Measure Name	Measure Value	% Energy Savings	% GHG Savings	% Peak Savings	npv_total_per_m_sq	bc_step_code_tedi_kwh_per_m_sq	Envelope ($/m2)	Heating & Cooling ($/m2)	Lighting ($/m2)	SHW ($/m2)	Ventilation & Ductwork ($/m2)	Total ($/m2)
:electrical_loads_scale	0.5	9.90	9.90	-0.10	801.78	28.32	0.00	1.20	0.00	0.00	6.50	7.60
:shw_scale	0.25	9.20	9.20	2.60	801.26	23.07	0.00	0.00	0.00	9.30	0.00	9.30
:lights_scale	0.50	7.10	7.10	2.10	808.47	26.46	0.00	1.20	0.00	0.00	4.40	5.60
:shw_scale	0.5	6.20	6.20	1.40	807.52	23.00	0.00	0.00	0.00	8.10	0.00	8.10
:infiltration_scale	0.5	3.60	3.60	6.00	820.92	18.61	0.00	0.30	0.00	0.00	-1.20	-0.90
:fixed_wind_solar_trans	0.2	3.40	3.40	-6.20	775.51	25.50	-1.30	1.30	0.00	0.00	44.70	44.80
:dcv_type	CO2_based_DCV	3.10	3.10	10.60	824.42	19.55	0.00	0.00	0.00	0.00	-3.70	-3.70
:shw_scale	0.75	3.10	3.10	0.60	812.97	22.91	0.00	0.00	0.00	7.90	0.00	7.90
:daylighting_type	add_daylighting_controls	2.50	2.50	-0.10	824.12	23.25	0.00	0.70	-5.90	0.00	2.80	-2.30
:fixed_wind_solar_trans	0.3	2.10	2.10	-4.20	792.37	25.12	-2.80	1.30	0.00	0.00	31.60	30.10
:nv_type	add_nv	2.00	2.00	-0.70	823.51	22.58	0.00	0.70	0.00	0.00	-1.60	-0.90
:fixed_wind_solar_trans	0.4	1.70	1.70	-5.00	802.77	24.47	-1.50	1.30	0.00	0.00	20.50	20.30
:chiller_type	VSD	1.00	1.00	0.00	850.09	22.80	0.00	-25.90	0.00	0.00	0.00	-25.90
:dcv_type	Occupancy_based_DCV	0.90	0.90	3.90	826.36	21.84	0.00	0.00	0.00	0.00	-1.90	-1.90
:fixed_wind_solar_trans	0.5	0.70	0.70	-1.40	816.06	23.61	-1.50	1.30	0.00	0.00	8.90	8.80
:ground_floor_cond	0.379	0.30	0.30	-1.40	834.77	22.54	-9.40	0.10	0.00	0.00	0.10	-9.20
:ext_wall_cond	0.183	0.10	0.10	0.10	826.57	22.64	-0.80	0.00	0.00	0.00	0.00	-0.80
:airloop_economizer_type	DifferentialDryBulb	-0.10	-0.10	0.00	826.11	22.80	0.00	0.00	0.00	0.00	0.00	0.00
:ext_roof_cond	0.121	-0.10	-0.10	-0.10	824.70	22.93	1.50	0.00	0.00	0.00	0.00	1.50
:erv_package	Rotary-All	-0.40	-0.40	0.00	826.66	23.26	0.00	0.00	0.00	0.00	0.00	0.00
