

Carbon Footprint Analysis

MONETARY SAVINGS

Annual Energy Cost [\$ /yr]	2018 IECC	Rated Home	Savings	% Saved
Natural Gas	\$2,291	\$1,308	\$983	42.9%
Electric	\$1,485	\$1,430	\$55	3.7%

Annual End-Use Cost [\$ /yr]	2018 IECC	Rated Home	Savings	% Saved
Heating	\$1,987	\$977	\$1,010	50.8%
Cooling	\$256	\$186	\$70	27.3%
Water Heating	\$308	\$308	\$0	0%
Lights & Appliances	\$1,224	\$1,266	-\$42	-3.4%
Onsite Generation	-\$0	-\$0	\$0	0%
Service Charges	\$0	\$0	\$0	0%
Total	\$3,776	\$2,738	\$1,038	27.5%

Annual End-Use Consumption	2018 IECC	Rated Home	Savings	% Saved
Heating [Natural Gas Therms]	1,703.4	842.7	860.7	50.5%
Heating [Electric kWh]	427.3	155.7	271.6	63.6%
Cooling [Electric kWh]	2,561.2	1,860.1	701.1	27.4%
Hot Water [Natural Gas Therms]	269.6	269.3	0.2	0.1%
Lights & Appliances [Natural Gas Therms]	34.3	34.3	0.0	0%
Lights & Appliances [Electric kWh]	11,838.9	12,257.5	-418.6	-3.5%
Total [Natural Gas Therms]	2,007.3	1,146.3	860.9	42.9%
Total [Electric kWh]	14,827.4	14,273.3	554.1	3.7%
Total Onsite Generation kWh	0.0	0.0	0.0	0%

Peak Electric Consumption	2018 IECC	Rated Home	Savings	% Saved
Peak Winter kW	1.30	1.24	0.06	4.6%
Peak Summer kW	4.45	3.80	0.66	14.8%

Utility Rates

Electricity	Spencer (IA) Municipal Utilities Black Hills IA 2021
Natural Gas	



EMISSIONS FOOTPRINT

Annual Carbon Dioxide (CO ₂) [tons/yr]	2018 IECC	Rated Home	Savings	% Saved
Heating	10.3	5.1	5.3	51%
Cooling	2.4	1.7	0.7	27.4%
Water Heating	1.6	1.6	0.0	0.1%
Lights & Appliances	11.3	11.7	-0.4	-3.5%
Photovoltaics	-0.0	-0.0	0.0	0%
TOTAL	25.6	20.1	5.5	21.6%

Annual Sulfur Dioxide (SO ₂) [lbs/yr]	2018 IECC	Rated Home	Savings	% Saved
Heating	0.9	0.3	0.5	61%
Cooling	4.1	3.0	1.1	27.4%
Water Heating	0.0	0.0	0.0	0.1%
Lights & Appliances	18.9	19.6	-0.7	-3.5%
Photovoltaics	-0.0	-0.0	0.0	0%
TOTAL	23.9	23.0	1.0	4.1%

Annual Nitrogen Oxide (NO _x) [lbs/yr]	2018 IECC	Rated Home	Savings	% Saved
Heating	20.3	10.0	10.3	50.8%
Cooling	2.3	1.7	0.6	27.4%
Water Heating	3.2	3.2	0.0	0.1%
Lights & Appliances	11.1	11.4	-0.4	-3.4%
Photovoltaics	-0.0	-0.0	0.0	0%
TOTAL	36.8	26.3	10.6	28.7%

Energy Use Intensity (EUI) [kBtu/ft ²]	2018 IECC	Rated Home	Savings	% Saved
Site EUI	31.9	20.7	11.2	35%



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