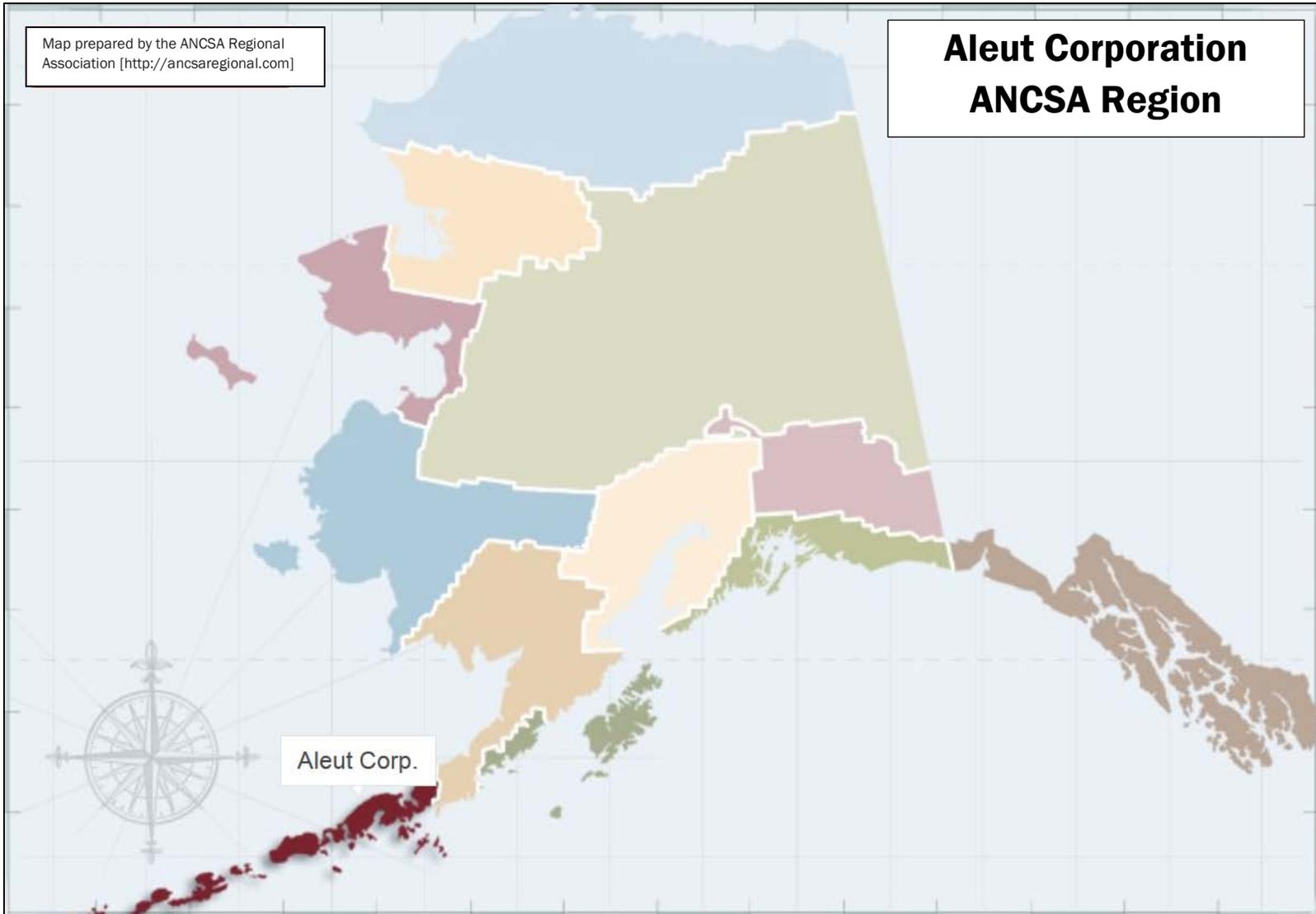


Map prepared by the ANCSA Regional  
Association [<http://ancsaregional.com>]

## Aleut Corporation ANCSA Region



## Table of Contents

Aleut Region Dashboard.....	3
Aleut Region Housing Need Highlights.....	4
Aleut Region Summary .....	6
Community .....	6
Overcrowding.....	7
Affordability.....	8
Energy .....	9
Single-family Units .....	9
Multifamily Units.....	11
Regional Residential Electrical Use Trends .....	12
Inefficient and Older Homes .....	12
Housing Condition .....	13
Ventilation .....	13
Indoor Air Quality .....	13
Draftiness.....	13
Regional and Statewide Housing Characteristics.....	2

