG-230	230	24.37	28.81	1.210+j5.314	0.324+j3.234	28.43	32.82	0.940+j5.051	0.340+j3.373
SALAMANCA DOS	SMD-115	115	20.72	20.72	0.555+j3.156	0.336+j3.237	23.88	23.34	0.498+j3.018	0.379+j3.324
SALAMANCA DOS	SMD-230	230	11.73	9.27	2.281+j11.092	4.960+j20.009	13.40	10.38	1.971+j10.719	4.984+j20.132
SALAMANCA DOS	SMD-400	400	17.49	17.91	3.023+j12.851	1.783+j12.627	21.05	20.66	2.099+j11.883	1.862+j13.053
SALAMANCA NORTE	SLN-115	115	15.30	10.34	1.032+j4.215	2.857+j10.252	24.11	17.35	0.695+j2.948	1.844+j6.423
SALAMANCA PONIENTE	SPO-115	115	17.11	14.65	0.695+j3.818	1.073+j5.780	19.99	16.83	0.621+j3.600	1.083+j5.686
SALAMANCA SUR	SSU-115	115	17.91	20.64	0.785+j3.624	0.161+j2.300	21.34	24.84	0.707+j3.349	0.167+j2.083
SALERO	SLR-400	400	6.77	4.78	4.135+j33.885	16.970+j74.977	7.82	5.36	3.550+j32.299	17.053+j75.536

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SALINAS	SNA-115	115	1.36	0.85	24.035+j42.370	67.635+j119.155	1.65	1.02	22.018+j38.300	63.951+j109.780
SALITRE	STE-115	115	1.75	1.69	11.620+j36.030	1.761+j43.573	4.11	3.30	4.255+j17.269	3.022+j31.051
SAMSUNG	SAM-115	115	7.80	6.92	2.311+j8.192	2.128+j11.679	8.75	7.75	2.224+j8.042	2.100+j11.491
SAN AGUSTÍN	SAG-69	69	11.77	7.57	0.990+j3.236	2.076+j8.815	13.26	8.39	0.901+j3.179	2.080+j8.850
SAN ANDRÉS	ADE-115	115	8.89	7.76	1.963+j7.206	2.155+j10.650	11.21	9.19	1.593+j6.317	2.199+j10.689
SAN ANTONIO	SAN-115	115	6.21	6.61	2.661+j10.355	0.926+j8.849	9.51	9.39	2.061+j7.394	1.052+j8.004
SAN CARLOS	SCA-115	115	10.04	7.48	1.727+j6.386	3.204+j13.044	13.30	9.70	1.420+j5.303	2.813+j11.311
SAN CLEMENTE	SCM-69	69	1.19	0.67	5.060+j33.084	40.106+j105.692	1.50	0.76	3.680+j28.954	40.162+j107.930
SAN CLEMENTE	SCM-115	115	1.53	1.07	11.470+j41.710	38.943+j91.568	2.09	1.33	8.033+j34.060	37.277+j88.643
SAN DIEGO PEÑUELAS	SDP-115	115	4.63	2.91	3.580+j13.885	10.095+j38.450	5.11	3.20	3.536+j13.856	10.108+j38.586
SAN FELIPE	SFL-115	115	1.75	1.07	3.608+j37.834	27.311+j106.896	1.93	1.18	3.556+j37.766	27.314+j106.964
SAN FRANCISCO	SFR-115	115	10.30	7.51	1.364+j6.301	2.370+j13.455	11.66	8.33	1.268+j6.136	2.385+j13.589
SAN FRANCISCO DEL RINCÓN	SFQ-115	115	7.03	4.62	2.120+j9.208	5.170+j23.729	7.70	5.04	2.067+j9.259	5.206+j23.990
SAN GASPAR	GPR-69	69	22.13	23.22	0.369+j1.762	0.182+j1.560	26.36	26.90	0.265+j1.641	0.190+j1.589
SAN ILDEFONSO	SFS-115	115	11.49	9.27	1.797+j5.492	2.006+j9.990	13.40	10.60	1.628+j5.200	1.988+j9.812
SAN JERÓNIMO	SJE-115	115	2.43	1.71	9.006+j25.740	18.376+j58.936	2.70	1.89	8.838+j25.570	18.419+j59.255
SAN JORGE	SAJ-69	69	7.79	5.30	1.551+j4.871	3.017+j12.004	11.18	6.50	0.996+j3.790	3.024+j12.041
SAN JORGE	SAJ-115	115	1.65	0.03	6.753+j39.660	2.746-j7938.042	5.23	2.80	3.085+j13.627	13.655+j48.643
SAN JOSÉ DE GRACIA	JOG-115	115	3.10	2.00	7.612+j20.007	17.793+j54.087	3.47	2.21	7.460+j19.708	17.821+j54.218
SAN JOSÉ ITURBIDE	SJI-115	115	9.04	7.73	1.408+j7.210	1.944+j11.011	10.66	10.49	1.210+j6.745	1.131+j7.177
SAN JUAN ZITÁCUARO	SJZ-115	115	5.92	4.02	3.381+j10.688	7.694+j26.041	6.72	4.48	3.244+j10.380	7.730+j26.095
SAN JUAN DE LOS LAGOS	JDL-115	115	7.10	5.85	2.258+j9.071	4.850+j14.618	8.29	6.74	2.095+j8.558	4.764+j14.157
SAN JUAN DE LOS LAGOS II	SJD-115	115	11.24	12.49	1.041+j5.814	0.422+j4.133	12.53	13.65	0.952+j5.749	0.462+j4.393
SAN JUAN DE LOS LAGOS II	SJD-230	230	7.75	7.31	3.225+j16.826	2.659+j20.144	8.89	8.10	2.754+j16.196	2.887+j21.130
SAN JUAN DEL RIO	SJR-115	115	14.60	14.57	0.933+j4.452	0.697+j4.758	17.30	18.85	0.824+j4.140	0.579+j3.364
SAN JUAN DEL RIO ORIENTE	SJO-115	115	12.68	11.58	1.161+j5.107	1.507+j6.797	14.73	13.92	1.058+j4.845	1.515+j5.871
SAN JUAN MANIOBRAS	SJM-115	115	14.78	13.97	0.923+j4.395	1.128+j5.373	17.11	15.93	0.806+j4.191	1.146+j5.317
SAN JUAN NUEVO	SJN-115	115	5.14	4.83	3.650+j12.383	4.544+j14.806	6.37	5.77	2.928+j11.093	4.528+j14.683
SAN JUAN POTENCIA	SJP-115	115	17.27	22.90	0.741+j3.773	0.103+j1.215	20.09	26.52	0.631+j3.580	0.104+j1.206
SAN JUAN POTENCIA	SJP-230	230	10.44	10.35	2.459+j12.482	1.529+j13.466	12.71	12.30	1.905+j11.333	1.628+j13.144
SAN LUIS DE LA PAZ	SAP-115	115	17.86	15.82	0.586+j3.671	0.912+j5.146	19.87	17.42	0.541+j3.636	0.916+j5.213
SAN LUIS DE LA PAZ II	SPA-115	115	22.08	24.50	0.377+j2.983	0.161+j2.188	24.57	26.70	0.333+j2.953	0.174+j2.324
SAN LUIS DE LA PAZ II	SPA-230	230	17.63	20.22	1.052+j7.460	0.544+j4.937	20.32	22.74	0.887+j7.133	0.570+j5.171
SAN LUIS DOS	SLD-115	115	17.31	19.21	0.785+j3.755	0.274+j2.728	19.95	21.55	0.635+j3.606	0.296+j2.885
SAN LUIS DOS	SLD-230	230	12.40	13.17	2.320+j10.455	1.471+j8.843	15.29	15.64	1.661+j9.409	1.557+j8.991
SAN LUIS I	SLP-115	115	19.80	23.13	0.881+j3.235	0.213+j1.963	23.77	27.16	0.680+j2.997	0.219+j1.994
SAN LUIS I	SLP-230	230	12.28	12.68	2.727+j10.465	1.528+j9.828	15.78	15.81	1.884+j9.065	1.544+j9.339
SAN LUIS INDUSTRIAL	SLI-115	115	15.04	14.41	1.129+j4.267	0.771+j5.006	17.91	16.91	0.914+j3.975	0.748+j4.831
SAN LUIS NORTE	SNE-115	115	8.35	5.76	1.749+j7.757	4.342+j18.184	9.36	6.37	1.615+j7.634	4.360+j18.300
SAN LUIS ORIENTE	SLO-115	115	13.69	11.93	1.190+j4.701	1.601+j6.853	15.87	13.48	1.006+j4.491	1.623+j6.931
SAN LUIS PONIENTE	SLW-115	115	10.53	7.66	1.593+j6.099	3.068+j13.069	11.98	8.55	1.434+j5.926	3.081+j13.124
SAN LUIS PROGRESO	SPR-115	115	11.54	10.16	1.455+j5.566	1.907+j7.922	13.23	11.36	1.278+j5.369	1.959+j8.089

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Occidental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
SAN MARTIN	SMR-230	230	12.33	11.38	2.687+j10.431	2.645+j13.477	15.68	13.58	1.674+j9.162	2.696+j13.638
SAN MIGUEL	MIG-115	115	3.85	3.84	3.792+j16.812	2.643+j17.281	4.54	4.39	3.612+j15.686	2.744+j17.550
SAN NICOLÁS	SNS-69	69	3.24	1.92	3.680+j11.745	9.468+j36.370	5.46	3.19	2.242+j7.711	6.284+j24.347
SAN PEDRO	PDR-115	115	12.27	10.17	1.179+j5.282	1.976+j8.564	14.04	11.39	1.013+j5.102	1.993+j8.670
SAN RAFAEL MANIOBRAS	SRM-115	115	4.32	3.68	4.095+j14.814	9.476+j21.550	5.53	5.88	2.969+j12.877	2.121+j10.701
SAN ROQUE	SRQ-115	115	6.24	4.02	2.537+j10.341	6.667+j27.481	6.84	4.39	2.484+j10.393	6.703+j27.742
SAN VICENTE	SVT-115	115	5.10	5.87	4.358+j12.273	1.648+j7.828	6.40	7.10	3.431+j10.877	1.678+j8.000
SALVATIERRA	SVT-115	115	5.55	3.65	3.316+j11.486	10.317+j29.098	6.25	4.06	3.203+j11.238	10.326+j29.021
SANMINA-SCI SYSTEMS DE	SCI-69	69	10.40	6.94	1.035+j3.687	2.263+j9.326	16.83	12.05	0.653+j2.521	1.383+j5.558
SANMINA-SCISYSTEMS MÉXICO	SCR-69	69	14.97	11.06	0.651+j2.580	1.328+j5.348	19.38	14.28	0.519+j2.201	1.167+j4.557
SANMINA-SCISYSTEMS MÉXICO	SCR-115	115	13.46	13.12	1.035+j4.825	0.877+j5.487	15.82	16.31	0.926+j4.523	0.841+j4.353
SANTA CRUZ	SCU-69	69	14.45	9.94	0.759+j2.650	1.540+j6.357	16.36	11.04	0.672+j2.593	1.545+j6.395
SANTA CRUZ	SCZ-115	115	6.03	4.69	3.604+j10.395	5.015+j19.888	6.69	5.12	3.567+j10.320	5.229+j20.408
SANTA FE	STF-115	115	15.92	19.25	0.804+j4.091	0.159+j2.084	17.97	21.33	0.733+j3.998	0.175+j2.217
SANTA FE	STF-230	230	10.69	10.40	2.284+j12.215	1.755+j13.590	12.22	11.52	2.016+j11.779	1.911+j14.250
SANTA FE II	SFD-115	115	7.48	7.02	2.383+j8.545	2.064+j10.504	8.28	7.67	2.316+j8.512	2.143+j10.805
SANTA MARÍA	STM-115	115	25.27	24.22	0.452+j2.589	0.374+j2.980	30.37	28.30	0.437+j2.365	0.390+j2.943
SANTA MARÍA	SNM-115	115	8.01	7.17	2.173+j7.995	2.395+j11.124	8.86	7.84	2.087+j7.976	2.426+j11.362
SANTA MARÍA	STM-400	400	17.51	15.89	2.434+j12.963	2.800+j17.332	20.48	17.98	1.775+j12.279	2.852+j17.647
SANTIAGO	SNG-115	115	8.39	5.76	1.860+j7.695	4.357+j18.250	9.45	6.40	1.710+j7.541	4.373+j18.325
SANTIAGO IXCUINTLA	SNI-115	115	4.05	2.89	5.866+j15.304	11.296+j34.542	4.74	3.28	5.228+j14.485	11.286+j34.205
SANTIAGO UNDAMEO	SUN-115	115	5.40	4.42	3.364+j11.831	7.090+j19.408	6.02	4.88	3.208+j11.700	7.101+j19.613
SANTIAGUITO	STG-115	115	9.12	8.00	1.940+j7.017	2.606+j10.215	10.07	8.75	1.875+j7.009	2.638+j10.418
SAPAL PROC AGUAS RESID	SPL-115	115	11.60	9.44	1.419+j5.544	3.184+j9.169	13.11	10.52	1.356+j5.405	3.205+j9.192
SATÉLITE	SEI-115	115	10.27	7.90	1.442+j6.303	2.170+j12.149	11.83	8.90	1.233+j6.051	2.174+j12.153
SATÉLITE	SAT-115	115	12.28	11.46	1.604+j5.163	0.293+j6.772	13.96	13.00	1.548+j4.999	0.291+j6.596
SAYULA	SYL-115	115	4.06	3.24	4.671+j15.656	10.708+j26.909	4.55	3.58	4.408+j15.449	10.738+j27.149
SE DE MANIOBRAS SCRIBE	SBM-115	115	13.72	13.52	1.017+j4.732	0.831+j5.231	16.14	16.90	0.909+j4.432	0.790+j4.080
SENDERO	MTS-115	115	11.60	10.43	1.355+j5.563	2.258+j7.363	13.24	11.65	1.191+j5.388	2.282+j7.500
SERVICIOS AGUAMILPA	SEA-115	115	2.47	1.96	7.482+j25.853	20.631+j43.806	2.95	2.58	6.351+j23.921	13.264+j32.951
SERVICIOS EL CAJÓN	SCJ-115	115	2.50	2.00	6.603+j25.760	14.064+j44.398	3.17	2.39	5.754+j22.301	14.043+j43.705
SERVICIOS LA YESCA	SLY-115	115	0.79	0.65	22.410+j81.158	53.105+j129.453	2.34	1.91	7.810+j30.190	17.458+j49.727
SHULMANN	SHU-115	115	14.83	13.70	1.092+j4.342	1.181+j5.515	17.60	15.97	0.879+j4.056	1.136+j5.377
SIBASA	SIB-230	230	13.44	12.56	2.184+j9.634	2.379+j11.924	15.51	14.12	1.867+j9.231	2.443+j12.151
SIDERÚRGICA GUADALAJARA	SGG-161	161	3.20	2.62	7.096+j28.167	12.051+j46.916	3.47	2.85	6.718+j28.711	12.059+j47.191
SIDERÚRGICA POTOSINA	SPT-115	115	12.02	9.85	1.320+j5.364	1.968+j9.023	13.95	11.17	1.113+j5.115	1.968+j9.018
SIEMENS	SIE-69	69	9.69	6.10	1.162+j3.943	2.518+j11.135	10.86	6.74	1.074+j3.888	2.521+j11.175
SILAO	SIL-115	115	13.93	14.85	1.373+j4.564	0.768+j3.867	15.61	16.39	1.299+j4.494	0.785+j3.997
SILAO INDUSTRIAL	SII-115	115	8.61	7.20	2.062+j7.427	3.689+j11.728	9.56	7.93	1.993+j7.373	3.700+j11.830
SILAO POTENCIA	SIP-115	115	17.46	20.80	0.943+j3.684	0.183+j2.030	19.36	22.67	0.883+j3.668	0.199+j2.175
SILAO POTENCIA	SIP-230	230	12.95	13.07	2.613+j9.916	1.512+j10.088	14.77	14.49	2.270+j9.629	1.620+j10.550
SIPOSA (GASA)	GAS-115	115	13.20	11.37	1.269+j4.869	1.220+j7.423	15.57	13.13	1.056+j4.570	1.199+j7.300

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
SISTEMAS JUÁREZ	SIS-69	69	20.03	15.77	0.572+j1.904	0.775+j3.550	22.98	17.57	0.486+j1.844	0.782+j3.613
SITEUR LÍNEA DOS DEL TREN	TRN-69	69	6.52	4.07	1.434+j5.941	4.307+j16.625	7.43	4.54	1.314+j5.751	4.314+j16.638
SN. MIGUEL ALLENDE	MAL-115	115	10.63	7.89	1.406+j6.087	2.729+j12.526	11.87	8.71	1.342+j6.007	2.739+j12.597
SOLAX ENERGÍA ALTIPLANO MANIOBRAS	VAM-115	115	2.46	2.63	10.299+j24.965	2.439+j22.398	2.85	2.93	9.237+j23.889	2.743+j23.910
SOLEDAD DE GRACIANO SÁNCHEZ	SGS-115	115	11.17	8.68	1.196+j5.823	1.761+j10.954	12.63	9.64	1.057+j5.685	1.775+j11.067
LEON	STI-115	115	14.20	12.64	1.016+j4.564	1.282+j6.314	17.25	15.08	0.946+j4.128	1.231+j5.975
URUAPAN	STI-115	115	3.73	2.34	5.173+j17.014	11.634+j48.274	4.36	2.68	4.589+j16.094	11.227+j47.287
T. OMYCA	TMY-115	115	13.01	6.66	1.110+j4.981	8.901+j18.047	15.30	7.68	0.976+j4.672	8.293+j17.531
TABACALERA	TBK-115	115	7.40	6.47	2.370+j8.658	2.721+j12.650	9.39	7.86	1.800+j7.571	2.722+j12.142
TACUBAYA	TYA-115	115	2.29	1.47	9.470+j27.460	22.190+j74.304	6.20	4.30	3.459+j11.266	9.210+j25.867
TALA	TLA-69	69	3.91	2.10	3.362+j9.615	9.119+j35.441	6.47	6.63	1.543+j6.591	1.147+j6.387
TALPA	TPA-69	69	0.51	0.68	24.594+j73.356	0.560+j22.381	0.77	0.98	14.144+j55.052	0.615+j24.619
TAMARINDOS	TMI-115	115	5.73	7.69	3.995+j10.881	0.296+j2.836	7.20	9.44	3.089+j9.669	0.316+j3.035
TAMAZULA	TAZ-115	115	2.83	2.07	6.404+j22.546	11.960+j48.192	3.14	2.27	6.155+j22.446	12.015+j48.599
TANGAMANGA	TMG-115	115	10.70	7.89	1.623+j5.990	3.125+j12.492	12.21	8.83	1.456+j5.801	3.135+j12.534
TANGANCÍCUARO	TGR-115	115	3.92	2.77	5.332+j16.078	13.383+j35.669	9.64	8.83	2.075+j7.284	2.880+j9.300
TANQUE TENORIO (DEGREMONT)	TQT-115	115	15.61	13.95	1.096+j4.111	0.972+j5.753	20.96	20.46	0.785+j3.395	0.547+j3.784
TAPALPA	TPP-115	115	2.32	1.70	8.164+j27.466	23.197+j55.229	2.57	1.88	7.900+j27.261	23.227+j55.469
TAPEIXTLES	TAP-115	115	13.10	13.40	1.023+j4.963	0.901+j4.780	16.40	15.95	0.739+j4.391	0.912+j4.869
TAPEIXTLES POTENCIA	TPX-115	115	16.98	19.83	0.638+j3.859	0.179+j2.355	22.16	24.72	0.367+j3.275	0.185+j2.385
TAPEIXTLES POTENCIA	TPX-230	230	11.31	14.68	1.899+j11.584	0.279+j4.213	16.31	20.33	0.861+j8.913	0.291+j4.102
TAPEIXTLES POTENCIA	TPX-400	400	9.31	11.59	4.298+j24.418	0.962+j11.894	16.81	20.21	1.377+j15.048	0.945+j8.906
TARANDACUAO	TDC-115	115	2.85	1.82	6.622+j22.344	21.401+j59.496	3.19	2.02	6.371+j22.020	21.428+j59.531
TARETAN	TAR-69	69	2.31	1.83	3.669+j16.830	7.508+j30.091	2.98	2.19	3.528+j14.266	7.482+j29.980
TARIMBARO	TRB-115	115	6.84	4.69	2.689+j9.331	6.045+j22.381	7.55	5.15	2.622+j9.312	6.073+j22.551
TECHNICOLOR MEXICANA SRL DE	TNI-69	69	12.18	8.02	0.948+j3.130	2.007+j8.146	14.68	9.66	0.799+j2.876	1.816+j7.445
TECNOLÓGICO	TAG-115	115	15.46	12.28	0.900+j4.200	1.200+j7.563	17.62	13.95	0.786+j4.069	1.136+j7.355
TECOLAPA	TOA-115	115	5.92	4.39	3.337+j10.709	7.369+j21.867	6.90	4.96	3.008+j10.154	7.378+j21.897
TECOTLAN	TCT-115	115	2.41	1.73	7.133+j26.616	22.951+j55.844	3.15	2.13	5.428+j22.516	21.307+j52.935
TECOMÁN	TEC-115	115	5.30	3.80	3.513+j12.027	8.940+j25.990	6.14	4.28	3.188+j11.469	8.947+j26.016
TECOMATES	TCS-115	115	1.64	1.16	11.648+j38.824	24.981+j87.966	1.83	1.28	11.322+j38.269	24.993+j88.059
TECOZAUTLA	TCZ-115	115	1.65	1.03	13.932+j37.634	32.016+j108.861	2.12	1.51	11.155+j32.532	20.110+j73.703
TECUALA	TEL-115	115	1.10	0.72	26.693+j54.279	61.312+j141.524	1.23	0.80	25.974+j53.597	61.298+j141.180
TECUAN	TCN-115	115	6.99	5.46	2.579+j9.141	6.122+j16.451	7.82	6.04	2.462+j9.004	6.134+j16.547
TEJEDA	TJD-115	115	9.64	12.41	1.373+j6.752	0.403+j2.276	15.60	19.11	1.070+j4.557	0.373+j2.135
TEOCALTICHE	TEO-115	115	4.60	3.20	3.711+j13.937	8.208+j32.403	5.09	3.51	3.621+j13.873	8.247+j32.663
TEPALCATEPEC DOS	TPD-115	115	1.44	1.06	14.845+j43.501	25.774+j91.804	1.86	1.82	10.806+j37.779	9.026+j43.069
TEPATITLÁN	TPT-115	115	4.66	3.10	4.336+j13.560	10.052+j34.514	6.59	4.51	3.210+j10.604	7.158+j25.545
TEPETONGO	TGO-115	115	1.25	0.90	16.977+j50.448	40.375+j107.662	1.44	1.04	16.129+j48.022	39.012+j102.207
TEPEYAC	TPY-115	115	9.40	6.82	2.245+j6.695	3.642+j14.862	10.81	7.69	2.083+j6.425	3.624+j14.739
TEPIC DOS	TED-115	115	11.57	13.84	1.285+j5.594	0.180+j3.002	15.45	18.24	0.715+j4.672	0.172+j2.672
TEPIC DOS	TED-230	230	8.30	10.31	3.980+j15.497	0.628+j6.862	12.53	15.54	1.689+j11.531	0.425+j5.308

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
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			3F	1F	$Z_{TH(0)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(0)}$	$Z_{TH(0)}$
TEPIC DOS	TED-400	400	7.07	7.48	8.202+j31.635	3.632+j27.747	14.35	15.87	2.140+j17.571	2.041+j13.817
TEPIC INDUSTRIAL	TID-115	115	7.77	6.94	2.230+j8.249	2.419+j11.449	10.07	8.64	1.661+j7.057	2.387+j10.719
TEPIC UNO	TES-115	115	8.82	8.64	1.907+j7.284	1.444+j7.971	11.41	10.72	1.343+j6.261	1.466+j7.611
TEQUILA	TQA-69	69	2.37	1.28	6.256+j15.568	15.401+j58.103	5.09	3.03	1.978+j8.372	6.319+j25.634
TEQUILA	TQA-115	115	0.96	1.23	20.925+j66.206	0.602+j24.052	3.00	3.15	5.411+j23.741	1.715+j21.071
TEQUISQUIAPAN	TEQ-115	115	7.11	4.16	2.515+j8.992	11.582+j27.164	8.53	4.99	2.147+j8.293	10.115+j25.064
TERMINAL DE GAS MANZANILLO	TGM-115	115	12.34	11.31	0.940+j5.296	1.218+j6.884	15.35	13.35	0.664+j4.712	1.222+j6.912
TERMINAL PORTUARIA	PMT-115	115	3.14	2.66	6.547+j20.135	8.985+j31.260	3.72	3.05	5.615+j18.816	9.007+j31.425
TERMOENVASES EXPANDIBLES,	TER-115	115	15.92	14.46	1.013+j4.045	1.231+j5.329	18.42	16.40	0.951+j3.849	1.253+j5.324
TERRAPLENA	TRP-115	115	5.90	4.72	2.758+j10.913	6.326+j18.849	6.87	5.33	2.464+j10.348	6.338+j18.939
TESISTAN	TSN-69B	69	20.72	23.42	0.269+j1.904	0.051+j1.281	25.09	27.41	0.149+j1.740	0.063+j1.334
TESISTAN	TSN-69	69	31.02	32.55	0.255+j1.259	0.096+j1.130	37.07	37.40	0.160+j1.171	0.101+j1.174
TESISTAN	TSN-230	230	15.71	19.10	2.255+j8.147	0.411+j4.229	21.96	25.28	1.104+j6.560	0.438+j4.287
TESISTAN	TSN-400	400	12.91	14.31	5.118+j17.143	1.891+j13.341	21.34	21.63	1.880+j11.753	1.903+j12.047
TETRAPAK	TTK-115	115	10.46	8.84	1.466+j6.174	5.797+j8.510	12.22	10.03	1.430+j5.803	5.810+j8.521
TEXAS INSTRUMENTS	TEX-115	115	13.71	11.20	1.005+j4.737	1.275+j8.032	15.57	12.47	0.886+j4.608	1.280+j8.105
TISAMATIC	TIS-115	115	16.63	16.65	1.045+j3.852	0.602+j4.002	20.06	19.74	0.831+j3.545	0.579+j3.860
TLAJOMULCO POTENCIA	TLJ-230	230	15.77	18.63	2.301+j8.102	0.546+j4.819	20.45	22.88	1.372+j7.009	0.587+j5.080
TLAJOMULCO POTENCIA	TLJ-400	400	13.18	14.29	4.663+j16.885	2.090+j14.212	18.88	18.57	2.155+j13.279	2.204+j14.666
TLALTENANGO	TLO-115	115	1.19	0.94	19.508+j52.259	8.494+j101.259	2.04	1.37	11.121+j34.108	9.750+j88.426
TOTOTLAN	TTO-115	115	4.84	3.33	3.521+j13.247	7.868+j31.546	5.91	3.99	3.021+j11.974	7.655+j29.290
TREJO	TRJ-115	115	8.98	6.31	2.014+j7.118	5.286+j16.003	9.97	6.95	1.944+j7.060	5.296+j16.072
TREMEC	TRE-115	115	16.85	15.30	0.851+j3.848	0.952+j5.103	22.60	22.68	0.737+j3.146	0.558+j3.217
TRES MARÍAS	TSM-115	115	7.36	5.74	2.180+j8.750	3.863+j16.483	8.11	6.28	2.124+j8.752	3.892+j16.666
TRES NACIONES	TEN-115	115	15.11	13.88	1.113+j4.250	0.921+j5.559	17.93	16.05	0.901+j3.974	0.921+j5.512
TRIARA	TTR-115	115	12.27	11.45	1.628+j5.162	0.196+j6.780	14.00	12.85	1.549+j4.983	0.202+j6.825
TRIGUILLOS	TGS-115	115	2.79	1.91	8.436+j22.246	19.372+j53.457	3.07	2.10	8.391+j22.264	19.416+j53.679
TUXPAN	TUX-115	115	3.34	2.67	6.898+j18.621	11.143+j33.165	3.71	2.93	6.651+j18.521	11.199+j33.572
TUXPAN	TXP-115	115	5.63	4.14	3.239+j11.347	7.364+j23.570	6.30	4.56	3.153+j11.159	7.459+j23.810
TUZANIA	TUZ-230	230	11.52	11.45	2.896+j11.160	2.189+j11.792	15.53	14.64	1.612+j9.267	2.129+j11.253
UNIÓN DE SAN ANTONIO	USA-115	115	3.06	2.03	5.695+j20.906	17.647+j52.048	3.37	2.22	5.642+j20.957	17.684+j52.309
UNIVERSIDAD AUTÓNOMA DE GUADALAJARA	UAG-69	69	17.30	13.82	0.651+j2.209	0.823+j3.997	19.81	15.73	0.558+j2.141	0.806+j3.886
UNIVERSIDAD DEL VALLE DE MÉXICO	UVM-69	69	20.03	15.77	0.572+j1.904	0.775+j3.550	22.98	17.57	0.486+j1.844	0.782+j3.613
URIANGATO	URG-115	115	5.50	2.98	3.385+j11.598	12.232+j41.026	6.09	3.28	3.316+j11.516	12.255+j41.094
URUAPAN POTENCIA	UPP-115	115	7.06	8.55	2.565+j9.043	0.389+j4.608	9.10	10.77	1.815+j7.816	0.400+j4.651
URUAPAN POTENCIA	UPP-161	161	4.01	4.51	4.695+j22.727	1.301+j15.598	5.59	6.32	2.523+j18.131	1.175+j13.155
URUAPAN POTENCIA	UPP-230	230	4.15	4.43	7.398+j31.102	2.647+j26.115	5.47	5.70	4.517+j26.334	2.496+j24.641
URUAPAN TRES	UPT-69	69	4.16	5.64	1.155+j9.509	0.088+j2.055	6.00	7.98	1.155+j7.212	0.101+j2.106
URUAPAN TRES	UPT-115	115	7.03	7.73	2.692+j9.059	1.061+j6.890	9.11	9.73	1.972+j7.767	1.046+j6.767
USI	USI-69	69	7.69	4.88	1.480+j4.965	3.774+j13.656	9.04	6.51	1.298+j4.671	2.835+j10.204
USM	USM-115	115	7.96	6.52	2.227+j8.042	4.224+j13.279	8.83	7.18	2.158+j7.988	4.236+j13.381
VALEO TRANSMISIÓN	VTS-115	115	13.22	11.78	1.186+j4.882	1.435+j6.778	15.43	13.42	0.978+j4.631	1.443+j6.791

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
VALLARTA POTENCIA	VTP-115	115	5.79	7.86	3.955+j10.771	0.155+j2.528	7.28	9.68	3.050+j9.562	0.175+j2.729
VALLARTA POTENCIA	VTP-230	230	3.20	4.09	13.832+j39.147	1.118+j14.932	4.08	5.04	10.233+j34.264	1.264+j16.003
VALLARTA UNO	VRT-115	115	4.69	5.01	5.002+j13.246	2.435+j11.303	5.74	5.91	4.056+j12.071	2.456+j11.504
VALLE DE GUADALUPE	VGP-115	115	4.25	2.96	4.587+j14.950	12.410+j33.805	7.20	5.73	2.450+j9.846	5.716+j17.088
VALLE DE LAS DELICIAS	VDL-115	115	4.29	3.57	4.025+j14.954	3.941+j24.652	6.89	5.55	2.924+j10.190	4.077+j17.860
VALLE DE SANTIAGO	VAS-115	115	11.90	8.78	1.330+j5.419	3.185+j11.130	13.42	9.75	1.269+j5.293	3.223+j11.210
VALEO TÉRMICO	VAT-115	115	15.61	14.96	1.059+j4.119	0.976+j4.760	18.73	17.75	0.843+j3.808	0.901+j4.532
VALLE DE TECOMAN	VAT-115	115	2.78	1.84	7.080+j22.780	18.596+j57.809	3.14	2.05	6.741+j22.234	18.605+j57.840
VALLE VERDE	VAV-115	115	3.22	3.27	6.333+j19.620	3.488+j19.590	4.23	4.12	4.351+j16.701	3.534+j19.064
VALPARAÍSO	VPS-115	115	1.24	0.80	18.920+j49.925	44.181+j133.816	1.37	0.89	18.749+j49.756	44.224+j134.136
VAQUERÍAS MANIOBRAS	VQM-230	230	7.03	7.37	3.001+j18.657	1.685+j16.258	8.22	8.31	2.463+j17.590	1.865+j17.206
VELCON	VEL-115	115	12.59	10.24	1.267+j5.121	2.194+j8.674	15.06	11.80	1.207+j4.698	2.222+j8.623
VENUSTIANO CARRANZA	VNC-115	115	5.38	3.65	3.092+j11.937	7.118+j29.181	6.12	4.06	2.906+j11.571	7.144+j29.314
VIDRIERA	VRA-115	115	14.88	14.14	1.142+j4.314	0.802+j5.169	17.69	16.57	0.928+j4.022	0.780+j4.995
VIDRIERA GUADALAJARA	VID-69	69	20.76	18.06	0.540+j1.842	0.483+j2.779	23.92	20.24	0.447+j1.777	0.498+j2.821
VIDRIERA QUERÉTARO	VRR-115	115	10.43	8.47	1.612+j6.160	2.504+j10.563	17.00	16.33	1.089+j4.155	0.930+j4.807
VILLA DE ÁLVAREZ	VDA-115	115	7.45	7.35	2.182+j8.646	1.853+j9.207	8.71	8.36	1.863+j8.175	1.884+j9.374
VILLA DE ARISTA	VAR-115	115	2.69	2.70	9.867+j22.634	3.947+j24.660	3.11	3.01	8.930+j21.760	4.215+j25.862
VILLA DE REYES	VDR-115	115	8.18	9.26	1.105+j8.039	0.529+j5.429	9.13	10.44	0.887+j7.952	0.356+j5.182
VILLA DE REYES	VDR-230	230	12.49	11.95	2.424+j10.350	2.451+j11.996	18.57	21.71	1.273+j7.761	0.444+j4.892
VILLA HIDALGO	VHO-115	115	3.02	2.03	7.558+j20.641	15.279+j51.861	3.44	2.36	6.905+j20.092	14.220+j48.331
VILLA JIMÉNEZ	VJH-115	115	5.18	4.13	3.632+j12.285	5.984+j22.062	6.24	5.67	3.298+j11.232	3.205+j15.279
VILLA JUÁREZ	VJU-115	115	8.87	6.37	1.527+j7.324	2.751+j16.104	9.91	7.03	1.436+j7.227	2.756+j16.226
VILLAGRÁN	VIG-115	115	9.52	8.34	1.607+j6.785	2.565+j9.639	14.92	12.48	1.270+j4.729	2.092+j7.533
VINITECK SA DE CV	VIN-69	69	6.36	4.81	1.325+j6.119	2.482+j12.098	12.51	8.87	0.718+j3.428	1.757+j7.643
VISTA HERMOSA	VIH-115	115	7.88	6.05	2.502+j8.044	5.199+j15.259	9.24	6.88	2.288+j7.565	5.211+j15.211
VITROMEX	VTR-115	115	12.46	10.38	1.269+j5.174	1.764+j8.398	14.50	11.80	1.062+j4.925	1.765+j8.393
VIZARRON	VIZ-115	115	2.03	1.10	11.312+j30.738	32.899+j111.865	3.44	2.00	6.429+j20.238	17.352+j65.229
VOLCANES	VCS-69	69	0.71	0.67	15.278+j54.012	19.514+j62.310	0.97	0.85	10.337+j43.758	19.570+j64.548
VOLKSWAGEN	VWS-115	115	7.24	6.66	2.467+j8.830	2.352+j11.427	8.01	7.27	2.401+j8.796	2.431+j11.728
XALISCO	XLS-115	115	7.05	5.89	2.328+j9.119	3.061+j14.755	8.85	7.07	1.751+j8.068	3.046+j14.253
YURÉCUARO	YUR-115	115	6.00	4.77	3.330+j10.544	5.938+j18.758	7.16	5.56	2.984+j9.750	5.831+j18.183
ZACAPU	ZCP-115	115	5.12	4.22	4.151+j12.296	5.940+j20.674	6.05	5.11	3.907+j11.413	5.289+j18.376
ZACATECAS	ZCT-115	115	6.30	5.38	3.097+j10.069	4.282+j15.403	7.66	6.62	2.710+j9.138	3.892+j13.513
ZACATECAS II	ZCD-115	115	9.28	10.96	1.837+j6.917	0.407+j3.895	11.58	13.24	1.592+j6.104	0.455+j3.956
ZACATECAS II	ZCD-230	230	6.77	7.07	5.038+j18.970	2.578+j17.062	8.12	8.18	4.198+j17.484	2.723+j17.514
ZACATECAS SUR	ZCS-115	115	6.44	5.55	3.053+j9.840	4.049+j14.741	7.77	6.69	2.703+j8.997	3.871+j13.450
ZALATTAN	ZLT-69	69	12.64	9.20	0.771+j3.055	1.399+j6.560	15.37	10.62	0.646+j2.777	1.405+j6.558
ZAMORA	ZMA-115	115	7.27	6.29	2.289+j8.845	3.867+j12.898	9.01	7.42	2.113+j7.823	3.936+j12.809
ZAMORA POTENCIA	ZRP-115	115	8.87	9.98	1.457+j7.338	0.497+j5.029	12.10	12.97	1.311+j5.890	0.610+j4.856
ZAMORA POTENCIA	ZRP-230	230	7.70	6.91	3.518+j16.892	4.123+j22.998	9.13	7.91	2.776+j15.748	4.297+j23.237
ZAPOPAN	ZPA-69	69	22.48	20.62	0.508+j1.697	0.342+j2.269	26.01	23.18	0.416+j1.632	0.357+j2.311