:erv_package	Rotary-Existing	-0.40	-0.40	0.00	826.66	23.26	0.00	0.00	0.00	0.00	0.00	0.00
:ext_wall_cond	0.21	-0.40	-0.40	-0.60	824.57	23.28	2.10	0.00	0.00	0.00	0.00	2.10
:ext_roof_cond	0.138	-0.60	-0.60	-0.70	820.78	23.44	6.80	-0.10	0.00	0.00	-0.50	6.20
:ext_roof_cond	0.142	-0.70	-0.70	-0.80	820.18	23.55	7.60	-0.10	0.00	0.00	-0.50	7.00
:erv_package	Plate-Existing	-0.80	-0.80	-0.10	827.22	23.61	0.00	0.00	0.00	0.00	0.00	0.00
:erv_package	Plate-All	-0.80	-0.80	-0.10	827.22	23.61	0.00	0.00	0.00	0.00	0.00	0.00
:fixed_window_cond	1.6	-1.00	-1.00	-1.20	813.89	24.08	13.60	-0.10	0.00	0.00	0.20	13.80
:ext_wall_cond	0.247	-1.20	-1.20	-1.70	822.39	24.14	5.70	-0.10	0.00	0.00	0.00	5.50
:ext_wall_cond	0.162	-1.30	-1.30	-1.40	814.91	24.13	14.10	-0.30	0.00	0.00	-0.60	13.20
:ext_roof_cond	0.183	-1.80	-1.80	-2.00	814.89	24.70	15.40	-0.30	0.00	0.00	-1.00	14.10
:ext_wall_cond	0.278	-1.80	-1.80	-2.40	822.69	24.86	6.90	-0.30	0.00	0.00	-0.30	6.30
:ext_roof_cond	0.193	-2.10	-2.10	-2.30	811.44	24.98	19.40	-0.40	0.00	0.00	-1.00	18.00
:ext_wall_cond	0.314	-2.60	-2.60	-3.30	821.04	25.72	10.40	-0.40	0.00	0.00	-0.80	9.20
:ext_roof_cond	0.227	-3.00	-3.00	-3.30	810.21	25.91	22.70	-0.60	0.00	0.00	-1.40	20.80
:fixed_window_cond	2.2	-5.00	-5.00	-6.20	784.13	28.91	47.10	-0.10	0.00	0.00	3.20	50.30
:fixed_window_cond	2.4	-6.40	-6.40	-7.80	779.51	30.51	54.00	-0.30	0.00	0.00	3.40	57.20
:ecm_system_name	HS13_ASHP_VRF	0.00	0.00	0.00	763.89	15.90	0.00	0.00	0.00	0.00	0.00	0.00
:ecm_system_name	HS08_CCASHP_VRF	0.00	0.00	0.00	763.89	15.90	0.00	0.00	0.00	0.00	0.00	0.00
:ecm_system_name	HS09_CCASHP_Baseboard	0.00	0.00	0.00	853.54	11.68	0.00	0.00	0.00	0.00	0.00	0.00
:ecm_system_name	HS11_ASHP_PTHP	0.00	0.00	0.00	697.51	16.03	0.00	0.00	0.00	0.00	0.00	0.00
:ecm_system_name	HS12_ASHP_Baseboard	0.00	0.00	0.00	843.54	11.60	0.00	0.00	0.00	0.00	0.00	0.00
:ecm_system_name	HS14_CGSHP_FanCoils	0.00	0.00	0.00	797.24	13.62	0.00	0.00	0.00	0.00	0.00	0.00

