

Transmission Line Loading (based on 2021 Transmission Needs Assessment Analysis)

5/16/2021

Line No.	From	To	Nom. Voltage	Conductor	Length (mi.)	Sum. Norm. Rating (MVA)	Summer Peak Hour Loading (N-1)	Contingency	Notes
390	Orrington	Baileyville	345kv	1192 ACSR	84.4	1773	1000 max	S396	Loading managed by ISO
246	Orrington	Veazie	115kv	2-795 ACSR	7.25	457	78	L248	Gen loading higher (295)
248	Orrington	Veazie	115kv	795 ACSR	7.25	229	62	L246	Gen loading higher than rating
249	Orrington	Veazie	115kv	795 ACSR	7.25	229	62	L246	Gen loading higher than rating
65	Orrington	Bucksport	115kv	795 ACSR	5.36	229	90	S205	Dependent on CMP system
205	Orrington	Bucksport	115kv	795 ACSR	5.36	229	98	S65	Dependent on CMP system
247	Orrington	Orrington	115kv	266 ACSR	4.07	39	25	none	
60	Orrington	Ellsworth Falls	115kv	795 ACSR	20.67	229	92	L66	Gen loading higher than rating
66	Veazie	Clifton	115kv	795 ACSR	13.41	173	93	L60	Gen loading higher than rating
51	Clifton	Township 16	115kv	795 ACSR	14.9	233	40	L58	Gen loading higher than rating
93	Township 16	Deblois	115kv	795 ACSR	10.71	233	50	L58	Gen loading higher than rating
52	Deblois	Columbia	115kv	795 ACSR	9.15	229	47	L58	Gen loading higher than rating
61	Columbia	Jonesboro	115kv	4/0 ACSR	12	32	26	L59	High DG loading higher (60MW)
67	Clifton	Ellsworth Falls	115kv	795 ACSR	13.07	173	72	L60	Gen loading higher than rating
68	Ellsworth Falls	Ellsworth Falls	115kv	266 & 795 ACSR	0.59	115	62	L57	
57	Ellsworth Falls	Trenton	115kv	795 ACSR	14.3	229	59.4	L93	Gen loading higher than rating
58	Ellsworth	Sullivan	115kv	795 ACSR	22.45	229	36	L93	Gen loading higher than rating
59	Sullivan	Columbia	115kv	795 ACSR	21.7	229	35	L93	Gen loading higher than rating
59	Columbia	Columbia	115kv	266 ACSR	3.63	89	23.5	L93	Gen loading higher than rating
69	Columbia	Harrington	115kv	266 ACSR	0.66	89	37.5	L61	
64	Greenbush	Chester	115kv	2-795 ACSR	43.48	285	260	Keene T1	Light load, high gen
97	Veazie	Greenbush	115kv	2-795 ACSR	43.48	437	300	Keene T1	Light load, high gen
63	Chester	Chester	115kv	795 ACSR	0.37	68	23.5	Keene T4	
62	Chester	TA R7 Wels	115kv	795 ACSR	17.26	229	126	none	

- Loading on the VP Bangor Hydro Region 115kv and above circuits were based on local transmission criteria. The majority of these lines will also fall under NERC reliability criteria and subject to N-1-1 and stuck breaker evaluations.

**BANGOR DIVISION -** Projected growth rate 0.4% per year, however the impact of DER projects on peak loading will need to be analyzed prior to project justification.

1	Veazie	Ellsworth Falls	46kv	4/0, 266,312,336,795	23.4	30	16.8	Boggy T1	
5	Veazie	Old Town	46kv	336 H, 336, 556H, 559	10.75	35	23	L7 S	
7	Veazie	Milford	46kv	4/0, 266, 336, 556H	10.56	30	35.1	L83	Evaluating options
8	Veazie	Hampden	46kv	336H, 795, 500UG	7.69	35	40.8	L9	Reconfiguration work planned
9	Veazie	Brewer	46kv	795 ACSR	6.68	81	51.6	L8	
41	Veazie	Bangor	46kv	556H	2	55	4	none	
70	Veazie	Bangor	46kv	559AAAC, 795ACSR	8.48	60	21.5	L71	
71	Veazie	Bangor	46kv	556H, 559, 795	4.89	47	43.3	L72	
72	Veazie	Bangor	46kv	556H, 559, 795	4.89	47	43.3	L71	
50	Bangor	Corinth	46kv	795 ACSR	15.4	81	17.1	L81	light load - high DG higher (37.1 MVA)
74	Corinth	Milo	46kv	266 ACSR	17.7	40	10.3	L50	light load - high DG higher (25.8 MVA)
73-1	Bangor	Bangor	46kv	3/0, 266 ACSR	3.9	29	36.4	L70	One span overloaded - review/replace
73-2	Bangor	Bangor	46kv	3/0 ACSR	3.9	29	25.4	L70	
75	Bangor	Bangor	46kv	336 ACSR, 336H	3.2	35	10.4	L78	
76	Brewer	Bangor	46kv	336, 556H, 795	0.83	46	30.1	L8	
77	Hampden	Hermon	46kv	556H, 795, 600UG	4.68	47	17.8	L70	
78	Bangor	Hermon	46kv	795 ACSR	6.41	81	22.7	L77	
79	Bangor	Bangor	46kv	795 ACSR	1.34	81	10.4	none	