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Occidental**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
ZAPOPAN	ZPA-230	230	9.33	8.30	3.324+j13.835	4.105+j19.331	11.61	9.76	2.155+j12.399	4.191+j19.570
ZAPOTILIC	ZTI-115	115	4.89	4.54	3.807+j13.026	4.826+j16.075	5.45	4.99	3.559+j12.923	4.882+j16.482
ZAPOTLANEJO	ZPO-230	230	15.30	17.50	2.256+j8.379	0.674+j5.671	20.32	21.89	1.257+j7.078	0.728+j5.879
ZAPOTLANEJO	ZPO-400	400	12.46	13.06	4.551+j17.971	2.739+j16.699	17.38	16.64	2.114+j14.463	2.872+j17.104
ZAPOTLANEJO DISTRIBUCIÓN	ZAD-115	115	1.11	1.00	16.686+j57.685	17.988+j76.187	3.11	2.38	7.966+j22.127	12.018+j43.528
ZARAGOZA	ZAG-115	115	5.15	3.43	2.640+j12.616	8.185+j31.375	5.80	3.81	2.431+j12.363	8.189+j31.379
ZIMAPAN	ZIM-115	115	2.33	1.82	8.199+j27.243	10.509+j51.761	3.57	2.58	5.848+j19.594	9.034+j43.521
ZINÁPARO	ZID-115	115	6.76	5.22	2.731+j9.436	5.896+j17.660	10.33	7.70	1.998+j6.784	4.511+j13.649
ZINAPÉCUARO	ZIN-115	115	8.27	7.03	1.600+j7.868	2.540+j12.521	9.01	7.65	1.594+j7.944	2.557+j12.689
ZITÁCUARO	ZIT-115	115	6.61	4.61	2.824+j9.639	6.467+j22.302	7.50	5.13	2.704+j9.358	6.520+j22.396
ZITÁCUARO DOS	ZTD-115	115	6.32	4.27	2.853+j10.105	6.872+j24.744	7.20	4.76	2.719+j9.778	6.916+j24.798
ZOLTECH	CYD-69	69	16.24	17.35	0.607+j2.377	0.384+j1.970	20.98	21.20	0.477+j2.034	0.391+j2.007
ZOQUIPAN	ZQP-69	69	14.09	10.11	0.667+j2.748	1.385+j6.028	16.29	11.41	0.552+j2.633	1.379+j6.018
ZUMPIMITO	ZMP-69-HI	69					5.73	6.66	1.398+j7.524	0.823+j4.625

Gerencia de Control Regional Noroeste



Regresar a mapa del SEN

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
ACUÍCOLA	ACU-115	115	2.06	1.46	8.789+j30.961	25.604+j67.810	2.35	1.63	8.297+j29.897	25.613+j67.585
AGRÍCOLA SONOYTA	AGS-115	115	0.62	0.42	31.339+j102.846	68.743+j253.116	0.70	0.46	29.134+j100.014	68.898+j254.479
AGUA PRIETA	AGI-115	115	5.47	4.48	1.899+j11.982	3.975+j20.014	6.22	5.02	1.668+j11.630	3.892+j19.878
AGUA PRIETA DOS	AGD-230	230	10.89	12.93	1.446+j12.105	0.459+j7.529	14.80	17.12	0.815+j9.835	0.538+j6.426
AHOME	AHO-115	115	4.79	3.63	3.100+j13.518	8.362+j25.895	5.30	4.00	3.042+j13.447	8.369+j25.990
ALAMOS	AAM-115	115	1.62	1.23	23.221+j33.764	26.921+j77.034	1.91	1.52	21.117+j31.955	20.115+j65.828
ALEPH MANIOBRAS	ALE-230	230	3.07	3.85	10.247+j42.038	1.731+j17.227	4.49	5.25	5.309+j32.088	1.914+j18.430
ALTAR	ALT-115	115	2.59	1.96	7.000+j24.687	14.249+j48.252	3.22	2.32	5.545+j22.008	14.048+j47.223
ANGOSTURA	ANG-115	115	4.70	3.73	4.171+j13.511	7.509+j24.027	5.62	4.26	3.724+j12.458	7.548+j24.080
ANTIMONIO	ANT-115	115	2.55	2.22	6.976+j25.138	9.690+j36.185	3.24	2.65	5.198+j21.968	9.715+j36.388
ARROYO SECO	ASE-115	115	1.80	1.29	9.937+j35.541	21.197+j77.453	2.25	1.54	7.839+j31.469	20.692+j74.981
BACHIGUALATO	BCH-115	115	6.15	3.18	2.371+j10.534	10.316+j39.685	7.20	3.57	2.074+j9.937	10.337+j39.767
BACUM	BAC-115	115	17.12	21.74	0.581+j3.835	0.145+j1.404	21.59	26.39	0.415+j3.357	0.164+j1.493
BACUM	BAC-230	230	11.57	14.79	1.683+j11.353	0.370+j3.981	15.03	18.43	1.111+j9.656	0.406+j4.226
BACUM	BAC-400	400	8.47	9.25	3.430+j27.033	2.435+j20.296	10.55	10.91	2.207+j23.973	2.641+j21.426
BACURATO	BRT-115	115	3.42	1.88	3.628+j19.070	17.331+j65.014	6.05	6.75	1.388+j11.989	0.330+j7.250
BAGOTES	BGT-115	115	13.06	14.02	1.482+j4.862	1.850+j3.665	18.51	18.49	1.072+j3.798	1.863+j3.620
BAMOA	BAM-115	115	2.75	1.88	8.535+j22.622	19.768+j53.995	3.13	2.10	8.181+j21.831	19.794+j54.044
BANDERAS	BAN-115	115	13.12	12.92	0.957+j4.969	1.279+j5.155	16.73	16.10	0.716+j4.305	1.115+j4.706
BIZANI	BZI-115	115	3.54	3.52	4.978+j18.109	5.387+j18.343	4.92	4.54	3.106+j14.529	5.259+j17.857
BLUMEX MANIOBRAS	BLM-115	115	6.75	5.39	2.446+j9.533	5.174+j16.496	8.33	8.46	2.013+j8.531	1.494+j8.241
BUENA VISTA	BNV-230	230	7.95	7.52	4.741+j16.021	3.270+j19.848	10.17	9.02	3.463+j13.935	3.432+j19.800
CABORCA	CBA-115	115	3.90	3.89	4.239+j16.492	3.282+j16.927	5.81	5.50	2.187+j12.382	2.785+j14.469
CAJEME	CAJ-115	115	12.94	13.74	0.906+j5.050	0.979+j4.126	16.43	16.71	0.671+j4.395	0.968+j4.070
CARDONAL	CRD-115	115	2.07	1.51	8.780+j30.789	25.606+j63.339	2.37	1.69	8.288+j29.727	25.614+j63.115
CARRIZO	CRZ-115	115	3.95	2.17	5.519+j15.895	18.055+j55.183	4.86	2.90	4.649+j14.299	13.467+j43.270
CENTENARIO	CNT-115	115	12.85	12.39	1.144+j5.037	1.580+j5.530	14.49	13.76	1.075+j4.926	1.587+j5.613
CENTINELA	CLA-115	115	7.77	7.68	1.849+j8.343	3.285+j8.294	9.27	8.90	1.627+j7.712	3.309+j8.323
CENTRAL FOTOVOLTAICA HERMOSILLO MANIOBRAS	CFH-115	115	11.65	12.03	1.340+j5.541	1.577+j4.937	17.53	16.85	0.792+j4.091	1.526+j4.522
CERRO CAÑEDO	CCA-115	115	3.45	3.18	4.911+j18.606	5.705+j23.483	4.86	4.22	2.935+j14.723	5.263+j21.289
CHINITOS	CHI-115	115	2.04	1.42	10.409+j30.853	27.317+j69.718	2.30	1.58	10.048+j30.126	27.333+j69.752
CHOACAHUI	CHO-230	230	18.61	24.12	0.666+j7.104	0.103+j2.251	20.98	26.70	0.519+j6.943	0.112+j2.452
CHOACAHUI	CHO-400	400	12.14	15.13	1.807+j18.938	0.367+j7.753	13.95	16.95	1.270+j18.172	0.405+j8.432
CIUDAD OBREGÓN CUATRO	COC-115	115	14.94	17.66	0.811+j4.370	0.393+j2.361	19.33	22.99	0.583+j3.733	0.305+j1.904
CIUDAD OBREGÓN CUATRO	COC-230	230	9.42	10.44	2.418+j13.894	1.895+j9.794	12.82	13.47	1.557+j11.286	1.728+j9.412
CIUDAD OBREGÓN DOS	COD-115	115	15.64	18.30	0.733+j4.183	0.777+j2.291	20.14	22.69	0.525+j3.588	0.767+j2.263
CIUDAD OBREGÓN TRES	COT-115	115	15.28	18.91	0.758+j4.279	0.493+j1.787	19.94	23.80	0.527+j3.625	0.493+j1.765
CIUDAD OBREGÓN TRES	COT-230	230	8.32	9.18	2.747+j15.719	2.269+j11.278	11.12	11.54	1.834+j13.010	2.244+j11.293
CIUDAD OBREGÓN UNO	OBU-115	115	14.02	14.91	0.945+j4.642	1.013+j3.763	18.11	19.67	0.699+j3.972	0.706+j2.942
COCORIT	CCI-115	115	11.18	8.98	1.046+j5.846	2.682+j9.968	13.82	10.49	0.824+j5.220	2.675+j9.936
COMEDERO	CMR-115	115	3.52	1.68	3.894+j18.442	20.457+j78.629	5.90	6.80	1.664+j12.263	0.294+j7.236
COMPUERTAS	CTS-115	115	13.04	12.53	1.111+j4.971	1.559+j5.506	14.71	13.92	1.037+j4.854	1.567+j5.589

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noroeste**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
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			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
CORONA	COR-115	115	12.71	10.63	1.199+j5.083	2.364+j7.957	16.23	15.55	0.942+j4.400	0.942+j4.952
COSTA RICA	CSA-115	115	6.27	4.89	2.476+j10.294	4.648+j19.000	7.44	5.58	2.109+j9.584	4.660+j19.062
CRUZ DE PIEDRA	CDP-115	115	6.02	4.72	2.899+j10.645	6.465+j19.074	7.34	7.05	2.465+j9.644	2.784+j10.817
CULIACÁN CENTRO	CCC-115	115	11.18	11.21	1.348+j5.785	1.478+j5.719	14.86	13.97	0.910+j4.829	1.491+j5.624
CULIACÁN CINCO	CUI-115	115	11.93	11.56	1.228+j5.426	1.589+j5.902	15.71	14.16	0.828+j4.574	1.604+j5.932
CULIACÁN CUATRO	CUC-115	115	12.57	12.84	1.168+j5.153	1.178+j4.812	16.42	15.71	0.793+j4.378	1.182+j4.873
CULIACÁN DOS	CUD-115	115	12.11	13.19	1.250+j5.339	1.031+j4.017	16.27	16.69	0.823+j4.414	1.045+j3.969
CULIACÁN LIBRAMIENTO	CLI-115	115	10.55	10.47	1.419+j6.131	1.834+j6.190	13.70	12.78	1.001+j5.238	1.849+j6.183
CULIACÁN MILENIUM	CMI-115	115	10.54	11.78	1.401+j6.144	1.688+j4.025	13.67	15.62	0.980+j5.253	1.388+j3.046
CULIACÁN NORTE	CUN-115	115	11.39	12.24	1.326+j5.678	1.121+j4.485	15.21	15.76	0.885+j4.720	1.039+j4.111
CULIACÁN ORIENTE	CUO-115	115	11.58	13.25	1.337+j5.578	1.024+j3.431	15.51	16.93	0.901+j4.622	1.040+j3.330
CULIACÁN PONIENTE	CPO-115	115	14.66	16.78	0.882+j4.442	0.355+j2.808	18.81	20.44	0.592+j3.838	0.376+j2.889
CULIACÁN PONIENTE	CPO-400	400	6.22	7.08	7.109+j36.440	3.007+j23.649	8.14	8.72	4.237+j30.903	3.137+j24.602
CULIACÁN SUR	CUS-115	115	10.86	10.36	1.323+j5.966	1.669+j6.821	13.90	12.44	0.940+j5.170	1.678+j6.870
CULIACÁN TRES	CUT-115	115	13.37	16.78	1.094+j4.843	0.202+j1.951	18.65	22.62	0.650+j3.862	0.207+j1.788
CULIACÁN TRES	CUT-230	230	8.10	10.10	3.557+j15.996	0.875+j6.672	11.03	13.09	2.113+j13.079	0.900+j6.782
CULIACÁN UNO	CUU-115	115	12.80	14.42	1.171+j5.054	0.776+j3.362	17.51	20.35	0.731+j4.106	0.377+j2.325
DEL MAR	DMA-115	115	11.47	13.25	1.271+j5.646	1.313+j3.272	13.58	15.28	0.975+j5.287	1.313+j3.416
DERIVACIÓN	DER-115	115	7.56	7.15	1.799+j8.601	3.270+j9.802	9.49	8.53	1.366+j7.574	3.277+j9.901
DESEO	DSE-115	115	2.29	1.83	8.264+j27.816	14.829+j48.654	2.91	2.18	6.383+j24.244	14.701+j48.168
DYNATECH	DYN-115	115	13.79	16.05	1.382+j4.613	1.471+j2.463	20.98	22.95	0.871+j3.371	1.412+j2.340
EL FUERTE PENAL	FPE-115	115	3.80	2.39	5.937+j16.411	14.530+j46.119	5.35	4.99	3.736+j13.128	3.464+j16.237
EL FRESNAL	EFR-115	115	7.97	9.34	0.823+j8.292	0.292+j4.868	9.13	10.62	0.610+j7.978	0.189+j4.722
EL FRESNAL	EFR-230	230	10.24	11.05	1.855+j12.840	1.606+j10.944	15.20	17.58	0.938+j9.563	0.515+j6.053
EL FUERTE	EFU-115	115	3.12	1.93	7.495+j19.898	18.373+j57.707	4.63	5.13	4.204+j15.216	0.990+j11.234
EL HABAL	HBL-115	115	11.42	13.99	1.148+j5.699	0.329+j2.623	13.41	16.01	0.865+j5.376	0.357+j2.800
EL HABAL	HBL-230	230	7.16	8.21	3.630+j18.194	1.551+j11.464	8.71	9.61	2.467+j16.585	1.635+j12.039
EL MAYO	EMY-115	115	9.19	11.05	1.398+j7.090	0.306+j3.579	11.86	13.57	0.997+j6.077	0.346+j3.740
EL MAYO	EMY-230	230	5.80	6.05	4.488+j22.460	2.322+j20.005	7.98	7.62	2.940+j18.065	2.584+j20.421
ELECTRICIDAD SOLAR DE HERMOSILLO MANIOBRAS	ESH-115	115	6.16	5.40	3.139+j10.317	6.101+j14.142	7.91	7.97	2.466+j8.900	2.335+j8.766
EMPALME	EPM-115	115	9.11	7.96	1.525+j7.125	2.264+j10.215	11.31	10.74	1.230+j6.339	1.598+j7.330
EMPALME CICLO COMBINADO	ECC-230	230	10.61	12.97	1.657+j12.404	0.394+j5.713	14.93	18.18	0.952+j9.734	0.271+j4.563
EMPALME CICLO COMBINADO	ECC-400	400	8.87	10.74	2.699+j25.894	0.813+j12.447	10.72	12.53	1.689+j23.644	0.907+j13.444
ESCUINAPA	EPA-115	115	1.68	0.98	9.728+j38.342	28.781+j121.492	1.88	1.09	9.273+j37.745	28.246+j120.348
ESPERANZA	ESP-115	115	9.46	11.27	1.563+j6.843	0.395+j3.647	12.47	14.51	1.093+j5.756	0.404+j3.424
ESPERANZA	ESP-230	230	5.55	5.71	4.889+j23.429	2.832+j21.885	7.63	7.42	3.013+j18.901	2.829+j20.851
ESTACIÓN TORRES	ETO-115	115	4.12	2.78	5.264+j15.220	12.711+j37.461	4.89	3.20	4.814+j14.124	12.283+j36.616
ÉVORA	EVO-115	115	8.62	9.51	1.533+j7.546	0.830+j5.503	11.12	11.58	1.090+j6.475	0.871+j5.559
FÁTIMA	FMA-115	115	12.00	12.73	0.940+j5.454	0.714+j4.526	15.03	15.50	0.719+j4.806	0.712+j4.374
Fisterra San Fernando Maniobras	FIS-230	230	4.00	3.35	7.268+j32.385	11.752+j51.403	5.42	4.46	4.397+j26.595	8.330+j43.642
FRV ENERGY SOLAR	FRV-115	115	6.91	8.11	2.240+j9.346	1.133+j5.250	9.06	10.36	1.414+j7.933	0.952+j4.942
FUNDICIÓN	FUC-115	115	6.02	5.01	3.074+j10.599	4.539+j17.098	7.26	5.77	2.699+j9.692	4.688+j17.149

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noroeste**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
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GENERASOL MANIOBRAS	GNS-115	115	15.04	18.20	1.034+j4.293	0.372+j2.107	24.56	28.58	0.522+j2.928	0.320+j1.762
GRUPO MÉXICO (SE MINA)	SMI-230	230	6.89	6.25	5.036+j18.596	4.506+j25.366	8.68	7.39	3.716+j16.411	4.700+j25.442
GUAMÚCHIL	GML-115	115	7.73	7.61	1.749+j8.410	1.667+j8.848	9.78	9.07	1.304+j7.354	1.706+j8.900
GUAMÚCHIL DOS	GMD-115	115	9.16	11.01	1.411+j7.108	0.339+j3.595	11.99	13.68	0.967+j6.016	0.381+j3.653
GUAMÚCHIL DOS	GMD-230	230	6.39	6.50	4.242+j20.342	2.750+j19.626	8.21	7.80	2.914+j17.543	2.968+j20.124
GUASAVE	GSV-115	115	6.10	4.74	2.581+j10.569	6.445+j19.276	7.12	5.35	2.328+j9.996	6.465+j19.340
GUAYMAS CEREZO	GYC-115	115	14.11	17.47	0.710+j4.651	0.172+j1.995	17.99	21.61	0.501+j4.028	0.193+j2.024
GUAYMAS CEREZO	GYC-230	230	9.34	10.62	2.180+j14.049	1.187+j9.024	12.79	13.82	1.371+j11.336	1.285+j8.812
HERMOSILLO AEROPUERTO	HAE-230	230	9.28	9.86	3.044+j13.984	2.620+j11.570	15.43	16.98	1.283+j9.381	1.031+j7.124
HERMOSILLO CEREZO	HCE-115	115	12.70	13.94	1.503+j5.007	1.607+j3.534	18.59	19.00	1.000+j3.800	1.574+j3.437
HERMOSILLO CINCO	HLI-115	115	16.31	20.57	0.896+j3.971	0.206+j1.556	28.02	35.27	0.375+j2.580	0.106+j1.067
HERMOSILLO CINCO	HLI-230	230	11.25	12.90	2.396+j11.561	1.160+j7.280	17.55	18.64	1.079+j8.253	1.070+j6.971
HERMOSILLO CUATRO	HLC-115	115	17.40	22.45	0.875+j3.713	0.182+j1.252	27.22	33.58	0.470+j2.641	0.197+j1.206
HERMOSILLO CUATRO	HLC-230	230	10.06	11.86	2.768+j12.901	1.081+j7.224	16.03	17.62	1.270+j9.022	1.099+j6.802
HERMOSILLO DOS	HLD-115	115	13.08	12.90	1.154+j4.943	1.112+j5.192	18.33	16.56	0.729+j3.918	1.117+j5.207
HERMOSILLO LA MANGA	HMA-115	115	8.63	7.70	2.265+j7.351	4.406+j9.597	11.34	10.06	1.791+j6.188	3.468+j8.286
HERMOSILLO LOMAS	HLM-115	115	14.32	17.89	0.990+j4.530	0.219+j1.877	20.35	24.26	0.581+j3.541	0.232+j1.906
HERMOSILLO LOMAS	HLM-230	230	9.42	10.62	3.014+j13.774	1.474+j9.309	14.96	15.65	1.380+j9.668	1.465+j8.603
HERMOSILLO MISIÓN	HMI-115	115	12.85	14.15	1.289+j5.004	1.102+j3.605	18.02	18.61	0.873+j3.957	1.111+j3.571
HERMOSILLO NUEVE	HLN-115	115	16.10	20.22	1.123+j3.967	0.604+j1.518	25.15	30.06	0.660+j2.828	0.594+j1.445
HERMOSILLO OCHO	HLO-115	115	13.66	14.05	1.093+j4.737	1.137+j4.327	20.88	19.56	0.589+j3.447	1.100+j4.143
HERMOSILLO SEIS	HLS-115	115	13.04	14.30	1.189+j4.951	1.098+j3.612	18.40	18.88	0.775+j3.893	1.106+j3.576
HERMOSILLO SIETE	HLE-115	115	12.05	10.43	1.154+j5.388	1.757+j7.904	16.58	13.00	0.725+j4.346	1.765+j7.922
HERMOSILLO TRES	HLT-115	115	14.52	16.90	0.914+j4.481	0.260+j2.663	21.03	22.70	0.492+j3.437	0.277+j2.756
HERMOSILLO TRES	HLT-230	230	10.11	11.38	2.811+j12.827	1.416+j8.732	15.90	16.41	1.295+j9.097	1.448+j8.432
HERMOSILLO UNO	HLU-115	115	16.31	20.48	1.081+j3.926	0.569+j1.502	25.67	30.68	0.612+j2.779	0.555+j1.426
HERNANDO DE VILLAFANE	HVF-115	115	5.43	4.00	2.756+j11.919	7.439+j24.248	6.32	4.51	2.477+j11.290	7.461+j24.306
HIERRO DE SONORA	HDS-115	115	9.16	5.68	2.171+j6.916	6.207+j19.601	11.28	6.85	1.884+j6.194	5.499+j18.169
HIGUERA DE ZARAGOZA	HGZ-115	115	2.91	2.10	5.533+j22.112	17.337+j46.272	3.22	2.31	5.475+j22.041	17.344+j46.368
HORNILLOS	HRS-115	115	2.66	1.63	8.973+j23.319	21.968+j68.612	3.82	3.74	5.424+j18.354	4.018+j19.967
HUATABAMPO	HPO-115	115	6.08	4.65	2.427+j10.643	6.275+j20.130	7.45	5.37	2.001+j9.598	6.294+j20.165
HUITES	HTS-230	230	2.98	1.62	7.090+j44.022	38.238+j152.951	8.47	8.87	1.127+j17.207	0.466+j12.402
HUMAYA	HYA-115	115	5.54	3.01	2.313+j11.756	10.303+j40.972	8.43	9.00	1.174+j8.581	0.390+j6.863
IMURIS	IMR-115	115	3.55	3.05	4.873+j18.045	10.025+j25.994	4.21	3.50	4.121+j16.838	10.032+j26.117
INDUSTRIAL CABORCA	ICA-115	115	4.17	4.81	3.928+j15.448	1.149+j9.548	6.42	7.40	1.860+j11.224	0.618+j6.868
INDUSTRIAL CABORCA	ICA-230	230	2.58	2.89	13.296+j49.801	5.149+j34.848	3.80	4.08	6.752+j37.844	3.749+j30.443
INDUSTRIAL SAN CARLOS	ISC-115	115	4.32	4.24	3.549+j14.972	3.784+j15.592	5.11	4.86	2.877+j14.005	3.816+j15.893
ISLA MUSALA	ISM-115	115	13.02	16.66	1.183+j4.960	0.234+j1.762	18.03	22.39	0.741+j3.982	0.243+j1.615
JAIME SEVILLA POYASTRO	JSP-115	115	11.11	12.51	1.337+j5.827	1.367+j3.766	14.61	16.88	0.909+j4.916	1.028+j2.764
JUAN JOSÉ RÍOS	JJR-115	115	7.36	6.11	1.627+j8.876	3.991+j14.025	8.30	6.78	1.518+j8.671	4.016+j14.169
LA CARIDAD	LCD-230	230	7.68	5.97	2.964+j17.034	8.406+j31.623	9.00	6.80	2.487+j16.039	8.396+j31.268
LA CARIDAD FUNDICIÓN	LCF-230	230	10.04	10.02	1.624+j13.125	2.132+j13.730	11.68	12.19	1.297+j12.437	1.408+j11.262

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			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
LA CARIDAD GENERACIÓN	LCG-230	230	11.87	13.50	1.354+j11.105	0.499+j7.699	13.89	15.72	1.039+j10.466	0.485+j7.247
LA CHOYA	LCH-115	115	1.93	2.03	9.289+j33.181	5.351+j28.800	2.35	2.35	7.292+j30.272	5.893+j30.481
LA HIGUERA	HGA-115	115	15.09	20.43	0.918+j4.305	0.058+j0.967	20.00	26.20	0.579+j3.606	0.067+j1.022
LA HIGUERA	HGA-230	230	8.93	11.96	3.085+j14.540	0.257+j3.652	12.03	15.50	1.825+j12.002	0.286+j3.868
LA HIGUERA	HGA-400	400	6.14	7.28	7.436+j36.846	1.778+j20.195	8.13	9.06	4.346+j30.945	1.953+j21.365
LA MISA	LMA-115	115	3.51	2.60	5.836+j17.972	14.860+j35.833	4.10	3.35	5.397+j16.977	11.174+j27.573
LA PINTA	LPN-115	115	1.88	1.68	10.149+j33.778	11.090+j46.613	2.29	1.95	8.153+j30.840	11.186+j47.551
LADRILLERAS	LAD-115	115	12.53	12.51	1.139+j5.174	1.233+j5.201	17.27	15.93	0.719+j4.169	1.242+j5.219
LAMBDA SOLAR, S. DE R.L DE C.V	LDS-115	115	4.04	4.57	4.063+j15.925	1.646+j10.678	6.16	6.97	1.986+j11.682	0.954+j7.703
LEYVA SOLANO	LVS-115	115	4.69	3.65	2.905+j13.852	8.433+j25.009	5.33	4.07	2.714+j13.442	8.453+j25.100
LLANO BLANCO	LLB-115	115	2.67	1.94	6.736+j23.983	14.869+j50.693	3.39	2.32	5.104+j20.920	14.602+j49.351
LOS MOCHIS COLINAS	LMC-115	115	13.95	12.43	0.866+j4.680	1.422+j6.360	15.91	13.87	0.779+j4.523	1.433+j6.446
LOS MOCHIS DOS	LMD-115	115	10.29	11.07	1.108+j6.358	0.467+j5.075	11.99	12.57	0.955+j6.018	0.515+j5.196
LOS MOCHIS DOS	LMD-230	230	9.66	9.02	2.358+j13.546	2.964+j16.390	11.98	10.59	1.738+j12.072	3.071+j16.600
LOS MOCHIS INDUSTRIAL	LMI-115	115	15.28	17.20	0.708+j4.287	0.337+j2.872	17.43	19.11	0.623+j4.144	0.362+j3.042
LOS MOCHIS INDUSTRIAL	LMI-230	230	9.89	9.93	2.048+j13.276	2.076+j13.094	11.56	11.20	1.687+j12.519	2.200+j13.611
LOS MOCHIS TRES	LMT-115	115	13.41	12.79	0.956+j4.857	1.479+j5.492	15.16	14.22	0.877+j4.736	1.487+j5.575
LOS MOCHIS UNO	LMU-115	115	14.27	13.31	0.833+j4.579	1.272+j5.514	16.25	14.86	0.750+j4.432	1.282+j5.593
LOUISIANA	LOU-115	115	17.84	22.72	0.509+j3.686	0.098+j1.325	20.05	25.10	0.452+j3.614	0.106+j1.428
LOUISIANA	LOU-230	230	12.56	14.22	1.441+j10.473	0.857+j6.816	14.50	15.97	1.192+j10.002	0.918+j7.176
LUIS DONALDO COLOSIO	LDO-115	115	4.26	3.50	4.131+j15.035	7.864+j24.523	5.17	4.06	3.340+j13.731	7.854+j24.541
MANIOBRA FRESNILLO	MFN-115	115	2.08	1.72	9.740+j30.422	11.534+j50.486	2.56	2.01	7.783+j27.455	11.571+j50.888
MANIOBRA MINA COBRE DEL MAYO	MCM-115	115	2.53	2.04	14.087+j22.087	16.222+j43.032	3.10	2.75	11.982+j20.257	9.425+j31.834
MANIOBRAS APASCO	MAP-115	115	6.70	4.74	2.003+j9.710	5.461+j21.578	9.26	6.14	1.333+j7.771	4.847+j19.248
MANIOBRAS ENERGÍA SOLAR HERMOSILLO	ENS-115	115	5.89	5.09	3.274+j10.794	6.598+j15.272	7.52	7.49	2.591+j9.361	2.567+j9.549
MANIOBRAS ENH	ENH-115	115	6.45	5.41	3.154+j9.807	6.936+j14.758	8.24	7.71	2.561+j8.484	3.354+j10.220
MANIOBRAS GARAMBULLO SOLAR	GBO-115	115	4.52	2.77	4.436+j14.012	12.761+j40.537	5.37	4.24	3.976+j13.012	4.810+j24.106
MANIOBRAS MUNISOL	MUN-115	115	5.81	4.85	3.495+j10.876	7.723+j16.614	7.39	7.09	2.838+j9.470	3.246+j10.694
MARINA	MRN-115	115	10.27	10.24	1.362+j6.317	1.335+j6.416	12.04	11.64	1.070+j5.970	1.344+j6.584
MAZATLÁN AEROPUERTO	MAE-115	115	11.25	13.52	1.834+j5.608	1.554+j2.593	13.39	15.72	1.509+j5.240	1.540+j2.723
MAZATLÁN CENTRO	MAC-115	115	11.37	12.81	1.252+j5.703	1.680+j3.604	13.47	14.78	0.953+j5.338	1.677+j3.743
MAZATLÁN DOS	MZD-115	115	14.70	18.72	0.864+j4.434	0.120+j1.642	17.72	21.94	0.575+j4.082	0.134+j1.770
MAZATLÁN DOS	MZD-230	230	7.88	9.94	3.212+j16.551	0.413+j6.534	9.64	11.78	2.074+j15.002	0.464+j7.037
MAZATLÁN DOS	MZD-400	400	6.23	7.07	7.840+j36.257	2.303+j24.221	8.33	8.84	4.319+j30.202	2.641+j25.478
MAZATLÁN NORTE	MZN-115	115	11.96	13.97	1.216+j5.419	1.003+j3.033	14.19	16.13	0.922+j5.065	1.006+j3.181
MAZATLÁN ORIENTE	MZO-115	115	10.48	9.93	1.464+j6.161	2.255+j7.086	12.33	11.32	1.169+j5.805	2.258+j7.223
MAZATLÁN TECNOLÓGICO	MTE-115	115	10.21	10.35	1.612+j6.300	1.819+j6.010	12.00	11.82	1.318+j5.944	1.824+j6.142
MAZATLÁN UNO	MZU-115	115	12.85	13.62	1.015+j5.067	1.015+j4.200	15.32	15.73	0.722+j4.711	1.026+j4.314
MOCHIS CENTRO	MCE-115	115	13.40	12.60	1.047+j4.844	1.559+j5.698	15.22	14.05	0.968+j4.702	1.568+j5.778
MOCHIS LAS VILLAS	MLV-115	115	12.55	11.12	0.870+j5.217	1.430+j7.194	14.14	12.34	0.798+j5.103	1.439+j7.274
MOCUZARI	MRI-115	115	2.06	1.47	17.768+j26.929	26.190+j66.505	2.54	2.25	14.726+j24.707	9.009+j40.034
MORELOS-LA ATRAVESADA	MLA-115	115	4.13	3.11	4.781+j15.334	11.840+j29.802	4.88	4.14	4.343+j14.338	8.154+j21.542

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
NACUZARI	NRI-230	230	12.86	12.28	1.566+j10.208	2.447+j12.032	15.78	14.56	1.111+j9.190	2.437+j11.677
NAINARI	NAI-115	115	13.69	16.83	0.847+j4.776	2.209+j1.626	17.42	20.78	0.625+j4.146	2.192+j1.621
NAVOJOA	NVJ-115	115	9.36	8.77	1.512+j6.927	1.840+j8.330	12.32	10.79	1.070+j5.830	1.828+j8.170
NAVOJOA INDUSTRIAL	NVI-115	115	6.07	4.93	2.545+j10.643	4.797+j17.862	7.40	5.69	2.141+j9.633	4.841+j18.029
NAVOJOA NORTE	NVN-115	115	7.73	7.12	2.258+j8.291	2.560+j10.467	9.80	8.56	1.823+j7.226	2.551+j10.310
NAVOJOA ORIENTE	NVO-115	115	8.35	7.67	1.628+j7.782	1.857+j9.884	10.75	9.32	1.190+j6.691	1.833+j9.651
NAVOLATO	NTO-115	115	4.02	2.31	3.848+j16.079	13.779+j51.510	4.60	2.57	3.542+j15.491	13.800+j51.592
NOGALES	NGS-115	115	4.32	4.24	3.542+j14.966	3.785+j15.595	5.11	4.86	2.873+j14.001	3.818+j15.897
NOGALES AEROPUERTO	NGA-115	115	5.69	7.32	2.627+j11.368	0.290+j3.782	6.96	8.71	1.929+j10.316	0.322+j4.064
NOGALES AEROPUERTO	NGA-230	230	3.07	3.66	9.952+j42.147	1.943+j21.977	3.85	4.40	7.036+j37.302	2.173+j23.465
NOGALES NORTE	NGN-115	115	4.43	4.75	3.377+j14.585	2.279+j11.556	5.25	5.46	2.721+j13.639	2.327+j11.911
NOVILLO	NVL-115	115	2.00	0.86	6.601+j32.463	45.949+j158.166	7.07	6.64	0.798+j10.302	0.388+j6.545
NUEVO NOGALES	NNG-115	115	4.50	4.88	3.306+j14.390	1.543+j10.965	5.30	5.56	2.712+j13.519	1.656+j11.536
NUEVO PROGRESO	NPO-115	115	5.18	4.29	2.531+j12.560	4.702+j20.447	5.88	4.81	2.300+j12.208	4.619+j20.311
OASIS	OAS-115	115	2.52	1.57	9.294+j24.644	23.509+j70.132	2.90	1.76	8.770+j23.636	23.506+j70.147
OBSERVATORIO	OBS-230	230	6.17	5.39	5.464+j20.824	6.020+j30.781	7.75	6.35	4.011+j18.428	6.178+j30.831
OCUCA	OCU-115	115	3.30	2.53	5.328+j19.409	10.405+j37.004	4.04	2.95	4.284+j17.562	10.365+j36.748
OREJANA MANIOBRAS	ORE-230	230	3.73	3.22	6.314+j35.045	12.185+j51.395	5.12	4.03	3.611+j28.291	12.176+j50.582
ORIENTE	OTE-115	115	1.95	1.76	9.474+j32.628	10.497+j43.799	2.38	2.04	7.458+j29.711	10.640+j45.131
OVIACHIC	OVI-115	115	2.24	1.61	14.049+j26.047	24.555+j59.802	3.15	3.01	8.877+j21.419	4.059+j24.913
PARQUE INDUSTRIAL HERMOSILLO NORTE	PIH-115	115	12.86	14.12	1.093+j5.047	0.824+j3.713	17.77	18.28	0.681+j4.054	0.836+j3.740
PARQUE INDUSTRIAL MONTERREY - APODACA	PMA-115	115	4.49	4.86	3.311+j14.419	1.562+j11.023	5.28	5.54	2.719+j13.550	1.676+j11.595
PARTICULAR MINA ALAMO DORADO	PAD-115	115	1.59	0.97	16.456+j38.256	39.807+j114.619	2.02	1.53	13.146+j33.593	22.252+j67.947
PARTICULAR MINA PIEDRAS VERDES	PVD-115	115	1.96	1.35	17.697+j28.813	28.125+j74.995	2.34	1.75	15.588+j27.022	19.372+j60.297
PARTICULAR SAUZAL	PSZ-115	115	0.87	0.50	24.317+j72.526	73.170+j230.563	1.26	1.72	13.814+j56.185	0.452+j12.223
PIAXTLA	PXT-115	115	1.64	1.03	12.161+j38.694	30.826+j108.741	1.82	1.13	11.856+j38.399	30.856+j108.921
PLANTA GUAYMAS DOS	PGD-115	115	12.63	14.49	0.865+j5.186	0.351+j3.228	15.90	17.72	0.648+j4.549	0.372+j3.169
PLANTA GUAYMAS DOS	PGD-230	230	9.52	10.53	2.145+j13.786	1.597+j9.828	13.07	13.74	1.341+j11.096	1.643+j9.455
PLAYA ENCANTO	PYE-115	115	1.94	1.79	9.704+j32.908	10.018+j41.735	2.36	2.07	7.704+j29.976	10.128+j42.795
PORTALES	PRT-115	115	13.65	13.44	1.079+j4.742	1.018+j5.012	19.51	17.53	0.665+j3.684	1.026+j4.971
PROGRESO	PSO-115	115	5.62	3.83	2.092+j11.619	5.872+j27.759	6.46	4.29	1.922+j11.145	5.891+j27.849
PROVIDENCIA	PRO-115	115	15.04	17.07	0.700+j4.357	0.693+j2.765	18.83	20.50	0.522+j3.844	0.707+j2.816
PUEBLITOS	PUP-115	115	12.52	13.31	1.122+j5.185	0.995+j4.259	17.18	17.07	0.709+j4.191	1.006+j4.284
PUEBLITOS	PUE-115	115	12.65	13.44	1.111+j5.131	0.962+j4.230	17.41	17.27	0.698+j4.138	0.973+j4.255
PUEBLO NUEVO	PNO-115	115	10.38	10.88	1.209+j6.279	0.736+j5.479	13.98	13.86	0.771+j5.168	0.706+j5.217
PUEBLO NUEVO	PNO-230	230	7.26	7.50	3.600+j17.929	2.730+j16.346	11.40	10.69	1.915+j12.671	2.567+j14.740
PUERTO LIBERTAD	PLD-230	230	3.20	3.86	9.995+j40.289	2.867+j20.265	4.70	5.25	5.148+j30.655	3.028+j21.242
PUERTO PEÑASCO	PPA-115	115	2.06	2.12	8.937+j30.970	7.091+j28.671	2.53	2.47	6.932+j28.045	7.232+j29.998
QUILA	QLA-115	115	2.59	1.69	7.324+j24.564	6.130+j66.934	2.94	1.88	6.935+j23.880	6.142+j66.997
QUIROGA	QRG-115	115	12.00	12.97	1.562+j5.306	1.667+j4.007	16.58	16.82	1.145+j4.253	1.676+j3.971
RIO SONORA	RIS-115	115	16.15	20.45	1.112+j3.957	0.520+j1.455	24.86	30.04	0.682+j2.857	0.525+j1.398
ROLANDO GARCIA URREA	RGU-115	115	14.35	17.37	1.395+j4.410	1.110+j1.984	21.85	25.07	0.904+j3.217	1.078+j1.886

Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noroeste

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(1)}	3F	1F	Z _{TH(0)}	Z _{TH(1)}
ROSARIO	ROS-115	115	2.35	1.43	6.860+j27.353	19.072+j80.706	2.66	1.60	6.422+j26.747	18.564+j79.596
RUIZ CORTINEZ	RCO-115	115	5.42	3.99	2.389+j12.019	7.204+j24.477	6.14	4.44	2.230+j11.684	7.224+j24.582
SAHUARO	SHO-115	115	2.21	1.86	8.968+j28.642	10.449+j46.275	2.75	2.17	7.042+j25.636	10.479+j46.612
SALVADOR ALVARADO	SAA-115	115	7.17	6.88	2.109+j9.018	2.697+j10.065	8.93	8.12	1.680+j8.001	2.735+j10.118
SAN CARLOS	SCR-115	115	5.51	3.96	2.753+j11.729	7.043+j25.303	6.42	4.47	2.530+j11.099	7.067+j25.332
SAN NICOLÁS	SNC-115	115	1.80	1.43	14.257+j34.009	24.900+j60.498	2.05	1.61	13.765+j32.930	24.859+j60.085
SAN RAFAEL	SRF-115	115	6.54	5.41	2.381+j9.865	5.025+j15.750	7.86	6.22	2.033+j9.066	5.050+j15.799
SAN RAFAEL AMPLIACIÓN	SRA-115	115	6.54	5.41	2.381+j9.865	5.025+j15.750	7.86	6.22	2.033+j9.066	5.050+j15.799
SANALONA	SLA-115	115	2.55	1.90	11.947+j23.113	17.524+j50.131	3.09	3.21	10.301+j21.262	3.207+j21.482
SANTA ANA	STA-115	115	7.57	9.56	2.011+j8.535	0.288+j3.328	10.03	12.26	1.213+j7.181	0.273+j3.300
SANTA ANA	STA-230	230	5.01	5.82	7.058+j25.572	2.047+j15.421	7.13	7.79	4.000+j20.105	1.988+j15.221
SANTA MARÍA	STM-115	115	5.72	4.31	2.679+j11.284	6.925+j21.983	6.67	4.86	2.415+j10.688	6.945+j22.044
SEIS DE ABRIL	SSA-115	115	4.44	6.02	3.876+j14.437	0.223+j3.253	6.38	8.33	2.118+j11.244	0.248+j3.455
SEIS DE ABRIL	SSA-230	230	2.61	3.29	13.589+j49.013	1.598+j19.517	3.86	4.56	7.141+j37.181	1.772+j20.383
SELECTA	SEL-115	115	1.84	1.24	11.388+j34.233	28.516+j83.640	2.10	1.41	10.806+j33.071	27.652+j81.376
SERI	SER-230	230	11.33	14.16	2.166+j11.522	0.482+j4.755	16.95	19.90	1.042+j8.555	0.538+j4.922
SERI	SER-400	400	6.66	7.33	4.889+j34.338	2.585+j25.147	8.72	9.01	2.590+j29.012	2.823+j26.442
SIEMPRE VIVA	SVV-115	115	3.28	3.33	5.440+j19.489	6.492+j18.254	4.43	4.20	3.618+j16.095	6.457+j18.149
SONOYTA	SNY-115	115	0.81	0.57	23.897+j78.744	48.752+j180.712	0.93	0.63	21.716+j75.899	48.906+j182.072
SUBESTACIÓN BAHÍA DE KINO	SBK-115	115	1.79	1.43	16.391+j33.383	24.900+j60.498	2.03	1.60	15.901+j32.304	24.859+j60.085
SUBESTACIÓN CANANEA	SCN-115	115	7.49	8.66	1.429+j8.752	0.373+j5.383	8.39	9.49	1.140+j8.625	0.405+j5.735
SUBESTACIÓN CANANEA	SCN-230	230	7.84	7.71	4.703+j16.277	2.648+j18.202	10.08	9.28	3.387+j14.087	2.843+j18.278
SUBESTACIÓN CANANEA SUR	CNS-230	230	6.98	5.75	5.760+j18.139	6.773+j30.942	8.63	6.71	4.461+j16.318	6.935+j30.893
SUBESTACIÓN CENTRO	SCE-230	230	6.19	4.87	6.243+j20.516	8.711+j38.398	7.55	5.63	4.930+j18.718	8.873+j38.349
SUBESTACIÓN CINCO	SBI-115	115	3.30	2.67	4.804+j19.509	14.429+j31.618	3.86	3.04	4.318+j18.437	14.437+j31.394
SUBESTACIÓN COLINAS	SCL-115	115	11.43	10.08	1.288+j5.667	1.804+j7.965	15.48	12.49	0.858+j4.639	1.808+j7.972
SUBESTACIÓN CONCENTRADORA	SCO-230	230	6.15	4.89	6.499+j20.598	8.684+j37.726	7.44	5.64	5.210+j18.918	8.846+j37.677
SUBESTACIÓN CUATRO	SBC-115	115	3.07	2.24	7.160+j20.388	12.917+j44.011	3.60	2.61	6.588+j19.211	12.055+j41.750
SUBESTACIÓN CULIACÁN POTENCIA	SCP-115	115	13.58	17.74	1.022+j4.780	0.122+j1.473	18.48	23.08	0.623+j3.902	0.136+j1.541
SUBESTACIÓN CULIACÁN POTENCIA	SCP-230	230	8.19	10.29	3.543+j15.828	0.831+j6.288	11.17	13.35	2.102+j12.908	0.881+j6.474
SUBESTACIÓN DIEZ	SBZ-115	115	2.98	2.06	6.591+j21.255	13.955+j50.469	3.47	2.33	6.109+j20.167	13.906+j49.957
SUBESTACIÓN DOS	SBD-115	115	6.05	5.69	3.061+j10.530	2.918+j12.803	7.56	7.30	2.504+j9.335	2.065+j10.552
SUBESTACIÓN EL DORADO	SED-115	115	1.76	1.16	11.085+j35.967	18.508+j95.022	1.98	1.29	10.686+j35.293	18.520+j95.085
SUBESTACIÓN ESDE	SES-230	230	6.56	5.27	5.968+j19.334	7.757+j34.730	8.06	6.12	4.665+j17.519	7.920+j34.681
SUBESTACIÓN GUAYMAS UNO	SGU-115	115	10.65	9.95	1.133+j6.129	1.736+j7.373	13.11	11.70	0.913+j5.497	1.761+j7.403
SUBESTACIÓN NUEVE	SBN-115	115	1.78	1.19	12.934+j34.891	27.882+j89.392	2.03	1.34	12.358+j33.720	27.017+j87.127
SUBESTACIÓN OCHO	SBO-115	115	1.76	1.22	13.051+j35.479	26.258+j84.401	1.99	1.36	12.559+j34.399	26.217+j83.990
SUBESTACIÓN PERICOS	SPE-115	115	3.55	2.56	6.235+j17.656	14.240+j37.687	4.07	2.87	5.898+j16.968	14.253+j37.725
SUBESTACIÓN PONIENTE	SPO-230	230	6.14	4.88	6.504+j20.619	8.705+j37.800	7.44	5.63	5.216+j18.939	8.867+j37.751
SUBESTACIÓN PUNTO P	SPP-115	115	9.28	10.39	1.658+j6.959	0.825+j4.829	12.21	13.37	1.183+j5.861	0.785+j4.419
SUBESTACIÓN SANTA INÉS	STI-115	115	3.75	2.96	5.608+j16.778	9.082+j30.672	4.42	3.40	5.122+j15.691	9.041+j30.261
SUBESTACIÓN SEIS	SBS-115	115	2.58	1.93	6.998+j24.796	19.460+j48.263	2.97	2.17	6.508+j23.731	19.468+j48.039

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noroeste**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
SUBESTACIÓN SIETE	SBE-115	115	4.46	3.41	4.521+j14.171	7.491+j27.763	5.33	3.94	4.040+j13.080	7.442+j27.252
SUBESTACIÓN TRES	SBT-115	115	4.59	3.55	4.378+j13.780	7.631+j26.109	5.50	4.11	3.896+j12.689	7.591+j25.698
SUBESTACIÓN UNO	SBU-115	115	2.39	1.76	9.340+j26.133	16.947+j55.257	2.75	1.98	8.850+j25.050	16.906+j54.846
SUBESTACIÓN VILLA UNIÓN	SVU-115	115	9.39	9.13	1.755+j6.852	2.311+j7.365	11.48	11.37	1.363+j6.215	1.856+j6.328
TASTIOTA	TST-115	115	2.14	1.50	9.944+j29.418	22.103+j67.075	2.45	1.72	9.365+j28.252	21.239+j64.812
TECAPAN	TPN-115	115	1.42	0.84	11.286+j45.508	33.194+j140.945	1.58	0.93	10.827+j44.913	32.653+j139.794
TECNOLÓGICO HERMOSILLO	TEC-115	115	10.55	9.03	1.330+j6.154	2.150+j9.231	14.00	11.04	0.905+j5.139	2.158+j9.240
TETABIATE	TTB-115	115	12.08	12.34	1.040+j5.396	1.490+j4.956	15.22	15.46	0.797+j4.731	1.276+j4.358
TOBARITO	TBR-115	115	6.43	4.85	2.483+j10.016	5.849+j19.629	7.57	5.57	2.251+j9.382	5.758+j19.172
TOPOLOBAMPO	TPO-115	115	6.74	3.69	2.283+j9.590	8.882+j33.132	7.53	4.07	2.200+j9.444	8.892+j33.212
TOPOLOBAMPO	TPO-230	230	7.52	6.76	2.488+j17.477	4.235+j23.295	8.59	7.54	2.186+j16.861	4.302+j23.666
TOPOLOBAMPO DOS	TPD-400	400	12.12	15.16	1.796+j18.975	0.310+j7.608	13.90	16.96	1.266+j18.229	0.349+j8.294
TOPOLOBAMPO TRES	TPT-230	230	18.55	23.97	0.655+j7.129	0.112+j2.308	20.86	26.47	0.514+j6.984	0.122+j2.511
TRES RÍOS	TSR-115	115	12.24	13.42	1.188+j5.294	0.916+j3.892	16.33	18.19	0.773+j4.404	0.655+j2.974
UNIÓN ENERGÉTICA DEL NOROESTE	UEN-230	230	10.08	11.17	1.585+j13.083	1.217+j10.360	13.44	14.35	0.959+j10.828	1.306+j9.296
URES	URE-115	115	1.95	1.21	9.499+j32.612	26.993+j93.049	2.22	1.35	9.049+j31.592	27.011+j93.142
VALLE DEL MAYO	VMY-115	115	4.50	3.18	3.466+j14.351	9.919+j31.561	5.36	3.63	3.024+j13.279	9.925+j31.506
VALLE DEL YAQUI	VDY-115	115	5.20	3.87	4.069+j12.106	7.592+j24.855	5.96	4.33	3.901+j11.626	7.610+j24.932
VALLE DEL YAQUI DOS	VYD-115	115	3.82	2.46	4.465+j16.783	13.913+j44.016	4.37	2.77	4.230+j16.151	13.821+j43.558
VENADILLO	VND-115	115	9.86	9.73	1.380+j6.589	1.250+j6.940	11.51	11.02	1.090+j6.250	1.264+j7.112
VICAM	VCM-115	115	3.97	2.76	5.401+j15.807	10.474+j37.486	4.54	3.14	5.168+j15.231	9.749+j36.290
VILLA GUADALUPE	VGP-115	115	3.20	2.27	5.148+j20.085	16.388+j43.299	3.61	2.53	4.973+j19.614	16.407+j43.388
VILLA JUÁREZ	VJU-115	115	2.74	1.84	6.683+j23.274	17.837+j57.299	3.16	2.06	6.255+j22.265	17.855+j57.187
VILLAS DEL CEDRO	VCD-115	115	10.36	10.20	1.498+j6.229	2.065+j6.420	13.49	13.31	1.066+j5.307	1.661+j5.331
VILLAS DEL PITIC	VPI-115	115	14.48	17.68	1.360+j4.380	1.024+j1.886	21.93	25.44	0.876+j3.214	1.001+j1.804
VIÑEDOS	VNO-115	115	4.55	3.15	4.395+j13.923	10.274+j32.562	5.41	3.58	3.947+j12.919	10.279+j32.631

Gerencia de Control Regional Norte



Regresar a mapa del SEN

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
ABASTOS	ABA-115	115	19.73	19.19	0.811+j3.267	0.895+j3.695	24.51	23.00	0.636+j2.911	0.891+j3.617
ABRAHAM GONZÁLEZ	ABG-115	115	4.41	3.71	3.172+j14.725	5.710+j23.157	6.51	5.60	2.465+j10.941	4.645+j16.218
AEROPUERTO	AEP-115	115	11.76	10.92	1.389+j5.471	2.414+j6.567	15.75	13.65	1.019+j4.523	2.434+j6.479
AGNICO EAGLE	AGE-115	115	2.04	2.27	8.851+j31.265	2.226+j23.331	2.24	2.47	8.734+j31.350	2.277+j24.015
ALAMOS	AMS-115	115	12.23	8.95	1.148+j5.308	2.789+j11.211	14.62	10.32	0.958+j4.901	2.774+j11.056
ALDAMA	AMA-115	115	4.16	3.12	4.192+j15.392	12.406+j29.990	4.65	3.44	4.051+j15.192	12.421+j30.096
ALLENDE	ALL-115	115	17.73	13.04	0.929+j3.629	2.245+j7.624	21.78	15.21	0.748+j3.269	2.245+j7.539
ALTARES	ATR-115	115	0.73	0.49	40.992+j81.469	101.836+j198.073	0.81	0.54	40.358+j80.894	101.180+j197.293
ALTAVISTA	ALV-115	115	2.07	1.99	10.152+j30.402	9.168+j34.994	3.58	3.13	6.759+j19.244	7.940+j28.247
ÁLVARO OBREGÓN	AVO-115	115	4.28	3.70	4.817+j14.754	8.144+j21.725	4.76	4.08	4.666+j14.617	8.154+j21.869
AMADO NERVO	AMN-115	115	1.91	1.43	13.066+j32.147	23.620+j66.316	3.49	2.68	7.520+j19.543	13.853+j37.444
AMÉRICAS	AMR-115	115	10.77	9.76	1.418+j5.997	1.973+j8.144	12.27	10.84	1.283+j5.814	2.016+j8.307
ANAPRA	APR-115	115	6.94	5.77	1.807+j9.400	5.483+j14.493	8.59	6.88	1.406+j8.389	5.440+j14.098
ANDALUCÍA	AND-115	115	14.44	15.59	0.981+j4.491	0.399+j3.692	17.45	18.58	0.775+j4.114	0.390+j3.530
ANDALUCÍA	AND-230	230	10.62	11.18	2.486+j12.260	1.706+j10.874	13.74	14.21	1.665+j10.498	1.704+j9.910
ARCADIO	ADI-115	115	6.49	5.28	3.055+j9.772	6.710+j16.060	7.41	5.95	2.866+j9.425	6.703+j15.938
ARENALES	ARE-115	115	8.20	10.57	2.044+j7.835	0.436+j2.986	9.18	11.65	1.911+j7.725	0.449+j3.160
ARMENDÁRIZ	ARM-115	115	2.89	2.04	5.889+j22.225	17.151+j48.900	3.27	2.29	5.630+j21.647	17.089+j48.252
ASENCION	AON-115	115	4.67	4.82	2.587+j13.966	2.399+j12.816	5.24	5.33	2.443+j13.716	2.432+j13.118
ASENCION DOS	AOD-115	115	4.95	6.33	2.229+j13.215	0.264+j4.773	5.55	6.98	2.092+j12.990	0.300+j5.159
ASENCION DOS	AOD-230	230	2.85	3.23	7.550+j46.049	2.178+j30.162	3.24	3.59	6.889+j44.497	2.468+j32.350
AUMA	AUM-115	115	11.33	10.08	1.119+j5.755	1.993+j8.111	12.95	11.24	0.983+j5.552	2.012+j8.226
AUTOMOTIVE LIGHTING	ALI-115	115	10.18	8.97	1.613+j6.322	2.959+j8.696	19.48	19.19	0.744+j3.675	1.046+j3.891
AVALOS	AVL-115	115	16.76	20.47	0.784+j3.882	0.230+j2.113	19.53	23.14	0.650+j3.683	0.248+j2.230
AVALOS	AVL-230	230	11.04	12.90	2.513+j11.764	1.148+j8.020	13.55	15.17	1.940+j10.607	1.232+j8.262
AVANT ENERGÍAS RENOVABLES	AER-115	115	7.26	8.81	2.130+j8.889	0.481+j4.543	10.06	12.05	1.682+j7.064	0.483+j3.774
AZTECAS	AZT-115	115	11.93	11.12	1.332+j5.403	2.385+j6.412	16.08	14.00	0.952+j4.441	2.393+j6.268
BACIS	BAC-115	115	0.53	0.35	56.573+j110.508	139.619+j291.661	0.59	0.39	55.930+j109.944	138.951+j290.875
BASASEACHIC	BAS-115	115	2.42	2.88	7.347+j26.451	3.649+j14.024	2.66	3.14	7.221+j26.503	3.693+j14.650
BATOPILAS	BAT-115	115	4.18	2.81	3.699+j15.431	7.995+j38.586	4.93	3.89	3.167+j14.487	5.073+j26.248
BENITO JUÁREZ	BJZ-115	115	5.58	4.53	2.583+j11.621	7.791+j18.925	6.46	5.13	2.362+j11.048	7.793+j18.836
BERMEJILLO	BER-115	115	4.00	2.36	3.556+j16.202	12.735+j49.711	5.04	2.99	3.230+j14.140	11.474+j42.847
BIOPAPEL	BIO-115	115	4.33	4.24	3.444+j14.925	3.770+j16.135	6.16	5.82	2.941+j11.496	3.700+j13.596
BISMARCK	BSM-115	115	1.64	1.21	12.944+j38.467	30.324+j77.356	1.81	1.34	12.798+j38.255	30.363+j77.749
BOLÍVAR	BLV-115	115	1.58	1.42	11.871+j40.267	18.996+j52.798	2.15	1.78	9.713+j32.569	19.360+j52.168
BOQUILLA	BOQ-115	115	2.77	2.14	6.551+j23.068	16.020+j42.694	6.23	6.42	3.326+j11.250	1.701+j10.708
BÚFALO	BUF-115	115	2.45	1.82	8.162+j25.855	19.802+j52.134	3.92	2.99	6.087+j17.599	11.846+j34.122
CAHUISORI	CAH-115	115	2.50	3.17	7.053+j25.569	1.745+j10.094	2.75	3.44	6.932+j25.644	1.791+j10.759
CAHUISORI POTENCIA	CPO-115	115	2.54	3.31	6.845+j25.222	0.411+j8.399	2.79	3.59	6.726+j25.306	0.462+j9.082
CAHUISORI POTENCIA	CPO-230	230	1.45	1.71	23.392+j88.594	2.223+j51.705	1.61	1.87	22.536+j87.806	2.475+j55.504
CALIFORNIA	CFN-115	115	18.97	16.63	0.858+j3.394	1.356+j4.942	23.47	19.77	0.680+j3.036	1.355+j4.830
CAMARGO DOS	CGD-115	115	7.53	9.32	1.667+j8.658	0.232+j3.977	10.51	12.86	1.233+j6.836	0.274+j3.281

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
CAMARGO DOS	CGD-230	230	5.59	6.08	5.562+j23.099	2.102+j18.839	7.41	7.80	3.881+j19.334	2.080+j17.265
CAMARGO UNO	CGU-115	115	4.92	4.24	2.619+j13.240	3.934+j19.770	7.08	6.13	2.069+j10.110	3.606+j14.779
CANATLAN DOS	CND-115	115	4.78	5.51	2.778+j13.615	2.263+j8.322	5.60	6.50	2.358+j12.831	1.764+j7.617
CANATLAN DOS POTENCIA	CAP-115	115	4.86	5.89	2.645+j13.395	0.718+j6.686	5.69	6.86	2.238+j12.640	0.695+j6.420
CANATLAN DOS POTENCIA	CAP-230	230	3.25	3.48	7.497+j40.152	5.211+j33.342	3.95	4.08	5.899+j36.528	5.286+j33.650
CARICHIC	CRC-115	115	1.85	1.37	9.163+j34.724	29.449+j67.977	2.04	1.51	9.014+j34.575	29.458+j68.103
CAROLINAS	CAS-115	115	11.02	10.26	1.413+j5.855	2.211+j7.345	12.54	11.40	1.279+j5.683	2.233+j7.486
CARTAGENA	CAR-115	115	11.14	10.32	1.489+j5.772	2.323+j7.044	15.79	13.85	1.005+j4.514	2.159+j6.339
CASAS GRANDES	CGR-115	115	6.76	6.52	1.644+j9.682	2.338+j10.762	7.65	7.26	1.506+j9.423	2.363+j10.928
CATEDRAL	CAT-115	115	0.77	0.58	28.304+j81.652	68.177+j159.598	0.93	0.66	25.415+j74.255	68.546+j158.924
CATERPILLAR	CTP-115	115	11.26	10.29	1.410+j5.727	2.039+j7.398	13.30	11.90	1.220+j5.353	2.104+j7.249
CEBALLOS	CEB-115	115	1.05	0.63	25.792+j57.431	58.641+j184.199	2.13	1.32	13.451+j31.589	31.400+j92.174
CEMENTOS	CEM-115	115	9.29	7.54	1.822+j6.907	3.920+j11.621	10.86	8.62	1.621+j6.528	3.916+j11.447
CEMENTOS SAMALAYUCA	CMS-115	115	4.69	3.61	3.441+j13.718	10.473+j25.000	5.70	4.44	2.936+j12.484	9.273+j22.113
CEREZO	CER-115	115	7.18	6.03	2.169+j8.994	5.454+j13.604	9.21	8.05	1.669+j7.755	4.255+j10.718
CEREZO JUÁREZ	CEJ-115	115	6.62	5.45	2.365+j9.749	6.250+j15.413	8.38	7.13	1.865+j8.510	5.051+j12.527
CERRO DEL MERCADO	CME-115	115	8.17	8.48	1.893+j7.906	2.245+j7.119	9.72	9.83	1.594+j7.340	2.312+j7.094
CERRO DEL MERCADO	CME-115	115	13.90	15.32	1.041+j4.661	0.616+j3.424	19.41	20.10	0.657+j3.704	0.639+j3.425
CHALCHIHUITES	CHL-115	115	1.01	0.67	23.155+j61.736	69.862+j152.303	1.87	1.33	12.460+j37.068	33.340+j80.058
CHAMIZAL	CZL-115	115	13.09	12.80	1.193+j4.929	1.348+j5.273	19.23	18.61	0.744+j3.725	1.039+j4.155
CHARCOS	CHA-115	115	0.70	0.47	31.475+j88.900	98.941+j214.953	1.09	0.76	20.581+j63.944	61.297+j141.797
CHAVEÑA	CVA-115	115	11.86	11.25	1.338+j5.438	1.908+j6.244	16.62	14.99	0.899+j4.302	1.805+j5.669
CHÁVEZ UNO	CZU-115	115	9.74	8.97	1.610+j6.621	1.618+j8.564	12.04	10.76	1.228+j5.940	1.606+j8.192
CHIHUAHUA NORTE	CUN-115	115	13.42	14.95	1.099+j4.823	0.603+j3.679	15.34	16.64	0.968+j4.662	0.628+j3.832
CHIHUAHUA NORTE	CUN-230	230	9.53	9.20	2.950+j13.623	3.536+j16.225	11.51	10.61	2.359+j12.475	3.631+j16.453
CHIHUAHUA PLANTA	CUP-115	115	12.83	12.09	1.198+j5.033	1.796+j6.176	14.76	13.55	1.057+j4.835	1.807+j6.264
CHIHUAHUA PONIENTE	CPN-115	115	10.24	8.83	1.656+j6.268	3.134+j9.389	11.65	9.84	1.523+j6.081	3.147+j9.471
CHUVISCAR	CHU-115	115	15.47	18.07	0.871+j4.204	0.350+j2.732	17.94	20.31	0.737+j4.005	0.377+j2.874
CHUVISCAR	CHU-230	230	9.94	10.85	2.655+j13.094	1.769+j11.149	12.02	12.56	2.091+j11.967	1.877+j11.472
CIÉNEGA	CIE-115	115	0.56	0.36	58.366+j102.551	137.624+j286.977	0.62	0.40	57.687+j102.039	136.957+j286.191
CIÉNEGA DOS	CID-115	115	0.57	0.37	57.420+j101.362	135.741+j282.097	0.63	0.40	56.743+j100.847	135.074+j281.312
CLID	CLI-115	115	6.54	5.51	2.514+j9.843	7.231+j14.539	8.23	8.78	1.943+j8.662	1.675+j7.161
COLEGIO	CLG-115	115	11.12	10.26	1.544+j5.767	2.437+j7.093	17.42	15.03	0.918+j4.091	2.064+j5.968
COLINA	CLN-115	115	3.29	2.61	5.091+j19.558	11.644+j34.234	5.67	5.03	3.398+j12.430	5.600+j17.058
COMPLEJO DE SEGURIDAD	CSG-115	115	9.70	8.41	1.530+j6.673	3.274+j9.804	11.04	9.37	1.393+j6.470	3.291+j9.911
COMPLEJO INDUSTRIAL	CIN-115	115	10.93	10.28	1.482+j5.891	2.265+j7.188	12.45	11.45	1.345+j5.712	2.281+j7.305
COMPLEJO LALA	CLA-115	115	14.63	10.53	1.134+j4.395	3.076+j9.512	17.61	12.15	0.953+j4.036	3.076+j9.427
COMPONENTES	COM-115	115	11.76	11.74	1.355+j5.480	1.545+j5.770	13.40	13.06	1.222+j5.313	1.567+j5.911
CONCHEÑO	CON-115	115	1.97	2.07	9.562+j32.370	9.482+j27.570	2.16	2.26	9.445+j32.448	9.531+j28.241
CONCORDIA	CCD-115	115	13.91	14.38	0.962+j4.674	0.978+j4.510	16.06	16.14	0.826+j4.471	0.997+j4.626
CONEJOS MÉDANOS	CJM-115	115	2.52	1.80	6.595+j25.548	23.092+j53.548	3.31	4.09	4.714+j21.576	1.751+j9.307
CORONEL	CRN-115	115	8.52	5.92	1.560+j7.635	4.465+j17.636	9.97	6.73	1.330+j7.203	4.460+j17.520

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
CREEL	CRL-115	115	1.24	0.96	17.202+j50.674	39.504+j92.472	1.37	1.06	17.077+j50.688	39.580+j92.976
CUADRO DE MANIOBRAS BISMARCK	CMB-115	115	2.40	2.03	6.761+j26.812	15.891+j39.982	2.66	2.24	6.617+j26.595	15.929+j40.374
CUADRO DE MANIOBRAS CEMENTOS	CMC-115	115	4.96	3.84	3.247+j12.997	9.707+j23.259	6.05	4.77	2.743+j11.761	8.507+j20.371
CUADRO DE MANIOBRAS FOX	CMF-115	115	11.06	10.00	1.405+j5.838	2.825+j7.461	14.62	12.37	1.032+j4.887	2.842+j7.359
CUADRO DE MANIOBRAS FOX	CMF-115	115	2.54	2.93	7.272+j25.060	2.539+j15.948	4.03	4.24	5.296+j17.319	2.901+j15.335
CUADRO DE MANIOBRAS INTERNACIONAL WIRE	CMI-115	115	7.69	7.53	2.053+j8.392	3.407+j8.813	9.80	10.13	1.528+j7.296	1.940+j6.629
CUADRO DE MANIOBRAS LA PARRILLA	CMP-115	115	1.60	1.16	16.221+j38.293	30.460+j83.747	3.66	2.86	7.131+j18.636	13.115+j34.457
CUADRO DE MANIOBRAS NAICA	NAC-115	115	1.58	1.02	19.171+j37.326	37.326+j105.918	3.48	2.52	9.942+j18.489	16.780+j41.919
CUADRO DE MANIOBRAS NAICA	CMN-115B	115	1.37	0.97	22.668+j42.694	44.565+j100.518	3.48	2.52	9.942+j18.489	16.780+j41.919
CUADRO DE MANIOBRAS VITROMEX	VIM-115	115	13.62	14.06	1.032+j4.765	1.217+j4.577	15.71	15.79	0.894+j4.561	1.232+j4.682
CUATRO SIGLOS	CSS-115	115	10.12	9.37	1.793+j6.313	2.582+j7.736	13.65	11.83	1.318+j5.185	2.573+j7.503
CUAUHTÉMOC	CHC-115	115	7.24	7.63	2.558+j8.810	2.751+j7.633	8.12	8.45	2.416+j8.667	2.760+j7.763
CUAUHTÉMOC DOS	CHD-115	115	8.56	11.58	1.953+j7.509	0.115+j2.061	9.58	12.77	1.820+j7.400	0.128+j2.237
CUAUHTÉMOC DOS	CHD-230	230	5.27	6.74	6.422+j24.347	0.852+j10.209	6.07	7.57	5.767+j23.367	0.947+j10.918
CUESTA	CUE-115	115	12.54	11.79	1.369+j5.114	2.061+j5.997	17.60	15.59	0.928+j4.045	1.904+j5.558
DELICIAS	DEL-115	115	7.32	6.89	1.882+j8.872	2.904+j10.674	8.65	8.11	1.627+j8.286	2.764+j9.953
DELICIAS DOS	DLN-115	115	7.40	6.34	1.678+j8.820	6.128+j12.592	8.77	7.84	1.412+j8.208	4.531+j10.729
DELPHI	DPH-115	115	12.93	10.84	1.277+j4.974	2.755+j7.784	15.43	12.63	1.092+j4.605	2.734+j7.551
DELPHI	DLP-115	115	10.54	9.52	1.575+j6.100	2.786+j7.898	19.60	19.47	0.741+j3.651	1.027+j3.776
DIAGONAL	DGN-115	115	10.84	8.74	1.374+j5.967	3.203+j10.193	12.79	10.04	1.177+j5.587	3.225+j10.047
DINAMITA	DIN-115	115	4.55	2.93	3.431+j14.185	11.292+j37.403	5.29	3.37	3.201+j13.435	11.104+j35.811
DIVISADERO	DIV-115	115	0.93	0.68	24.980+j66.737	59.977+j136.821	1.03	0.75	24.858+j66.757	60.058+j137.333
DIVISIÓN DEL NORTE	DDN-115	115	14.39	16.30	1.018+j4.499	0.528+j3.257	16.55	18.25	0.889+j4.323	0.549+j3.383
DIVISIÓN DEL NORTE	DDN-230	230	9.70	9.62	2.786+j13.407	3.120+j14.980	11.68	11.10	2.224+j12.308	3.199+j15.157
DUNAS	DUN-115	115	3.79	2.75	4.475+j16.925	14.687+j34.572	4.51	3.29	3.970+j15.691	13.486+j31.684
DURANGO DOS	DGD-115	115	10.73	13.53	1.252+j6.057	0.257+j2.565	13.28	16.54	0.939+j5.417	0.302+j2.415
DURANGO DOS	DGD-230	230	7.30	8.45	3.379+j17.877	1.664+j11.553	9.39	10.49	2.337+j15.377	1.757+j11.317
DURANGO UNO	DGU-115	115	9.33	9.83	1.542+j6.946	2.007+j5.934	11.15	11.44	1.279+j6.427	2.030+j5.913
Duraplay	DUR-115	115	2.06	1.97	10.223+j30.635	9.417+j35.560	3.54	3.08	6.829+j19.479	8.189+j28.812
EL PILAR	ELP-115	115	2.80	1.85	6.036+j22.901	16.544+j57.977	3.30	2.93	5.222+j21.479	5.389+j30.163
EL SALTO	ESL-115	115	1.18	0.78	21.670+j51.854	63.944+j128.584	1.30	0.86	21.638+j51.796	64.009+j128.656
EL SAUCITO	SAU-115	115	9.97	8.58	1.610+j6.461	2.198+j9.966	11.33	9.48	1.474+j6.276	2.278+j10.213
EL SAUZ	ESZ-115	115	3.23	2.49	8.153+j18.891	14.861+j36.050	3.58	2.75	8.020+j18.735	14.886+j36.204
EL TRÉBOL	ETB-115	115	1.77	1.50	10.077+j36.164	11.356+j57.085	2.34	1.83	8.262+j30.150	11.440+j56.140
EL VERGEL	ELV-115	115	8.35	5.38	1.638+j7.777	4.765+j20.766	9.85	6.16	1.436+j7.278	4.716+j20.329
EMILIANO ZAPATA	EZT-115	115	3.86	3.01	5.498+j16.317	13.243+j29.253	4.31	3.34	5.368+j16.058	13.248+j29.239
ENCINO	ENO-230	230	14.79	20.41	1.726+j8.809	0.181+j2.929	18.80	25.44	1.222+j7.675	0.164+j2.783
ENCINO	ENO-400	400	6.90	8.17	5.038+j33.095	0.949+j21.269	8.34	9.50	3.543+j30.264	0.929+j21.899
ENCINO DOS	END-230	230	14.70	19.98	1.736+j8.863	0.260+j3.238	18.60	24.65	1.236+j7.754	0.262+j3.168
ESCALÓN	ESC-115	115	1.07	0.70	22.169+j57.803	58.191+j148.339	2.16	1.37	12.918+j31.231	31.067+j86.901
ESCUADRÓN 201	EDU-115	115	6.91	4.69	2.489+j9.274	8.009+j22.025	7.93	5.27	2.304+j8.920	8.009+j21.940
FELIPE PESCADOR	FPR-115	115	7.69	7.47	1.834+j8.437	3.334+j9.066	8.98	8.51	1.613+j7.975	3.356+j9.116