---

## Regional and Statewide Housing Characteristics

This ANCSA region summary only includes the highlights of housing characteristics at the regional level. The 2017 Alaska Housing Assessment provides a significant amount of data and analysis at statewide, ANCSA region and census area levels. That assessment provides a statewide analysis of housing characteristics, how they compare to national numbers, and the estimated housing needs. Within the 2017 Alaska Housing Assessment, written summaries are available for each individual ANCSA region and census area, and data profiles are also available characterizing the housing stock from the perspective of community, overcrowding, energy, affordability and need. These different tiers of information and analysis allow researchers, housing authorities, policymakers and others to generate answers to specific questions. For a more detailed discussion of estimating housing need and comparison of methods to previous housing assessments, see Appendix C Selected Methodology in the 2017 Alaska Housing Assessment.

## Aleut Region Dashboard

**Population:** The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Aleut region is 8,503, an increase of 4 percent from 2000.

**Housing Units:** There are currently 2,903 housing units in the Aleut region. Of these, 1,800 are occupied, 192 are for sale or rent, and the remaining 910 (31 percent) are seasonal or otherwise vacant units.

**Energy and Energy Costs:** The average home in the Aleut region is 1,197 square feet and uses 152 million BTUs of energy annually, compared to the statewide average of 227 million BTUs per year. Using AKWarm estimates, the average annual energy cost for homes in Aleut is \$5,021. This is approximately 1.2 times the statewide average and 2.2 times the national average.

**Overcrowding:** In the Aleut region 140 (8 percent) of occupied units are estimated to be either overcrowded (4 percent) or severely overcrowded (3 percent). This is more than twice the national average and makes this ANCSA region the sixth least overcrowded in the state.

**Drafty Homes and Ventilation:** Approximately 792 (44 percent) of homes in the Aleut region are drafty, exceeding seven air changes per hour at 50 Pascals (ACH50). The statewide average is 36 percent. In contrast, there are an estimated 576 occupied housing units (32 percent) in the Aleut region that are relatively airtight and lack a continuous ventilation system. These houses are at higher risk of issues with moisture and indoor air quality.

**Affordability:** On average, approximately 452 (25 percent) of households in the Aleut region are cost-burdened, spending more than 30 percent of total household income on housing costs, which include rent, utilities and energy costs. Statewide, 31 percent of households are cost-burdened.

**Senior Housing:** There are an estimated 29 beds in senior housing facilities in the Aleut region. Currently the Alaska Department of Labor and Workforce Development estimates there are 613 seniors in the ANCSA region and project an increase to 1,175 by 2030.

**Housing Issues:** There are an estimated 985 homes built before the 1980s in the Aleut region that have not been retrofit through a state program in the past 10 years. Approximately 45 (2 percent) homes in the Aleut region lack complete kitchens and approximately 50 (3 percent) lack complete bathrooms.

---

## Aleut Region Housing Need Highlights

The primary housing need in the Aleut Corporation region is for senior housing.

A secondary housing need is to retrofit existing housing. The need to maximize energy efficiency is listed as one of the five main regional priorities in the *Aleutian & Pribilof Islands Regional Energy Plan*.<sup>1</sup> Stakeholders identified the need to improve residential energy efficiency and weatherization, improve energy efficiency in public and commercial buildings, and improve the energy efficiency of water and sewer systems. The energy plan lists strategies for maximizing energy efficiency in residences, including expanding participation in home energy retrofit programs through education and outreach, and addressing current barriers to participation.

**Housing Gap:** The Aleut Corporation region has 2,903 housing units, of which 62 percent are occupied. Approximately 8 percent of units are either overcrowded or severely overcrowded, more than twice the national average.<sup>2</sup> Because approximately 7 percent of the housing units in the region are vacant and for sale or rent (remaining vacant units are seasonal or for other purposes), this housing gap must be met by new construction.

**Affordable Housing Need:** Approximately 25 percent of households are cost-burdened, spending more than 30 percent on housing costs.<sup>3</sup> Residents pay an average of \$6,362 annually in energy costs, 1.4 times the state average. Addressing the need to retrofit homes should reduce energy costs and increase affordability.

**Senior Housing Needs:** Currently, 29 beds are available in senior housing facilities. None are in assisted living facilities.<sup>4</sup> This is a small fraction of the 613 seniors in the region, and the elderly population is expected to increase to 1,175 by 2030.<sup>5</sup> Increasing the amount of available senior housing should be a priority to ensure there are adequate assisted and independent living facilities for the projected senior population.