Sensitivity of :ext_roof_cond by EUI

Sensitivity of :ext_roof_cond by Costing

Sensitivity of :fixed_wind_solar_trans by EUI

Sensitivity of :fixed_wind_solar_trans by Costing

Legend:
- cost_equipment_heating_and_cooling_total_cost_per_m_sq
- cost_equipment_lighting_total_cost_per_m_sq
- cost_equipment_shw_total_cost_per_m_sq
- cost_equipment_ventilation_total_cost_per_m_sq
- cost_equipment_thermal_bridging_total_cost_per_m_sq
- cost_equipment_envelope_total_cost_per_m_sq

y-axis: $/M2
x-axis: :fixed_wind_solar_trans

	0.2	0.3	0.4	0.5	0.6	NECB_Default
envelope	352.672	354.185	352.882	352.882	351.397	351.397
ventilation	145.151	158.285	189.373	180.911	189.848	189.848
shw	11.49	11.49	11.49	11.49	11.49	11.49
lighting	74.625	74.625	74.625	74.625	74.625	74.625
heating	29.919	29.919	29.919	29.919	31.249	31.249

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y-axis: cost_equipment_total_cost_per_m_sq
x-axis: baseline_energy_percent_better

Legend: :erv_package
- Rotary-Existing
- NECB_Default
- Rotary-All
- Plate-Existing
- Plate-All
- NECB_Default_All

Sensitivity of :erv_package by EUI

Legend:
- energy_eui_cooling_gj_per_m_sq
- energy_eui_heating_gj_per_m_sq
- energy_eui_fans_gj_per_m_sq
- energy_eui_heat_recovery_gj_per_m_sq
- energy_eui_interior_lighting_gj_per_m_sq
- energy_eui_interior_equipment_gj_per_m_sq
- energy_eui_water_systems_gj_per_m_sq
- energy_eui_pumps_gj_per_m_sq

y-axis: GJ/M2
x-axis: :erv_package

	NECB_Default	NECB_Default_All	Plate-All	Plate-Existing	Rotary-All	Rotary-Existing
pumps	0.007	0.007	0.007	0.007	0.007	0.007
water systems	0.048	0.048	0.048	0.048	0.048	0.048
interior equipment	0.1	0.1	0.1	0.1	0.1	0.1
interior lighting	0.07	0.07	0.07	0.07	0.07	0.07
heat recovery	0.0	0.0	0.0	0.0	0.0	0.0
fans	0.052	0.052	0.052	0.052	0.052	0.052
heating			0.085	0.085	0.084	0.084
cooling			0.023	0.023	0.023	0.023

Sensitivity of :erv_package by Costing

Sensitivity of :ext_wall_cond by EUI

Sensitivity of :ext_wall_cond by Costing

:boiler_eff

Sensitivity of :boiler_eff by EUI

Sensitivity of :boiler_eff by Costing

Sensitivity of :fixed_window_cond by EUI

Sensitivity of :fixed_window_cond by Costing

cost_equipment_heating_and_cooling_total_cost_per_m_sq
cost_equipment_lighting_total_cost_per_m_sq
cost_equipment_shw_total_cost_per_m_sq
cost_equipment_ventilation_total_cost_per_m_sq
cost_equipment_thermal_bridging_total_cost_per_m_sq
cost_equipment_envelope_total_cost_per_m_sq

$/M2

	1.6	2.2	2.4	NECB_Default
envelope	337.767	304.312	297.411	351.397
ventilation	189.645	186.814	186.4	189.848
shw	11.49	11.49	11.49	11.49
lighting	74.625	74.625	74.625	74.625
heating	31.315	31.309	31.509	31.249

:fixed_window_cond

:ecm_system_name

- HS13_ASHP_VRF
- HS08_CCASHP_VRF
- HS09_CCASHP_Baseboard
- NECB_Default
- HS11_ASHP_PTHP
- HS12_ASHP_Baseboard
- HS14_CGSHP_FanCoils

cost_equipment_total_cost_per_m_sq

baseline_energy_percent_better

Sensitivity of :ecm_system_name by EUI

energy_eui_cooling_gj_per_m_sq
energy_eui_heating_gj_per_m_sq
energy_eui_fans_gj_per_m_sq
energy_eui_heat_recovery_gj_per_m_sq
energy_eui_interior_lighting_gj_per_m_sq
energy_eui_interior_equipment_gj_per_m_sq
energy_eui_water_systems_gj_per_m_sq
energy_eui_pumps_gj_per_m_sq

GJ/M2

:ecm_system_name
HS08_CCASHP_VRF, HS09_CCASHP_Baseboard, HS11_ASHP_PTHP, HS12_ASHP_Baseboard, HS13_ASHP_VRF, HS14_CGSHP_FanCoils, NECB_Default