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Norte**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
FLEXTRONICS	FLE-115	115	12.26	11.94	1.124+j5.300	1.766+j5.610	16.57	15.04	0.745+j4.345	1.788+j5.615
FORD	FRD-115	115	11.69	11.74	1.343+j5.519	1.540+j5.691	13.31	13.06	1.209+j5.352	1.562+j5.832
FORD MANIOBRAS	FOM-115	115	12.10	12.38	1.289+j5.335	1.341+j5.239	13.79	13.78	1.156+j5.168	1.363+j5.379
FOXCONN DOS	FXD-115	115	4.52	2.20	2.704+j14.439	24.103+j56.685	5.36	2.49	2.300+j13.432	24.059+j56.289
FRANCISCO VILLA	FVL-115	115	9.76	10.75	1.216+j6.694	0.522+j5.166	11.81	13.10	0.965+j6.108	0.461+j4.519
FRANCISCO VILLA	FVL-230	230	7.40	7.77	4.179+j17.460	2.708+j16.221	9.49	9.73	3.008+j15.089	2.469+j14.815
FRANCISCO ZARCO	FZA-115	115	7.66	4.83	1.839+j8.474	5.163+j23.482	9.26	5.76	1.616+j7.718	4.976+j21.890
FRANCKE	FRC-115	115	25.01	29.92	0.553+j2.597	0.189+j1.506	32.05	37.49	0.386+j2.246	0.182+j1.445
FUENTES	FTS-115	115	10.10	9.11	1.783+j6.326	2.925+j8.248	14.13	11.93	1.247+j5.016	2.772+j7.674
FUENTES MARES	FMR-115	115	14.46	14.63	0.934+j4.497	0.884+j4.659	16.72	16.43	0.798+j4.295	0.902+j4.761
FUNDILAG	FDL-115	115	10.22	8.97	1.576+j6.301	2.751+j8.903	12.00	10.32	1.386+j5.927	2.806+j8.737
GALEANA	GNA-115	115	3.11	2.33	5.125+j20.748	16.270+j40.005	3.48	2.58	4.951+j20.364	16.285+j40.074
GAMMON LAKE	GML-115	115	1.93	2.08	9.264+j33.174	1.705+j27.521	2.12	2.27	9.146+j33.259	1.755+j28.205
GASASEACHIC	GAS-115	115	1.99	2.11	9.439+j32.005	9.075+j26.644	2.19	2.30	9.322+j32.082	9.123+j27.314
GAVILÁN	GAV-115	115	1.44	1.52	12.592+j44.456	7.097+j38.633	1.62	1.69	12.123+j43.440	7.465+j39.120
GÉMINIS	GEM-115	115	11.77	10.91	1.412+j5.464	2.443+j6.584	15.79	13.66	1.040+j4.508	2.460+j6.479
GENERAL TRÍAS	GTR-115	115	4.70	3.64	3.212+j13.762	10.421+j24.878	5.25	4.03	3.070+j13.570	10.433+j24.962
GÓMEZ PALACIO	GPL-115	115	25.62	32.90	0.532+j2.536	0.070+j1.043	32.96	41.78	0.365+j2.185	0.063+j0.982
GÓMEZ PALACIO	GPL-230	230	11.48	12.97	2.295+j11.342	0.692+j8.073	15.51	18.00	1.415+j9.308	0.488+j6.253
GRANJERO	GJO-115	115	11.60	10.99	1.389+j5.551	2.750+j6.182	15.64	13.83	0.982+j4.567	2.736+j6.105
GRUPO ESSEX MÉXICO	GEX-115	115	11.98	10.73	1.314+j5.385	2.095+j7.287	14.23	12.49	1.123+j5.009	2.125+j7.080
GUACHOCHI	GCH-115	115	0.64	0.48	27.999+j99.333	82.069+j190.673	0.77	0.55	25.579+j91.521	82.437+j190.001
GUADALUPE VICTORIA	GVR-115	115	1.90	1.43	13.205+j32.399	8.518+j70.662	2.16	1.70	12.559+j31.318	2.864+j63.160
GUADIANA	GDN-115	115	6.89	6.22	2.402+j9.333	4.545+j12.162	8.01	7.05	2.143+j8.858	4.607+j12.233
GUANACEVI	GVI-115	115	0.55	0.39	39.285+j115.296	108.968+j246.913	0.64	0.44	36.317+j108.003	109.338+j246.221
HACIENDAS	HDS-115	115	9.35	7.65	1.792+j6.869	3.435+j11.634	10.61	8.51	1.658+j6.684	3.449+j11.719
HÉRCULES	HCL-230	230	1.02	0.65	31.522+j126.903	88.525+j338.016	1.40	1.01	22.193+j101.948	49.750+j221.001
HÉRCULES POTENCIA	HCP-400	400	3.26	2.10	6.936+j70.562	49.242+j183.425	3.76	2.37	5.857+j67.230	49.073+j182.076
IBERDROLA	IEL-115	115	25.58	32.70	0.522+j2.543	0.068+j1.076	32.71	40.96	0.360+j2.204	0.071+j1.055
INDUSTRIAL JUÁREZ	INJ-115	115	13.40	13.25	1.236+j4.800	1.645+j4.878	18.84	18.00	0.829+j3.787	1.326+j4.334
INDUSTRIAS SUPERIOR	ISP-115	115	11.67	11.70	1.345+j5.530	1.555+j5.725	13.28	13.02	1.212+j5.363	1.576+j5.866
INSURGENTES	IGS-115	115	14.07	15.50	1.058+j4.600	0.590+j3.385	20.04	21.43	0.664+j3.584	0.547+j2.991
INTERCERAMIC	ITC-115	115	10.76	10.05	1.509+j5.983	2.369+j7.425	12.25	11.19	1.372+j5.804	2.386+j7.542
INTERMEX ORIENTE	INO-115	115	11.26	11.88	1.349+j5.743	3.598+j4.083	15.03	15.06	0.949+j4.766	3.585+j4.061
INTERMEX SUR	INS-115	115	11.69	11.63	1.271+j5.537	1.561+j5.572	15.66	14.60	0.886+j4.580	1.584+j5.573
INTERNATIONAL WIRE	INW-115	115	7.56	7.43	2.094+j8.524	3.431+j8.870	9.62	9.97	1.568+j7.428	1.965+j6.685
JABIL	JAB-115	115	10.67	9.93	1.522+j6.036	2.419+j7.538	12.14	11.06	1.385+j5.857	2.435+j7.655
JANOS	JOS-115	115	4.58	4.05	2.825+j14.215	5.339+j19.556	5.15	4.49	2.676+j13.932	5.358+j19.754
JARDÍN	JAR-115	115	14.71	12.78	1.074+j4.383	1.815+j6.462	17.88	15.24	0.878+j3.990	1.726+j6.125
JERÓNIMO ORTIZ MARTÍNEZ	JOM-115	115	11.22	14.24	0.998+j5.835	0.168+j2.358	13.38	16.57	0.821+j5.397	0.200+j2.474
JERÓNIMO ORTIZ MARTÍNEZ	JOM-230	230	8.56	10.39	2.582+j15.297	0.845+j8.115	10.90	12.82	1.773+j13.279	0.956+j8.049
JERÓNIMO ORTIZ MARTÍNEZ	JOM-400	400	5.18	4.94	6.185+j44.118	5.411+j51.981	6.25	5.67	4.083+j40.439	5.944+j53.745

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			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
JIMÉNEZ	JEZ-115	115	3.07	2.46	5.899+j20.773	13.976+j35.466	4.67	3.82	4.579+j14.939	8.797+j24.781
JOHN DEREÉ	JND-115	115	9.93	8.83	1.690+j6.469	2.861+j8.863	11.65	10.23	1.491+j6.089	2.820+j8.546
KILOMETRO OCHENTA Y OCHO	KOO-115	115	4.77	3.60	3.514+j13.469	7.375+j26.708	5.49	4.10	3.258+j12.889	7.313+j26.060
LA FLOR	LAF-115	115	1.59	1.15	9.645+j40.587	35.698+j82.533	1.77	1.28	9.464+j40.147	35.731+j82.651
LA LAGUNA	LGA-115	115	22.49	22.22	0.652+j2.880	0.652+j3.156	28.92	29.24	0.460+j2.483	0.443+j2.565
LA PARILLA	LPA-115	115	1.52	1.08	16.833+j40.422	33.144+j90.718	3.29	2.47	7.714+j20.797	15.796+j41.424
LA PERLA	LPL-115	115	1.06	0.76	22.664+j58.221	60.897+j121.742	3.57	3.74	5.508+j19.680	6.341+j16.801
LA ROSITA	LRT-115	115	7.90	6.33	3.206+j7.764	5.346+j13.776	9.20	7.19	2.992+j7.354	5.380+j13.669
LA SALADA	LSA-115	115	1.79	1.41	9.267+j35.950	25.680+j62.184	1.98	1.55	9.123+j35.733	25.719+j62.576
LA TRINIDAD	LTR-230	230	8.53	10.58	2.267+j15.395	0.654+j7.743	11.39	14.43	1.411+j12.742	0.396+j5.798
LAGOS	LAG-115	115	12.07	11.28	1.438+j5.311	2.286+j6.288	16.58	14.45	1.014+j4.288	2.256+j6.077
LAGUNA DEL REY	LRE-115	115	0.90	0.65	22.177+j70.669	42.034+j154.097	0.98	0.72	22.294+j70.818	44.142+j150.399
LAGUNA DOS	LGD-115	115	22.33	21.89	0.661+j2.899	0.669+j3.244	28.68	28.68	0.469+j2.503	0.465+j2.665
LAGUNA ENCINILLAS	LEN-230	230	3.80	2.61	5.741+j34.496	21.888+j80.847	4.39	2.93	5.030+j32.867	21.919+j80.920
LAGUNA SECA	LSC-115	115	9.55	8.95	2.017+j6.656	2.277+j8.138	11.27	10.28	1.794+j6.226	2.388+j8.111
LAJAT	LJT-115	115	13.87	11.75	1.067+j4.668	2.456+j7.105	16.64	13.77	0.882+j4.299	2.436+j6.872
LALA	LAL-115	115	18.66	16.94	0.812+j3.464	1.281+j4.635	23.33	21.29	0.620+j3.069	1.077+j4.056
LAS CUATAS	CUA-115	115	2.21	1.58	4.781+j29.724	26.607+j61.737	2.48	1.76	4.533+j29.078	26.605+j61.571
LÁZARO CÁRDENAS	LCS-115	115	5.28	4.04	2.585+j12.313	7.011+j23.473	6.11	4.68	2.322+j11.718	6.334+j22.268
LEÓN GUZMÁN	LGM-115	115	5.54	3.54	2.232+j11.771	9.954+j31.040	6.31	3.95	2.023+j11.397	9.968+j30.990
LEONI CABLE	LEO-115	115	8.04	9.52	2.085+j7.987	1.152+j4.614	9.00	10.50	1.952+j7.877	1.165+j4.788
LERDO	LED-230	230	10.76	10.94	2.591+j12.061	2.152+j11.988	13.97	13.85	1.759+j10.308	2.176+j11.086
LEXMARK	LEX-115	115	9.48	8.04	1.671+j6.800	3.928+j10.096	12.19	9.69	1.283+j5.851	3.946+j10.068
LEXMARK DOS	LXD-115	115	9.48	8.46	1.312+j6.877	3.289+j9.071	12.18	10.22	0.931+j5.924	3.311+j9.075
LIBERTAD	LTD-115	115	11.87	10.67	1.474+j5.395	2.418+j7.108	16.28	13.76	1.047+j4.361	2.238+j6.699
LÓPEZ MATEOS	LZM-115	115	3.54	3.39	5.118+j18.039	7.537+j20.296	3.92	3.72	4.971+j17.946	7.568+j20.577
LUCERO	LCR-115	115	3.39	2.42	6.247+j18.534	14.854+j40.823	3.88	2.72	5.858+j17.866	14.841+j40.451
MANIOBRAS BORDER SOLAR	BSN-230	230	8.06	8.30	2.931+j16.215	2.730+j14.886	11.80	14.73	1.613+j12.271	0.725+j5.363
MANIOBRAS CENTAURO	MAC-115	115	4.40	4.29	3.355+j14.717	3.857+j15.959	6.28	5.94	2.844+j11.275	3.716+j13.275
MANIOBRAS CERRO DEL MERCADO	MCM-115	115	7.72	7.65	2.037+j8.356	2.683+j8.665	9.13	8.76	1.745+j7.810	2.792+j8.756
MANIOBRAS CIENTO OCHO	MCO-115	115	4.50	3.81	4.556+j14.045	6.962+j21.961	5.01	4.21	4.405+j13.903	6.971+j22.104
MANIOBRAS EÓLICO PARRAS	PEP-115	115	1.33	1.68	14.292+j47.906	1.614+j20.563	1.42	1.78	15.054+j48.994	1.830+j22.332
MANIOBRAS FISTERRA	FIS-230	230	4.92	3.85	4.256+j26.630	12.077+j48.692	6.23	6.03	3.167+j23.237	3.595+j25.867
MANIOBRAS HUERTRO SOLAR DURANGO	MHS-230	230	4.14	4.59	5.700+j31.542	3.575+j23.300	5.16	5.46	4.243+j27.973	3.890+j24.082
MANIOBRAS LOS SANTOS SOLAR	LSN-115	115	11.86	14.04	0.783+j5.543	0.704+j3.028	14.85	17.24	0.542+j4.887	0.721+j2.896
MANIOBRAS MIELERAS	MMI-115	115	12.95	12.07	1.198+j4.986	1.662+j6.137	15.48	14.15	1.006+j4.609	1.688+j5.922
MANIOBRAS SABINAS	MAS-115	115	1.00	0.64	27.702+j60.134	72.549+j164.396	1.83	1.23	16.690+j36.258	35.789+j91.918
MANIOBRAS SANTA ROSA	MSR-115	115	3.97	3.06	4.073+j16.216	12.650+j29.570	4.43	3.38	3.925+j16.028	12.657+j29.648
MANIOBRAS TREINTA Y CUATRO	MTC-115	115	5.46	5.05	3.394+j11.667	5.776+j14.423	6.10	5.58	3.247+j11.517	5.784+j14.548
MANITOBA	MBA-115	115	5.21	4.57	3.651+j12.201	4.244+j17.936	5.81	5.05	3.509+j12.072	4.255+j18.087
MAPIMI	MPI-115	115	2.29	1.33	6.986+j28.102	21.291+j88.957	2.72	1.59	6.655+j26.041	20.025+j82.080
MASISA	MSS-115	115	6.35	5.90	2.470+j10.161	4.534+j12.321	7.42	6.73	2.169+j9.598	4.600+j12.296

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(0)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(0)}$	$Z_{TH(0)}$
MATAMOROS	MAT-115	115	11.64	10.09	1.364+j5.541	2.363+j8.125	13.81	11.69	1.158+j5.161	2.355+j7.965
MAYRAN	MAY-115	115	4.02	2.83	4.264+j15.943	12.358+j35.427	4.59	3.18	3.937+j15.410	12.347+j35.208
MÉDANOS	MED-115	115	10.27	8.69	1.444+j6.300	3.285+j9.493	13.49	10.63	1.036+j5.313	3.287+j9.382
MENONITAS	MEN-115	115	2.84	2.40	6.822+j22.357	13.854+j34.028	3.15	2.64	6.670+j22.239	13.875+j34.261
MEOQUI	MOQ-115	115	5.68	4.37	2.291+j11.464	7.533+j21.287	6.61	5.14	2.025+j10.862	6.485+j19.763
MESTEÑAS	MES-115	115	2.83	3.77	5.651+j22.777	0.189+j6.288	4.28	5.58	4.226+j16.541	0.276+j5.371
MESTEÑAS	MES-115B	115	0.99	0.70	24.814+j62.549	66.709+j132.909	4.27	5.54	4.238+j16.581	0.364+j5.535
MESTEÑAS	MES-230	230	1.69	2.05	19.874+j76.029	1.871+j38.414	2.47	2.93	14.124+j57.398	2.318+j32.399
MILENIO	MLN-115	115	8.88	9.12	1.520+j7.321	2.309+j6.738	10.46	10.47	1.299+j6.858	2.332+j6.789
MINA CERRO DEL MERCADO	CDM-115	115	7.60	7.16	2.090+j8.487	3.073+j10.086	8.97	8.16	1.798+j7.942	3.231+j10.253
MINERA AUTLÁN	MAU-115	115	13.82	10.04	1.032+j4.694	2.108+j10.165	16.58	11.56	0.845+j4.322	2.106+j10.091
MINERA AUTLÁN TAP	MAX-115	115	14.29	10.48	0.977+j4.544	1.999+j9.665	17.20	12.08	0.790+j4.173	1.997+j9.591
MINERA DEL TORO	MDT-115	115	0.99	0.66	23.388+j62.655	70.809+j154.452	1.82	1.30	12.691+j37.988	34.286+j82.206
MINERA DOLORES	MDO-115	115	0.81	0.64	24.103+j77.890	59.310+j138.648	0.90	0.70	23.992+j77.972	59.367+j139.334
MINERA HECLA	MHE-115	115	1.16	0.85	19.372+j53.989	9.239+j122.028	1.30	0.98	18.722+j52.906	3.555+j114.488
MINERA ROBLE	MRO-115	115	1.50	0.90	17.884+j40.579	46.885+j124.873	1.66	0.99	17.658+j40.244	46.900+j124.822
MINERA SAN JUAN	SAJ-115	115	0.65	0.47	34.669+j96.687	86.060+j199.616	0.77	0.54	31.607+j89.447	86.428+j198.939
MIRAVALLE	MIR-115	115	15.92	13.25	0.833+j4.086	1.455+j6.701	19.35	15.48	0.657+j3.718	1.447+j6.615
MOCTEZUMA	MCZ-115	115	13.01	16.99	0.650+j5.060	0.056+j1.629	16.49	21.41	0.412+j4.410	0.055+j1.465
MOCTEZUMA	MCZ-230	230	10.71	14.29	2.064+j12.228	0.230+j3.534	14.95	19.28	1.222+j9.691	0.247+j3.573
MOCTEZUMA	MCZ-400	400	5.23	6.18	6.072+j43.779	1.410+j25.451	6.65	7.48	3.778+j38.000	1.537+j26.874
MONTE VERDE	MTV-115	115	1.98	1.53	8.375+j32.476	5.549+j63.583	2.20	1.69	8.223+j32.197	5.568+j63.782
NAICA	NAI-115	115	1.60	1.03	18.495+j37.007	36.691+j104.626	3.47	2.51	9.961+j18.560	16.853+j42.183
NAMIQUIPA	NAM-115	115	1.88	1.49	9.381+j33.970	21.976+j59.925	2.08	1.63	9.237+j33.914	22.014+j60.317
NAZAS	NAZ-115	115	19.48	22.46	0.723+j3.330	0.240+j2.183	24.42	27.45	0.525+j2.944	0.255+j2.134
NAZAS	NAZ-230	230	10.63	11.22	2.556+j12.232	1.475+j10.910	13.79	14.18	1.721+j10.448	1.559+j10.219
NICOLÁS BRAVO	NCB-115	115	1.23	0.92	14.842+j51.752	40.913+j102.677	1.36	1.01	14.697+j51.697	40.952+j103.069
NOMBRE DE DIOS	NDD-115	115	11.16	10.41	1.443+j5.770	2.280+j7.202	12.74	11.60	1.304+j5.585	2.295+j7.312
NORTE III	CER-230	230	13.08	16.60	1.703+j10.005	0.231+j3.794	22.31	27.76	0.690+j6.510	0.307+j3.116
NUEVA HOLANDA	NHO-115	115	1.57	1.22	12.171+j40.522	15.828+j77.047	2.02	1.46	10.115+j34.673	15.911+j76.091
NUEVO CASAS GRANDES	NCG-115	115	8.10	10.09	1.161+j8.118	0.227+j3.418	9.16	11.22	1.031+j7.910	0.249+j3.640
NUEVO CASAS GRANDES	NCG-230	230	5.89	6.25	3.553+j22.283	2.113+j18.804	7.00	7.17	2.954+j20.654	2.292+j19.475
NUEVO IDEAL	NID-115	115	1.52	1.15	17.458+j40.004	38.661+j76.979	1.71	1.28	16.942+j39.323	38.090+j76.240
OASIS	OAS-115	115	1.54	1.19	12.658+j41.220	16.477+j79.591	1.98	1.42	10.566+j35.378	16.558+j78.628
OCAMPO	OCP-115	115	10.09	8.71	1.614+j6.380	3.288+j9.491	11.50	9.72	1.477+j6.179	3.299+j9.567
OJINAGA	OJI-115	115	0.84	0.61	26.154+j74.321	56.474+j158.412	1.01	0.70	23.895+j68.606	56.551+j157.437
ORIENTE VEINTIUNO	OTV-115	115	11.06	9.79	1.320+j5.859	2.732+j7.924	14.69	12.10	0.921+j4.885	2.740+j7.865
PAILA	PLA-115	115	0.94	0.91	21.850+j67.145	27.352+j74.589	1.01	0.98	22.727+j68.391	27.574+j76.368
PALMAREJO	PAL-115	115	0.66	0.46	37.223+j94.199	94.805+j213.681	0.72	0.50	37.106+j94.224	94.889+j214.198
PALOMAR	PMR-115	115	8.74	7.00	1.795+j7.381	3.551+j13.089	9.89	7.77	1.661+j7.199	3.566+j13.188
PALOMAS	PMS-115	115	1.53	1.17	11.386+j41.920	32.135+j76.742	1.69	1.29	11.240+j41.704	32.174+j77.135
PAPELERA CHIHUAHUA	PCH-115	115	10.84	9.80	1.310+j5.981	2.498+j8.040	12.39	10.93	1.173+j5.778	2.515+j8.147

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			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
PARQUE	PQE-115	115	14.63	16.31	1.099+j4.403	0.748+j3.069	21.76	23.83	0.648+j3.293	0.547+j2.525
PARRAL	PAR-115	115	1.95	1.80	10.847+j32.315	11.151+j41.391	3.45	2.91	7.082+j19.972	9.233+j31.872
PARRAS	PRA-115	115	1.18	1.28	16.252+j53.923	11.893+j43.789	1.26	1.37	17.124+j55.180	12.112+j45.565
PASO DEL AGULIA	PSA-115	115	10.91	7.59	1.548+j5.885	4.538+j13.485	12.83	8.64	1.364+j5.528	4.538+j13.400
PASO DEL NORTE	PNR-115	115	14.82	17.37	1.015+j4.363	0.335+j2.519	21.48	24.81	0.621+j3.343	0.291+j2.116
PASO DEL NORTE	PNR-230	230	8.20	8.82	3.054+j15.906	1.823+j12.757	12.03	13.55	1.685+j12.025	1.385+j8.359
PATRIA	PAT-115	115	10.57	8.90	1.471+j6.108	3.442+j9.260	13.93	10.88	1.066+j5.134	3.437+j9.197
PEDRICEÑA	PDA-115	115	1.61	0.96	16.941+j37.595	43.637+j117.502	1.79	1.06	16.715+j37.259	43.651+j117.451
PEÑOLES	PEL-230	230	9.49	8.98	3.032+j13.658	3.373+j16.456	12.02	11.08	2.182+j11.952	3.372+j15.437
PHILIPS	PHS-115	115	21.81	19.47	0.663+j2.971	0.780+j4.237	27.46	23.31	0.489+j2.614	0.776+j4.170
PONDERCEL	POE-115	115	5.60	6.17	3.063+j11.455	2.187+j8.722	6.22	6.74	2.944+j11.362	2.311+j9.087
POPULAR	PPR-115	115	5.06	3.72	4.451+j12.346	8.377+j26.112	5.91	4.24	4.065+j11.673	8.364+j25.740
PORVENIR	PRR-115	115	1.69	1.20	10.544+j37.793	34.089+j81.532	1.91	1.33	10.126+j36.865	34.281+j81.819
PUENTE DE NEGROS	PDN-115	115	2.40	1.72	8.549+j26.304	24.870+j55.620	5.59	4.96	3.747+j12.507	5.933+j17.280
PUERTO JUSTO	PTJ-115	115	1.72	1.59	11.313+j37.013	15.749+j45.116	2.38	2.02	9.081+j29.282	16.114+j44.476
QUEVEDO	QVD-115	115	5.14	6.60	2.919+j12.571	0.281+j4.743	5.70	7.20	2.777+j12.509	0.317+j5.129
QUEVEDO	QVD-230	230	3.01	3.63	10.276+j42.929	1.824+j22.812	3.39	4.01	9.578+j41.985	2.045+j24.444
QUINCE DE OCTUBRE	QDO-115	115	7.38	6.90	2.047+j8.760	3.892+j10.439	8.57	7.82	1.828+j8.319	3.924+j10.517
RANCHO LUCERO	RLO-115	115	11.70	8.27	1.199+j5.547	2.914+j12.552	13.87	9.45	1.007+j5.169	2.913+j12.475
RAYÓN	RYN-115	115	10.34	9.21	1.273+j6.296	2.072+j8.553	13.48	11.22	0.892+j5.343	2.094+j8.558
REFORMA	REA-115	115	16.67	21.01	0.829+j3.895	0.135+j1.539	24.53	29.86	0.470+j2.940	0.161+j1.480
REFORMA	REA-230	230	10.72	12.69	2.370+j12.158	0.822+j6.673	17.13	19.18	1.153+j8.447	0.952+j6.163
REGIO MÁRMOL	REM-115	115	4.23	2.73	3.709+j15.244	12.416+j39.959	4.90	3.14	3.479+j14.494	12.228+j38.367
REVOLUCIÓN	REV-115	115	10.26	2.83	1.668+j6.253	16.260+j55.314	12.06	3.15	1.470+j5.874	16.258+j55.193
RIO FLORIDO	RIF-115	115	3.02	2.44	5.728+j21.199	14.033+j35.356	4.16	3.89	4.570+j16.957	5.144+j20.694
RIVEREÑA	RVA-115	115	13.01	13.14	1.219+j4.954	1.384+j4.784	20.00	20.15	0.729+j3.579	0.990+j3.542
ROBERT BOSH	ROB-115	115	11.13	10.32	1.529+j5.764	2.546+j6.965	15.07	13.12	1.099+j4.720	2.498+j6.694
ROBINSON	RNN-115	115	12.20	11.58	1.120+j5.325	1.777+j6.400	14.01	12.95	0.983+j5.121	1.794+j6.508
RUIZ CORTINES	RCS-115	115	3.96	3.94	3.684+j16.355	2.965+j17.063	4.38	4.32	3.541+j16.294	3.001+j17.450
SABINAS	SAB-115	115	0.99	0.63	28.210+j61.059	73.718+j167.433	1.78	1.19	17.186+j37.214	36.957+j94.954
SACRAMENTO	SCT-115	115	19.02	17.97	0.691+j3.423	0.871+j4.178	23.63	21.87	0.510+j3.048	0.793+j3.924
SALVARCAR	SVC-115	115	11.35	10.27	1.329+j5.696	2.684+j7.269	15.09	12.71	0.943+j4.746	2.702+j7.241
SAMALAYACA SUR	SYS-230	230	11.35	12.14	2.053+j11.519	1.882+j9.352	21.28	24.56	0.705+j6.829	0.669+j4.669
SAMALAYUCA	SYC-230	230	11.53	12.53	2.014+j11.344	1.692+j8.708	22.33	27.37	0.639+j6.511	0.322+j3.534
SAN ANTONIO DE BELÉN	ABE-115	115	1.06	0.68	25.894+j56.905	68.421+j153.732	2.02	1.38	14.935+j32.910	31.681+j81.272
SAN BUENAVENTURA	SBV-115	115	3.09	2.28	5.179+j20.875	17.282+j41.265	3.47	2.53	4.985+j20.421	17.291+j41.275
SAN FRANCISCO DE BORJA	SFB-115	115	1.51	0.99	10.475+j42.626	35.409+j109.090	1.67	1.09	10.327+j42.439	35.417+j109.168
SAN FRANCISCO DEL ORO	SFO-115	115	2.33	2.48	8.282+j27.315	5.172+j22.793	3.55	3.43	6.293+j19.592	5.534+j22.180
SAN IGNACIO	SIG-115	115	2.29	1.65	7.711+j27.940	23.731+j58.066	2.61	1.85	7.295+j27.010	23.922+j58.352
SAN ISIDRO	SID-115	115	6.79	5.84	2.292+j9.503	4.203+j13.964	8.33	6.78	1.890+j8.564	4.391+j14.249
SAN JERÓNIMO	SJE-115	115	4.88	2.32	2.517+j13.361	23.157+j54.537	5.83	2.63	2.113+j12.353	23.113+j54.141
SAN MARTIN	MRT-115	115	0.99	0.63	27.944+j60.634	73.133+j165.914	1.80	1.21	16.931+j36.758	36.373+j93.435

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SAN PEDRO	SPD-115	115	6.24	4.57	2.530+j10.341	6.232+j21.510	7.27	5.20	2.206+j9.803	6.221+j21.291
SAN PEDRO POTENCIA	SPP-115	115	3.94	4.98	4.343+j16.265	0.520+j6.706	4.35	5.42	4.212+j16.264	0.581+j7.186
SAN PEDRO POTENCIA	SPP-230	230	2.32	2.65	14.527+j55.283	3.381+j37.564	2.60	2.91	13.746+j54.452	3.726+j39.745
SANTA BÁRBARA	BBA-115	115	2.42	2.66	8.136+j26.157	3.964+j20.147	3.76	3.73	6.190+j18.436	4.325+j19.538
SANTA MARÍA DEL ORO	SMO-115	115	0.77	0.58	26.720+j81.733	68.576+j158.560	0.94	0.67	24.020+j74.205	68.944+j157.880
SANTIAGO DOS	SGD-115	115	2.74	3.34	6.662+j23.294	0.625+j11.624	4.49	5.07	4.736+j15.543	0.987+j11.016
SANTIAGO DOS	SGD-230	230	1.57	1.80	23.586+j81.342	3.677+j53.720	2.42	2.55	16.360+j58.051	5.011+j52.104
SANTIAGO PAPASQUIARO	SGP-115	115	1.09	0.78	26.626+j54.760	61.618+j118.194	1.22	0.87	26.066+j54.124	61.012+j117.440
SANTIAGO UNO	SGU-115	115	2.68	3.22	6.912+j23.777	1.103+j12.710	4.35	4.82	4.982+j16.032	1.465+j12.102
SOMBRETERE	SOM-115	115	0.96	0.61	29.342+j62.679	76.030+j173.387	1.70	1.13	18.240+j38.966	39.253+j100.892
TABALAOPA	TBL-115	115	12.43	12.44	1.255+j5.193	1.735+j5.380	14.29	13.94	1.118+j4.989	1.749+j5.486
TACUBAYA	TBA-115	115	1.07	0.77	22.488+j57.723	60.375+j120.556	3.67	3.89	5.336+j19.176	5.819+j15.614
TAKATA	TAK-115	115	14.08	12.67	1.114+j4.581	1.949+j6.110	16.96	15.03	0.926+j4.206	1.907+j5.786
TECNOLÓGICO	TEC-115	115	10.85	10.28	1.631+j5.897	2.331+j6.781	14.58	12.94	1.193+j4.867	2.339+j6.628
TERRANOVA	TER-115	115	15.12	18.13	0.942+j4.288	0.274+j2.218	21.61	24.64	0.564+j3.333	0.296+j2.223
TERRANOVA	TER-230	230	10.36	11.69	2.466+j12.578	1.265+j8.444	16.88	17.80	1.157+j8.573	1.328+j7.683
TORREÓN	TRR-115	115	11.94	9.47	1.148+j5.439	2.656+j9.702	14.20	10.90	0.949+j5.055	2.675+j9.600
TORREÓN ORIENTE	TOT-115	115	15.56	13.79	1.040+j4.140	1.860+j5.748	18.89	16.34	0.855+j3.771	1.839+j5.516
TORREÓN SUR	TRS-115	115	18.35	19.88	0.758+j3.538	0.348+j2.869	22.78	25.01	0.568+j3.156	0.277+j2.434
TORREÓN SUR	TRS-230	230	11.15	13.01	2.315+j11.682	0.564+j7.188	14.50	17.28	1.513+j9.959	0.453+j5.665
TORREÓN SUR	TRS-400	400	6.92	7.59	5.620+j32.887	2.187+j25.370	9.07	10.15	3.417+j27.788	1.935+j19.748
TORRES	TOR-115	115	13.05	13.04	1.156+j4.953	1.688+j4.859	17.94	16.71	0.775+j3.997	1.706+j4.817
TRES HERMANOS	THS-115	115	0.81	0.57	31.802+j75.681	83.619+j166.284	2.23	2.04	10.344+j31.116	16.987+j38.704
TRES MANANTIALES	TMA-115	115	1.52	1.05	12.561+j41.935	30.740+j97.902	1.69	1.22	12.203+j41.341	29.614+j88.671
VADO SANTA MARÍA	VSM-115	115	1.69	1.89	9.334+j38.107	1.489+j27.132	1.87	2.06	9.201+j37.902	1.582+j28.661
VALLE DE JUÁREZ	VJZ-115	115	15.48	18.72	0.986+j4.173	0.246+j2.083	23.19	27.26	0.565+j3.098	0.240+j1.830
VALLE DE JUÁREZ	VJZ-230	230	9.27	10.28	2.808+j14.050	1.433+j10.091	14.44	14.98	1.411+j10.016	1.466+j9.385
VALLE ESPERANZA	VEZ-115	115	2.28	1.58	5.042+j28.693	27.171+j63.064	2.57	1.76	4.778+j28.062	27.169+j62.899
VALLE VERDE	VAE-115	115	16.31	14.15	1.001+j3.945	1.852+j5.788	19.88	16.71	0.819+j3.582	1.844+j5.620
VERDE INDEPENDENCIA UNO	VIU-115	115	8.27	6.88	1.451+j7.901	4.652+j12.170	10.39	8.16	1.069+j6.948	4.674+j12.174
VICENTE GUERRERO	VGR-115	115	1.36	0.90	18.248+j45.445	51.882+j111.994	3.33	2.53	7.855+j20.444	15.593+j39.942
VILLA AHUMADA	VAH-115	115	2.29	2.06	7.604+j27.951	12.565+j36.810	2.62	2.42	7.143+j26.928	10.476+j33.325
WERNER	WER-115	115	11.32	10.32	1.476+j5.676	2.682+j7.127	15.07	12.83	1.104+j4.721	2.699+j7.021
WRANGLER	WRA-115	115	7.59	6.61	1.643+j8.589	6.707+j11.523	9.01	8.02	1.383+j7.987	5.377+j10.283
YERMO	YMO-115	115	1.35	0.79	19.278+j45.441	49.802+j143.999	2.29	1.40	12.209+j29.520	30.005+j87.621
ZARAGOZA	ZZA-115	115	13.40	13.65	1.234+j4.800	1.452+j4.478	19.02	18.27	0.805+j3.755	1.404+j4.207

