



**MAINE POWER RELIABILITY PROGRAM
SUBSTATION COST ESTIMATE
PREPARED BY POWER ENGINEERS, INC.**



72 Coopers Mills Rd

DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate \$135					
						Duration/Difficulty Factor 1.0					
						\$135					
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)											
STRUCTURES (tubular steel)											
FOUNDATIONS											
CABLE & CONDUIT											
CONTROL HOUSE											
SITE IMPROVEMENTS											
TESTING & ENERGIZATION											
SUBTOTAL											
CONTRACTOR MOB/DEMOB											
CONSTR. MANAGEMENT											
ENGINEERING											
PERMITTING											
CMP OVERHEAD											
AFUDC											
SUBTOTAL											
RESERVE											
ESCALATION/CONTINGENCY											
TOTAL ESTIMATED COST											



74 Orrington

**MAINE POWER RELIABILITY PROGRAM
SUBSTATION COST ESTIMATE
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DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate		\$135			
						Duration/Difficulty Factor		1.0			
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)								\$103,140		\$551,600	
STRUCTURES (tubular steel)								\$33,210		\$261,900	
FOUNDATIONS								\$86,868		\$24,130	
CABLE & CONDUIT								\$18,900		\$89,110	
CONTROL HOUSE								\$16,740		\$252,000	
SITE IMPROVEMENTS								\$37,530		\$20,640	
TESTING & ENERGIZATION								\$42,930		\$10,150	
SUBTOTAL								\$339,318		\$1,209,530	
CONTRACTOR MOB/DEMOB										\$50,000	
CONSTR. MANAGEMENT				7.5%						\$116,164	
ENGINEERING				10.0%						\$154,885	
PERMITTING				10.0%						\$154,885	
CMP OVERHEAD				0.5%						\$7,744	
AFUDC											
SUBTOTAL										\$2,032,525	
RESERVE				10.0%		+ Probabilistic Scope Additions				\$1,554,885	
ESCALATION/CONTINGENCY				17.7%						\$633,440	
TOTAL ESTIMATED COST										\$4,220,850	



77 Surowiec

**MAINE POWER RELIABILITY PROGRAM
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DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate		\$135			
						Duration/Difficulty Factor		1.0			
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)								\$678,645		\$3,841,900	
STRUCTURES (tubular steel)								\$255,960		\$1,690,800	
FOUNDATIONS								\$687,875		\$191,076	
CABLE & CONDUIT								\$274,050		\$1,096,900	
CONTROL HOUSE								\$43,200		\$623,000	
SITE IMPROVEMENTS								\$1,852,605		\$2,573,605	
TESTING & ENERGIZATION								\$93,015		\$19,900	
SUBTOTAL								\$3,885,350		\$10,037,181	
CONTRACTOR MOB/DEMOB										\$50,000	
CONSTR. MANAGEMENT				7.5%						\$1,044,190	
ENGINEERING				10.0%						\$1,392,253	
PERMITTING				10.0%						\$1,392,253	
CMP OVERHEAD				0.5%						\$69,613	
AFUDC											
SUBTOTAL										\$17,870,840	
RESERVE				10.0%		+ Probabilistic Scope Additions				\$2,567,253	
ESCALATION/CONTINGENCY				17.7%						\$3,608,815	
TOTAL ESTIMATED COST										\$24,046,908	



82 So. Gorham

**MAINE POWER RELIABILITY PROGRAM
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DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate		\$135			
						Duration/Difficulty Factor		1.0			
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)								\$670,410		\$10,442,800	
STRUCTURES (tubular steel)								\$162,270		\$1,050,600	
FOUNDATIONS								\$1,816,992		\$150,053	
CABLE & CONDUIT								\$5,400		\$30,000	
CONTROL HOUSE								\$73,440		\$946,000	
SITE IMPROVEMENTS								\$1,388,138		\$1,989,430	
TESTING & ENERGIZATION								\$59,670		\$14,350	
SUBTOTAL								\$4,176,319		\$14,623,233	
CONTRACTOR MOB/DEMOB										\$50,000	
CONSTR. MANAGEMENT				7.5%						\$1,409,966	
ENGINEERING				10.0%						\$1,879,955	
PERMITTING				10.0%						\$1,879,955	
CMP OVERHEAD				0.5%						\$93,998	
AFUDC											
SUBTOTAL										\$24,113,427	
RESERVE				10.0%		+ Probabilistic Scope Additions				\$1,929,955	
ESCALATION/CONTINGENCY				17.7%						\$4,598,558	
TOTAL ESTIMATED COST										\$30,641,941	



