



ENGINEERING

Mechanical/Electrical
Engineering Consultants
60 LAKEFRONT BLVD, SUITE 320
BUFFALO, NY 14202

Budget Pricing Cost Estimate	
PROJECT NAME: Berlin CSD	
M/E REFERENCE 261104	DATE: 8/17/2026
DIVISION: HVAC	BY: AJE

ITEM	DESCRIPTION	QTY.	UNIT	LABOR COST	MATERIAL COST	TOTAL ITEM COST
ECM-1 – HSMS Hybrid ASHP/GSHP						
	Demolition	1	LS	\$25,000	\$0	\$25,000
	Ground source heat pump modules (30-ton)	4	EA	\$17,500	\$85,000	\$410,000
	GSHP hot water circ pump (1 HP)	4	EA	\$2,750	\$2,900	\$22,600
	Geothermal borefield - wells	47	EA	\$12,500	\$12,500	\$1,175,000
	Geothermal borefield - linear piping & manifold	1	LS	\$23,725	\$47,450	\$71,175
	Ground loop pumps (15 HP)	2	EA	\$11,375	\$34,050	\$90,850
	Air source heat pump modules (30-ton)	5	EA	\$12,500	\$110,000	\$612,500
	ASHP hot water circ pump (1 HP)	5	EA	\$2,750	\$2,900	\$28,250
	Hot water loop pumps (15 HP)	2	EA	\$11,375	\$34,050	\$90,850
	Ground loop piping & insulation (6" main)	500	LF	\$134	\$67	\$100,295
	HW piping & insulation (4" main)	0	LF	\$54	\$45	\$0
	HW unit ventilators / fan coil units	0	EA	\$2,430	\$5,400	\$0
	HW air handlers	0	EA	\$6,475	\$27,175	\$0
	HW unit heaters, fin-tube, convectors	0	EA	\$2,025	\$4,500	\$0
	Electrical service upgrade allowance	1	LS	\$200,000	\$100,000	\$300,000
	Electrical connections	1	LS	\$58,000	\$58,000	\$116,000
	Controls	1	LS	\$30,375	\$30,375	\$60,750
	General conditions	1	LS	\$28,000	\$28,000	\$56,000
	General construction allowance	1	LS	\$50,000	\$50,000	\$100,000
	Start-up & commissioning	1	LS	\$42,000	\$0	\$42,000
	Testing and balancing	1	LS	\$30,000	\$0	\$30,000
	ECM-1 TOTAL					\$3,331,270
ADD ALTERNATE #1 – HSMS Hybrid ASHP/GSHP (Added Cooling)						
	Demolition	1	LS	\$24,500	\$0	\$24,500
	GSHP chilled water circ pump (1 HP)	4	EA	\$2,750	\$2,900	\$22,600
	Geothermal borefield - wells	5	EA	\$12,500	\$12,500	\$125,000
	ASHP chilled water circ pump (1 HP)	5	EA	\$2,750	\$2,900	\$28,250
	Chilled water loop pumps (30 HP)	2	EA	\$24,125	\$59,575	\$167,400
	CHW piping & insulation (8" main)	2425	LF	\$106	\$98	\$495,064
	HW/CHW unit ventilators / fan coil units	49	EA	\$3,400	\$5,950	\$458,150
	CHW coils (~5000 cfm)	9	EA	\$9,700	\$27,200	\$332,100
	Electrical connections	1	LS	\$31,500	\$31,500	\$63,000
	Controls	1	LS	\$91,200	\$91,200	\$182,400
	General conditions	1	LS	\$23,900	\$23,900	\$47,800
	General construction allowance	1	LS	\$50,000	\$50,000	\$100,000
	Start-up & commissioning	1	LS	\$10,500	\$0	\$10,500
	Testing and balancing	1	LS	\$7,500	\$0	\$7,500
	ECM-1 SUBTOTAL					\$3,331,270
	ADD ALTERNATE #1 TOTAL					\$5,395,534
ADD ALTERNATE #2 – Added Solar Photovoltaic for Hybrid w/Added Cooling						
	Complete PV Array	335	kW	\$1,125	\$1,375	\$837,500
	ADD ALTERNATE #1 SUBTOTAL					\$5,395,534
	ADD ALTERNATE #2 TOTAL					\$6,233,034
ECM-2 – Hybrid ASHP/GSHP (Added Cooling)						
	Demolition	1	LS	\$34,000	\$0	\$34,000
	Ground source heat pump modules (30-ton)	4	EA	\$17,500	\$85,000	\$410,000
	GSHP hot water circ pump (1 HP)	4	EA	\$2,750	\$2,900	\$22,600
	GSHP chilled water circ pump (1 HP)	4	EA	\$2,750	\$2,900	\$22,600
	Geothermal borefield - wells	52	EA	\$12,500	\$12,500	\$1,300,000
	Geothermal borefield - linear piping & manifold	1	LS	\$23,725	\$47,450	\$71,175
	Ground loop pumps (20 HP)	2	EA	\$13,225	\$41,475	\$109,400
	Air source heat pump modules (30-ton)	5	EA	\$12,500	\$12,500	\$125,000
	ASHP hot water circ pump (1 HP)	5	EA	\$2,750	\$2,900	\$28,250
	ASHP chilled water circ pump (1 HP)	5	EA	\$2,750	\$2,900	\$28,250
	Hot water loop pumps (15 HP)	2	EA	\$11,375	\$34,050	\$90,850
	Chilled water loop pumps (20 HP)	2	EA	\$13,225	\$41,475	\$109,400
	Ground loop piping & insulation (6" main)	500	LF	\$134	\$67	\$100,295
	HW piping & insulation (4" main)	1600	LF	\$54	\$45	\$158,816
	CHW piping & insulation (6" main)	1600	LF	\$84	\$67	\$240,944
	HW/CHW unit ventilators / fan coil units	27	EA	\$3,400	\$5,950	\$252,450
	HW/CHW air handlers	0	EA	\$11,100	\$55,025	\$0
	HW unit heaters, fin-tube, convectors	8	EA	\$2,025	\$4,500	\$52,200
	HW/CHW coils (~5000 cfm)	2	EA	\$9,700	\$27,200	\$73,800
	HW/CHW coils (~10000 cfm)	2	EA	\$12,150	\$34,000	\$92,300
	Electrical service upgrade allowance	1	LS	\$200,000	\$100,000	\$300,000
	Electrical connections	1	LS	\$82,500	\$82,500	\$165,000
	Controls	1	LS	\$85,250	\$85,250	\$170,500
	General conditions	1	LS	\$37,300	\$37,300	\$74,600
	General construction allowance	1	LS	\$80,000	\$80,000	\$160,000
	Start-up & commissioning	1	LS	\$41,250	\$0	\$41,250
	Testing and balancing	1	LS	\$24,750	\$0	\$24,750
	ECM-2 TOTAL					\$4,258,430
ADD ALTERNATE #3 – Added Solar Photovoltaic for Hybrid w/Added Cooling						
	Complete PV Array	165	kW	\$1,125	\$1,375	\$412,500
	ECM-2 SUBTOTAL					\$4,258,430
	ADD ALTERNATE #3 TOTAL					\$4,670,930