Gerencia de Control Regional Noreste



Regresar a mapa del SEN

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
ACERO	AEO-115	115	9.48	8.74	1.030+j6.928	1.560+j8.638	10.73	9.73	0.928+j6.741	1.568+j8.777
ACEROS PLANOS	APM-115	115	21.83	13.90	0.592+j2.983	1.675+j8.071	24.39	15.48	0.567+j2.940	1.649+j7.994
ACUÑA	AUA-138	138	5.41	5.79	2.663+j14.494	1.540+j11.752	6.54	6.72	2.280+j13.201	1.591+j12.240
ACUÑA DOS	ACD-138	138	5.52	5.89	2.330+j14.245	1.468+j11.661	6.97	7.03	1.775+j12.445	1.519+j12.165
AEROPUERTO	AER-138	138	21.79	25.27	0.607+j3.606	0.179+j2.143	23.80	27.23	0.586+j3.636	0.196+j2.287
AEROPUERTO	AER-230	230	20.16	24.06	1.028+j6.507	0.293+j3.373	22.68	26.61	0.914+j6.376	0.318+j3.572
AEROPUERTO	AER-400	400	14.62	15.81	2.464+j15.603	1.376+j12.168	17.57	18.36	1.980+j14.323	1.502+j12.496
AEROPUERTO NORTE	ANE-115	115	11.39	6.64	1.162+j5.711	4.061+j17.892	12.54	7.29	1.147+j5.709	4.068+j17.960
AEROPUERTO OMA MONTERREY	OMA-115	115	21.00	14.33	0.512+j3.120	1.634+j7.398	23.27	15.78	0.495+j3.100	1.636+j7.429
AFI STEEL FOUNDRY	ASF-115	115	18.97	14.27	0.563+j3.455	1.500+j6.812	20.52	15.48	0.562+j3.514	1.505+j6.889
AGUA NUEVA	AGN-115	115	7.96	6.06	1.114+j8.271	3.041+j15.884	8.67	6.60	1.115+j8.352	3.066+j16.083
AGUAS TRATADAS	ATM-115	115	12.80	9.23	0.819+j5.120	2.358+j10.966	15.27	11.27	0.693+j4.732	1.956+j9.684
ALAMO	ALM-115	115	12.71	9.52	1.210+j5.084	2.422+j10.199	13.87	10.39	1.205+j5.125	2.429+j10.284
ÁLCALI MANIOBRAS	ACM-115	115	23.93	24.59	0.330+j2.755	0.222+j2.542	25.62	26.03	0.338+j2.830	0.243+j2.705
ALCOA PRIVADA	APV-115	115	10.96	6.38	1.201+j5.935	4.238+j18.618	12.07	7.01	1.186+j5.933	4.245+j18.686
ALEN DEL NORTE	ADN-115	115	11.14	7.46	1.000+j5.877	2.920+j14.485	12.30	8.19	0.979+j5.859	2.929+j14.588
ALIANZA	ALL-115	115	6.13	4.67	2.495+j10.532	6.910+j19.915	6.70	5.09	2.494+j10.614	6.935+j20.113
ALLENDE	ALN-115	115	2.99	1.73	4.504+j21.725	21.089+j67.585	3.30	1.91	4.477+j21.681	21.069+j67.506
ALLENDE DOS	AED-138	138	5.96	4.58	2.174+j13.196	4.688+j24.962	6.89	5.15	1.969+j12.572	4.716+j25.140
ALMACENTRO DEFINITIVO	ALE-115	115	23.64	17.07	0.437+j2.774	1.201+j5.934	26.29	18.82	0.418+j2.746	1.205+j5.966
ALPES	ALP-115	115	17.86	12.83	0.590+j3.671	1.417+j7.976	19.37	13.95	0.589+j3.724	1.421+j8.046
ALTAMIRA	ALT-115	115	26.97	29.54	0.296+j2.444	0.169+j1.814	30.15	32.33	0.304+j2.403	0.187+j1.927
ALTAMIRA	ALT-230	230	21.40	25.25	0.525+j6.183	0.366+j3.370	22.91	26.81	0.512+j6.356	0.389+j3.588
ALTAMIRA	ALT-400	400	23.75	22.79	0.828+j9.690	1.910+j10.876	26.98	25.40	0.714+j9.389	1.997+j11.096
ALTAMIRA III Y IV	ATC-400	400	28.76	32.66	0.497+j8.014	0.427+j5.168	33.36	37.77	0.412+j7.604	0.413+j9.955
ALTAMIRA V	ATV-400	400	28.50	32.00	0.514+j8.086	0.503+j5.451	33.29	37.71	0.415+j7.620	0.413+j9.955
ALTAMIRANO	ATR-115	115	7.27	5.72	1.505+j9.011	3.326+j16.213	8.17	6.33	1.404+j8.826	3.337+j16.386
ALTOS HORNOS DE MÉXICO	AHM-400	400	8.78	7.57	3.959+j26.018	6.050+j38.369	11.19	8.95	2.801+j22.524	6.409+j39.267
AMERICAN INDUSTRIES	AIN-138	138	17.29	17.17	0.908+j4.519	0.868+j4.624	18.94	18.65	0.885+j4.542	0.884+j4.761
AMERICAN INDUSTRIES DULCES NOMBRES	AID-115	115	32.19	27.84	0.268+j2.045	0.549+j2.974	35.49	30.41	0.256+j2.042	0.553+j3.036
AMÉRICAS	AME-115	115	20.64	12.94	0.465+j3.183	2.754+j8.575	23.09	14.31	0.434+j3.133	2.754+j8.615
AMISTAD	AMI-138	138	3.15	2.74	5.323+j24.750	7.988+j35.863	4.40	3.41	3.286+j19.626	8.039+j36.369
AMPAD	AMP-138	138	10.43	10.54	1.351+j7.521	1.099+j7.320	11.39	11.39	1.335+j7.576	1.142+j7.620
ANÁHUAC	ANH-138	138	2.23	1.40	7.150+j35.076	20.084+j97.688	2.50	1.54	6.860+j34.383	20.156+j98.107
ANÁHUAC POTENCIA	ANP-115	115	19.86	26.18	0.444+j3.313	0.271+j0.897	20.84	27.36	0.471+j3.473	0.310+j0.965
ANÁHUAC POTENCIA	ANP-400	400	17.33	27.07	1.225+j13.267	1.929-j1.271	19.29	30.28	1.087+j13.126	2.153-j1.410
ANÁHUAC TAM.POTENCIA	ATP-230	230	15.16	19.49	1.011+j8.701	0.132+j2.930	16.86	21.47	0.921+j8.615	0.133+j3.086
ANÁHUAC TAM.POTENCIA	ATP-400	400	11.57	13.38	2.206+j19.842	0.736+j11.854	15.36	18.31	1.477+j16.473	0.425+j8.544
ANZALDUAS	ANZ-138	138	15.33	13.28	0.944+j5.110	1.460+j7.465	16.99	14.69	0.906+j5.078	1.450+j7.447
ANZALDUAS RODÉ	ANR-138	138	12.49	9.73	1.303+j6.243	2.539+j11.545	13.85	10.83	1.260+j6.201	2.480+j11.356
APASCO	APC-230	230	10.46	8.59	1.937+j12.547	4.613+j20.497	11.44	9.36	1.894+j12.632	4.658+j20.815
APODACA	APO-115	115	11.69	7.45	0.926+j5.603	3.456+j15.009	12.87	8.17	0.913+j5.601	3.465+j15.074

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
ARCO VIAL	ARV-115	115	23.49	21.34	0.387+j2.800	0.623+j3.630	25.33	22.95	0.391+j2.857	0.630+j3.729
ARROYO DEL COYOTE	ADC-138	138	9.10	11.90	1.609+j8.606	0.143+j2.595	10.93	13.98	1.330+j7.910	0.164+j2.770
ARROYO DEL COYOTE	ADC-230	230	4.77	5.34	4.694+j27.431	1.394+j18.917	5.65	6.09	3.950+j25.547	1.565+j20.226
ARROYO DEL COYOTE	ADC-400	400	3.57	3.72	8.931+j64.027	4.395+j57.039	4.45	4.36	6.632+j56.703	5.089+j60.235
ARTES GRAFICAS	AGR-115	115	10.64	8.07	0.981+j6.165	1.998+j12.035	11.61	8.72	0.982+j6.216	2.078+j12.364
ARVIN MERITOR	AVM-115	115	10.58	6.13	1.248+j6.150	4.420+j19.474	11.65	6.73	1.232+j6.148	4.427+j19.543
ATLAPEXCO	APX-115	115	2.16	2.03	6.738+j30.060	12.047+j34.481	2.37	2.23	6.710+j30.019	12.077+j34.733
AXTLA	AXA-115	115	1.17	0.62	16.617+j54.403	51.256+j199.596	1.28	0.68	16.645+j54.509	51.303+j199.643
AZTECAS	AZT-115	115	2.68	1.73	7.270+j23.663	20.627+j62.391	2.97	1.93	7.167+j23.536	19.917+j60.976
AZTLÁN	AZN-138	138	16.14	14.26	0.957+j4.844	1.443+j6.737	17.91	15.89	0.917+j4.807	1.398+j6.617
BAJÍO	BAO-115	115	2.23	1.63	6.830+j28.954	14.843+j61.273	2.57	1.82	6.510+j27.679	14.853+j61.658
BALL METAL BEVERAGE	BMB-115	115	23.80	15.88	0.482+j2.748	1.442+j6.813	26.59	17.67	0.461+j2.708	1.429+j6.751
BARRETAL	BET-115	115	3.47	2.32	7.160+j17.721	16.623+j44.840	3.78	2.53	7.182+j17.938	16.635+j45.003
BARRY CALLEBAUT	BAC-115	115	19.98	10.88	0.574+j3.273	2.434+j11.411	22.10	11.93	0.556+j3.257	2.453+j11.503
BASF	BSF-115	115	18.21	13.88	0.660+j3.586	1.445+j6.914	20.25	15.65	0.646+j3.548	1.401+j6.641
BASF	BSF-115B	115	18.51	14.14	0.640+j3.530	1.427+j6.772	20.86	17.38	0.606+j3.449	1.016+j5.512
BERLÍN	BRN-115	115	27.28	19.43	0.455+j2.391	1.573+j5.162	30.46	21.48	0.434+j2.358	1.576+j5.189
BICENTENARIO	BIC-115	115	9.89	9.55	1.128+j6.619	1.836+j7.207	10.53	10.20	1.156+j6.839	1.856+j7.386
BIOFILM	BFL-115	115	18.42	13.75	0.614+j3.551	1.492+j7.131	20.47	15.68	0.600+j3.517	1.389+j6.695
BLACK & DECKER	BAD-138	138	16.39	15.18	0.846+j4.788	0.981+j5.945	18.17	16.84	0.807+j4.755	0.953+j5.890
BOMBEO NUEVA CASTILLA III	BNC-115	115	9.41	5.69	1.323+j6.928	3.980+j20.496	10.40	6.21	1.303+j6.899	4.080+j20.852
BOMBEO PORVENIR	POR-115	115	3.18	2.27	6.390+j19.865	18.479+j42.212	3.49	2.49	6.401+j19.943	18.504+j42.261
BRAVO	BRA-115	115	2.02	1.27	9.663+j31.394	29.424+j85.741	2.21	1.40	9.698+j31.516	29.471+j85.780
CADEREYTA	CYN-115	115	15.24	11.70	0.603+j4.314	1.494+j8.179	17.48	13.03	0.555+j4.140	1.540+j8.318
CADEREYTA II	CDT-115B2	115	2.47	1.93	4.180+j26.565	16.298+j46.981	3.65	3.32	2.799+j19.786	6.519+j25.338
CADEREYTA II	CDT-115B1	115	2.53	2.30	4.095+j25.931	8.345+j32.977	3.66	3.33	2.813+j19.774	6.429+j25.139
CAMARGO	CAM-138	138	5.20	3.22	4.007+j14.785	11.158+j42.027	5.93	4.27	3.730+j14.294	7.162+j31.200
CAMPESTRE	CPR-138	138	7.14	7.27	2.075+j10.957	1.689+j10.434	8.42	8.33	1.787+j10.254	1.709+j10.605
CAMPO TAMAULIPAS	CTS-115	115	11.66	8.01	1.253+j5.555	3.226+j13.078	12.83	8.79	1.255+j5.554	3.236+j13.161
CAPELLANIA	CAP-115	115	13.28	9.33	0.911+j4.915	2.820+j11.020	14.45	10.17	0.911+j4.971	2.828+j11.104
CARBÓN DOS	CBD-400	400	11.22	12.17	2.430+j20.448	1.250+j15.741	22.62	26.35	0.689+j11.207	0.357+j6.468
CARPLASTIC	CIS-115	115	20.18	13.70	0.531+j3.247	1.715+j7.781	22.40	15.10	0.512+j3.221	1.717+j7.808
CASTECH	CAS-115	115	18.74	14.10	0.575+j3.497	1.535+j6.885	20.29	15.30	0.574+j3.554	1.540+j6.962
CATERPILA JAGUAR	CJR-115	115	10.21	5.90	1.290+j6.371	4.599+j20.266	11.24	6.48	1.274+j6.369	4.606+j20.334
CEDROS	CED-115	115	28.07	30.80	0.396+j2.332	0.198+j1.734	30.29	32.87	0.392+j2.379	0.212+j1.838
CEDROS	CED-230	230	13.09	13.13	1.589+j10.016	1.292+j10.007	14.18	14.03	1.562+j10.184	1.382+j10.566
CEJA	CJA-115	115	2.55	2.49	3.927+j25.781	7.278+j27.141	2.75	2.66	3.928+j26.245	7.698+j28.276
CELULOSA	CEL-115	115	30.47	21.11	0.404+j2.141	0.983+j4.980	34.16	23.43	0.381+j2.104	0.981+j4.981
CEMENTOS ANÁHUAC	CAN-115	115	13.66	12.76	0.874+j4.780	1.325+j5.748	14.54	13.69	0.901+j4.940	1.364+j5.817
CEMENTOS HIDALGO	CEH-115	115	6.61	4.52	2.565+j9.708	8.754+j22.367	7.28	4.97	2.549+j9.705	8.761+j22.435
CEMEX (VALLES)	CMX-115	115	7.18	5.32	2.388+j8.937	4.378+j18.468	7.77	5.79	2.417+j9.078	4.422+j18.513
CENTEC	CNE-115	115	10.53	7.19	1.431+j6.139	3.549+j14.688	11.51	7.85	1.428+j6.182	3.562+j14.794

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
CENTRAL	CEN-138	138	11.87	10.96	1.242+j6.595	1.384+j8.277	13.01	11.92	1.223+j6.626	1.406+j8.458
CENTRAL ANÁHUAC	CAH-230	230	15.13	19.46	1.007+j8.719	0.125+j2.920	16.82	21.43	0.918+j8.637	0.128+j3.084
CENTRAL DULCES NOMBRES	CDU-115	115	17.10	19.10	0.114+j3.882	0.053+j2.660	17.36	19.32	0.109+j4.205	0.059+j2.926
CENTRAL DULCES NOMBRES	CDU-400	400	31.36	33.44	1.175+j7.270	0.532+j5.975	38.35	41.15	0.906+j6.561	0.429+j5.258
CENTRAL DULCES NOMBRES II	DNO-115	115	42.99	43.96	0.194+j1.532	0.160+j1.422	47.22	47.53	0.185+j1.536	0.169+j1.496
CENTRAL IBERDROLA COGENERACIÓN RAMOS	ICR-115	115	18.20	14.96	0.534+j3.609	0.946+j5.985	19.56	16.01	0.540+j3.695	0.982+j6.178
CERRALVO	CER-115	115	2.92	2.29	6.433+j21.830	16.663+j38.322	3.22	2.51	6.355+j21.802	16.669+j38.567
CERRO PRIETO	CEP-115	115	1.96	1.32	6.942+j33.115	31.221+j78.009	5.36	4.56	2.076+j13.457	5.726+j20.083
CHAIREL	CHR-115	115	17.53	15.10	0.651+j3.732	1.833+j5.360	19.81	16.87	0.630+j3.633	1.841+j5.355
CHAMPAYAN	CPY-400	400	30.60	33.63	0.556+j7.527	0.673+j5.507	35.15	38.63	0.462+j7.213	0.644+j5.272
CHAPACAO	CHW-115	115	4.34	3.07	4.004+j14.766	13.754+j31.681	4.76	3.37	4.009+j14.812	13.778+j31.735
CHRYSLER CAMIONES PLANTA MOTORES SUR	CPS-115	115	12.45	9.73	0.910+j5.253	2.056+j9.600	13.49	10.52	0.910+j5.335	2.080+j9.798
CHRYSLER DE MÉXICO	CYM-115	115	12.72	8.78	0.900+j5.142	2.500+j11.997	13.84	9.58	0.899+j5.200	2.505+j12.075
CHRYSLER PLANTA CAMIONES	CYC-115	115	12.64	9.97	0.879+j5.181	1.998+j9.265	13.69	10.77	0.878+j5.263	2.023+j9.463
CIBIOSA (FERSINSA)	CIB-115	115	11.56	7.73	1.060+j5.646	3.356+j13.885	12.59	8.44	1.061+j5.704	3.365+j13.968
CIFUNSA	CIF-115	115	18.61	15.06	0.676+j3.504	1.197+j5.974	20.23	16.33	0.673+j3.547	1.210+j6.083
CIMA	CIM-138	138	11.32	11.33	1.265+j6.926	0.975+j6.948	12.39	12.27	1.246+j6.963	1.011+j7.210
CIUDAD INDUSTRIAL	CID-138	138	7.32	8.18	2.158+j10.674	0.870+j7.429	8.63	9.33	1.879+j9.979	0.934+j7.828
CIUDAD INDUSTRIAL	CID-230	230	4.67	4.97	5.192+j27.975	2.805+j23.084	5.55	5.69	4.406+j25.958	2.989+j24.255
CLOSURES INTERIORES	CLI-138	138	11.50	9.05	1.378+j6.788	2.648+j12.281	12.62	9.89	1.358+j6.810	2.661+j12.417
CODEFRONT	CFT-138	138	2.86	2.07	4.363+j27.564	10.435+j58.607	3.22	2.30	4.079+j26.870	10.500+j59.007
COMPAÑÍA CERVECERA DE COAHUILA	CVC-138	138	9.22	7.88	1.389+j8.532	2.521+j12.813	10.99	8.99	1.180+j7.885	2.592+j13.063
CONCEPCIÓN DEL ORO	CDO-115	115	1.54	0.86	15.584+j40.196	50.502+j137.033	1.69	0.94	15.600+j40.265	50.531+j137.238
CONDUCTORES MONTERREY	CDY-115	115	22.81	16.63	0.506+j2.867	1.422+j5.996	25.43	18.29	0.483+j2.832	1.429+j6.071
CONEK	CNK-115	115	22.76	20.25	0.404+j2.889	0.694+j3.946	24.57	21.80	0.408+j2.945	0.701+j4.045
CONEK	CNK-115	115	23.13	20.79	0.394+j2.844	0.657+j3.786	24.95	22.37	0.398+j2.900	0.664+j3.885
CONEK II	COK-115	115	22.76	20.25	0.404+j2.889	0.694+j3.946	24.56	21.80	0.408+j2.945	0.701+j4.045
CONTEC MEXICANA	CON-115	115	48.22	53.26	0.182+j1.365	0.074+j0.978	53.24	57.79	0.169+j1.361	0.079+j1.039
CONTROLADORA DE TERMINALES	COT-115	115	15.84	8.96	0.773+j4.119	2.802+j13.568	17.54	9.81	0.754+j4.095	2.839+j13.716
CONTRY	CNY-115	115	24.74	15.84	0.462+j2.644	1.409+j7.067	27.71	17.65	0.438+j2.599	1.394+j7.005
CORONA	CRO-138	138	9.36	8.03	1.375+j8.401	2.490+j12.519	11.18	9.17	1.164+j7.751	2.558+j12.758
CORPORATE PROPERTIES OF AMÉRICA	CPA-115	115	10.21	5.92	1.286+j6.377	4.596+j20.135	11.24	6.50	1.270+j6.375	4.603+j20.204
CRUZ DE ATAQUE	CRQ-115	115	0.85	0.66	15.918+j76.679	58.010+j134.032	0.93	0.73	15.838+j76.548	58.026+j134.155
CRYOINFRA	CRY-115	115	6.15	6.07	2.388+j10.527	1.155+j11.246	16.78	14.36	0.868+j4.265	1.121+j6.462
CRYOINFRA SCMS	COF-115	115	45.18	37.13	0.251+j1.448	0.363+j2.397	50.79	41.01	0.231+j1.419	0.369+j2.438
CUADRO DE MANIOBRAS EL MEZQUITTE	CMM-230	230	7.68	6.90	2.376+j17.118	4.476+j22.729	8.41	7.49	2.345+j17.220	4.520+j23.320
CUADRO DE MANIOBRAS EÓLICA DE COAHUILA	MEH-230	230	5.92	7.38	2.898+j22.227	1.104+j9.130	6.49	8.01	2.859+j22.339	1.176+j9.676
CUADRO DE MANIOBRAS MAMULIQUE	MMQ-115	115	5.49	5.93	3.003+j11.715	1.527+j9.311	6.06	6.39	2.973+j11.671	1.729+j10.053
CUADRO DE MANIOBRAS PROMAX	MPX-115	115	32.85	15.38	0.387+j1.984	1.572+j8.769	36.82	16.87	0.365+j1.949	1.611+j8.880
CUADRO MANIOBRAS DE ABSORMEX	MBX-115	115	19.88	16.05	0.570+j3.291	1.083+j5.626	22.44	19.60	0.538+j3.210	0.776+j4.608
CUADRO MANIOBRAS EÓLICO SANTA CATARINA	MEO-230	230	15.39	12.31	1.166+j8.547	3.605+j14.722	16.87	13.42	1.111+j8.589	3.645+j14.956
CUATRO CIÉNEGAS	CCE-115	115	1.63	1.07	16.127+j37.383	37.040+j97.554	1.80	1.18	16.008+j37.176	37.052+j97.742

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
CUMBRES FRONTERA	CUF-138	138	21.25	24.12	0.624+j3.698	0.241+j2.402	23.43	26.33	0.594+j3.694	0.252+j2.492
CUMBRES FRONTERA	CUF-230	230	15.46	15.95	1.169+j8.509	0.924+j7.745	17.08	17.36	1.079+j8.483	0.968+j8.080
CUMBRES ORIENTE	CBO-115	115	15.20	10.41	0.590+j4.327	2.251+j10.163	16.71	11.43	0.580+j4.331	2.254+j10.209
CUMBRES PONIENTE	CMN-115	115	18.16	12.94	0.505+j3.621	1.703+j7.908	19.97	14.19	0.494+j3.623	1.706+j7.953
DE ACERO	DEA-230	230	10.67	9.50	1.923+j12.291	3.007+j16.827	11.59	10.23	1.898+j12.460	3.097+j17.385
DE ACERO POTENCIA	DEP-400	400	22.43	14.78	1.342+j10.210	2.856+j26.151	25.62	15.97	1.137+j9.850	3.165+j27.725
DECOFINMEX	DFX-138	138	11.66	10.39	1.324+j6.701	1.747+j9.191	12.79	11.33	1.305+j6.729	1.762+j9.338
DELNOSA	DNS-138	138	13.99	11.43	1.067+j5.595	1.810+j9.346	15.46	12.54	1.031+j5.575	1.822+j9.451
DENSO	DSO-115	115	10.40	6.46	1.085+j6.291	3.700+j17.697	11.48	7.10	1.067+j6.270	3.707+j17.771
DENSO GUADALUPE	DGP-115	115	3.68	2.58	2.631+j17.832	10.106+j39.994	12.92	8.50	0.907+j5.581	3.149+j14.128
DERRAMADERO	DER-115	115	21.45	20.53	0.407+j3.068	0.387+j3.496	22.99	21.76	0.406+j3.151	0.412+j3.694
DERRAMADERO	DER-400	400	11.32	9.28	2.434+j20.260	5.332+j33.490	12.78	10.19	2.156+j19.758	5.621+j34.620
DÍAZ ORDAZ	DOR-138	138	6.01	3.91	3.274+j12.854	8.668+j33.554	6.72	4.58	3.157+j12.657	7.544+j30.392
DINASTÍA	DNA-115	115	24.41	16.70	0.502+j2.673	1.233+j6.370	27.55	19.17	0.469+j2.610	1.121+j6.021
DIRONA	DIR-115	115	15.03	8.74	0.837+j4.338	2.703+j13.685	16.65	9.55	0.817+j4.310	2.759+j13.893
DIRONA Y FORJA	DFO-115	115	15.06	8.73	0.833+j4.329	2.735+j13.743	16.69	9.54	0.813+j4.301	2.788+j13.942
DOFASCO DE MÉXICO	DAO-115	115	15.35	8.77	0.808+j4.249	2.799+j13.767	17.00	9.60	0.788+j4.224	2.844+j13.938
DULCES NOMBRES AYD	RDN-115	115	7.83	4.84	1.563+j8.330	5.755+j23.526	8.64	5.33	1.545+j8.306	5.757+j23.553
DYNASOL	DYN-115	115	17.40	13.58	0.725+j3.746	1.595+j6.864	19.20	14.87	0.727+j3.733	1.607+j6.952
EARTH TECH	ETH-115	115	8.34	4.02	1.244+j7.859	6.976+j32.948	9.51	4.46	1.162+j7.589	7.001+j33.038
ÉBANO	EBN-115	115	4.43	3.13	4.158+j14.406	13.358+j30.935	4.86	3.44	4.161+j14.439	13.383+j30.996
EL ABRA	ABR-115	115	2.34	1.62	8.916+j26.886	16.885+j64.127	2.67	1.94	8.382+j26.037	13.170+j56.565
EL CANADÁ	ECN-115	115	15.25	10.02	0.827+j4.274	1.912+j11.016	16.91	10.90	0.807+j4.243	1.990+j11.289
EL COCO	COC-115	115	19.51	25.26	0.464+j3.372	0.335+j1.042	20.48	26.46	0.490+j3.532	0.374+j1.110
EL CUCHILLO	CCL-115	115	6.19	7.28	1.025+j10.670	0.595+j5.904	6.56	7.66	1.003+j11.094	0.628+j6.299
EL CUCHILLO	CCL-230	230	6.23	5.72	3.255+j21.062	4.132+j26.727	7.06	6.29	3.042+j20.464	4.420+j27.906
EL FRAILE	FRA-400	400	27.84	28.81	0.840+j8.254	0.761+j7.424	30.99	31.33	0.737+j8.163	0.803+j7.900
EL GUERREÑO	GRR-138	138	19.93	23.89	0.632+j3.947	0.116+j2.016	22.03	26.03	0.595+j3.933	0.129+j2.147
EL GUERREÑO	GRR-400	400	12.34	12.47	2.621+j18.527	2.474+j17.963	14.88	14.53	2.087+j16.943	2.633+j18.109
EL HIGO DOS	HGD-115	115	2.42	1.56	5.254+j26.954	20.583+j70.354	2.65	1.71	5.294+j27.078	20.612+j70.473
EL PORVENIR	EPR-138	138	8.46	7.63	1.916+j9.224	1.726+j12.365	9.23	8.20	1.916+j9.298	1.869+j12.958
EL REGIONMONTANO	RGM-115	115	27.54	27.37	0.260+j2.397	0.267+j2.439	31.92	31.06	0.232+j2.276	0.282+j2.460
EL REGIONMONTANO	RGM-400	400	20.81	17.69	1.483+j10.999	3.108+j16.691	24.26	20.17	1.243+j10.399	3.147+j16.568
ELECTRICIDAD ÁGUILA ALTAMIRA	EAA-400	400	28.56	31.99	0.510+j8.070	0.514+j5.493	33.15	37.06	0.423+j7.652	0.489+j5.237
ELENA	ELN-115	115	15.60	16.22	0.698+j4.199	0.584+j3.729	17.90	18.71	0.642+j4.031	0.544+j3.511
EMERSON	EMR-138	138	11.33	8.51	1.434+j6.885	2.896+j13.709	12.50	9.34	1.401+j6.870	2.912+j13.833
EMERSON DOS	EMD-138	138	12.71	10.16	1.317+j6.130	2.468+j10.698	14.08	11.32	1.276+j6.092	2.403+j10.518
EMPALME	EML-138	138	7.09	4.92	2.571+j10.933	6.124+j25.409	7.82	5.40	2.541+j10.920	6.139+j25.532
ENERGÍA MK KF	KAF-115	115	19.38	15.48	0.600+j3.373	1.154+j5.909	21.57	17.45	0.587+j3.334	1.124+j5.675
ENERTEK	ETK-115	115	23.26	21.89	0.400+j2.826	0.485+j3.360	25.99	24.90	0.385+j2.784	0.448+j3.149
EÓLICA CIUDAD VICTORIA	ECV-115	115	12.42	14.73	2.716+j4.604	0.432+j2.983	13.17	15.50	2.737+j4.822	0.460+j3.183
EÓLICA GUADALUPE MANIOBRAS	EGM-400	400	10.12	9.49	2.160+j22.714	3.423+j27.183	11.17	10.28	2.059+j22.659	3.624+j28.414

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noreste**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(+)}$	$Z_{T(0)}$	3F	1F	$Z_{T(+)}$	$Z_{T(0)}$
EÓLICA LA MESA	ELM-115	115	8.03	9.44	1.489+j8.130	0.502+j4.545	8.60	10.00	1.523+j8.359	0.555+j4.891
ESCOBEDO	ESC-115	115	54.56	55.67	0.173+j1.205	0.111+j1.140	60.29	60.26	0.157+j1.201	0.118+j1.208
ESCOBEDO	ESC-230	230	22.06	20.32	0.791+j5.968	1.071+j7.492	24.29	21.97	0.729+j5.969	1.145+j7.835
ESCOBEDO	ESC-400	400	29.03	29.03	1.338+j7.841	1.220+j7.867	34.66	33.49	1.090+j7.247	1.257+j8.000
ESPERANZAS	ESP-115	115	2.28	1.66	6.850+j28.260	14.322+j60.212	2.62	1.86	6.525+j27.066	14.332+j60.596
ESTANZUELA	ETZ-115	115	21.49	11.24	0.560+j3.039	2.277+j11.320	24.01	12.48	0.536+j2.994	2.258+j11.242
ESTANZUELA	ETZ-115B	115	21.53	11.35	0.568+j3.031	2.243+j11.155	24.06	12.62	0.544+j2.986	2.224+j11.077
ESTRELLA	ELL-115	115	7.16	5.11	1.569+j9.145	4.341+j19.998	7.69	5.53	1.593+j9.362	4.349+j20.147
FALCÓN MEXICANO	FAM-138	138	4.91	2.96	4.284+j15.639	12.507+j46.632	5.84	5.36	3.688+j14.560	2.188+j18.983
FARO	FAR-115	115	20.32	13.60	0.610+j3.210	1.606+j7.949	22.65	15.05	0.586+j3.170	1.606+j7.950
FÉLIX U. GÓMEZ	FUG-115	115	31.28	22.52	0.383+j2.088	0.873+j4.513	35.17	25.17	0.359+j2.045	0.861+j4.470
FINSA	FIT-115	115	11.87	8.59	0.833+j5.533	2.284+j11.795	12.94	9.33	0.834+j5.583	2.315+j11.976
FINSA	FIS-115	115	17.85	14.62	0.615+j3.668	1.334+j6.051	19.43	15.89	0.610+j3.709	1.344+j6.141
FINSA GUADALUPE	FIG-115	115	23.81	15.89	0.481+j2.747	1.440+j6.807	26.59	17.68	0.461+j2.708	1.428+j6.746
FINSA LAREDO	FIL-138	138	7.29	7.45	2.368+j10.665	2.131+j10.020	8.63	8.55	2.071+j9.948	2.154+j10.199
FIRESTONE	FRS-115	115	11.73	6.88	1.105+j5.550	3.848+j17.198	12.92	7.56	1.089+j5.548	3.855+j17.266
FLEX AMÉRICAS	FME-115	115	16.91	12.82	0.439+j3.901	1.473+j7.555	18.84	14.33	0.421+j3.854	1.457+j7.415
FOMERREY	FOM-115	115	11.13	7.44	1.002+j5.881	2.933+j14.544	12.28	8.17	0.982+j5.865	2.942+j14.647
FREIGHTLINER	FRI-115	115	15.85	13.05	0.593+j4.148	1.138+j6.794	17.10	14.02	0.592+j4.230	1.162+j6.993
FRISA	FSA-115	115	19.68	17.17	0.423+j3.348	0.803+j4.791	21.24	18.45	0.429+j3.412	0.821+j4.934
FRONTERA	FRO-115	115	11.77	14.73	0.721+j5.597	0.134+j2.232	13.47	16.52	0.607+j5.386	0.145+j2.418
FRONTERA	FRO-230	230	10.49	12.44	1.856+j12.517	0.562+j6.701	12.56	14.41	1.434+j11.541	0.610+j7.126
FRONTERA	FRO-400	400	9.69	9.02	3.571+j23.568	3.533+j28.946	12.52	10.78	2.455+j20.149	3.892+j29.844
FUENTES	FTE-138	138	9.24	8.95	1.432+j8.501	1.680+j9.304	11.08	10.35	1.208+j7.817	1.701+j9.433
FUNDICIÓN	FDC-115	115	21.45	16.83	0.473+j3.059	1.150+j5.542	23.11	18.18	0.473+j3.125	1.155+j5.625
FUNDIDORA	FUN-115	115	28.99	20.89	0.417+j2.252	0.947+j4.863	32.73	24.37	0.389+j2.197	0.799+j4.458
G. E. PLASTIC	GEP-115	115	18.77	14.64	0.631+j3.481	1.298+j6.405	20.88	16.51	0.618+j3.442	1.263+j6.156
GALVASID	GLS-115	115	19.92	13.91	0.506+j3.295	1.481+j7.515	22.07	15.27	0.487+j3.274	1.488+j7.589
GARCIA	GAC-115	115	10.55	8.31	0.819+j6.239	2.182+j11.194	11.49	9.04	0.825+j6.304	2.193+j11.316
GENERACIÓN ELÉCTRICA HUINALA	GEH-115	115	11.38	10.39	0.665+j5.796	0.608+j7.476	12.26	10.99	0.683+j5.919	0.681+j7.997
GENERAL MOTOR	GMO-115	115	13.66	9.95	1.086+j4.738	2.235+j10.057	14.91	10.85	1.082+j4.778	2.246+j10.149
GIRASOLES	GRS-115	115	26.40	18.50	0.415+j2.480	1.128+j5.627	29.47	20.44	0.394+j2.447	1.131+j5.650
GOLDEN DRAGÓN	GOD-115F	115	7.42	5.79	1.496+j8.823	3.399+j16.150	8.41	6.44	1.373+j8.578	3.406+j16.282
GOLLEK	GOK-115	115	4.14	3.10	2.499+j15.849	6.803+j31.408	4.49	3.90	2.482+j16.064	3.638+j23.341
GOLLEK	GOK-115T	115	5.31	4.36	1.907+j12.365	4.374+j20.230	5.69	5.10	1.928+j12.702	3.063+j16.967
GP BIENES INMUEBLES	GPI-115	115	9.77	7.16	1.094+j6.709	2.447+j14.013	10.67	7.75	1.096+j6.760	2.527+j14.342
GRANJAS	GRA-115	115	7.45	5.81	1.495+j8.790	3.375+j16.082	8.43	6.47	1.376+j8.553	3.382+j16.219
GUADALUPE	GDL-115	115	23.49	15.56	0.523+j2.778	1.434+j6.997	26.26	17.28	0.501+j2.736	1.428+j6.972
GÜEMEZ	GUE-115	115	18.10	20.30	0.321+j3.654	0.301+j2.460	18.77	21.02	0.340+j3.876	0.313+j2.623
GÜEMEZ	GUE-400	400	14.76	13.31	1.516+j15.573	3.374+j20.523	16.45	14.56	1.419+j15.377	3.509+j21.197
GUILLFORD MILLS	GUI-115	115	15.36	11.10	0.663+j4.273	1.812+j9.119	17.03	12.28	0.661+j4.236	1.805+j9.099
H.C. INDUSTRIAS	HCI-115	115	13.46	9.74	1.052+j4.820	2.400+j10.314	14.68	10.61	1.049+j4.864	2.413+j10.421