**MAINE POWER RELIABILITY PROGRAM
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91 Buxton 345

DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate		\$135			
						Duration/Difficulty Factor		1.0			
								\$135			
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)											
								\$323,460	\$1,178,600		\$1,502,060
STRUCTURES (tubular steel)											
								\$113,130	\$642,000		\$755,130
FOUNDATIONS											
								\$216,430	\$60,119		\$276,550
CABLE & CONDUIT											
								\$70,578	\$324,120		\$394,698
CONTROL HOUSE											
								\$24,840	\$200,000		\$224,840
SITE IMPROVEMENTS											
								\$516,446	\$1,412,706		\$1,929,152
TESTING & ENERGIZATION											
								\$108,540	\$8,300		\$116,840
SUBTOTAL								\$1,373,424	\$3,825,846		\$5,199,270
CONTRACTOR MOB/DEMOB											
											\$50,000
CONSTR. MANAGEMENT											
				7.5%							\$389,945
ENGINEERING											
				10.0%							\$519,927
PERMITTING											
				10.0%							\$519,927
CMP OVERHEAD											
				0.5%							\$25,996
AFUDC											
SUBTOTAL											\$6,705,065
RESERVE											
				10.0%							\$972,427
ESCALATION/CONTINGENCY											
				17.7%							\$1,355,638
TOTAL ESTIMATED COST											\$9,033,130



**MAINE POWER RELIABILITY PROGRAM
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92 Mason Station

DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate		\$135			
						Duration/Difficulty Factor		1.0			
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)								\$727,110		\$4,498,610	
STRUCTURES (tubular steel)								\$210,060		\$1,612,860	
FOUNDATIONS								\$1,631,226		\$1,811,277	
CABLE & CONDUIT								\$216,270		\$1,094,070	
CONTROL HOUSE								\$83,808		\$1,060,008	
SITE IMPROVEMENTS								\$1,749,816		\$5,250,394	
TESTING & ENERGIZATION								\$309,690		\$325,340	
SUBTOTAL								\$4,927,980		\$15,652,559	
CONTRACTOR MOB/DEMOB										\$50,000	
CONSTR. MANAGEMENT				7.5%						\$1,173,942	
ENGINEERING				10.0%						\$1,565,256	
PERMITTING				10.0%						\$1,565,256	
CMP OVERHEAD				0.5%						\$78,263	
AFUDC											
SUBTOTAL										\$20,085,276	
RESERVE				10.0%		+ Probabilistic Scope Additions				\$2,017,756	
ESCALATION/CONTINGENCY				17.7%						\$3,902,799	
TOTAL ESTIMATED COST										\$26,005,830	



**MAINE POWER RELIABILITY PROGRAM
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93 Raven Farms

DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate		\$135			
						Duration/Difficulty Factor		1.0			
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)											
STRUCTURES (tubular steel)											
FOUNDATIONS											
CABLE & CONDUIT											
CONTROL HOUSE											
SITE IMPROVEMENTS											
TESTING & ENERGIZATION											
SUBTOTAL											
CONTRACTOR MOB/DEMOB											
CONSTR. MANAGEMENT											
ENGINEERING											
PERMITTING											
CMP OVERHEAD											
AFUDC											
SUBTOTAL											
RESERVE											
ESCALATION/CONTINGENCY											
TOTAL ESTIMATED COST											



**MAINE POWER RELIABILITY PROGRAM
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94 34.5kV Capacitor Bank (Voltage Support)

DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate		\$135			
						Duration/Difficulty Factor		1.0			
						\$135					
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)											
STRUCTURES (tubular steel)											
FOUNDATIONS											
CABLE & CONDUIT											
CONTROL HOUSE											
SITE IMPROVEMENTS											
TESTING & ENERGIZATION											
SUBTOTAL											
CONTRACTOR MOB/DEMOB											
CONSTR. MANAGEMENT											
ENGINEERING											
PERMITTING											
CMP OVERHEAD											
AFUDC											
SUBTOTAL											
RESERVE											
ESCALATION/CONTINGENCY											
TOTAL ESTIMATED COST											



**MAINE POWER RELIABILITY PROGRAM
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94 34.5kV Capacitor Bank (Power factor correction)

DESCRIPTION	Commodity Type	Category	Factor	AMOUNT		LABOR		MATERIAL		L & M	
				QTY	UNIT	HRS	UNIT	EXTEND	UNIT	EXTEND	UNIT
						Base Labor Rate \$135					
						Duration/Difficulty Factor 1.0					
						\$135					
ESTIMATED COST SUMMARY											
EQUIPMENT (outdoor)											
STRUCTURES (tubular steel)											
FOUNDATIONS											
CABLE & CONDUIT											
CONTROL HOUSE											
SITE IMPROVEMENTS											
TESTING & ENERGIZATION											
SUBTOTAL											
CONTRACTOR MOB/DEMOB											
CONSTR. MANAGEMENT											
ENGINEERING											
PERMITTING											
CMP OVERHEAD											
AFUDC											
SUBTOTAL											
RESERVE											
ESCALATION/CONTINGENCY											
TOTAL ESTIMATED COST											