---

<sup>1</sup> Southwest Alaska Municipal Conference & Information Insights.(2015). *Aleutian & Pribilof Islands Regional Energy Plan. Phase II: Report Update*. Retrieved from <http://www.akenergyauthority.org/Policy/RegionalPlanning> .

<sup>2</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010–2014 American Community Survey Five-year Estimates*.

<sup>3</sup> Ibid.

<sup>4</sup> AHFC Senior Housing Office. (2016). *Inventory List: Independent Living Homes/Facilities*. Revised 5/02/2016. Retrieved from <https://www.ahfc.us/senior-support/>

<sup>5</sup> Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.

---

**Retrofit Needs:** The need to retrofit homes should be a high priority in the region. Approximately 44 percent of occupied homes in the region are drafty, and an additional 31 percent of occupied homes face the opposite issue of being relatively airtight but lacking a mechanical ventilation system.<sup>6</sup> Furthermore, approximately 44 percent of all homes in the region were built before 1980 and have not been retrofitted. All of these homes have high potential for an energy retrofit that could increase the safety and comfort of the home while decreasing the energy use.

---

<sup>6</sup> See Appendix C: Methodology for details.

## Aleut Region Summary

### Community

The Aleut Corporation ANCSA region occupies the southwest corner of Alaska. Its communities are located on the end of the Alaska Peninsula and on the Aleutian Island chain that stretches to the west. The average home size in the Aleut region is 1,197 square feet.

The ratio of dependents, both those under 16 and those over 65, relative to the working age population in the Aleut region is lower than the statewide average and lower than the national ratio.<sup>7</sup> Aleut region is expected to see an increase in the nonworking age population by 2030.

The ratio of senior age dependents to the working age population is lower than the statewide average and lower than the national average. The Aleut region is projected to see the ratio of senior age dependents to working age dependents double by 2030.

There are an estimated 29 dedicated beds in senior housing in the Aleut region, with none of those dedicated to assisted care living.<sup>8</sup> Currently the Alaska Department of Labor and Workforce Development estimates there are 613 seniors in the Aleut region and projects that there will be 1,175 senior citizens by 2030.<sup>9</sup> In the Aleut region no senior citizens are in registered assisted care housing, whereas statewide 2.8 percent of senior citizens live in assisted care housing. Nationally, approximately 3.5 percent of senior citizens are in senior living facilities.<sup>10</sup>

Comparison of the growth rates in the senior age (65+) segment of the population to the young dependent age (0 to 15) population indicate that in the Aleut region the primary pressure for new housing over the next 15 years will come from households with elderly people.

---

<sup>7</sup> Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.

<sup>8</sup> AHFC Senior Housing Office. (2016). *Inventory List: Assisted Living Homes/Facilities*. Revised 5/02/2016.  
AHFC Senior Housing Office. (2016). *Inventory List: Independent Living Homes/Facilities*. Revised 5/02/2016.  
Retrieved from <https://www.ahfc.us/senior-support/>

<sup>9</sup> Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.

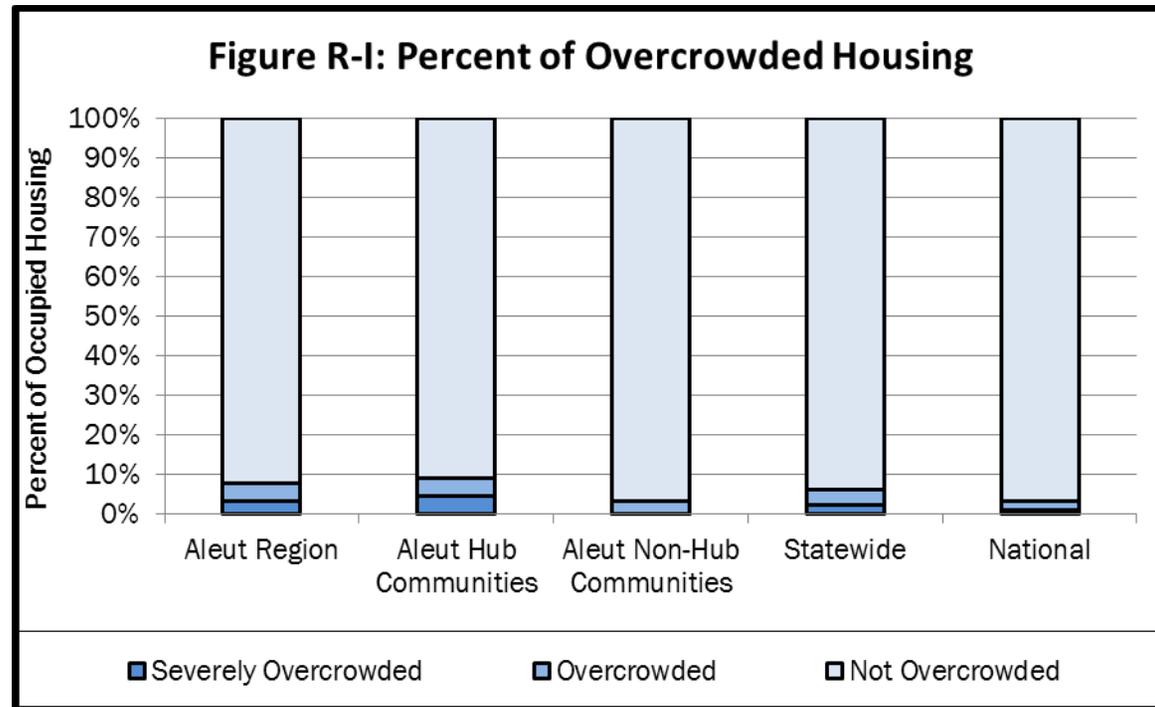
<sup>10</sup> Ribbe, M., Ljunggren, G., Steel, K., Topinkova, E., Hawes, C., Ikegami, N., ... Jonnson, P. (1997). "Nursing Homes in 10 nations: A Comparison Between Countries and Settings." *Age and Ageing*, 26(S2), 3-12.