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
HIDALGO	HID-115	115	7.30	5.11	2.393+j8.779	8.074+j19.236	8.03	5.61	2.377+j8.775	8.081+j19.305
HUASTECA	HST-115	115	1.38	0.75	13.409+j46.173	43.049+j164.515	1.52	0.82	13.441+j46.285	43.096+j164.562
HUEJUTLA II	HJD-115	115	1.98	1.89	6.564+j32.881	12.770+j36.237	2.18	2.08	6.545+j32.867	12.799+j36.485
HUERTAS	HUS-115	115	5.92	5.39	1.919+j11.041	3.044+j14.251	6.52	6.15	1.781+j11.066	2.879+j12.899
HUICHIHUAYAN	HUH-115	115	1.91	1.08	8.047+j33.767	30.028+j111.685	2.10	1.18	8.083+j33.888	30.074+j111.731
HUINALA	HUI-115	115	49.09	55.15	0.177+j1.341	0.057+j0.900	54.21	59.81	0.165+j1.337	0.062+j0.961
HUINALA	HUI-115B	115	49.09	55.15	0.177+j1.341	0.057+j0.900	54.21	59.81	0.165+j1.337	0.062+j0.961
HUINALA	HUI-230	230	27.16	30.82	0.623+j4.849	0.259+j3.131	30.32	33.86	0.548+j4.786	0.267+j3.289
HUINALA	HUI-230B	230	27.26	30.71	0.618+j4.832	0.294+j3.209	30.41	33.73	0.545+j4.773	0.301+j3.364
HUINALA	HUI-400	400	31.93	34.12	1.188+j7.134	0.515+j5.825	39.15	42.06	0.916+j6.423	0.416+j5.128
HUINALA DOS	HUO-400	400	31.78	33.94	1.184+j7.169	0.519+j5.868	39.00	42.00	0.912+j6.449	0.400+j5.106
HYLSA MANIOBRAS	HYM-400	400	26.87	25.08	1.719+j8.422	1.345+j10.365	32.03	29.05	1.462+j7.794	1.330+j10.296
HYLSA NORTE	EHN-230	230	15.45	11.66	1.311+j8.495	4.024+j16.528	17.27	12.87	1.224+j8.367	4.049+j16.682
IBERDROLA COGENERACIÓN ALTAMIRA	IBC-115	115	20.62	19.80	0.438+j3.190	0.419+j3.599	22.81	21.57	0.443+j3.171	0.450+j3.733
IMIS	IMI-115	115	11.28	8.59	1.317+j5.739	2.763+j11.078	12.31	9.38	1.314+j5.784	2.773+j11.174
IMSA	INM-115	115	10.43	11.27	0.903+j6.302	0.666+j4.896	11.99	12.64	0.770+j6.043	0.683+j5.113
IMSA PARTICULARES	IMO-115	115	16.31	8.83	0.780+j3.996	2.992+j14.111	18.10	9.73	0.759+j3.964	2.995+j14.137
INDUSTRIA VIDRIERA DE COAHUILA	IVC-138	138	8.17	6.60	1.717+j9.601	3.520+j16.342	9.66	7.49	1.506+j8.951	3.587+j16.581
INFONAVIT	INF-115	115	15.69	13.56	0.705+j4.171	2.084+j5.930	17.84	15.24	0.681+j4.038	2.085+j5.891
INFONAVIT	INV-138	138	9.51	8.09	1.502+j8.241	2.300+j12.587	10.41	8.82	1.487+j8.288	2.320+j12.777
INGENIO SAN MIGUEL EL NARANJO	MGN-115	115	2.88	2.95	5.898+j22.289	2.614+j21.325	3.31	3.58	5.367+j21.383	2.503+j16.942
INTERNACIONAL REGIOMONTANA DE ACERO	IRG-115	115	21.58	15.12	0.480+j3.040	1.455+j6.871	23.97	16.67	0.461+j3.012	1.458+j6.900
INTERPUERTO	IPR-115	115	19.14	9.43	0.471+j3.436	3.595+j13.747	21.23	10.39	0.448+j3.410	3.598+j13.788
IQUISA NORESTE	IQN-115	115	15.01	11.01	0.587+j4.386	1.920+j9.049	16.37	12.01	0.586+j4.422	1.930+j9.141
JABIL	JAB-138	138	11.56	8.76	1.401+j6.750	2.780+j13.195	12.76	9.62	1.367+j6.733	2.795+j13.313
JARACHINA	JRA-138	138	17.16	15.95	0.856+j4.563	1.021+j5.613	19.08	18.00	0.814+j4.520	0.926+j5.339
JARDÍN DOS	JAD-138	138	11.67	10.27	1.290+j6.706	1.695+j9.469	12.79	11.20	1.271+j6.734	1.713+j9.629
JERÓNIMO POTENCIA	JEP-115	115	43.28	37.86	0.272+j1.510	0.271+j2.178	48.76	42.24	0.251+j1.477	0.271+j2.176
JERÓNIMO POTENCIA	JEP-115B	115	43.37	38.46	0.270+j1.507	0.248+j2.105	48.85	42.90	0.248+j1.474	0.248+j2.104
JERÓNIMO POTENCIA	JEP-400	400	20.60	18.36	1.689+j11.080	2.409+j15.133	23.87	20.78	1.419+j10.546	2.418+j15.198
JIMÉNEZ	JIM-115	115	1.59	1.07	13.005+j39.584	41.598+j93.563	1.74	1.18	13.036+j39.791	41.615+j93.734
JOHNSON AND CONTROL	JCC-115	115	8.80	5.09	1.465+j7.399	5.208+j23.459	9.69	5.59	1.449+j7.397	5.215+j23.527
JOHNSON CONTROL	JHC-115	115	15.31	12.12	0.547+j4.302	1.410+j7.642	16.59	13.13	0.554+j4.367	1.422+j7.763
JOSEFA ZOZAYA	JZO-115	115	17.57	10.63	0.697+j3.714	2.352+j10.925	19.45	11.71	0.681+j3.692	2.353+j10.950
JUÁREZ	JUZ-138	138	19.13	18.61	0.781+j4.092	0.872+j4.427	21.21	20.60	0.743+j4.064	0.860+j4.418
JUÁREZ NORTE	JNO-115	115	17.87	12.19	0.608+j3.665	1.757+j8.726	19.69	13.37	0.596+j3.661	1.762+j8.788
KALOS GUADALUPE	KGP-115	115	19.90	14.25	0.433+j3.308	1.701+j7.122	21.99	15.60	0.419+j3.294	1.729+j7.212
KEMET	KMT-115	115	21.17	15.09	0.546+j3.088	1.585+j6.747	23.64	16.62	0.521+j3.046	1.592+j6.822
KEMET	KMM-138	138	9.48	8.05	1.496+j8.272	2.328+j12.674	10.37	8.77	1.482+j8.322	2.347+j12.861
KEMET VICTORIA	KWM-115	115	7.14	5.71	2.241+j9.029	5.068+j15.499	7.67	6.18	2.269+j9.242	5.078+j15.651
KIKAPU	KIK-115	115	2.05	1.46	7.527+j31.466	17.024+j69.561	2.35	1.63	7.208+j30.190	17.034+j69.945
KRAFT FOODS DE MÉXICO	KRF-115	115	16.54	10.27	0.675+j3.956	2.476+j11.108	18.22	11.26	0.659+j3.953	2.483+j11.177

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
LA FE	LAF-115	115	37.41	26.34	0.323+j1.745	0.762+j3.938	42.02	29.19	0.303+j1.712	0.764+j3.955
LA ROSITA	RSI-115	115	4.09	2.94	4.705+j15.554	14.156+j32.392	4.47	3.23	4.716+j15.632	14.181+j32.441
LA SILLA	SLL-115B	115	4.71	2.96	2.414+j13.883	9.919+j37.803	10.54	7.89	0.950+j6.862	3.334+j13.557
LA SILLA	SLL-115	115	6.23	4.09	1.386+j10.563	6.005+j26.735	6.94	4.52	1.357+j10.443	6.019+j26.756
LADRILLERA	LDA-115	115	1.65	1.15	12.504+j38.365	19.499+j90.913	1.79	1.26	12.593+j38.799	19.504+j91.057
LADRILLERA REVOLUCIÓN	LRR-115	115	24.06	17.59	0.510+j2.712	1.036+j5.712	26.99	19.68	0.484+j2.662	1.015+j5.628
LAGO	LAO-138	138	7.32	7.49	2.359+j10.631	2.106+j9.901	8.65	8.60	2.064+j9.920	2.128+j10.078
LAGUNA DEL CONEJO	LDC-115	115	25.19	23.18	0.370+j2.610	0.520+j3.282	28.29	27.00	0.353+j2.558	0.436+j2.920
LAJAS	LAJ-115	115	9.21	12.13	0.725+j7.171	0.088+j2.012	9.51	12.51	0.779+j7.641	0.093+j2.155
LAJAS	LAJ-400	400	12.50	10.67	2.082+j18.351	4.811+j27.605	14.02	11.72	1.918+j18.021	5.026+j28.369
LAMOSA	LMS-115	115	16.35	11.79	0.630+j4.011	2.210+j8.509	18.05	12.90	0.616+j3.998	2.256+j8.623
LAMOSA LAREDO	LAL-138	138	7.30	7.47	2.368+j10.647	2.067+j9.970	8.64	8.57	2.072+j9.932	2.093+j10.164
LAMPAZOS	LAM-400	400	9.75	6.80	2.562+j23.548	12.175+j53.381	12.46	8.20	1.805+j20.306	11.965+j51.058
LAREDO PONIENTE	LAP-138	138	6.23	5.77	2.645+j12.519	2.924+j15.569	7.28	6.54	2.355+j11.814	2.966+j15.848
LAS BRISAS	BRI-115	115	19.47	16.28	0.697+j3.338	0.932+j5.341	21.15	17.62	0.694+j3.383	0.946+j5.455
LAS CRUCES	CRU-115	115	1.58	1.24	12.134+j40.348	26.197+j72.159	1.82	1.58	10.924+j38.514	18.908+j55.548
LAS GLORIAS	GLO-115	115	35.08	32.39	0.240+j1.877	0.272+j2.348	38.21	34.79	0.231+j1.897	0.287+j2.458
LAS GLORIAS	GLO-400	400	22.26	18.10	1.383+j10.284	2.548+j17.337	25.87	20.54	1.154+j9.750	2.578+j17.286
LAS PUENTES	PTS-115B2	115	32.77	23.11	0.355+j1.995	0.857+j4.487	36.71	25.56	0.334+j1.962	0.860+j4.512
LAS PUENTES	PTS-115B1	115	31.96	22.16	0.366+j2.045	0.914+j4.744	35.78	24.51	0.345+j2.012	0.916+j4.769
LAS TORRES	LTO-138	138	9.81	9.48	1.444+j7.995	1.420+j8.864	10.74	10.30	1.425+j8.035	1.452+j9.098
LAURO VILLAR	LVI-138	138	11.31	12.19	1.188+j6.945	0.605+j5.485	12.35	13.14	1.171+j7.000	0.648+j5.786
LAURO VILLAR	LVI-230	230	8.02	8.34	2.720+j16.337	1.971+j14.536	8.87	9.08	2.622+j16.265	2.100+j15.180
LECHUGAL	LEC-115	115	13.98	10.07	0.793+j4.681	2.046+j10.087	15.55	11.60	0.764+j4.636	1.780+j9.323
LEGO REAL ESTATE	LGR-115	115	10.97	6.37	1.206+j5.930	4.240+j18.683	12.08	7.00	1.191+j5.928	4.247+j18.752
LEONA	LEO-115	115	14.70	10.10	0.781+j4.448	2.137+j10.470	16.70	13.13	0.723+j4.313	1.213+j7.842
LG	LGE-115	115	10.78	6.73	1.042+j6.071	3.521+j16.906	11.90	7.40	1.024+j6.050	3.528+j16.980
LIBERTAD	LBT-115	115	7.36	7.75	1.103+j8.948	2.455+j7.395	7.77	8.33	1.150+j9.329	2.316+j7.248
LIBERTAD	LBT-115	115	7.93	6.49	1.980+j8.133	4.128+j13.362	8.51	7.00	2.008+j8.346	4.138+j13.514
LIBRAMIENTO	LBR-115	115	2.54	1.68	8.359+j24.765	17.562+j63.937	2.87	1.96	7.990+j24.200	14.922+j58.948
LINARES	LSN-115	115	3.73	2.66	3.148+j17.498	8.658+j38.441	4.03	3.04	3.175+j17.830	7.345+j35.177
LINDA VISTA	LDV-115	115	5.01	3.07	2.331+j13.059	8.028+j37.543	5.50	3.37	2.336+j13.069	8.080+j37.708
LLANO GRANDE	LLG-138	138	12.35	13.70	1.121+j6.355	0.460+j4.532	13.50	14.77	1.104+j6.399	0.496+j4.798
LLANO GRANDE	LLG-230	230	8.75	9.23	2.467+j14.969	1.670+j12.693	9.69	10.06	2.368+j14.890	1.783+j13.273
LOMA LARGA	LOL-115	115	23.40	12.22	0.514+j2.791	2.287+j10.383	26.16	13.53	0.490+j2.748	2.282+j10.364
LOS NOVILLOS	LNV-138	138	6.44	6.98	1.791+j12.247	1.016+j9.443	7.99	8.23	1.395+j10.885	1.068+j9.948
LOS NOVILLOS	LNV-230	230	5.22	5.19	3.659+j25.176	3.690+j25.551	6.44	6.09	2.834+j22.508	3.844+j26.357
LUVATA	LUV-115	115	23.80	15.88	0.482+j2.748	1.442+j6.813	26.59	17.67	0.461+j2.708	1.429+j6.751
MABE	MAB-115	115	16.08	12.23	0.766+j4.058	1.821+j7.828	17.51	13.31	0.763+j4.100	1.831+j7.919
MAGNA FORMEX SALTILLO	MFS-115	115	31.70	31.95	0.274+j2.076	0.271+j2.038	33.68	33.80	0.277+j2.151	0.279+j2.137
MAGNA POWER TRAIN	MGP-115	115	27.85	28.77	0.331+j2.361	0.303+j2.144	29.75	30.58	0.333+j2.432	0.311+j2.242
MAGNÉTICOS DE MÉXICO	MME-138	138	7.31	7.51	2.317+j10.651	2.096+j9.807	8.65	8.63	2.020+j9.930	2.117+j9.979

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noreste**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
MALE PISTONES	MPI-115	115	21.94	19.37	0.473+j2.989	0.817+j4.161	23.65	20.89	0.474+j3.052	0.823+j4.245
MANIOBRAS DE ALTAMIRA	MDA-230	230	15.71	18.68	0.852+j8.410	0.349+j4.427	16.94	19.95	0.841+j8.581	0.383+j4.726
MANIOBRAS DULCES NOMBRES II	MDU-115	115	47.98	50.95	0.184+j1.372	0.125+j1.127	52.98	55.37	0.172+j1.368	0.130+j1.185
MANIOBRAS MESA LA PAZ	MPM-400	400	9.81	8.16	2.013+j23.450	6.994+j37.323	10.95	9.00	1.904+j23.117	7.013+j37.787
MANIOBRAS TRACTEBEL ENERGÍA DE PANUCO	ENP-115	115	6.30	6.31	2.325+j10.275	0.978+j10.521	17.94	15.83	0.797+j3.993	0.920+j5.627
MANNESMANN SACH	MSC-115	115	21.62	18.91	0.482+j3.033	0.853+j4.319	23.31	20.40	0.482+j3.096	0.859+j4.404
MANTE	MAN-115	115	1.41	1.62	13.981+j44.935	2.896+j29.396	1.71	1.88	11.475+j41.101	3.204+j31.327
MANTE	MAN-115	115	2.79	1.81	7.651+j22.493	17.540+j60.365	3.13	2.07	7.389+j22.109	15.634+j57.050
MANUEL	MUL-115	115	4.18	2.52	4.592+j15.211	12.062+j45.846	4.62	2.79	4.547+j15.133	11.785+j45.335
MATAMOROS	MTM-69	69	4.98	5.34	0.449+j7.980	0.128+j6.377	5.07	5.41	0.457+j8.624	0.140+j7.014
MATAMOROS	MTM-138	138	12.17	10.88	1.287+j6.417	1.640+j8.726	13.35	11.87	1.267+j6.442	1.654+j8.870
MATAMOROS POTENCIA	MMP-138	138	12.74	14.52	0.973+j6.177	0.389+j3.945	13.82	15.57	0.967+j6.269	0.410+j4.186
MATAMOROS POTENCIA	MMP-230	230	11.14	11.69	1.712+j11.800	1.583+j10.101	12.36	12.82	1.614+j11.706	1.635+j10.420
MATRIMAR	MTR-115	115	3.07	2.35	5.971+j20.819	16.438+j38.104	3.38	2.58	5.907+j20.800	16.444+j38.324
MAXITILE	MAX-138	138	6.37	6.02	2.542+j12.244	2.560+j14.455	7.45	6.83	2.255+j11.540	2.607+j14.756
MAYTAG	MYG-138	138	11.39	8.58	1.426+j6.848	2.864+j13.561	12.57	9.41	1.393+j6.833	2.880+j13.682
MESAS	MES-400	400	18.97	19.50	0.649+j12.158	0.731+j11.196	20.28	20.55	0.597+j12.511	0.804+j12.045
METALDYNE SINTERED COMPONENTS MÉXICO S. DE R.L. DE C.V.	MST-115	115	25.24	26.47	0.381+j2.603	0.334+j2.248	27.06	28.24	0.382+j2.672	0.342+j2.346
METALSA	MSA-115	115	23.65	17.37	0.412+j2.777	1.076+j5.753	26.24	19.07	0.394+j2.755	1.083+j5.827
METRO LINCOLN	MLI-115	115	19.68	12.50	0.610+j3.318	1.851+j9.002	22.46	15.10	0.562+j3.204	1.458+j7.868
MEXICHEM FLUOR	MEF-138	138	10.93	9.25	1.493+j7.135	2.257+j11.019	11.99	10.11	1.473+j7.159	2.272+j11.163
MÉXICO	MEX-138	138	16.00	14.08	1.022+j4.873	1.487+j6.857	17.55	15.34	0.999+j4.893	1.502+j6.987
MÉXICO CARBÓN MANUFACTURING	MXC-115	115					16.46	12.17	0.600+j4.397	1.556+j8.993
MEZQUITAL	MZQ-115	115	15.32	9.91	0.704+j4.275	2.493+j11.166	16.94	10.90	0.688+j4.255	2.498+j11.208
MEZQUITAL PROVISIONAL	MZP-115	115	14.65	9.45	0.727+j4.473	2.627+j11.728	16.20	10.40	0.711+j4.453	2.632+j11.770
MICARE	MCR-138	138	10.05	10.35	1.314+j7.819	1.285+j7.124	12.11	12.04	1.097+j7.151	1.303+j7.247
MICARE DOS	MDS-138	138	11.69	13.05	0.819+j6.765	0.558+j4.661	14.26	15.39	0.611+j6.114	0.561+j4.767
MIGUEL ALEMÁN	MIG-138	138	4.86	2.95	4.368+j15.804	12.454+j46.516	5.64	4.44	3.934+j15.028	5.413+j27.607
MINA TAYAHUA	MTU-115	115	1.37	0.77	18.101+j44.833	56.679+j151.021	1.51	0.85	18.118+j44.900	56.707+j151.225
MINERA	MIE-115	115	4.61	4.82	2.182+j14.234	1.749+j12.389	5.55	5.59	1.891+j13.022	1.759+j12.772
MINERA AUTLÁN	MIA-230	230	6.69	4.78	3.160+j19.590	10.683+j42.515	7.37	5.25	3.098+j19.584	10.693+j42.660
MIRAVALLE	MAV-115	115	21.52	17.72	0.561+j3.034	1.427+j4.877	23.90	19.61	0.541+j3.007	1.427+j4.874
MISIONES	MSI-115	115	8.03	4.82	2.033+j8.014	7.673+j23.582	8.89	5.33	2.009+j7.969	7.653+j23.504
MITRAS	MIT-115B2	115	21.16	15.61	0.441+j3.107	1.323+j6.353	23.28	17.11	0.429+j3.107	1.327+j6.399
MITRAS	MIT-115B1	115	19.92	14.39	0.480+j3.299	1.470+j7.030	21.92	15.78	0.468+j3.299	1.474+j7.076
MOBIS	MOB-115	115	5.49	3.63	1.534+j11.985	6.798+j30.043	6.01	3.97	1.538+j12.046	6.820+j30.213
MODELO	MOD-115	115	16.80	8.76	0.748+j3.879	2.941+j14.543	18.68	9.65	0.726+j3.843	2.957+j14.586
MODINE	MNE-138	138	7.37	7.62	2.304+j10.557	2.024+j9.543	8.72	8.75	2.012+j9.849	2.045+j9.716
MOLANGO	MOL-115	115	1.10	0.88	13.978+j58.840	40.135+j97.926	1.21	0.97	13.959+j58.825	40.166+j98.176
MONCLOVA	MON-115	115	11.50	13.89	0.792+j5.717	0.190+j2.796	13.29	15.64	0.659+j5.458	0.206+j3.013
MONCLOVA	MON-115F	115	11.20	12.92	0.826+j5.868	0.375+j3.549	12.97	14.57	0.687+j5.589	0.391+j3.758
MONCLOVA	MON-230	230	9.50	10.54	2.304+j13.785	1.161+j9.793	11.37	12.15	1.843+j12.713	1.242+j10.306

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
MONTE KRISTAL	MKL-115	115	6.30	4.02	1.649+j10.408	7.403+j27.557	11.98	8.31	0.819+j6.039	3.299+j13.824
MONTEMORELOS	MTN-115	115	1.61	1.12	12.807+j39.241	20.369+j92.893	1.75	1.23	12.896+j39.674	20.375+j93.037
MONTERREY	MTY-115	115	52.35	48.13	0.216+j1.250	0.176+j1.593	59.01	53.14	0.197+j1.222	0.183+j1.638
MONTERREY POTENCIA SF6	MTP-115	115	53.88	50.68	0.209+j1.214	0.145+j1.460	60.77	55.94	0.190+j1.187	0.152+j1.506
MONTERREY POTENCIA SF6	MTP-115B	115	45.71	42.42	0.224+j1.435	0.134+j1.788	51.12	46.39	0.206+j1.414	0.141+j1.862
MONTERREY POTENCIA SF6	MTP-400	400	29.76	29.94	1.453+j7.623	0.826+j7.587	35.91	35.29	1.194+j6.973	0.799+j7.412
MONTOI	MTI-115	115	16.61	9.29	0.728+j3.931	2.752+j13.162	18.38	10.18	0.709+j3.909	2.783+j13.291
MORELOS	MRL-115	115	12.93	8.82	0.858+j5.064	2.475+j12.066	14.09	9.64	0.856+j5.111	2.480+j12.136
MÚNICH	MUN-115	115	18.07	12.02	0.560+j3.631	1.882+j9.030	20.37	13.96	0.521+j3.547	1.655+j8.364
MUSEO	MSO-115	115	9.84	7.74	1.375+j6.607	3.209+j11.822	10.60	8.41	1.404+j6.745	3.254+j11.860
NADADORES	NAD-115F	115	4.49	3.40	4.788+j13.999	9.833+j27.351	5.02	3.75	4.671+j13.790	9.844+j27.538
NARANJOS	NRJ-115	115	3.23	2.01	5.206+j19.868	22.945+j53.753	3.57	2.21	5.155+j19.783	22.960+j53.833
NARCISO MENDOZA	NMZ-138	138	6.22	5.69	2.652+j12.538	3.242+j16.028	7.27	6.46	2.359+j11.829	3.267+j16.222
NAVA	NAV-138	138	10.31	11.67	1.070+j7.656	0.556+j4.994	12.37	13.57	0.868+j7.031	0.584+j5.171
NAVA	NAV-230	230	11.08	11.65	1.661+j11.865	1.687+j10.115	15.52	15.32	1.036+j9.358	1.694+j9.636
NAVIDAD	NVD-115	115	1.76	1.77	8.720+j36.807	7.844+j36.385	2.09	2.02	7.455+j34.156	7.999+j37.608
NAVISTAR	NAS-115	115	15.59	9.63	0.749+j4.194	2.531+j11.908	17.19	10.57	0.732+j4.185	2.538+j11.972
NEMAK	NEK-115	115	16.46	12.77	0.537+j3.999	1.480+j7.387	17.89	13.86	0.539+j4.048	1.493+j7.502
NGM CERÁMICA	NGM-115	115	12.85	7.61	0.994+j5.070	3.489+j15.441	14.15	8.36	0.978+j5.067	3.496+j15.509
NOGALAR	NOG-115	115	37.56	27.66	0.338+j1.735	0.703+j3.595	42.46	31.20	0.313+j1.692	0.677+j3.518
NOKIA	NOK-138	138	12.01	9.40	1.424+j6.477	2.770+j11.833	13.31	10.46	1.383+j6.439	2.704+j11.649
NORESTE (ESCOBEDO)	NES-400	400	26.18	26.59	0.862+j8.778	0.833+j8.380	29.01	28.78	0.769+j8.723	0.895+j8.927
NORTE	NRE-138	138	10.04	7.27	1.757+j7.739	3.913+j16.561	11.13	8.12	1.709+j7.684	3.792+j16.180
NUEVA CASTILLA	NUC-115	115	10.38	6.21	1.205+j6.284	3.697+j18.895	11.47	6.78	1.185+j6.255	3.783+j19.206
NUEVA ESCOBEDO	NUE-115	115	29.30	21.04	0.347+j2.239	0.924+j4.849	32.35	23.03	0.331+j2.233	0.930+j4.913
NUEVA ROSITA	NUR-115	115	5.25	6.35	1.783+j12.511	0.324+j6.107	6.41	7.49	1.498+j11.296	0.333+j6.489
NUEVA ROSITA	NUR-115F	115	5.16	6.10	1.827+j12.732	0.504+j6.899	6.32	7.21	1.528+j11.448	0.513+j7.282
NUEVA ROSITA	NUR-230	230	5.86	6.12	4.182+j22.269	2.198+j19.680	7.17	7.27	3.465+j20.089	2.190+j19.366
NUEVO LAREDO	NUL-138	138	7.46	7.74	2.315+j10.433	1.923+j9.319	8.83	8.90	2.018+j9.719	1.947+j9.504
NUEVO PROGRESO	NVP-138	138	9.41	7.01	1.805+j8.275	3.910+j16.699	10.36	7.68	1.777+j8.268	3.938+j16.878
NUEVO SANTANDER	NST-115	115	8.89	9.78	1.302+j7.352	1.030+j5.326	9.49	10.39	1.333+j7.577	1.062+j5.605
NUTEC FIBRATEC S.A. DE C.V.	NUF-115	115	16.23	12.42	0.767+j4.018	1.916+j7.630	17.68	13.52	0.763+j4.061	1.927+j7.721
OBRA DE TOMA	ODT-115	115	1.88	1.39	12.129+j33.181	24.308+j68.139	2.05	1.52	12.187+j33.428	24.705+j69.082
OJO CALIENTE	OJC-138	138	6.48	6.11	2.478+j12.037	2.779+j14.268	7.60	6.96	2.186+j11.330	2.802+j14.449
OLIVO	OVO-115	115	10.56	10.09	1.038+j6.203	1.982+j6.912	11.22	10.77	1.064+j6.423	1.997+j7.071
ORIENTE	OTE-138	138	11.74	11.35	1.226+j6.675	1.150+j7.398	12.86	12.33	1.207+j6.710	1.177+j7.606
ORIÓN	ORN-115	115	25.52	17.95	0.467+j2.560	1.053+j5.797	28.46	19.88	0.445+j2.527	1.054+j5.796
ORIZATLAN	ORZ-138	138	13.35	10.69	1.144+j5.858	2.030+j10.221	14.75	11.73	1.108+j5.838	2.042+j10.328
OXFORD	OXF-115	115	16.98	12.39	0.588+j3.865	1.670+j8.100	18.34	13.43	0.591+j3.939	1.678+j8.199
OZULUAMA	OZL-115	115	3.29	2.18	5.278+j19.502	20.119+j46.995	3.62	2.40	5.258+j19.463	20.147+j47.092
P. IND. COLONIAL	PIC-138	138	11.39	8.57	1.423+j6.846	2.869+j13.612	12.57	9.40	1.390+j6.831	2.885+j13.736
P. IND. PUENTE	PIP-138	138	10.50	7.66	1.800+j7.373	3.848+j15.574	11.56	8.39	1.771+j7.374	3.863+j15.694

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noreste**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
P.I. DEL NORTE	INO1-138	138	10.19	7.57	1.765+j7.617	3.758+j15.502	11.28	8.40	1.725+j7.579	3.692+j15.318
P.I. SANTA MARÍA	PSM-115	115	25.86	23.36	0.333+j2.546	0.593+j3.352	27.65	24.97	0.336+j2.620	0.601+j3.452
PANUCO	PAN-115	115	4.44	2.45	2.486+j14.734	11.631+j50.019	4.82	2.68	2.557+j14.945	11.669+j50.143
PARQUE DE INVESTIGACIONES E INNOVACIÓN TECNOLÓGICA	IIT-115	115	12.80	8.76	0.665+j5.145	2.712+j12.079	14.09	9.62	0.653+j5.141	2.716+j12.141
PARQUE IND. ACUÑA	PIU-138	138	5.59	5.69	2.203+j14.087	1.774+j13.395	6.98	6.72	1.708+j12.442	1.826+j13.900
PARQUE INDL. ESTRELLA	EST-115	115	14.07	8.35	0.922+j4.627	3.168+j14.067	15.50	9.16	0.907+j4.625	3.175+j14.135
PARQUE INDUSTRIAL	PAI-138	138	14.40	11.97	1.036+j5.434	1.646+j8.753	15.92	13.13	0.999+j5.412	1.657+j8.857
PARQUE INDUSTRIAL AMISTAD-AEROPUERTO	PIA-115	115	11.31	7.71	0.993+j5.788	3.634+j13.635	12.31	8.42	0.995+j5.849	3.640+j13.713
PARQUE INDUSTRIAL APODACA TECHNOLOGY PARK	PQT-115	115	12.30	7.90	0.857+j5.330	3.250+j14.054	13.54	8.67	0.844+j5.328	3.259+j14.119
PARQUE INDUSTRIAL DEL NORTE	INO2-138	138	11.86	9.25	1.441+j6.561	2.838+j12.074	13.14	10.29	1.400+j6.523	2.774+j11.894
PARQUE INDUSTRIAL ESCOBEDO	PIE-115	115	24.70	17.75	0.419+j2.655	1.148+j5.732	27.49	19.58	0.399+j2.627	1.152+j5.763
PARQUE INDUSTRIAL LA SILLA	SIA-115	115	14.69	9.61	0.705+j4.465	2.596+j11.403	16.26	10.59	0.687+j4.440	2.598+j11.430
PARQUE INDUSTRIAL MONTERREY - APODACA	PMA-115	115	9.28	6.68	1.168+j7.057	2.734+j15.279	10.14	7.24	1.170+j7.107	2.814+j15.608
PARQUE INDUSTRIAL ORADEL	PIO-138	138	7.11	7.47	2.287+j10.972	1.489+j9.490	8.38	8.52	2.003+j10.269	1.544+j9.820
PARQUE INDUSTRIAL SALTILLO RAMOS ARIZPE	ISR1-115	115	23.26	21.96	0.433+j2.821	0.603+j3.319	25.02	23.58	0.434+j2.887	0.610+j3.409
PARQUE INDUSTRIAL SALTILLO RAMOS ARIZPE	ISR2-115	115	18.74	14.20	0.577+j3.495	1.529+j6.783	20.30	15.42	0.575+j3.551	1.535+j6.861
PEMEX	PEM-115	115	45.75	35.01	0.264+j1.427	0.517+j2.736	51.72	39.03	0.244+j1.391	0.516+j2.740
PEMEX CADEREYTA	PCD-230	230	9.39	7.38	2.215+j13.969	5.868+j25.008	11.09	8.38	1.898+j13.028	5.928+j25.348
PEMEX CRIOGÉNICA	PXC-138	138	3.66	3.50	16.493+j14.212	5.625+j27.829	4.20	4.52	15.176+j14.351	2.729+j19.098
PEMEX CRIOGÉNICA	PXC-138B	138	3.53	3.24	16.681+j15.168	6.444+j31.786	4.05	4.22	15.344+j15.294	3.100+j21.718
PEMEX NARANJOS	PMX-115	115	3.11	1.94	5.435+j20.678	23.791+j55.676	3.43	2.13	5.384+j20.593	23.806+j55.756
PEMEX-REFINERÍA	PRF-115	115					9.46	5.70	1.947+j7.468	6.407+j22.116
PEÑOLES	PÑL-115	115	16.41	12.62	0.758+j3.974	1.880+j7.472	17.87	13.73	0.754+j4.017	1.891+j7.563
PERFILES	PFS-115	115	22.96	16.75	0.424+j2.860	1.135+j6.001	25.47	18.39	0.405+j2.839	1.142+j6.075
PESQUERÍA	PQA-115	115	15.46	12.38	0.570+j4.256	1.410+j7.375	16.77	13.37	0.574+j4.317	1.431+j7.544
PETROCEL	GPT-115	115	16.14	13.12	0.775+j4.041	2.012+j6.674	18.18	15.49	0.739+j3.949	1.624+j5.902
PETROLERA	PER-138	138	15.02	13.30	0.926+j5.222	1.400+j7.225	16.64	14.67	0.888+j5.192	1.399+j7.255
PHEPS DODGE	PHD-115	115	8.97	5.16	1.454+j7.261	5.310+j23.169	9.87	5.67	1.439+j7.259	5.317+j23.238
PIEDRAS NEGRAS	PNE-138	138	9.71	9.07	1.326+j8.101	1.607+j9.821	11.71	10.45	1.094+j7.405	1.658+j10.049
PIEDRAS NEGRAS POTENCIA	PNG-138	138	10.70	11.52	1.082+j7.367	0.733+j5.805	13.03	13.47	0.858+j6.674	0.771+j6.013
PIEDRAS NEGRAS POTENCIA	PNG-230	230	7.81	7.71	2.311+j16.841	2.606+j17.510	10.00	9.27	1.667+j14.511	2.738+j17.854
PLANTA	PTA-138	138	11.67	10.20	1.315+j6.699	1.780+j9.619	12.80	11.13	1.295+j6.724	1.796+j9.767
PLANTA BOMBEO DOS	PBD-115	115	4.82	4.92	1.596+j13.670	3.175+j12.635	5.26	5.46	1.523+j13.802	2.834+j12.101
PLANTA BOMBEO UNO	PBU-115	115	3.77	3.75	2.304+j17.463	4.768+j17.399	4.05	4.01	2.292+j17.903	4.914+j17.995
PLANTA DE AGUAS RESIDUALES NORTE	RNO-115	115	23.08	15.07	0.536+j2.826	1.460+j7.324	25.72	16.58	0.514+j2.792	1.476+j7.392
PLANTA DE BOMBEO 0	PB0-115	115	2.36	2.25	4.292+j27.863	7.709+j31.326	2.55	2.41	4.296+j28.336	8.181+j32.633
PLANTA DE BOMBEO LA SILLA	PBS-115	115	12.80	8.70	0.839+j5.121	2.449+j12.287	14.94	10.11	0.779+j4.828	2.356+j11.663
PLANTA DE BOMBEO SAN ROQUE DE AYD	PBR-115	115	13.01	8.49	0.838+j5.033	2.620+j13.003	15.68	10.20	0.755+j4.595	2.447+j11.930
PLANTA DE BOMBEO SANTA ROSA APODACA	PBA-115	115	13.02	8.45	0.797+j5.036	3.032+j13.053	14.33	9.27	0.784+j5.034	3.041+j13.118
PLANTA DUPONT	DUT-115	115	6.28	6.31	2.329+j10.309	0.950+j10.465	17.75	15.68	0.804+j4.035	0.916+j5.681
PLANTA EL SALTO	STO-115	115	2.53	2.23	7.531+j25.158	10.029+j35.529	3.02	3.25	6.333+j23.307	2.778+j18.953
PLANTA FALCÓN	PFA-115	115	4.05	4.96	3.297+j16.052	0.287+j7.448	4.51	5.41	2.959+j15.926	0.329+j8.158