Sensitivity of :ecm_system_name by Costing

Legend:
- cost_equipment_heating_and_cooling_total_cost_per_m_sq
- cost_equipment_lighting_total_cost_per_m_sq
- cost_equipment_shw_total_cost_per_m_sq
- cost_equipment_ventilation_total_cost_per_m_sq
- cost_equipment_thermal_bridging_total_cost_per_m_sq
- cost_equipment_envelope_total_cost_per_m_sq

$/M2

HS08_CCASHP_VRF: 144.65, 74.625, 11.49, 49.264, 351.397
HS09_CCASHP_Baseboard: 4.977, 74.625, 11.49, 260.808, 351.397
HS11_ASHP_PTHP: 73.891, 74.625, 11.49, 44.952, 351.397
HS12_ASHP_Baseboard: 4.977, 74.625, 11.49, 247.848, 351.397
HS13_ASHP_VRF: 144.65, 74.625, 11.49, 44.952, 351.397
HS14_CGSHP_FanCoils: 187.989, 74.625, 11.49, 42.821, 351.397
NECB_Default: 31.249, 74.625, 11.49, 189.848, 351.397

:ecm_system_name

:dcv_type
- CO2_based_DCV
- No_DCV
- Occupancy_based_DCV
- NECB_Default

cost_equipment_total_cost_per_m_sq

baseline_energy_percent_better

Sensitivity of :dcv_type by EUI

Legend:
- energy_eui_cooling_gj_per_m_sq
- energy_eui_heating_gj_per_m_sq
- energy_eui_fans_gj_per_m_sq
- energy_eui_heat_recovery_gj_per_m_sq
- energy_eui_interior_lighting_gj_per_m_sq
- energy_eui_interior_equipment_gj_per_m_sq
- energy_eui_water_systems_gj_per_m_sq
- energy_eui_pumps_gj_per_m_sq

GJ/M2

CO2_based_DCV: 0.023, 0.07, 0.052, 0.0, 0.07, 0.1
NECB_Default: 0.023, 0.082, 0.052, 0.0, 0.07, 0.1, 0.048, 0.007
No_DCV: 0.023, 0.082, 0.052, 0.0, 0.07, 0.1, 0.048, 0.007
Occupancy_based_DCV: 0.023, 0.079, 0.052, 0.0, 0.07, 0.1, 0.048, 0.007

:dcv_type

Sensitivity of :dcv_type by Costing

Sensitivity of :adv_dx_units by EUI

Sensitivity of :adv_dx_units by Costing

Sensitivity of :airloop_economizer_type by EUI

Sensitivity of :airloop_economizer_type by Costing

Sensitivity of :daylighting_type by EUI

Sensitivity of :daylighting_type by Costing

Sensitivity of :shw_scale by EUI

Sensitivity of :shw_scale by Costing

Sensitivity of :lights_scale by EUI

Sensitivity of :lights_scale by Costing

Sensitivity of :ground_floor_cond by EUI

Sensitivity of :ground_floor_cond by Costing

Sensitivity of :infiltration_scale by EUI

Sensitivity of :infiltration_scale by Costing

Sensitivity of :nv_type by EUI

Sensitivity of :nv_type by Costing

Sensitivity of :shw_eff by EUI

Sensitivity of :shw_eff by Costing

Sensitivity of :electrical_loads_scale by EUI

Sensitivity of :electrical_loads_scale by Costing

Sensitivity of :chiller_type by EUI

Sensitivity of :chiller_type by Costing

Legend:
- cost_equipment_heating_and_cooling_total_cost_per_m_sq
- cost_equipment_lighting_total_cost_per_m_sq
- cost_equipment_shw_total_cost_per_m_sq
- cost_equipment_ventilation_total_cost_per_m_sq
- cost_equipment_thermal_bridging_total_cost_per_m_sq
- cost_equipment_envelope_total_cost_per_m_sq

NECB_Default:
- 351.397
- 189.848
- 11.49
- 74.625
- 31.249

VSD:
- 351.397
- 189.848
- 11.49
- 74.625
- 57.121

x-axis: :chiller_type
y-axis: $/M2