## Overcrowding<sup>11</sup>

Aleut is in the middle as far as overcrowding in Alaska. Approximately 8 percent of the households are overcrowded in the region as a whole. The rate of overcrowding in the Aleut region is more than 1.2 times the statewide average (6.4 percent) and more than 2.4 times the national average (3.3 percent).

Overcrowding in the non-hub communities is less than that found in the hub community. Overcrowding is defined as households with more than 1 person per room. Severe overcrowding is defined as households with more than 1.5 persons per room. Non-hub communities in the Aleut region average 40 percent of the overcrowding rate that the hub community has, with approximately 4 percent of households overcrowded compared to the hub community's 9 percent. Further, 0.2 percent of non-hub community households are severely overcrowded. This is 20 percent of the national average.

Approximately 7 percent of housing units in the Aleut region are available for sale or rent. The percentage of units for sale or rent in non-hub communities (8 percent) is more than in the hub community (5 percent). Additionally, 31 percent of housing units in Aleut are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.

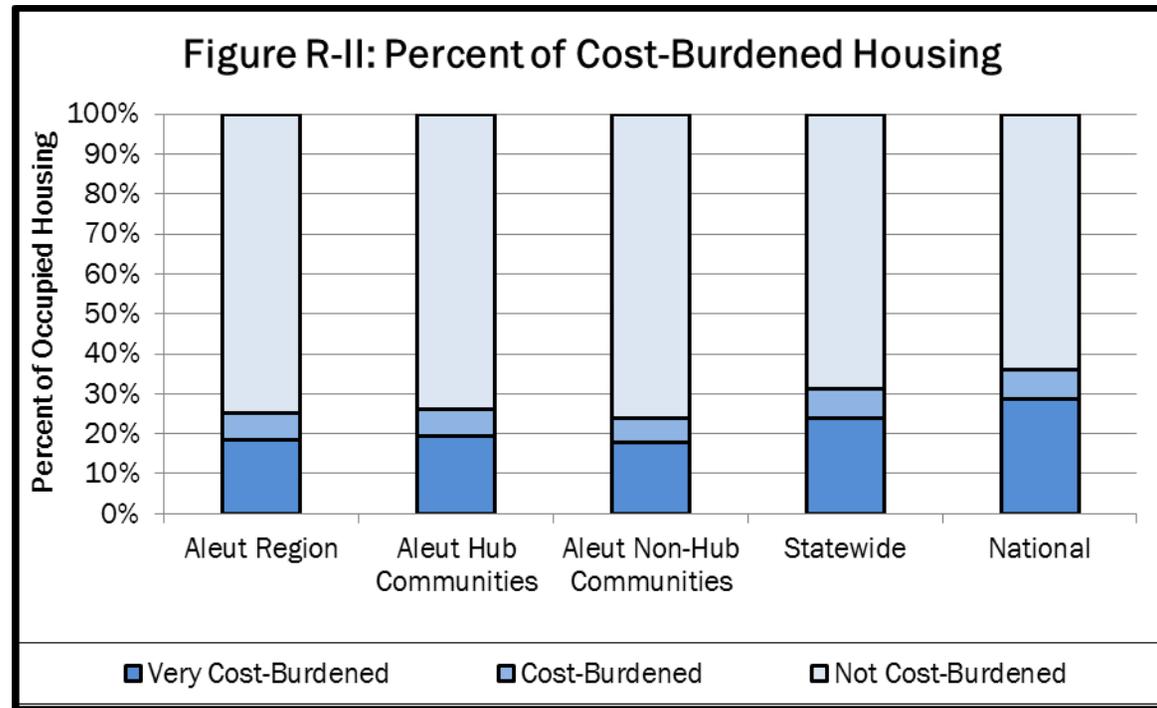


<sup>11</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010–2014 American Community Survey Five-year Estimates*.