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
PLAZA SF6	PZA-115	115	46.20	42.48	0.264+j1.413	0.206+j1.805	52.27	47.52	0.242+j1.376	0.206+j1.806
PLAZA SF6	PZA-400	400	20.09	17.99	1.764+j11.358	2.286+j15.358	23.29	20.40	1.488+j10.807	2.275+j15.364
POLARIS	POI-115	115	12.34	8.38	0.701+j5.335	2.850+j12.721	13.59	9.19	0.688+j5.332	2.855+j12.783
POLICYD	PLC-115	115	22.47	21.01	0.445+j2.921	0.638+j3.517	25.46	23.33	0.444+j2.834	0.655+j3.600
POLVORÍN	POL-115	115	1.38	1.62	14.167+j46.018	2.124+j27.219	1.68	1.89	11.568+j41.985	2.431+j29.292
POLVORÍN	POL-115	115	18.24	15.95	0.605+j3.589	1.022+j5.111	21.41	18.83	0.535+j3.369	0.916+j4.731
POSCO DE MÉXICO	PCO-115	115	23.08	19.03	0.351+j2.855	0.743+j4.661	25.68	22.54	0.336+j2.824	0.557+j3.998
PRAX AIR	PAX-115	115	27.21	15.37	0.456+j2.397	1.646+j7.913	30.38	16.96	0.434+j2.364	1.649+j7.939
PRIMEX	PRX-115	115	20.43	16.60	0.551+j3.203	1.055+j5.397	22.79	18.84	0.536+j3.160	1.010+j5.128
PRIMEX	PRX-115B	115	20.56	16.80	0.540+j3.184	1.023+j5.306	23.25	20.67	0.507+j3.100	0.696+j4.263
PROCARSA	PCS-115	115	8.80	7.72	1.134+j7.456	1.991+j10.537	9.95	8.58	1.032+j7.269	1.998+j10.676
PROEZA GREDE	PGR-115	115	22.77	17.58	0.488+j2.874	1.902+j5.210	25.10	19.25	0.472+j2.871	1.909+j5.278
PROLAMSA	POM-115	115	15.02	8.76	0.839+j4.341	2.681+j13.640	16.64	9.57	0.818+j4.313	2.739+j13.853
PROLEC	PLE-115	115	25.04	17.99	0.417+j2.619	1.080+j5.670	27.81	19.78	0.399+j2.596	1.085+j5.721
PROLEC PARTICULAR	PLP-115	115	20.47	14.41	0.488+j3.207	1.409+j7.198	22.68	15.82	0.470+j3.186	1.416+j7.272
PROLOGIS	POG-138	138	12.03	9.25	1.329+j6.487	2.568+j12.321	13.29	10.15	1.294+j6.469	2.582+j12.435
PROLOGIS-APODACA	PLG-115	115	14.13	11.17	0.665+j4.650	1.437+j8.320	15.40	12.07	0.665+j4.696	1.482+j8.536
PROPARK	PPK-115	115	6.54	3.97	1.883+j9.976	6.965+j29.098	7.21	4.37	1.865+j9.951	6.967+j29.126
PROPASA	PDP-115	115	18.90	13.07	0.616+j3.459	1.857+j8.000	21.11	14.41	0.587+j3.410	1.864+j8.074
PTA BOMBEO CUATRO	PBC-115	115	2.32	2.09	4.507+j28.291	8.633+j37.075	3.58	3.29	2.869+j20.192	6.230+j25.230
PTA DE TRATAMIENTO DE AGUAS RESIDUALES NORESTE	RNE-115	115	11.47	7.30	0.924+j5.714	3.528+j15.338	12.63	8.01	0.911+j5.712	3.537+j15.403
PTA. BOMBEO TRES	PBT-115	115	2.81	2.68	3.535+j23.349	7.260+j26.347	4.15	4.07	2.326+j17.454	4.989+j17.997
PUENTE INTERNACIONAL	PUI-138	138	8.41	7.18	1.555+j9.350	2.765+j14.063	10.00	8.21	1.330+j8.664	2.793+j14.217
PUERTO	PUO-115	115	27.85	26.16	0.235+j2.372	0.291+j2.834	30.71	29.24	0.228+j2.367	0.285+j2.724
PUERTO ALTAMIRA ELÉCTRICA	PAE-115	115	29.88	29.85	0.198+j2.213	0.143+j2.228	32.89	33.15	0.192+j2.212	0.147+j2.165
PUERTO ALTAMIRA ELÉCTRICA	PAE-400	400	29.33	33.56	0.478+j7.861	0.411+j4.908	34.13	39.12	0.388+j7.433	0.371+j4.603
QUÍMICA FLUOR	QFL-138	138	10.78	9.07	1.520+j7.230	2.340+j11.325	11.83	9.91	1.501+j7.255	2.354+j11.469
RAMOS ARIZPE	RRA-115	115	20.66	16.98	0.516+j3.172	1.067+j5.208	22.33	18.37	0.515+j3.230	1.072+j5.285
RAMOS ARIZPE POTENCIA	RAP-115	115	34.65	38.14	0.236+j1.901	0.110+j1.397	36.66	39.99	0.239+j1.978	0.119+j1.501
RAMOS ARIZPE POTENCIA	RAP-400	400	25.77	22.59	1.245+j8.874	2.189+j12.582	29.66	25.16	1.039+j8.503	2.290+j12.989
RASSINI	RNI-138	138	7.71	5.80	1.918+j10.157	4.193+j20.087	9.12	6.58	1.685+j9.462	4.244+j20.315
RAYÓN	RAY-115	115	2.41	1.59	7.966+j26.314	24.497+j65.620	2.64	1.75	8.002+j26.441	24.543+j65.659
REAL DE PALMAS	RDP-115	115	5.54	4.02	2.176+j11.791	5.626+j24.932	6.09	4.42	2.160+j11.789	5.633+j25.001
REBOMBEO I	RBU-115	115	3.15	2.61	7.206+j19.802	9.558+j32.919	3.43	2.81	7.263+j20.049	9.950+j33.857
REBOMBEO II	RBD-115	115	4.79	4.07	4.102+j13.243	6.307+j20.281	5.18	4.39	4.142+j13.475	6.424+j20.722
REFINERÍA MADERO	RMA-115	115	14.02	10.42	0.795+j4.668	1.983+j9.440	17.08	13.17	0.652+j4.227	1.509+j7.949
REGIDORES	RGS-115	115	8.00	6.59	1.334+j8.195	2.752+j13.348	9.08	7.34	1.211+j7.948	2.759+j13.488
REYNOSA	REY-138	138	16.42	14.54	0.862+j4.774	1.195+j6.628	18.21	16.14	0.824+j4.741	1.175+j6.564
REYNOSA CENTRO	RYC-138	138	12.20	9.70	1.322+j6.395	2.489+j11.307	13.44	10.65	1.292+j6.393	2.496+j11.385
RHEEM	RHM-138	138	7.29	7.47	2.338+j10.677	2.127+j9.926	8.61	8.57	2.046+j9.969	2.148+j10.098
RICSA	RIS-138	138	10.84	8.06	1.739+j7.141	3.582+j14.529	11.93	8.83	1.711+j7.144	3.595+j14.646
RIEL	RIE-115	115	26.29	17.33	0.457+j2.484	1.282+j6.311	29.44	19.27	0.433+j2.443	1.271+j6.283

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
RÍO	RÍO-115	115	31.01	22.35	0.403+j2.103	0.845+j4.551	34.79	24.86	0.380+j2.064	0.842+j4.538
RÍO BRAVO	RIB-138	138	16.36	15.80	0.925+j4.783	0.755+j5.332	17.97	17.11	0.901+j4.793	0.795+j5.564
RÍO BRAVO	RIB-230	230	13.96	12.76	1.499+j9.392	2.280+j11.978	15.64	14.08	1.381+j9.237	2.336+j12.231
RÍO BRAVO III	RBT-400	400	11.39	13.17	2.206+j20.162	0.781+j12.039	15.19	18.12	1.466+j16.662	0.436+j8.606
RÍO BRAVO IV	RBC-400	400	11.47	13.29	2.191+j20.016	0.728+j11.852	15.17	18.10	1.468+j16.683	0.436+j8.606
RÍO BRAVO PONIENTE	RBP-138	138	12.18	9.37	1.269+j6.416	2.233+j12.214	13.42	10.25	1.239+j6.412	2.261+j12.386
RÍO ESCONDIDO	REC-138	138	12.19	14.40	0.725+j6.494	0.206+j3.530	14.93	17.08	0.519+j5.847	0.211+j3.650
RÍO ESCONDIDO	REC-230	230	14.17	17.71	1.102+j9.305	0.209+j3.758	21.78	26.92	0.490+j6.689	0.119+j2.864
RÍO ESCONDIDO	REC-400	400	11.08	12.01	2.469+j20.687	1.285+j16.031	22.20	25.53	0.711+j11.422	0.453+j6.960
RÍO SALADO	SDO-138	138	4.43	2.70	4.736+j17.363	13.652+j50.898	5.20	4.34	4.180+j16.341	4.553+j26.508
RÍO VERDE	RVE-115	115	2.18	1.37	8.917+j29.158	26.973+j80.174	2.39	1.50	8.953+j29.280	27.020+j80.213
ROCKWELL	ROW-115	115	23.80	15.88	0.482+j2.748	1.442+j6.813	26.59	17.67	0.461+j2.708	1.429+j6.751
SABINAS	SAB-115	115	3.56	3.14	3.637+j18.284	5.434+j25.649	4.26	3.60	3.208+j16.840	5.444+j26.032
SABINAS HIDALGO	SAH-115	115	1.99	2.31	9.790+j31.867	2.832+j19.513	2.20	2.51	9.665+j31.704	3.146+j20.934
SABINO	SSB-115	115	17.82	11.62	0.695+j3.661	1.956+j9.485	19.83	12.85	0.671+j3.621	1.955+j9.486
SALITRILLO	SLT-115	115	3.45	2.65	3.706+j18.898	12.175+j34.920	4.72	3.89	2.587+j15.268	8.293+j24.135
SALITRILLOS	SLT-138	138	6.79	7.37	1.716+j11.614	0.564+j8.964	7.36	7.86	1.700+j11.784	0.648+j9.633
SALTILLO	SAL-115	115	25.81	27.61	0.465+j2.530	0.209+j2.069	27.91	29.47	0.462+j2.576	0.226+j2.200
SALTILLO	SAL-230	230	13.16	13.81	1.551+j9.974	0.998+j8.632	14.28	14.77	1.516+j10.119	1.068+j9.165
SAN AGUSTÍN	AUS-115	115	29.55	20.80	0.396+j2.212	1.107+j4.964	33.13	23.10	0.374+j2.173	1.105+j4.959
SAN BERNABÉ	BER-115	115	15.72	10.35	0.703+j4.165	2.254+j10.560	17.31	11.37	0.690+j4.162	2.259+j10.608
SAN FERNANDO	FDO-115	115	0.82	0.54	28.312+j75.424	86.040+j191.491	0.90	0.59	28.334+j75.616	86.058+j191.665
SAN JORGE	JOR-115	115	21.24	14.00	0.576+j3.072	1.573+j7.819	24.10	16.54	0.534+j2.983	1.320+j7.065
SAN JUAN	JAN-115	115	3.85	2.20	4.224+j16.702	11.766+j54.744	4.24	2.42	4.212+j16.699	11.770+j54.806
SAN MARCOS	MCO-115	115	6.54	3.99	1.783+j9.999	6.151+j28.954	7.19	4.39	1.771+j9.995	6.156+j29.016
SAN MARTÍN	SMA-115	115	13.65	8.47	0.855+j4.790	2.828+j13.492	15.08	9.32	0.836+j4.770	2.833+j13.535
SAN NICOLÁS	NIC-115	115	58.30	55.90	0.199+j1.121	0.134+j1.280	66.18	62.12	0.178+j1.089	0.139+j1.313
SAN NICOLÁS	NIC-115B	115	58.46	56.08	0.198+j1.118	0.134+j1.275	66.37	62.32	0.178+j1.086	0.139+j1.308
SAN NICOLÁS	NIC-400	400	26.84	25.92	1.565+j8.462	1.378+j9.418	31.90	29.83	1.309+j7.855	1.408+j9.518
SAN ROBERTO	RBO-115	115	0.88	0.78	29.919+j69.479	29.847+j99.098	1.03	0.89	27.390+j65.663	30.164+j101.042
SAN ROQUE	ROQ-115B	115	15.29	9.91	0.689+j4.286	2.364+j11.170	19.87	13.23	0.572+j3.630	1.958+j9.006
SAN ROQUE	ROQ-115	115	3.51	2.42	2.831+j18.695	10.824+j43.296	19.71	13.11	0.578+j3.661	1.980+j9.099
SAN DOVAL	SDV-138	138	10.64	7.93	1.522+j7.332	3.335+j14.791	11.68	8.68	1.501+j7.349	3.349+j14.922
SANTA AMALIA TAMAULIPAS	AAT-115	115	21.16	20.25	0.418+j3.110	0.417+j3.542	23.43	22.08	0.423+j3.089	0.444+j3.665
SANTA CATARINA	CAT-115	115	11.45	7.63	0.973+j5.714	2.865+j14.231	12.60	8.36	0.958+j5.717	2.874+j14.335
SANTA CRUZ	STZ-115	115	27.22	18.42	0.424+j2.402	1.215+j5.807	30.89	20.91	0.396+j2.331	1.183+j5.624
SANTO DOMINGO	DON-115	115	38.25	22.07	0.316+j1.707	1.109+j5.441	42.98	24.41	0.295+j1.674	1.112+j5.466
SANTO DOMINGO VIEJO PROVISIONAL	DVP-115	115	23.66	17.44	0.485+j2.764	1.347+j5.652	26.41	19.20	0.462+j2.727	1.354+j5.727
SENDERO NACIONAL	SEN-138	138	10.21	8.63	1.545+j7.649	2.312+j11.870	11.18	9.41	1.529+j7.687	2.327+j12.029
SIDERÚRGICA	SIG-138	138	11.27	10.01	1.352+j6.938	1.830+j9.574	12.35	10.91	1.334+j6.970	1.845+j9.724
SIDERÚRGICA DEL GOLFO S.A.	SGA-230	230	10.12	8.09	1.901+j12.981	4.735+j22.517	11.28	8.92	1.783+j12.826	4.791+j22.769
SIECOR	SIE-138	138	10.73	8.09	1.652+j7.237	3.428+j14.279	11.88	8.99	1.611+j7.199	3.363+j14.095

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			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
SOLIDARIDAD	SRD-115	115	15.37	10.04	0.722+j4.259	2.357+j10.959	16.93	11.02	0.708+j4.255	2.362+j11.009
SORIANA CEDIS	SOC-115	115	14.31	8.50	0.864+j4.559	3.113+j13.811	15.76	9.33	0.848+j4.557	3.120+j13.880
SOTO LA MARINA	SOT-115	115	1.09	0.77	19.868+j57.519	51.000+j127.778	1.20	0.84	19.929+j57.763	51.407+j128.730
SPARTECH	SEH-115	115	16.51	11.93	0.610+j3.975	1.759+j8.495	17.83	12.93	0.613+j4.049	1.768+j8.595
STIVA	STV-115	115	19.94	13.53	0.533+j3.287	1.801+j7.862	22.10	14.91	0.516+j3.264	1.803+j7.891
TAMAULIPAS	TAM-115	115	14.88	11.50	0.807+j4.389	2.202+j8.129	16.83	12.95	0.777+j4.270	2.188+j7.963
TAMAZUNCHALE 115	TZE-115	115	1.02	0.54	19.863+j62.060	58.854+j228.248	1.12	0.60	19.890+j62.164	58.902+j228.295
TAMAZUNCHALE 400	TMH-400	400	18.92	19.82	0.643+j12.190	0.541+j10.571	20.21	20.84	0.596+j12.559	0.617+j11.446
TAMBACA	TBC-115	115	3.36	2.31	5.440+j19.007	16.644+j43.618	3.67	2.53	5.473+j19.138	16.690+j43.657
TAMOS	TMO-115	115	21.17	19.41	0.447+j3.104	0.722+j3.932	23.21	20.96	0.452+j3.114	0.775+j4.097
TAMOS	TMO-400	400	18.83	15.74	1.096+j12.217	4.012+j19.265	21.33	17.47	0.952+j11.871	4.112+j19.556
TAMPICO	TPC-115	115	25.17	27.28	0.366+j2.612	0.258+j2.014	29.69	31.92	0.338+j2.436	0.253+j1.932
TAMPICO	TPC-230	230	15.72	16.23	0.945+j8.392	1.304+j7.577	17.13	17.64	0.909+j8.481	1.299+j7.707
TAMPIQUITO	TPQ-115	115	31.02	19.68	0.370+j2.108	1.086+j5.736	34.77	21.85	0.348+j2.072	1.084+j5.726
TANCOL	TCL-115	115	16.42	14.30	0.661+j3.988	1.918+j5.580	18.75	16.12	0.635+j3.844	1.918+j5.531
TECHNOCAST	THC-115	115	15.54	11.45	0.589+j4.232	1.832+j8.678	16.80	12.42	0.592+j4.308	1.841+j8.782
TECNOLÓGICO POTENCIA SF6	TEC-115	115	43.88	40.11	0.272+j1.488	0.237+j1.927	49.87	45.75	0.248+j1.443	0.217+j1.849
TECNOLÓGICO POTENCIA SF6	TEC-400	400	19.63	17.47	1.851+j11.620	2.315+j15.966	22.75	19.83	1.571+j11.055	2.298+j15.940
TEKSID	TKS-115	115	10.35	10.90	0.893+j6.352	0.884+j5.379	11.82	12.19	0.776+j6.130	0.893+j5.551
TELEFLEX	TLX-138	138	7.08	7.17	2.073+j11.060	1.727+j10.694	8.34	8.21	1.785+j10.357	1.748+j10.865
TEMPOAL II	TED-115	115	1.97	1.41	6.391+j33.012	19.798+j71.582	2.17	1.55	6.403+j33.069	19.825+j71.734
TERNIUM MANIOBRAS	TNM-400	400	12.60	8.99	2.158+j18.205	7.863+j39.666	14.41	10.15	1.873+j17.531	7.783+j39.150
TEXTILERAS	TXE-115	115	16.55	12.30	0.604+j3.966	1.586+j8.021	18.37	13.61	0.602+j3.930	1.578+j8.001
TIERRA NUEVA	TNA-115	115	6.40	4.63	3.309+j9.824	7.438+j20.992	6.90	5.03	3.330+j10.044	7.450+j21.155
TOPO CHICO	THO-115	115	28.58	21.39	0.445+j2.280	0.876+j4.582	31.98	23.68	0.423+j2.244	0.878+j4.601
TOSHIBA	TOS-115	115	9.55	5.51	1.370+j6.819	4.953+j21.652	10.51	6.06	1.355+j6.817	4.960+j21.721
TRANE	TNE-115	115	19.94	13.53	0.533+j3.287	1.801+j7.862	22.10	14.91	0.516+j3.264	1.803+j7.891
TRES MESAS MANIOBRAS	TMS-400	400	9.79	7.89	2.008+j23.513	7.080+j40.110	10.85	8.66	1.924+j23.326	7.182+j40.640
TRIARA II	TII-115	115	11.67	9.24	0.865+j5.623	1.549+j10.057	12.72	9.96	0.866+j5.674	1.629+j10.385
TRICO COMPTS.	TCO-138	138	10.88	9.63	1.373+j7.196	1.908+j9.985	11.91	10.50	1.356+j7.235	1.924+j10.141
TUBACERO MONTERREY	TBM-115	115	20.11	14.14	0.577+j3.251	1.704+j7.295	22.46	15.58	0.550+j3.205	1.711+j7.369
UCAR	UCA-230	230	15.91	12.85	1.264+j8.252	3.377+j13.924	17.84	14.23	1.171+j8.105	3.386+j14.042
UNIVERSIDAD	UNI-115	115	21.15	13.87	0.560+j3.088	1.624+j7.923	24.61	18.34	0.494+j2.926	0.924+j5.938
UNIVERSIDAD SACH	UNT-115	115	16.56	13.00	0.663+j3.954	1.457+j7.163	19.14	14.91	0.609+j3.767	1.398+j6.930
VALADECES	VDL-138	138	6.30	4.08	3.141+j12.256	8.360+j32.196	7.09	4.95	2.992+j11.998	6.693+j27.575
VALLE	VLL-115	115	33.65	23.36	0.362+j1.939	0.831+j4.503	37.81	25.99	0.339+j1.902	0.829+j4.490
VALLE ALTO	VAL-115	115	12.03	10.14	1.012+j5.428	2.017+j8.369	12.90	10.98	1.039+j5.564	2.064+j8.399
VALLE DEL ROBLE	VRO-115	115	8.62	6.29	0.919+j7.648	3.155+j15.955	9.71	6.97	0.870+j7.474	3.201+j16.094
VALLE HERMOSO	VHE-138	138	5.37	3.61	3.442+j14.424	8.892+j35.365	5.92	3.97	3.412+j14.410	8.907+j35.488
VALLE ORIENTE	VOT-115	115	44.08	39.04	0.280+j1.480	0.276+j2.073	49.85	43.66	0.258+j1.442	0.275+j2.071
VALLE PONIENTE	VAP-115	115	21.85	13.95	0.475+j3.001	1.592+j8.053	24.54	16.75	0.446+j2.943	1.245+j7.023
VALLE SOLEADO DEFINITIVO	VSL-115	115	23.67	14.12	0.531+j2.755	1.745+j8.315	26.35	15.60	0.512+j2.724	1.745+j8.323

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noreste**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
VALLE SUR	VSR-138	138	7.01	4.87	2.523+j11.089	6.421+j25.563	7.72	5.35	2.493+j11.075	6.437+j25.686
VALLES	VES-115	115	11.94	9.99	1.035+j5.464	2.030+j8.583	12.80	10.81	1.064+j5.606	2.074+j8.628
VENTIKA MANIOBRAS	VKM-230	230	7.61	7.52	2.026+j17.334	2.977+j17.809	8.24	8.08	2.047+j17.604	3.055+j18.561
VERDE CO.	VEC-138	138	14.66	8.82	1.098+j5.321	3.877+j15.783	16.12	9.65	1.073+j5.328	3.894+j15.912
VICTORIA	VRA-115	115	8.19	6.72	1.774+j7.907	3.541+j12.969	8.78	7.25	1.803+j8.122	3.553+j13.126
VILLA DE CASAS	VDC-115	115	2.49	1.91	9.716+j24.881	15.569+j48.314	2.71	2.07	9.774+j25.128	15.965+j49.257
VILLA DE GARCIA	VDG-115	115	27.72	31.67	0.317+j2.374	0.098+j1.498	29.93	33.79	0.316+j2.420	0.108+j1.602
VILLA DE GARCIA	VDG-230	230	26.00	29.75	0.594+j5.073	0.286+j3.168	28.36	31.99	0.539+j5.123	0.305+j3.385
VILLA DE GARCIA	VDG-400	400	30.85	29.97	1.136+j7.400	1.367+j8.039	36.35	34.11	0.907+j6.929	1.423+j8.256
VILLA DE JUÁREZ DOS	VJD-115	115	12.31	7.28	0.948+j5.309	3.386+j16.220	13.56	7.99	0.935+j5.305	3.391+j16.282
VILLA DE SANTIAGO	VDS-115	115	5.42	3.26	2.433+j11.998	13.822+j34.234	5.99	3.59	2.407+j11.954	13.802+j34.156
VILLA FLORIDA	VLF-138	138	15.85	14.58	0.841+j4.956	1.054+j6.247	17.53	16.19	0.806+j4.933	1.016+j6.158
VISTEON	VIS-115	115	13.10	9.79	0.732+j5.015	1.903+j10.043	14.27	10.62	0.733+j5.065	1.934+j10.223
WHIRLPOOL	WHI-115	115	16.06	11.49	0.631+j4.085	1.849+j8.891	17.36	12.46	0.634+j4.159	1.858+j8.991
WHIRLPOOL APODACA	WHA-115	115	22.31	16.18	0.436+j2.944	1.193+j6.248	24.74	17.76	0.417+j2.923	1.201+j6.323
XICOTENCATL II	XID-115	115	1.65	1.08	12.650+j38.253	34.503+j98.730	1.83	1.21	12.383+j37.875	32.588+j95.409
XOCHIPILLI	XOC-115	115	8.82	7.73	1.193+j7.433	2.037+j10.532	9.96	8.57	1.092+j7.248	2.048+j10.705
YESOS INDUSTRIALES DEL NORTE	YIN-115	115	10.00	7.14	1.691+j6.421	5.586+j13.582	11.01	7.84	1.675+j6.417	5.593+j13.650
ZAPALINAME	ZPL-115	115	14.81	11.40	0.907+j4.390	1.570+j8.364	16.14	12.41	0.904+j4.435	1.579+j8.460
ZENITH	ZEN-138	138	14.32	11.87	1.045+j5.466	1.674+j8.856	15.83	13.02	1.008+j5.444	1.685+j8.961

Gerencia de Control Regional Baja California

Sistema Baja California



Regresar a mapa del SEN

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
ACUEDUCTO	ACU-115	115	3.54	2.68	3.146+j18.506	10.431+j35.500	4.07	3.04	2.906+j17.728	10.436+j35.105
AEROPUERTO DOS	APD-230	230	10.25	8.17	2.481+j12.721	4.280+j23.289	11.80	9.10	2.288+j12.168	4.400+j23.578
BAJÍO	BAJ-69	69	5.00	0.99	2.224+j7.651	23.913+j102.017	5.53	1.09	2.196+j7.616	23.928+j102.196
CACHANILLA	KCH-161	161	16.18	13.82	0.998+j5.659	1.769+j8.789	19.08	15.78	0.868+j5.288	1.787+j8.741
CAÑÓN	KON-115	115	2.71	2.05	7.746+j23.284	10.939+j47.171	3.00	2.25	7.638+j23.150	10.963+j47.571
CÁRDENAS	CNA-69	69	14.28	10.01	0.580+j2.729	1.278+j6.264	16.49	11.28	0.522+j2.606	1.281+j6.250
CARRANZA	CNZ-161	161	15.82	13.93	1.082+j5.774	1.710+j8.413	18.36	15.69	0.972+j5.484	1.732+j8.473
CEMENTOS	CEC-115	115	8.13	7.56	1.588+j8.015	5.068+j9.297	9.23	8.42	1.463+j7.774	5.098+j9.511
CENTENARIO	CNT-230	230	12.74	9.72	1.738+j10.275	4.690+j20.193	15.52	11.37	1.502+j9.292	4.696+j19.535
CENTINELA	CTA-69	69	2.61	3.05	3.730+j14.825	11.343+j4.793	2.86	3.34	3.710+j14.879	11.347+j4.870
CENTRO	CRO-161	161	19.31	19.31	0.898+j4.729	0.670+j5.064	23.05	22.19	0.768+j4.368	0.707+j5.112
CENTRO	CRO-230	230	15.90	14.05	1.440+j8.229	1.711+j12.101	19.77	16.54	1.201+j7.289	1.809+j11.949
CERRO PRIETO CUATRO	CPC-161	161	13.04	14.16	1.250+j7.017	0.675+j5.960	14.89	15.78	1.174+j6.767	0.715+j6.115
CERRO PRIETO DOS	CPD-230	230	13.97	15.92	1.575+j9.374	0.750+j7.349	15.96	17.53	1.468+j9.032	0.821+j7.809
CERRO PRIETO TRES	CPT-230	230	14.13	16.06	1.554+j9.271	0.722+j7.333	16.16	17.70	1.448+j8.921	0.794+j7.785
CERRO PRIETO UNO	CPU-161	161	13.33	12.92	1.261+j6.859	1.224+j8.031	15.29	14.83	1.182+j6.580	1.103+j7.615
CESPT	CPT-69	69	13.57	8.83	0.486+j2.896	1.605+j7.516	15.43	9.86	0.445+j2.806	1.608+j7.516
CETYS	CTY-161	161	18.49	17.72	0.965+j4.932	0.955+j5.908	21.68	20.09	0.853+j4.638	0.984+j5.983
CETYS	CTY-230	230	11.08	9.06	2.308+j11.764	3.491+j20.452	12.83	10.12	2.108+j11.189	3.632+j20.761
CHAPULTEPEC	CHQ-230	230	7.70	5.50	3.126+j16.955	14.724+j36.725	8.65	6.06	2.984+j16.611	14.756+j37.163
CICLO COMBINADO MEXICALI	CCM-230	230	23.39	25.36	0.811+j5.619	0.338+j4.925	32.61	34.57	0.607+j4.438	0.325+j4.070
CIPRÉS	CIP-115	115	9.60	11.75	1.310+j6.794	0.285+j3.440	10.95	13.10	1.190+j6.566	0.316+j3.680
CIPRÉS	CIP-230	230	6.03	6.36	3.928+j21.675	2.055+j19.554	7.10	7.19	3.395+j20.288	2.272+j20.679
COLONET	COE-115	115	1.98	1.34	11.544+j31.465	19.620+j79.171	2.19	1.48	11.427+j31.338	19.645+j79.575
COMISIÓN ESTATAL DE SERVICIOS PÚBLICOS DE TIJUANA	CES-69	69	18.05	14.42	0.375+j2.175	0.713+j3.837	21.11	16.43	0.318+j2.051	0.716+j3.822
DART CONTAINER	DAR-69	69	15.04	1.61	0.469+j2.607	15.772+j67.348	16.87	1.77	0.441+j2.559	15.783+j67.470
DINAMIS PLASTICS	PLA-69	69	16.56	14.61	0.466+j2.360	0.585+j3.342	18.74	16.20	0.430+j2.299	0.593+j3.414
DURAZNO	DRA-69	69	12.30	7.79	0.579+j3.185	1.886+j8.689	14.01	8.70	0.533+j3.082	1.888+j8.679
ENCINAL DOS	END-69	69	5.53	5.60	1.732+j6.987	0.844+j6.957	6.11	6.04	1.712+j6.962	0.935+j7.431
ENSENADA	EDA-115	115	8.34	8.67	1.552+j7.806	1.618+j7.161	9.49	9.66	1.423+j7.559	1.649+j7.389
FABRICAS MONTERREY	FAM-115	115	8.07	8.04	1.605+j8.073	2.027+j8.373	9.17	8.95	1.477+j7.828	2.057+j8.594
FEVISA	FEV-161	161	12.01	7.27	1.446+j7.606	5.059+j22.683	13.87	8.14	1.320+j7.252	5.062+j22.635
FLORIDO	FLO-69	69	13.04	8.76	0.561+j3.003	1.696+j7.369	14.69	9.72	0.528+j2.936	1.702+j7.396
FRANCISCO VILLA	FCO-69	69	13.53	10.20	0.558+j2.890	1.482+j5.667	15.23	11.31	0.523+j2.829	1.488+j5.715
FRONTERA	FTA-69	69	20.45	14.99	0.377+j1.911	0.825+j4.014	23.47	16.80	0.338+j1.836	0.830+j4.032
GALLO	GLL-115	115	8.45	8.68	1.538+j7.705	1.982+j7.272	9.62	9.68	1.412+j7.463	2.009+j7.484
GONZALES ORTEGA	GOR-161	161	16.89	15.64	1.064+j5.399	1.248+j7.056	19.65	17.66	0.958+j5.115	1.263+j7.108
GUERRERO	GER-69	69	18.44	12.96	0.449+j2.113	1.006+j4.826	21.56	14.71	0.392+j1.995	1.007+j4.802
HERRADURA	HRA-69	69	25.34	28.37	0.255+j1.551	0.098+j1.088	28.83	31.49	0.227+j1.503	0.107+j1.154
HERRADURA	HRA-230	230	13.15	11.61	1.513+j9.986	1.915+j14.213	16.05	13.46	1.197+j9.019	2.061+j14.449
HIDALGO	HGO-161	161	7.28	5.75	2.737+j12.470	4.658+j22.933	8.11	6.31	2.650+j12.330	4.701+j23.246
HIPÓDROMO	HMO-69	69	26.64	20.42	0.340+j1.456	0.632+j2.819	31.77	23.47	0.288+j1.349	0.633+j2.802

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	Z _{TH(0)}	Z _{TH(0)}	3F	1F	Z _{TH(0)}	Z _{TH(0)}
HUNTER	HTR-69	69	16.16	11.00	0.475+j2.419	1.238+j5.832	18.62	12.36	0.425+j2.315	1.239+j5.832
HYUNDAI CARGA INDUSTRIAL	HIU-69	69	26.83	17.74	0.296+j1.455	0.629+j3.739	31.07	19.87	0.262+j1.386	0.635+j3.769
INDUSTRIAL	INA-69	69	22.88	17.04	0.342+j1.707	0.692+j3.488	26.48	19.18	0.301+j1.627	0.696+j3.501
IOJOS NEGROS	ONG-69	69	1.35	1.01	10.887+j27.336	16.284+j57.914	1.46	1.09	11.093+j27.992	16.344+j58.864
JATAY	JAT-115	115	3.77	2.83	2.969+j17.382	9.807+j34.026	4.31	3.19	2.756+j16.733	9.824+j33.825
JOVITA	JOV-230	230	7.50	8.47	2.219+j17.559	1.295+j13.253	8.63	9.41	1.994+j16.815	1.448+j14.140
JOYA	JOY-115	115	8.28	8.88	1.074+j7.945	1.360+j6.389	11.94	13.20	0.679+j6.081	1.287+j4.731
KENWORTH	KEN-230	230	5.82	6.59	3.314+j22.583	2.928+j15.167	6.65	7.47	3.071+j21.741	2.980+j14.890
LA MESA	LMS-69	69	22.00	16.73	0.398+j1.767	0.710+j3.474	25.58	18.90	0.351+j1.677	0.713+j3.486
LA ROSITA	ROA-230	230	25.74	25.42	0.802+j5.096	0.728+j5.816	37.07	36.08	0.591+j3.896	0.646+j4.518
LAGO	LGO-69	69	15.27	11.62	0.562+j2.548	0.999+j4.987	17.32	12.93	0.520+j2.476	1.005+j5.036
LOMAS	LOS-69	69	3.07	3.31	2.358+j12.763	0.455+j10.318	3.20	3.42	2.549+j13.435	0.515+j11.267
LOMAS	LOS-115	115	8.80	10.36	1.399+j7.413	0.409+j4.416	10.04	11.53	1.272+j7.165	0.449+j4.700
LOMAS	LOS-230	230	6.09	6.02	3.788+j21.469	2.915+j23.304	7.24	6.84	3.210+j19.920	3.154+j24.351
MABAMEX	MAB-69	69	13.35	8.86	0.581+j2.926	1.878+j7.316	15.08	9.84	0.547+j2.855	1.882+j7.336
MANEADERO	MND-115	115	7.36	6.97	1.865+j8.832	1.922+j10.661	8.31	7.73	1.743+j8.613	1.950+j10.892
MESA INDUSTRIAL GROUP	MGI-69	69	14.54	9.55	0.635+j2.665	1.471+j6.909	16.52	10.64	0.594+j2.586	1.475+j6.923
METROPOLIS	MEP-69	69	31.10	32.01	0.200+j1.265	0.112+j1.191	36.29	36.37	0.166+j1.196	0.118+j1.221
METROPOLIS	MEP-230	230	20.42	20.32	1.082+j6.413	1.071+j6.784	28.53	27.21	0.680+j5.075	1.084+j6.081
MEXICALI II	MXI-161	161	22.44	23.80	0.794+j4.065	0.472+j3.714	27.32	27.86	0.656+j3.685	0.494+j3.717
MEXICALI II	MXI-230	230	19.11	18.19	1.384+j6.808	1.226+j8.567	23.95	21.65	1.153+j5.988	1.290+j8.401
MEXICALI ORIENTE	MOE-161	161	15.90	14.76	1.053+j5.751	1.158+j7.404	18.31	16.52	0.959+j5.502	1.193+j7.520
MÉXICO	MXC-69	69	17.31	11.25	0.518+j2.242	1.305+j5.911	20.14	12.70	0.461+j2.127	1.305+j5.886
MINERA	MIN-115	115	0.81	0.66	30.930+j76.436	36.380+j130.739	0.88	0.73	30.984+j76.556	36.511+j132.811
MISIÓN	MSN-115	115	3.46	2.71	3.168+j18.902	10.128+j34.148	4.01	3.09	2.903+j17.985	10.122+j33.536
MONTECITO	MUE-69	69	17.25	13.09	0.479+j2.259	0.905+j4.446	19.73	14.64	0.435+j2.178	0.910+j4.477
NACUZARI	NZI-161	161	14.69	12.12	1.195+j6.212	2.214+j10.424	17.06	13.66	1.076+j5.895	2.232+j10.444
OPTICA	OPT-69	69	21.07	15.52	0.337+j1.860	0.772+j3.864	24.17	17.40	0.300+j1.788	0.777+j3.881
ORIZABA	OZA-230	230	17.11	14.64	1.419+j7.628	1.998+j12.129	21.44	17.38	1.183+j6.708	2.053+j11.816
PACIFICO	PAF-69	69	22.03	16.45	0.318+j1.780	0.723+j3.605	25.96	18.76	0.267+j1.667	0.724+j3.595
PACKARD	PKD-161	161	18.59	17.48	0.968+j4.907	1.094+j6.160	22.06	20.02	0.838+j4.559	1.113+j6.172
PANAMERICANA	PNM-115	115	6.59	5.67	1.403+j9.980	3.438+j14.748	8.92	7.46	0.996+j8.123	3.375+j13.130
PANAMERICANA POTENCIA	PAP-69	69	32.10	34.46	0.209+j1.223	0.087+j1.013	38.91	40.52	0.160+j1.115	0.091+j1.022
PANAMERICANA POTENCIA	PAP-230	230	16.71	17.10	1.346+j7.834	1.033+j7.679	23.92	23.68	0.802+j6.053	1.015+j6.619
PARQUE INDUSTRIAL	PID-161	161	8.30	8.41	2.136+j10.999	1.793+j11.089	9.16	9.07	2.067+j10.967	1.932+j11.710
PARQUE INDUSTRIAL	PID-230	230	6.99	6.09	3.681+j18.624	6.114+j27.903	7.84	6.61	3.506+j18.299	6.621+j29.229
PARQUE INDUSTRIAL LOS OLIVOS	POL-69	69	17.07	18.59	0.418+j2.296	0.279+j1.763	19.49	20.93	0.381+j2.216	0.284+j1.788
PLANTA DE BOMBEO 1	PB1-69	69	13.21	6.97	0.689+j2.935	2.625+j10.845	15.18	7.79	0.632+j2.817	2.627+j10.824
POPOTLA	POP-115	115	4.96	4.36	1.961+j13.236	5.705+j18.370	6.21	5.36	1.595+j11.658	5.673+j17.054
PRESIDENTE JUÁREZ	PIZ-115	115	9.51	11.15	0.749+j6.943	0.182+j4.009	14.36	18.23	0.361+j5.071	0.106+j2.345
PRESIDENTE JUÁREZ	PIZ-230	230	18.81	21.48	1.212+j6.956	0.522+j4.814	30.73	38.85	0.567+j4.720	0.170+j2.249
PUERTO NUEVO	PNU-115	115	4.03	3.86	2.543+j16.264	5.625+j18.074	4.84	4.63	2.213+j14.935	5.593+j16.794

