

**Public Utility Law Project of New York, Inc.**

**Estimated Total Energy Burden Of Residential Low-Income Utility Customers In New York State By Heating Fuel Type/Region (2019)**

**All Fuels**

Region	Total Households	Average			Households With Total Energy Burden Over:	
		Income	Total Energy Costs	Total Energy Burden	6%	10%
Capital	35,423	\$22,301	\$2,788	12.5%	26,972	19,068
Central	36,679	\$22,873	\$2,669	11.7%	26,878	18,392
Finger Lakes	48,491	\$23,144	\$2,679	11.6%	35,967	23,816
Long Island	90,575	\$25,447	\$4,063	16.0%	79,727	63,265
Mid-Hudson	48,090	\$24,035	\$4,141	17.2%	42,179	34,269
Mohawk Valley	28,478	\$22,667	\$2,941	13.0%	23,119	16,204
New York City	130,127	\$25,557	\$4,339	17.0%	114,587	92,981
North Country	35,161	\$23,598	\$2,913	12.3%	28,150	19,344
Southern Tier	36,038	\$22,684	\$2,781	12.3%	27,757	18,837
Western	128,851	\$21,719	\$2,360	10.9%	95,191	60,589
<b>Total/Average</b>	<b>617,913</b>	<b>\$23,403</b>	<b>\$3,167</b>	<b>13.4%</b>	<b>500,527</b>	<b>366,765</b>

**Natural Gas**

Region	Total Households	Average			Households With Total Energy Burden Over:	
		Income	Total Energy Costs	Total Energy Burden	6%	10%
Capital	14,088	\$22,960	\$2,725	11.9%	10,532	6,922
Central	21,179	\$22,487	\$2,664	11.8%	15,979	11,000
Finger Lakes	35,617	\$22,851	\$2,580	11.3%	26,445	17,094
Long Island	47,740	\$25,596	\$3,765	14.7%	41,828	31,468
Mid-Hudson	17,472	\$23,711	\$4,367	18.4%	15,609	13,076
Mohawk Valley	12,603	\$22,566	\$2,970	13.2%	10,354	7,084
New York City	115,854	\$25,897	\$4,298	16.6%	102,538	82,517
North Country	7,850	\$23,215	\$2,763	11.9%	6,258	4,072
Southern Tier	17,722	\$22,736	\$2,720	12.0%	13,735	9,036
Western	114,316	\$21,739	\$2,347	10.8%	85,161	53,944
<b>Total/Average</b>	<b>404,441</b>	<b>\$23,376</b>	<b>\$3,120</b>	<b>13.3%</b>	<b>328,439</b>	<b>236,213</b>

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**Heating Fuel Type/Region (2019)**

**Electric**  
**(Energy Assistance Program Participants Only - See Methodology)**

Region	Total Households	Average			Households With Total Energy Burden Over:	
		Income	Total Energy Costs	Total Energy Burden	6%	10%
Capital	9,116	\$19,321	\$1,869	9.7%	5,397	3,452
Central	6,340	\$19,662	\$1,552	7.9%	3,061	1,816
Finger Lakes	3,366	\$19,075	\$1,626	8.5%	1,772	1,036
Long Island	3,070	\$19,229	\$2,129	11.1%	1,952	1,318
Mid-Hudson	2,718	\$19,940	\$2,085	10.5%	648	415
Mohawk Valley	3,210	\$19,208	\$1,700	8.9%	1,768	1,141
New York City	1,792	\$19,149	\$1,740	9.1%	603	370
North Country	4,382	\$19,858	\$1,494	7.5%	2,195	1,220
Southern Tier	3,880	\$18,671	\$1,553	8.3%	1,937	1,227
Western	7,555	\$18,069	\$1,505	8.3%	4,019	2,432
<b>Total/Average</b>	<b>45,429</b>	<b>\$19,218</b>	<b>\$1,725</b>	<b>9.0%</b>	<b>23,352</b>	<b>14,427</b>