## Affordability<sup>12</sup>

According to estimates from the U.S. Census American Community Survey (ACS), 25 percent of households in the Aleut region are cost-burdened, that is, spend more than 30 percent of their income on housing costs. Non-hub communities have a lower percentage (24 percent) of households that are cost-burdened than the hub community (26 percent). The rate of cost-burdened households in Aleut region is 70 percent of the national average (36 percent).

The median household income in the Aleut region is \$73,309. This is higher than the statewide median of \$71,829. The national median is \$53,482.



<sup>12</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010–2014 American Community Survey Five-year Estimates*.

## Energy<sup>13</sup>

### Single-family Units

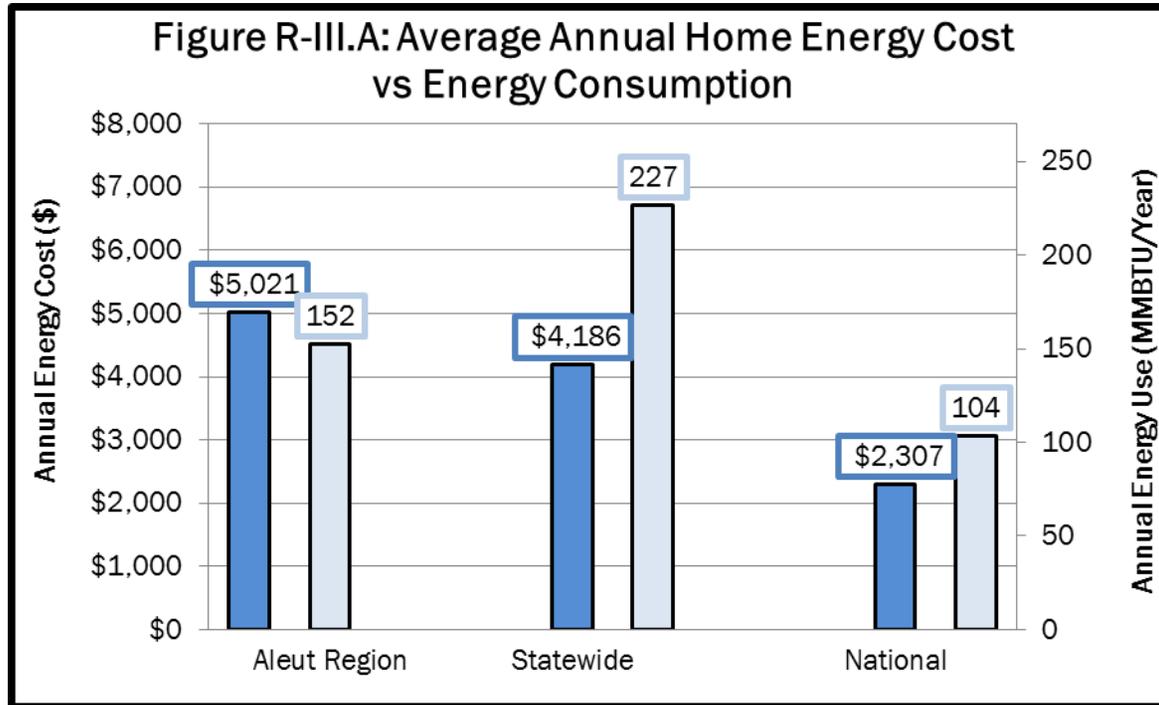
Single-family homes in the Aleut region consume an average of 152 million BTUs per year in energy, the fourth lowest energy consumption in the state. This average annual energy consumption is 67 percent of the statewide average of 227 million BTUs and 1.5 times the national average.

Energy costs for single-family homes in the Aleut region average \$5,021 annually. This is the sixth highest in the state. Aleut energy costs are 1.2 times the statewide average and 2.2 times the national average.

With an average footprint of 1,197 square feet, single-family homes in the Aleut region are smaller than the statewide average of 1,955 square feet. National average house size is 2,425 square feet.