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
PUNTA CHICA	PCH-115	115	2.25	1.97	8.089+j28.332	10.286+j41.417	2.50	2.17	7.967+j28.134	10.312+j41.649
RIO	RII-69	69	22.09	15.63	0.410+j1.757	0.879+j3.971	26.04	17.82	0.354+j1.645	0.879+j3.948
RIO NUEVO	RIN-161	161	16.80	14.86	1.018+j5.437	1.449+j7.861	19.87	16.96	0.886+j5.070	1.475+j7.857
RSI HOME PRODUCTS	RSI-69	69	24.54	20.89	0.275+j1.600	0.473+j2.452	28.29	23.50	0.241+j1.530	0.479+j2.479
RUBÍ	RUB-69	69	28.31	29.34	0.224+j1.389	0.121+j1.287	34.37	34.63	0.168+j1.264	0.125+j1.278
RUBÍ	RUB-230	230	13.37	13.56	1.663+j9.794	1.406+j9.800	18.91	18.54	1.008+j7.656	1.425+j8.545
RUIZ CORTINEZ	RZC-161	161	8.41	6.78	2.414+j10.786	3.523+j19.119	9.40	7.46	2.323+j10.625	3.546+j19.365
RUMOROSA	RUM-69	69	10.11	13.63	0.247+j3.932	0.046+j0.921	10.97	14.66	0.226+j3.988	0.049+j0.998
RUMOROSA	RUM-230	230	9.29	8.33	1.797+j14.179	2.476+j19.477	11.05	9.45	1.580+j13.127	2.693+j19.948
SAMSUNG	SAM-230	230	18.18	16.91	1.189+j7.205	1.584+j9.080	24.67	21.86	0.787+j5.868	1.597+j8.377
SAN FELIPE	SAF-115	115	0.84	0.71	31.677+j72.557	26.414+j120.246	0.92	0.78	31.720+j72.671	26.546+j122.324
SAN LUIS REY	SRY-230	230	6.72	5.58	3.584+j19.421	7.458+j32.242	7.53	6.10	3.426+j19.081	7.733+j33.131
SAN MATÍAS	SMT-115	115	1.26	1.56	19.276+j48.986	0.704+j23.564	1.38	1.69	19.346+j49.119	0.832+j25.631
SAN QUINTÍN	SQN-115	115	1.24	0.75	21.178+j49.219	40.022+j154.057	1.37	0.83	21.037+j49.107	40.050+j154.468
SAN SIMÓN	SMN-115	115	1.00	0.59	24.755+j61.334	51.021+j200.912	1.11	0.65	24.605+j61.225	51.049+j201.325
SAN VICENTE	SVE-115	115	2.69	1.98	7.506+j23.473	12.144+j50.450	2.99	2.17	7.392+j23.320	12.167+j50.779
SÁNCHEZ TABOADA	STB-230	230	15.66	13.14	1.657+j8.316	2.608+j13.730	19.20	15.38	1.419+j7.473	2.659+j13.453
SANTA ISABEL	SIS-161	161	21.97	23.06	0.723+j4.168	0.492+j3.883	26.56	27.03	0.601+j3.802	0.504+j3.811
SANTA ISABEL	SIS-230	230	20.62	19.28	1.106+j6.345	1.272+j8.224	27.21	24.26	0.876+j5.297	1.305+j7.551
SAUZAL	SAZ-115	115	3.41	2.64	3.381+j19.172	9.928+j35.485	3.89	2.97	3.156+j18.498	9.943+j35.359
SEMINARIO	SIO-69	69	15.09	8.96	0.527+j2.586	1.728+j7.898	17.21	10.00	0.483+j2.500	1.730+j7.899
SHARP	SHA-115	115	8.64	9.27	0.874+j7.637	0.667+j6.189	12.62	13.92	0.484+j5.768	0.613+j4.629
SIDERÚRGICA	CSC-230	230	12.28	10.46	1.906+j10.648	3.226+j17.088	14.31	11.78	1.737+j10.058	3.278+j17.207
SONY	SON-69	69	11.10	6.21	0.751+j3.508	2.557+j11.830	12.49	6.87	0.709+j3.436	2.563+j11.879
TAICO	TYC-69	69	16.21	12.73	0.497+j2.407	0.873+j4.407	18.43	14.19	0.456+j2.333	0.879+j4.454
TECATE	TCT-69	69	6.74	5.03	1.343+j5.759	3.318+j11.494	7.46	5.50	1.315+j5.724	3.338+j11.732
TECATE DOS	TCD-69	69	7.29	5.89	1.118+j5.347	2.009+j9.170	8.08	6.44	1.092+j5.311	2.044+j9.382
TECNOLÓGICO	TEK-230	230	14.28	11.66	1.843+j9.118	3.114+j15.919	17.07	13.36	1.619+j8.402	3.187+j15.844
TECOLOTE	TEE-69	69	15.70	10.51	0.423+j2.502	1.299+j6.196	18.23	11.87	0.366+j2.376	1.299+j6.173
TECRA	TCR-69	69	6.27	3.55	1.442+j6.190	5.247+j20.305	6.94	3.89	1.414+j6.155	5.261+j20.484
TENSHO. CARGA INDUSTRIAL	TSHO-115	115	8.88	9.81	0.836+j7.430	0.499+j5.453	13.09	15.03	0.447+j5.560	0.446+j3.895
THOMSOM	THO-230	230	13.76	10.97	1.821+j9.476	3.410+j17.322	16.64	12.69	1.582+j8.634	3.461+j17.045
TIJUANA	TJI-69	69	32.74	35.31	0.188+j1.202	0.076+j0.973	38.20	40.09	0.155+j1.137	0.083+j1.008
TIJUANA	TJI-69A	69	18.88	21.57	0.391+j2.073	0.083+j1.350	21.32	23.77	0.359+j2.024	0.093+j1.450
TIJUANA	TJI-230	230	22.64	23.75	0.974+j5.784	0.722+j5.245	31.64	31.83	0.610+j4.576	0.751+j4.765
TOYOTA	TOY-230	230	11.89	9.75	1.655+j11.041	3.031+j18.509	14.48	11.32	1.322+j10.003	3.141+j18.530
TRINIDAD	TRI-115	115	1.61	1.50	14.303+j38.548	10.305+j50.473	1.78	1.63	14.277+j38.542	10.368+j51.587
UNIVERSIDAD	UND-69	69	14.19	8.98	0.594+j2.744	1.683+j7.528	16.22	10.06	0.544+j2.646	1.685+j7.514
VALLE	VAL-69	69	15.60	9.90	0.544+j2.494	1.427+j6.847	18.06	11.15	0.487+j2.378	1.427+j6.822
VALLE DE GUADALUPE	VLP-69	69	2.45	1.61	5.909+j15.150	11.072+j40.245	2.64	1.75	5.997+j15.489	11.096+j40.630
VALLE DE LAS PALMAS	VPM-69	69	3.27	2.21	5.192+j11.032	7.034+j29.234	3.60	2.42	5.173+j11.037	7.037+j29.329
VALLE DE PUEBLA	VPA-230	230	12.33	9.42	2.080+j10.568	4.754+j20.876	14.63	10.74	1.848+j9.812	4.818+j20.733

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(+)}$	$Z_{T(0)}$	3F	1F	$Z_{T(+)}$	$Z_{T(0)}$
VALLECITOS	VLC-69	69	2.55	1.67	6.567+j14.197	10.866+j39.075	2.78	1.83	6.579+j14.307	10.872+j39.257
VIGOBITE	VIB-69	69	19.97	12.94	0.403+j1.953	1.110+j5.153	23.11	14.56	0.358+j1.862	1.113+j5.149
WISTERIA	WIS-230	230	20.23	19.05	1.266+j6.440	1.280+j8.313	25.91	23.15	1.036+j5.542	1.321+j7.959
XOCHIMILCO	XCO-230	230	18.20	16.08	1.403+j7.160	1.765+j10.666	22.79	19.10	1.170+j6.301	1.816+j10.403

Gerencia de Control Regional Baja California

Sistema Baja California Sur



Regresar a mapa del SEN

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{Tm(+)}$	$Z_{Tm(0)}$	3F	1F	$Z_{Tm(+)}$	$Z_{Tm(0)}$
AEROPUERTO SAN JOSÉ	ASJ-115	115	2.10	2.48	8.830+j30.404	2.890+j16.778	4.03	4.08	4.826+j17.476	2.975+j17.242
AURA SOLAR	ASU-115	115	3.10	3.93	4.944+j20.854	1.371+j7.678	6.93	7.89	2.067+j10.328	0.948+j6.253
AZUL DEL CORTES	AZC-115	115	2.58	3.11	6.452+j24.947	3.364+j11.977	5.37	5.59	3.071+j13.251	3.430+j11.267
BLEDALES	BLE-115	115	2.95	3.95	5.502+j21.794	0.954+j5.396	6.62	7.86	2.620+j10.718	1.021+j5.467
CABO BELLO	CAB-115	115	2.34	3.04	7.620+j27.313	1.415+j8.667	5.53	6.19	3.089+j12.831	1.516+j8.869
CABO FALSO	CAF-115	115	2.43	3.15	7.113+j26.362	1.308+j8.576	6.46	7.18	2.384+j11.045	1.259+j7.801
CABO REAL	CRE-115	115	2.46	3.27	7.304+j25.969	1.231+j6.873	5.57	6.54	3.142+j12.727	1.282+j7.113
CABO SAN LUCAS DOS	CAD-115	115	2.51	3.38	7.100+j25.520	0.877+j5.983	6.71	7.96	2.474+j10.593	0.885+j5.678
CABO SOL	CAS-115	115	2.33	2.93	7.596+j27.476	1.899+j10.793	5.24	5.60	3.216+j13.548	1.993+j11.078
CAMINO REAL	CAR-115	115	2.13	2.51	8.491+j30.039	4.094+j16.547	3.90	4.01	4.667+j18.126	4.341+j16.415
COROMUEL	COR-230	230	1.95	2.57	13.143+j66.993	1.306+j18.828	4.20	5.18	4.332+j34.509	0.835+j14.589
EL PALMAR	ELP-115	115	2.65	3.77	6.812+j24.072	0.271+j2.780	6.56	8.69	2.636+j10.810	0.297+j2.932
EL PALMAR	ELP-230	230	1.42	1.98	24.306+j90.447	1.221+j14.478	3.53	4.47	8.185+j40.558	1.349+j15.140
EL RECREO	RCO-115	115	2.99	4.01	5.343+j21.555	0.909+j5.207	6.70	8.00	2.501+j10.618	0.965+j5.229
EL TRIUNFO	ETR-115	115	2.00	2.36	9.462+j31.791	3.088+j18.066	3.52	3.62	5.746+j19.934	3.364+j18.669
GENERAL AGUSTÍN OLACHEA	GAO-115	115	1.92	2.53	5.692+j34.190	0.414+j9.338	3.36	4.31	3.067+j21.549	0.286+j7.264
GRUPOTEC	GPT-115	115	3.19	4.27	4.830+j20.243	0.843+j4.964	7.32	8.75	1.975+j9.777	0.831+j4.717
INSURGENTES	INS-115	115	1.53	1.92	10.859+j42.085	4.215+j16.270	2.72	3.29	6.912+j25.957	2.594+j12.572
LA PAZ	LPZ-115	115	2.68	3.47	6.397+j23.979	1.424+j7.689	5.73	6.52	3.360+j12.293	1.521+j7.788
LAS PILAS	LAP-115	115	1.96	2.14	8.830+j32.685	5.580+j24.698	3.23	3.09	5.623+j21.907	5.750+j24.873
LORETO	LRO-115	115	0.68	0.90	28.342+j93.566	1.966+j25.272	0.93	1.19	26.386+j74.163	2.162+j27.317
MONTE REAL	MOR-115	115	2.18	2.74	8.510+j29.219	1.753+j11.732	4.35	4.77	4.489+j16.193	1.844+j12.210
OLAS ALTAS	OLA-115	115	3.28	4.50	4.729+j19.687	0.518+j3.750	7.75	9.68	1.881+j9.238	0.478+j3.432
OLAS ALTAS	OLA-230	230	1.89	2.47	14.740+j68.554	2.628+j21.120	4.29	4.98	4.818+j33.733	2.548+j19.210
PALMILLA	PAA-115	115	2.59	3.10	6.394+j24.785	2.203+j12.980	5.45	5.51	3.165+j13.012	2.257+j12.610
PALMILLA	PML-115	115	2.25	2.89	7.953+j28.352	1.648+j10.031	4.67	5.24	3.840+j15.146	1.735+j10.429
POZO DE COTA	POC-115	115	2.51	3.42	6.521+j25.664	0.409+j5.365	6.99	8.58	1.833+j10.285	0.416+j4.593
POZO DE COTA	POC-230	230	1.35	1.81	24.948+j94.798	3.021+j24.248	3.31	3.89	8.211+j43.295	2.953+j24.019
PUERTO ESCONDIDO	PES-115	115	0.75	0.96	25.366+j84.848	3.707+j30.969	1.04	1.27	22.878+j66.137	3.889+j32.619
PUNTA PRIETA	PUP-115	115	2.98	3.94	5.561+j21.608	1.046+j5.864	7.65	9.66	1.940+j9.347	0.377+j3.409
PUNTA PRIETA	PUP-115B	115					7.55	9.41	1.959+j9.468	0.445+j3.761
REFORMAS AGRARIAS	REA-115	115	1.88	1.99	9.199+j34.054	8.252+j28.458	2.96	2.74	6.388+j23.811	8.696+j29.212
ROFOMEX	RFO-115	115	1.30	1.01	14.521+j48.892	26.085+j91.005	1.77	1.23	10.290+j39.999	26.171+j91.034
SAN JOSÉ DEL CABO	SJC-115	115	2.36	3.22	7.857+j27.056	0.666+j5.532	5.07	6.31	3.801+j13.883	0.724+j5.880
SANTIAGO	SNT-115	115	1.67	1.90	12.604+j37.616	3.350+j25.617	2.70	2.71	8.920+j25.515	3.633+j26.956
SANTO DOMINGO	DOM-115	115	1.33	1.59	12.070+j48.328	4.368+j25.208	2.20	2.42	8.161+j32.155	3.837+j23.782
TURBO GAS LOS CABOS	TCB-115	115	2.53	3.42	6.565+j25.366	0.644+j5.935	7.64	9.78	1.668+j9.414	0.214+j3.270
VILLA CONSTITUCIÓN	VIO-115	115	1.85	2.37	8.093+j35.026	1.669+j11.922	3.60	4.49	4.270+j19.810	0.837+j8.216

Gerencia de Control Regional Baja California

Sistema Mulegé



Regresar a mapa del SEN

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Mulege**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$	3F	1F	$Z_{TH(+)}$	$Z_{TH(0)}$
BAHÍA ASUNCIÓN	BAS-115	115	0.35	0.24	51.965+j181.717	171.673+j425.340	0.58	0.31	33.571+j122.487	172.019+j428.590
MEZQUITAL	MEZ-115	115	0.52	0.66	22.162+j125.222	7.025+j44.275	0.95	1.08	7.421+j76.703	7.200+j47.162
SANTA ROSALÍA	SRI-115	115	0.50	0.64	24.720+j131.174	4.601+j41.585	0.91	1.06	8.124+j80.220	4.947+j44.868
TRES VÍRGENES	GLV-115	115	0.52	0.68	20.869+j126.734	3.026+j34.776	0.88	1.07	8.529+j82.582	3.270+j37.819
VIZCAÍÑO	VIZ-115	115	0.51	0.39	23.867+j127.509	78.357+j242.090	1.09	0.56	5.408+j66.750	78.663+j245.277

Gerencia de Control Regional Peninsular



Regresar a mapa del SEN

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
AH KIM PECH	AKI-115	115	4.25	3.78	5.353+j14.669	6.474+j20.809	5.60	4.68	3.647+j12.526	6.467+j20.276
AK TUNCHEN	AUC-115	115	3.90	2.79	5.603+j16.058	10.265+j36.028	4.80	3.24	4.205+j14.620	10.272+j36.159
AKUMAL II	AKD-115	115	3.45	2.35	6.305+j18.184	12.741+j44.814	4.18	2.69	4.944+j16.753	12.743+j44.893
ALOM	ALO-115	115	11.43	10.84	1.548+j5.600	1.536+j7.007	16.30	14.62	0.842+j4.400	1.314+j6.214
AVENTURA PALACE	AVP-115	115	5.83	4.65	3.762+j10.755	4.804+j19.730	7.68	5.59	2.256+j9.233	4.824+j19.971
BALAM	BLM-115	115	8.51	11.37	2.890+j7.247	0.178+j2.125	13.72	18.10	1.247+j5.174	0.165+j1.926
BALAM	BLM-230	230	4.35	5.35	10.513+j28.667	1.027+j14.486	6.73	7.86	4.448+j21.255	0.979+j14.019
BONAMPAK	BNP-115	115	8.26	10.73	3.007+j7.458	0.399+j2.641	13.54	17.59	1.270+j5.242	0.275+j2.155
BONFIL	BNI-115	115	7.50	8.10	3.065+j8.300	1.660+j6.854	11.83	11.84	1.317+j6.031	1.552+j6.475
CALICA	CLC-115	115	4.77	3.53	4.448+j13.187	7.101+j27.938	6.07	4.15	2.941+j11.667	7.121+j28.179
CALKINI II	CKD-115	115	3.10	1.95	6.511+j20.412	18.331+j56.760	3.66	2.21	5.495+j19.210	18.317+j56.628
CANCUN	CNC-115	115	8.27	10.52	2.980+j7.452	0.516+j3.011	13.88	17.85	1.189+j5.127	0.278+j2.252
CANEK	CEK-115	115	7.43	7.78	3.244+j8.323	1.641+j7.768	11.46	11.10	1.545+j6.181	1.527+j7.304
CAUCEL POTENCIA	CCP-115	115	13.26	16.92	1.295+j4.837	0.167+j2.187	19.01	23.04	0.665+j3.783	0.177+j2.148
CAUCEL POTENCIA	CCP-230	230	8.23	10.33	3.832+j15.676	0.945+j7.900	11.38	13.46	1.848+j12.700	0.957+j8.050
CAYAL	CYL-115	115	2.29	1.60	8.868+j27.584	18.174+j64.444	2.78	1.86	6.927+j25.293	18.169+j63.937
CD. DEL CARMEN	CRE-115	115	1.82	2.11	14.991+j33.179	1.223+j22.963	3.11	3.93	5.835+j22.729	0.314+j1.664
CEMENTOS MAYA	CMY-115	115	9.18	7.48	2.062+j6.931	3.230+j12.158	13.05	10.77	1.196+j5.469	2.211+j9.230
CENTRAL PARQUE EÓLICO CHACABAL	ECH1-115	115	3.66	3.78	4.054+j17.663	2.075+j16.621	4.09	4.11	3.906+j17.419	2.239+j17.652
CENTRAL PARQUE EÓLICO CHACABAL II	ECH2-115	115	3.66	3.78	4.054+j17.663	2.075+j16.621	4.09	4.11	3.906+j17.419	2.239+j17.652
CENTRO	CNO-115	115	11.69	10.98	1.666+j5.429	1.609+j7.030	16.36	14.40	0.980+j4.354	1.407+j6.462
CHAAC	HAA-115	115	7.33	9.08	3.273+j8.446	0.815+j3.913	11.28	13.50	1.566+j6.285	0.775+j3.679
CHACABAL	CMC-115	115	4.12	4.23	3.589+j15.706	2.062+j14.917	4.62	4.63	3.422+j15.431	2.170+j15.736
CHAMPOTON	CMO-115	115	3.58	2.75	6.088+j17.494	8.688+j34.728	4.69	3.32	3.873+j15.077	8.681+j34.384
CHANKANAAB II	CHS-115	115	5.54	5.09	4.446+j11.133	4.883+j14.547	7.52	6.34	2.669+j9.340	4.905+j14.791
CHEMAX	CEX-115	115	3.04	2.65	5.253+j21.168	6.815+j31.145	3.75	3.07	4.330+j18.984	7.239+j32.014
CHETUMAL NORTE	CTE-115	115	2.81	2.87	8.444+j22.077	4.894+j21.774	3.93	3.83	4.964+j17.890	4.836+j20.925
CHICBUL	CBU-115	115	2.88	2.34	7.612+j21.731	9.608+j38.383	3.85	2.88	4.423+j18.466	9.588+j37.656
CHICHÍ SUÁREZ	CCS-115	115	14.97	19.79	1.213+j4.265	0.159+j1.595	21.35	26.85	0.636+j3.361	0.166+j1.615
CHICHÍ SUÁREZ	CCS-230	230	8.06	9.91	4.218+j15.917	0.969+j8.802	11.40	13.07	2.015+j12.653	1.014+j9.004
CHOLUL	HOL-115	115	11.99	11.35	1.601+j5.302	1.804+j6.633	16.10	13.99	1.033+j4.417	1.810+j6.655
CHUBURNA	CBR-115	115	10.61	9.75	1.736+j6.013	1.980+j8.094	13.98	11.85	1.155+j5.096	1.990+j8.112
CONCORDIA	CNR-115	115	1.74	1.89	15.833+j34.654	3.371+j30.719	2.89	3.25	6.611+j24.390	2.461+j19.418
DZITAS	DZI-115	115	3.40	2.36	4.748+j18.948	13.603+j43.543	4.17	2.75	3.985+j17.052	13.581+j43.033
DZITNUP	DZT-400	400	3.40	3.50	20.147+j64.844	13.293+j63.814	4.85	4.53	8.171+j51.787	13.404+j64.797
ESCÁRCEGA	ESA-115	115	5.11	6.61	3.700+j12.456	0.148+j4.580	7.07	8.77	1.680+j10.194	0.186+j4.824
ESCÁRCEGA	ESA-230	230	3.36	4.15	11.807+j37.702	0.929+j18.518	5.01	5.82	5.157+j28.689	1.177+j18.584
ESCÁRCEGA	ESA-400	400	3.97	4.43	12.332+j56.898	3.371+j42.690	5.36	5.52	5.219+j47.131	3.694+j44.660
HECELCHACAN	HCE-115	115	2.91	1.81	6.864+j21.766	14.647+j63.413	3.48	2.06	5.612+j20.252	14.650+j63.265
HIDROGENADORA YUCATECA	HRA-115	115	11.45	10.59	1.666+j5.553	1.703+j7.441	17.53	17.46	0.805+j4.088	0.684+j4.513
HUNABKU	HBK-115	115	7.42	9.32	3.273+j8.328	0.717+j3.575	11.47	14.02	1.562+j6.170	0.671+j3.318
HUNUCMA	HNC-115	115	4.76	3.04	3.244+j13.572	7.558+j37.224	5.67	3.46	2.611+j12.609	7.565+j37.203

**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Peninsular**

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
IBEROESTAR	IBR-115	115	6.45	6.12	3.003+j9.850	2.615+j11.878	8.52	7.52	1.605+j8.418	2.637+j12.065
INSURGENTES	INS-115	115	2.83	2.92	8.351+j21.943	4.470+j21.095	3.97	3.91	4.876+j17.747	4.412+j20.246
ISLA DE TRIS	ILT-115	115	1.82	2.05	14.882+j33.294	3.195+j24.938	3.07	3.71	5.869+j23.039	2.458+j13.926
ITZAES	IZE-115	115	10.47	9.16	1.865+j6.061	2.169+j9.241	14.79	12.52	1.092+j4.817	1.681+j7.777
ITZIMNA	IZI-115	115	11.54	12.37	1.549+j5.539	1.590+j4.742	15.32	15.37	0.991+j4.664	1.599+j4.780
IZAMAL	IZL-115	115	3.04	1.85	6.047+j21.009	17.593+j61.959	3.55	2.08	5.417+j19.869	17.599+j61.791
KABAH	KAB-115	115	7.61	9.64	3.221+j8.109	0.637+j3.317	11.89	14.70	1.510+j5.956	0.588+j3.048
KALA	KAL-115	115	4.91	4.73	4.461+j12.776	4.015+j14.834	6.72	6.09	2.677+j10.527	4.006+j14.269
KAMBUL	KBL-115	115	1.85	2.05	11.962+j33.860	2.796+j25.942	2.27	2.40	9.359+j30.737	3.041+j27.758
KANASÍN POTENCIA	KNP-115	115	13.32	19.73	1.337+j4.800	0.072+j0.502	18.76	27.38	0.714+j3.826	0.075+j0.513
KANASÍN POTENCIA	KNP-230	230	8.68	10.47	3.996+j14.761	1.378+j8.834	12.47	13.95	1.803+j11.575	1.425+j8.968
KEKEN	KEK-115	115	7.23	7.91	3.152+j8.630	1.879+j6.684	10.85	11.09	1.507+j6.563	1.866+j6.484
KOHUNLICH	KHU-115	115	5.48	4.45	4.095+j11.393	4.699+j20.256	7.54	5.57	2.475+j9.370	4.596+j19.839
KOPTE	KOP-115	115	4.49	3.61	3.764+j14.306	5.235+j25.360	5.12	4.01	3.477+j13.845	5.290+j25.797
KUKULKAN	KUK-115	115	7.42	7.94	3.234+j8.339	1.411+j7.276	11.45	11.37	1.530+j6.191	1.324+j6.873
LAGUNA DE TÉRMINOS	LTE-115	115	1.75	1.89	15.803+j34.527	3.409+j30.753	2.91	3.27	6.585+j24.259	2.499+j19.452
LÁZARO CÁRDENAS	LAC-115	115	2.04	1.41	11.611+j30.348	27.059+j71.490	2.60	1.67	8.567+j26.781	27.061+j71.110
LEE	LEE-115	115	7.33	4.11	1.944+j8.841	9.811+j29.170	9.14	4.72	1.282+j7.891	9.816+j29.234
LERMA	LRA-115	115	6.10	8.16	3.518+j10.308	0.113+j3.116	9.07	12.21	1.683+j7.877	0.105+j2.494
LERMA	LRA-230	230	3.15	3.89	12.985+j40.054	0.901+j20.227	4.54	5.45	6.165+j31.546	0.841+j18.355
MAHAHUAL	MHH-115	115	1.11	0.64	20.761+j56.324	63.902+j182.145	1.31	0.72	17.671+j52.767	63.901+j181.758
MAXCANU	MAX-115	115	4.58	2.90	4.476+j13.779	11.857+j38.241	5.51	3.31	3.623+j12.738	11.838+j38.165
MAYA KOBÁ	MYK-115	115	6.24	6.13	3.286+j10.118	2.462+j11.189	8.25	7.56	1.819+j8.659	2.477+j11.373
MÉRIDA II	MDA-115	115	12.42	12.47	1.534+j5.122	1.291+j5.545	19.65	22.56	0.671+j3.655	0.272+j2.617
MÉRIDA ORIENTE	MDN-115	115	11.53	10.60	1.712+j5.498	2.273+j7.318	15.75	13.27	1.076+j4.511	2.231+j7.213
MÉRIDA POTENCIA	MDP-230	230	8.69	11.68	3.441+j14.892	0.260+j5.240	11.83	15.10	1.664+j12.236	0.300+j5.580
METROPOLITANA	MTO-115	115	10.51	9.49	1.799+j6.058	2.256+j8.457	14.93	13.15	1.019+j4.785	1.744+j6.990
MOON PALACE	MPA-115	115	6.13	5.40	3.031+j10.390	3.772+j14.896	8.36	6.75	1.522+j8.601	3.775+j14.928
NACHI COCOM	NCM-115	115	14.13	16.47	1.352+j4.499	0.699+j3.021	20.47	22.87	0.711+j3.497	0.560+j2.699
NICHUPTE	NCT-115	115	7.74	9.95	3.178+j7.966	0.512+j3.002	12.12	15.27	1.485+j5.839	0.469+j2.735
NICTE HA	NIH-115	115	7.36	8.85	3.150+j8.453	0.968+j4.508	11.35	13.03	1.451+j6.270	0.939+j4.319
NIZUC	NIZ-115	115	8.86	12.66	2.694+j6.989	0.103+j0.864	14.96	21.72	1.018+j4.773	0.090+j0.805
NIZUC	NIZ-230	230	4.93	5.78	9.231+j25.326	1.960+j15.841	7.65	8.49	3.657+j18.731	1.736+j14.806
NORTE	NTE-115	115	14.24	18.43	1.233+j4.498	0.195+j1.896	19.70	24.13	0.693+j3.641	0.213+j1.972
NORTE	NTE-230	230	7.87	9.57	4.148+j16.356	1.139+j9.451	10.94	12.42	2.040+j13.196	1.199+j9.698
PALMAR	PMR-115	115	1.93	1.69	12.255+j32.129	10.582+j48.665	2.86	2.36	5.573+j24.932	10.135+j42.269
PHOTOEMERIS SUSTENTABLE	PHS-115	115	1.80	2.04	12.228+j34.879	2.101+j24.206	2.21	2.39	9.557+j31.642	2.359+j26.117
PLAYA CAR	PLY-115	115	7.36	8.29	3.120+j8.469	0.947+j6.188	10.27	10.77	1.606+j6.930	0.968+j6.431
PLAYA DEL CARMEN	PCN-115	115	7.48	9.59	3.069+j8.332	0.208+j3.310	10.46	12.81	1.565+j6.804	0.228+j3.550
PLAYA DEL CARMEN	PCN-230	230	4.25	5.07	10.286+j29.525	1.850+j16.977	6.04	6.75	4.740+j23.704	2.001+j17.868
PLAYA MUJERES	PMU-115	115	6.28	6.39	3.599+j9.936	2.232+j9.971	8.99	8.49	1.944+j7.885	2.219+j9.771
POKTAPOK	PKP-115	115	8.03	10.39	3.096+j7.664	0.468+j2.778	12.85	16.36	1.385+j5.511	0.412+j2.483

Subestación eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2020				NCC máximo 2020			
			3F	1F	$Z_{T(0)}$	$Z_{T(0)}$	3F	1F	$Z_{T(0)}$	$Z_{T(0)}$
POLYUC	PYU-115	115	1.62	1.22	14.240+j38.536	20.090+j79.597	1.95	1.39	11.618+j35.585	20.340+j80.635
PONIENTE	PTE-115	115	12.53	13.63	1.424+j5.106	0.860+j4.350	17.42	17.55	0.812+j4.114	0.867+j4.330
POPOLNAH	PPH-115	115	2.63	1.64	7.189+j24.228	16.431+j69.203	3.10	1.86	6.102+j22.737	16.412+j69.114
PUERTO JUÁREZ	PJU-115	115	8.11	9.76	3.008+j7.617	0.683+j4.174	12.88	14.80	1.338+j5.512	0.636+j3.880
PUERTO MORELOS	PMO-115	115	7.54	7.54	2.639+j8.402	1.786+j8.832	10.37	9.54	1.271+j6.927	1.817+j9.035
PUERTO PROGRESO	PPO-115	115	4.31	3.86	3.140+j15.075	3.859+j20.825	4.97	4.37	2.777+j14.425	3.862+j20.642
PUNTA SAM	PSA-115	115	7.26	7.41	3.169+j8.575	1.820+j8.588	10.91	10.19	1.517+j6.517	1.806+j8.387
RIVIERA MAYA	RMY-115	115	8.88	10.58	2.417+j7.072	0.319+j4.146	12.65	14.03	1.087+j5.669	0.359+j4.404
RIVIERA MAYA	RMY-230	230	4.98	6.56	9.024+j25.069	0.444+j8.454	7.41	9.31	3.778+j19.348	0.504+j8.983
RIVIERA MAYA	RMY-400	400	3.09	3.95	24.737+j70.442	1.841+j29.335	4.54	5.46	10.198+j55.030	2.063+j31.239
SABANCUY	SBY-115	115	3.06	2.76	7.863+j20.186	6.431+j28.787	4.42	3.67	3.778+j16.093	6.323+j26.978
SAMULA	SAM-115	115	4.86	4.83	4.451+j12.920	3.504+j13.886	6.70	6.28	2.621+j10.585	3.495+j13.284
SAMULA II	SAD-115	115	4.50	4.55	4.669+j14.009	3.104+j14.337	6.07	5.84	2.849+j11.681	3.095+j13.735
SAN IGNACIO	IGN-115	115	5.63	5.53	2.215+j11.576	1.672+j12.667	6.63	6.52	1.831+j10.869	1.432+j11.718
SAN IGNACIO MANIOBRAS	SWB-115	115	5.28	5.56	2.312+j12.357	0.893+j10.983	6.16	6.39	1.952+j11.703	0.896+j10.800
SAN PEDRO	SAE-115	115	2.11	1.36	5.590+j30.949	26.678+j79.825	2.53	1.56	4.710+j28.455	26.683+j79.181
SANTA LUCIA	SLC-230	230	3.99	3.06	8.082+j32.284	15.587+j63.002	7.07	7.95	2.513+j20.520	0.848+j15.156
SANTO DOMINGO	SDM-115	115	3.15	2.40	4.796+j20.507	9.273+j40.058	3.54	2.66	4.609+j20.127	9.310+j40.449
SIHOCHAC	SHC-115	115	2.77	1.92	7.497+j22.782	12.934+j54.712	3.45	2.25	5.451+j20.433	12.927+j54.327
SUCILA	SUC-115	115	3.40	2.49	4.806+j18.937	9.873+j40.209	3.91	2.79	4.440+j18.125	9.946+j40.576
SUR	SUR-115	115	12.43	12.75	1.552+j5.112	1.354+j5.153	17.97	17.58	0.834+j3.978	1.143+j4.504
TEKAX II	TKD-115	115	3.11	2.29	6.503+j20.347	9.170+j43.823	3.71	2.60	5.245+j18.980	9.209+j44.211
TEMAX II	TXS-115	115	3.51	3.10	3.989+j18.488	5.497+j26.077	3.91	3.41	3.872+j18.278	5.535+j26.578
TICUL I	TIU-115	115	7.61	7.81	2.550+j8.349	1.861+j8.162	9.51	9.25	1.739+j7.482	1.875+j8.397
TICUL II	TIC-115	115	9.82	12.44	1.584+j6.572	0.088+j2.846	12.70	15.32	0.774+j5.699	0.102+j3.082
TICUL II	TIC-230	230	7.64	10.21	5.188+j16.596	0.426+j5.371	11.56	14.65	1.961+j12.477	0.490+j5.581
TICUL II	TIC-400	400	4.31	5.38	15.684+j51.259	1.829+j24.980	6.34	7.34	5.872+j39.625	2.057+j26.297
TIXMEHUAC	TXM-115	115	2.00	1.33	8.573+j32.051	20.438+j80.595	2.31	1.50	7.309+j30.693	20.477+j80.984
TIZIMIN	TZM-115	115	4.04	3.60	3.865+j15.987	5.449+j22.454	4.75	4.08	3.419+j14.997	5.560+j22.936
TULUM	TUM-115	115	2.66	1.80	7.735+j23.776	15.609+j58.763	3.15	2.05	6.516+j22.238	15.582+j58.620
UCU	UCU-115	115	5.34	3.52	2.945+j12.074	6.387+j31.473	6.44	4.02	2.313+j11.109	6.394+j31.453
UMAN	UMA-115	115	6.42	4.11	3.239+j9.817	8.734+j26.716	8.03	4.81	2.496+j8.749	8.594+j26.272
VALLADOLID	VAD-115	115	7.78	10.21	1.418+j8.412	0.096+j2.809	12.68	16.70	0.523+j5.737	0.045+j1.982
VALLADOLID	VAD-230	230	7.63	10.20	2.775+j17.187	0.084+j5.786	11.30	14.65	0.955+j12.897	0.070+j5.275
VALLADOLID DISTRIBUCIÓN	VDD-115	115	6.62	5.84	1.929+j9.842	6.331+j13.249	9.85	7.77	1.069+j7.339	6.337+j12.609
XCALACOCO	XLC-115	115	6.52	6.19	2.931+j9.748	2.429+j11.759	8.64	7.61	1.543+j8.312	2.452+j11.953
XPUJIL	XPU-115	115	1.52	1.10	8.660+j42.879	23.404+j90.141	1.81	1.27	6.002+j39.883	23.389+j89.844
XUL HA	XUL-115	115	3.50	4.77	6.559+j17.772	0.153+j4.183	5.29	7.44	3.172+j13.443	0.095+j3.335
XUL HA	XUL-230	230	1.98	2.46	22.373+j63.158	1.594+j29.347	2.87	3.51	10.914+j49.733	1.333+j27.295
YAL KU	YLK-115	115	6.91	7.83	3.301+j9.021	1.175+j6.380	9.46	10.06	1.804+j7.507	1.195+j6.614
YAXCHE	YXE-115	115	6.13	5.54	3.552+j10.232	3.136+j14.140	8.68	7.15	1.892+j8.198	3.123+j13.940
ZAC NICTÉ	ZNE-115	115	6.64	6.81	3.172+j9.483	1.346+j9.444	8.96	8.54	1.684+j7.977	1.365+j9.643