

NYStretch Energy Code—2020



NYSERDA

**Stringency Analysis Summary:
Local Energy Code (i.e. NYStretch 2020) vs. 2020 ECCN NYS**



NYSERDA sponsored independent, third-party stringency and cost-effectiveness analyses of the provisions of NYStretch Energy Code 2020 (NYStretch) compared to the 2020 Energy Conservation Construction Code (ECCN NYS).

NYStretch is the basis for this Local Energy Code. A summary of the results of those analyses are provided as evidence that the prescriptive and mandatory provisions of this Local Energy Code are expected to yield positive energy savings compared to the baseline 2020 ECCN NYS.

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The commercial analysis (Table 1) was prepared by Vidaris, Inc.¹ and compares the ASHRAE compliance path of NYStretch to that in the 2020 ECCC NYS. The residential analysis (Table 2) was prepared by Resource Refocus, Inc.² and compares the IECC compliance path of NYStretch to that of the 2020 ECCC NYS.

Table 1. Statewide Average Annual Energy and Cost Savings — Commercial Provisions of NYStretch Compared to the 2020 ECCC NYS¹

	Total Regulated Site Energy (kBtu/ft2/year)	Total Regulated Source Energy (kBtu/ft2/year)	Total Energy Costs (\$/ft2)
Baseline	54.1	129.4	\$1.52
2020 NYStretch	51.2	120.7	\$1.41
Savings	5.4%	6.7%	7.1%

Table 2. Statewide Average Annual Energy and Cost Savings — Residential Provisions of NYStretch Compared to the 2020 ECCC NYS²

	Total Regulated Site Energy (kBtu/dwelling unit)	Total Regulated Source Energy (kBtu/dwelling unit)	Total Energy Costs (\$/dwelling unit)
Baseline	59,926.4	91,545.1	1,514.9
2020 NYStretch	45,161.4	71,769.2	1,216.7
Savings	24.6%	21.6%	19.7%

Based on an analysis of Dodge data for new construction in New York State from 2009-2017, construction weights for residential and commercial new construction were developed to determine the weighted statewide average stringency of NYStretch compared to the 2020 ECCC NYS. The results show that NYStretch has a weighted average stringency of 11.3% over the 2020 ECCC NYS (Table 3).

Table 3. Weighted Average Efficiency of NYStretch Compared to the 2020 ECCC NYS

Construction Type	9-yr statewide construction average	Energy Cost Savings	Weighted average Efficiency
Residential	33.57%	19.7%	6.6%
Commercial	66.43%	7.1%	4.7%
Overall Weighted Average efficiency NYStretch compared to 2020 ECCC NYS			11.3%

¹ Report #19-34 2020 NYStretch Energy Code Commercial Cost Effectiveness Analysis

² Report #19-37 Energy Savings and Cost-Effectiveness Analysis of the 2020 NYStretch Energy Code Residential Provisions

For more information, visit
nyserdera.ny.gov/stretchenergy2020