The energy use intensity (EUI), or annual energy used per square foot, for a single-family home in the Aleut region averages 136,117 BTUs per square foot, the sixth lowest in the state. This is 60 percent of the statewide average of 227,000 BTUs per square foot and 3.2 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a single-family home in the Aleut region averages \$4.19, the fourth highest in the state. This is 1.8 times the statewide average of \$2.31 per square foot and 4.4 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Aleut region for the average single-family home is 9.85 BTUs/ft<sup>2</sup>/HDD. This is the third highest in the state. The HHI for the Aleut region is 1.1 times the statewide average. The normalized cost of energy, in terms of dollars per



<sup>13</sup> See Appendix C: Methodology for details.

million BTUs, for a single-family home in the Aleut region averages \$29.31, the fourth highest in the state. This is 1.9 times the statewide average of \$15.80 per million BTUs and 1.3 times the national average of \$22.27 per million BTUs.

## Multifamily Units

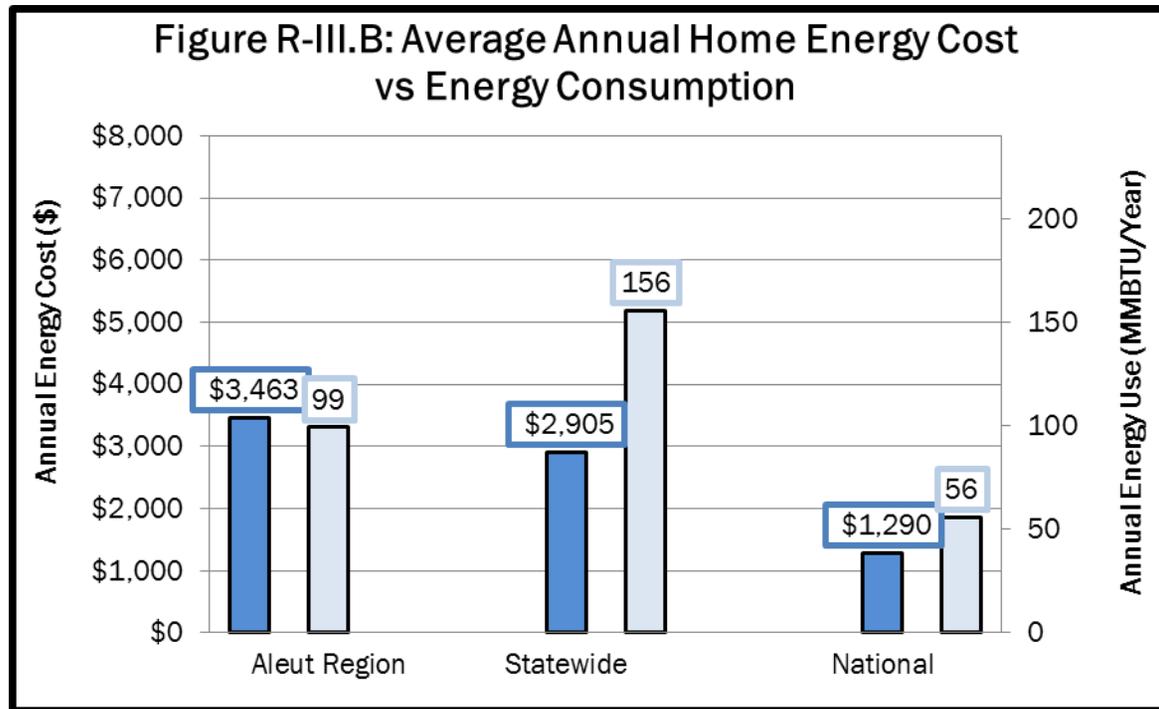
Multifamily housing units in the Aleut region consume an average of 99 million BTUs per year in energy, the lowest energy consumption in the state. This average annual energy consumption is 64 percent of the statewide average of 156 million BTUs and 1.5 times the national average.

Energy costs for multifamily housing units in the Aleut region average \$3,463 annually. This is the fifth highest in the state. Aleut region energy costs are 1.2 times the statewide average and 2.7 times the national average.

With an average footprint of 1,036 square feet, multifamily housing units in the Aleut region are smaller than the statewide average of 1,284 square feet. Nationally the average unit in multifamily housing is 930 square feet.