Line No.	From	To	Nom. Voltage	Conductor	Length (mi.)	Sum. Norm. Rating (MVA)	Summer Peak Hour Loading (N-1)	Contingency	Notes
<b>HANCOCK DIVISION -</b> Projected growth rate 0.59% per year, however the impact of DER projects on peak loading will need to be analyzed prior to project justification.									
2	Ellsworth	Trenton	34.5kv	266, 312, 336, 336H, 559	8.25	27	21.9	Trenton T1	
10	Ellsworth Falls	Sedgewick	46kv	4/0 ACSR, 336, 336H, 559, 795	23.73	30	12	none	
11	Ellsworth Falls	Hancock	34.5kv	795 ACSR	6.48	48	30.2	Trenton T1	Limited by terminal equipment
12	Ellsworth Falls	Ellsworth	34.5kv	477 ACSR	2.55	44	30.8	Trenton T1	
13	Hancock	Sullivan	34.5kv	3/0, 312, 556H, 795	16.4	22	18.9	L11	
17	Sullivan	Cherryfield	34.5kv	3/0, 266, 336H, 559, 795	11.1	22	8.6	Tunk T1	
18	Cherryfield	Harrington	34.5kv	266, 336H	7.11	27	11.2	Tunk T1	
22	Bar Harbor	Bar Harbor	34.5kv	336, 336H, 500MCM UG	6.26	27	14.4	none	
24	Sullivan	Gouldsboro	34.5kv	266 ACSR	6.48	30	5.8	L15	
27	Bar Harbor	Bar Harbor	34.5kv	1/0, 336, 336H, 500MCM UG	2.29	15	6.8	none	
28	Hancock	Trenton	34.5kv	3/0, 266, 312, 336, 336H, 350UG, 556H, 559	8.47	22	11.5	Trenton T1	
32	Trenton	Bar Harbor	34.5kv	556H, 559, 1000MCM, 795	2.96	36	27.6	L48	
32	Bar Harbor	Bar Harbor	34.5kv	266 ACSR	3.37	30	13.6	L48	
34	Bar Harbor	Bar Harbor	34.5kv	556H, 500MCM, 795H, 795 ACSR	8.8	30	23.9	L32	
40	Mount Desert Island	Bar Harbor	34.5kv	336, 336H, 795	3.36	27	8.4	L40	
40	Mount Desert Island	Northeast Harbor	34.5kv	#4 ACSR, 1/0 AAAC, 336, 336H	4.24	6	2.5	none	Limited by line equipment
48	Trenton	Bar Harbor	34.5kv	556H, 559, 795	3.25	36	27.6	L32	
48	Bar Harbor	Mount Desert Island	34.5kv	556H, 795	3.63	36	13.8	L32	

<b>WASHINGTON COUNTY -</b> Projected growth rate 0.27% per year, however the impact of DER projects on peak loading will need to be analyzed prior to project justification.									
3	East Machias	Jonesboro	34.5kv	266, 312, 336, 336H	8.32	27	13.7	L4	
4	East Machias	Jonesboro	34.5kv	336 AAC, 336H	9.65	27	14	L3	
14	Jonesboro	Columbia Falls	34.5kv	#4, #6, 1/0, 336, 336H	10.2	9	3.4	L16	
15	Harrington	Gouldsboro	34.5kv	336, 336H	18.71	27	5.9	L24	
16	Harrington	Jonesboro	34.5kv	336, 336H, 556H	14.59	27	20.4	Washington Cty T1	
19	East Machias	Eastport	34.5kv	1/0H, 4/0, 336, 336H, 556H, 559	39.58	10	5.4	L20	Limited by terminal equipment
20	East Machias	Dennysville	34.5kv	#2, #4, #6, 336, 336H	24.38	9	5.4	L19	
21	Jonesboro	Machiasport	34.5kv	266 ACSR	9.61	19	15	none	
23	East Machias	Cutler	34.5kv	#4 cu, 1/0 ACSR, 336H	6.88	12	1	none	
25	Columbia Falls	Jonesport	34.5kv	#4, #6, 1/0, 336, 336H	14.1	15	2.2	none	

<b>NORTHERN DIVISION -</b> Projected growth rate 0.05% per year, however the impact of DER projects on peak loading will need to be analyzed prior to project justification.									
80	Milford	Enfield	46kv	4/0, 266, 336, 336H	23.11	30	9.5	L7	
81	Enfield	Milo	46kv	266, 336H, 559	18.52	35	19.2	L50	Can only pick up partial load
83	Lincoln	Enfield	46kv	4/0, 266 ACSR	12.11	30	13.1	W.Enf. Gen	
84	Chester	Medway	46kv	#2, 1/0, 4/0, 266, 336H	25.33	20	8.7	L86	
85	Chester	Lincoln	46kv	266, 556H, 559	1.87	40	14.1	L87	
86	Chester	Medway	46kv	266 ACSR, 336 AAC	15.79	40	8.6	Medway Gen	
87	Chester	Lincoln	46kv	1/0, 556H, 559	1.87	21	14.1	L85	Replace one section 1/0
88	Medway	Millinocket	46kv	312, 336, 559	9.16	41	8.7	L89	
89	Medway	Millinocket	46kv	#2 cu, 266, 336, 336H, 559	13.39	20	8.7	L88	
90	Chester	Chester	46kv	336 AAC, 336H AAC	0.81	35	1.5	none	High DG loading higher (5MW)

**\*\* Thermal loading is just one factor in determining circuit capability. Voltage drop across the line and line condition must also be taken into account.**

**- Loadings based on Transmission Study results which are performed every 5 years. Loadings for years in between will be study loads increased by the projected growth rates.**