**Deliverable Fuel**

Region	Total Households	Average			Households With Total Energy Burden Over:	
		Income	Total Energy Costs	Total Energy Burden	6%	10%
Capital	12,219	\$23,765	\$3,545	14.9%	11,043	8,694
Central	9,160	\$25,990	\$3,455	13.3%	7,838	5,576
Finger Lakes	9,508	\$25,683	\$3,420	13.3%	7,750	5,686
Long Island	39,765	\$25,748	\$4,570	17.8%	35,947	30,479
Mid-Hudson	27,900	\$24,636	\$4,199	17.0%	25,922	20,778
Mohawk Valley	12,665	\$23,644	\$3,227	13.6%	10,997	7,979
New York City	12,481	\$23,323	\$5,084	21.8%	11,446	10,094
North Country	22,929	\$24,443	\$3,236	13.2%	19,697	14,052
Southern Tier	14,436	\$23,699	\$3,187	13.4%	12,085	8,574
Western	6,980	\$25,358	\$3,497	13.8%	6,011	4,213
<b>Total/Average</b>	<b>168,043</b>	<b>\$24,629</b>	<b>\$3,742</b>	<b>15.2%</b>	<b>148,736</b>	<b>116,125</b>

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**Methodology**

To estimate the total energy burden of low-income natural gas, deliverable fuel and electric heating customers in New York State who pay for their own heating fuel, PULP needed to set some analytical approaches and guidelines. First, PULP selected all New York low-income households who were eligible for HEAP grants in 2019 based on income and household size, and who paid at least one energy utility bill—together with their own heating fuel—as reported in the public use microdata sub-survey of the U.S. Census Bureau's 2015 - 2019 American Community Survey (“ACS”). , Second, PULP summarized those categories by heating fuel type and economic region, with their average household incomes, total energy costs (non-heating electricity plus electric, gas or deliverable heating fuel) and energy burdens (energy costs / average household income) calculated.

To distinguish between households likely or unlikely to be utility gas heating customers, PULP then established minimum energy cost estimates for such customers based on 1) the average bill data of participants in New York State utility energy affordability programs (“EAP’s”), and 2) the limited amount of monthly gas low-income heating and non-heating bill data by usage interval (“bill frequency data”) available to PULP at the time this analysis was prepared. PULP’s estimates represent a useful approximation of the number of low-income natural gas heating customers in New York, given this limitation. For use in greater “fine tuning” of EAP discounts, a comprehensive set of low-income heating and non-heating bill frequency data from all the State's energy utilities is necessary to identify heating customers.

It is much more difficult to distinguish ACS electric heating from non-heating households than it is for natural gas, despite the fact that respondents are asked to report both which fuel they use for heating and their average monthly electric bills. This is due in large part to the multitude uses for electricity (e.g., lights, kitchen appliances and air-conditioning), when compared to natural gas. The use of seasonal inclining block rates by certain utilities and the practice of electric submetering by many landlords further complicate efforts to identify electric heating households based solely on ACS and EAP data. Bill frequency and other utility data, together with data derived from submetering petitions available to DPS may, however, help facilitate such an analysis. In the interim, PULP has limited the number of low-income electric heating households for this analysis to the number of electric heating EAP participants reported by the utilities, and has used household income and energy costs as reported by all ACS low-income electric heating respondents to calculate participant energy burdens. Importantly, PULP considers it highly likely that the number of low-income New York State households who pay for their electric heating (whether to utilities, or their landlords through submetering) is significantly more than double the 45,429 households reflected in this analysis.

<sup>1</sup> Eligible households were selected irrespective of their status as HEAP recipients or their participation in utility energy affordability plans

<sup>2</sup> PULP notes that, since 2019, the supply costs of heating has increased significantly, exacerbating low-income heating customer energy burdens. United States Energy Information Agency (“EIA”) base case forecasts for winter of 2021-2022 vs. 2020-2021 call for average price increases of 5% for electricity, 29% for natural gas, 37% for heating oil and 39% for propane. (See: <https://www.eia.gov/outlooks/steo/report/WinterFuels.php>.)

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