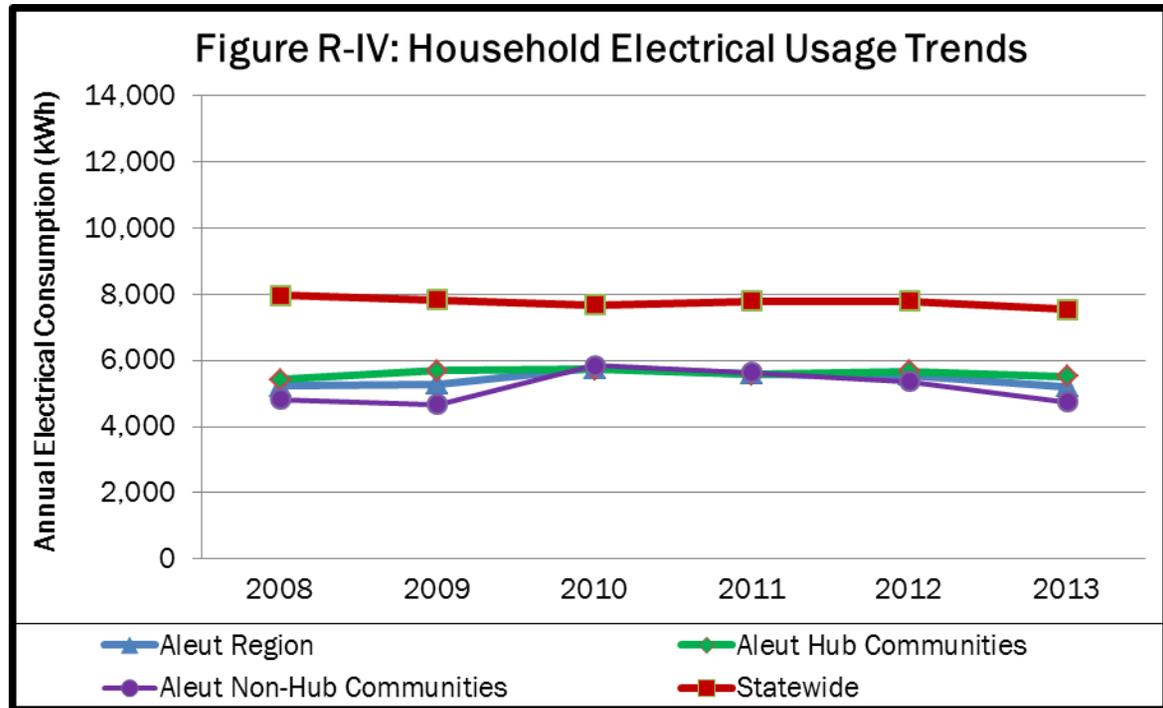
The energy use intensity (EUI), or annual energy used per square foot, for a unit in multifamily housing in the Aleut region averages 99,733 BTUs per square foot, the third lowest in the state. This is 78 percent of the statewide average of 128,000 BTUs per square foot and 1.7 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a unit in multifamily housing in the Aleut region averages \$3.34, the fourth highest in the state. This is 1.5 times the statewide average of \$2.27 per square foot and 2.4 times the national average of \$1.39 per square foot.

The home heating index (HHI) in the Aleut region for the average multifamily housing unit is 5.86 BTUs/ft<sup>2</sup>/HDD. This is the fourth lowest in the state. The HHI for the Aleut region is 71 percent of the statewide average. The normalized cost of energy, in terms of dollars per million BTUs, for a unit in multifamily housing in the Aleut region averages \$28.79, the fourth highest in the state. This is 2.3 times the statewide average of \$12.79 per million BTUs and 1.2 times the national average of \$23.12 per million BTUs.



### Regional Residential Electrical Use Trends<sup>14</sup>

In 2013, the average household in the Aleut region consumed 5,201 kWh of electricity annually. This is approximately the same as in 2008. Hub communities in the ANCSA region averaged 5,517 kWh per year. This remains approximately the same over the same period. Non-hub communities averaged 4,752 kWh in 2013, also approximately the same since 2008. Statewide, the average household consumed 7,540 kWh of electricity in 2013, a decrease of 5 percent since 2008.



### Inefficient and Older Homes<sup>15</sup>

Approximately 193 (11 percent) of the occupied homes in the Aleut region are estimated to be 1-star homes. A 1-star home uses approximately four times the energy it would if built to AHFC's Building Energy Efficiency Standard (BEES). Statewide, approximately 14,966 (6 percent) of occupied homes are estimated to be 1-star homes.

Homes built before 1980 that have not been retrofit are potentially homes in need. Approximately 44 percent of all homes in the Aleut region fit these two criteria. This is higher than the statewide average of 39 percent.

<sup>14</sup> Fay, G., Villalobos Melendez, A. & West. C. (2014). *Alaska Energy Statistics: 1960–2011*. UAA Institute of Social and Economic Research. Retrieved from [http://iser.uaa.alaska.edu/Publications/2013\\_12-AlaskaEnergyStatistics2011Report\\_Final\\_2014-04-30.pdf](http://iser.uaa.alaska.edu/Publications/2013_12-AlaskaEnergyStatistics2011Report_Final_2014-04-30.pdf)

<sup>15</sup> See Appendix C: Methodology for details.

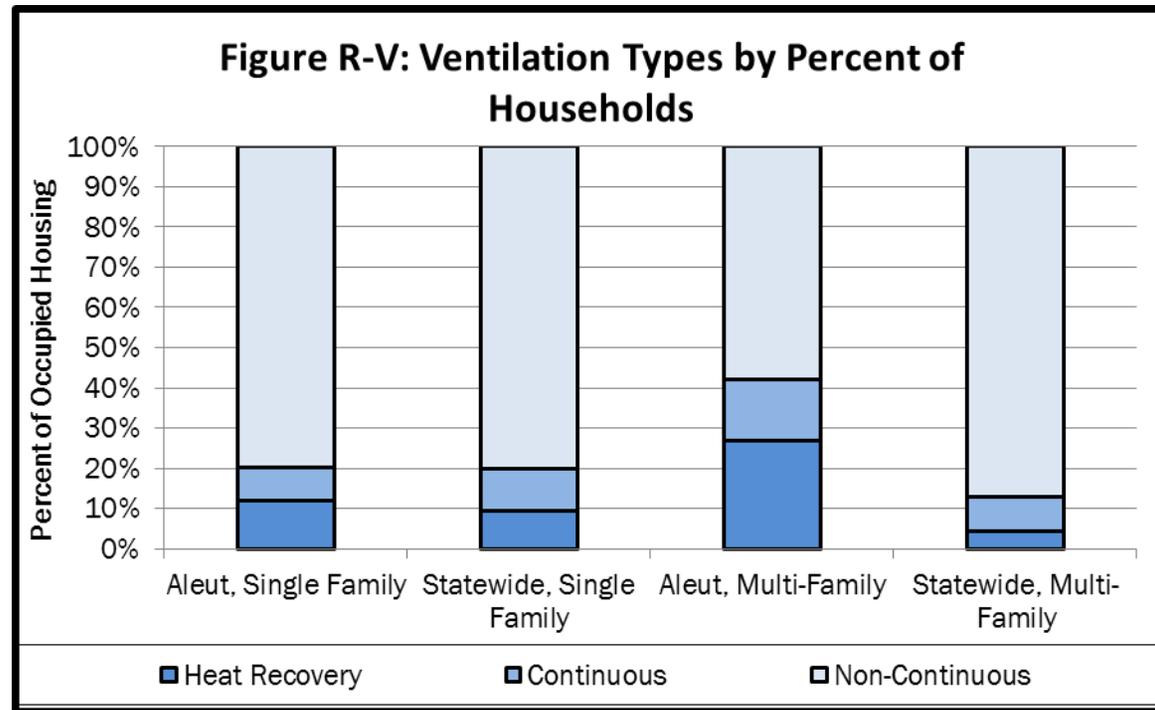
## Housing Condition <sup>16</sup>

### Ventilation

Approximately 20 percent of the occupied homes in the Aleut region have heat recovery or continuous mechanical ventilation systems installed. This is the sixth lowest in the state. Statewide approximately 20 percent of occupied homes have continuous mechanical ventilation systems, with or without heat recovery.

### Indoor Air Quality

A tight home with no or inadequate ventilation has an increased risk of issues with indoor air quality or moisture. The Aleut region has the fourth lowest percentage of housing units in the state that are both relatively airtight and lack continuous mechanical ventilation. Approximately 380 (21 percent) of the occupied homes in the Aleut region are estimated to be at moderate risk, with 192 (11 percent) estimated to be at high risk. Statewide approximately 30 percent of occupied homes are estimated to be at moderate risk and 26 percent are estimated to be at high risk.



### Draftiness

To quantify drafty homes, the following definitions were used. Drafty homes will see test results of between 7 and 12 air changes per hour at 50 Pascals (ACH50) when subjected to a blower door test. Very drafty homes will see test results of greater than 12 ACH50. Approximately 617 (34 percent) of the occupied homes in the Aleut region are estimated to be drafty, with 178 (10 percent) estimated to be very drafty. Statewide approximately 24 percent of occupied homes are estimated to be drafty and 12 percent are estimated to be very drafty.

<sup>16</sup> See Appendix C: Methodology for details.