

**EXHIBIT NO. \_\_\_(DAD-9)**  
**DOCKET NO. UE-121697/UG-121705**  
**DOCKET NO. UE-130137/UG-130138**  
**WITNESS: DANIEL A. DOYLE**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

DOCKET NOS. UE-121697  
and UG-121705 (*consolidated*)

WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

DOCKET NOS. UE-130137  
and UG-130138 (*consolidated*)

**FIRST EXHIBIT (NONCONFIDENTIAL) TO THE  
PREFILED REBUTTAL TESTIMONY OF DANIEL A. DOYLE  
ON BEHALF OF PUGET SOUND ENERGY, INC.**

**DECEMBER 19, 2014**

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**Docket Nos. UE-121697 and UG-121705  
Puget Sound Energy, Inc. and NW Energy Coalition  
Joint Petition for Approval of a Decoupling Mechanism**

**Docket Nos. UE-130137 and Docket No. UG-130138  
Puget Sound Energy, Inc. Expedited Rate Filing**

**ICNU DATA REQUEST NO. 027**

**ICNU DATA REQUEST NO. 027:**

Referencing DAD-4T at 25:8-12. Please clarify whether it is PSE's position that equity and debt investors do not consider the effects of weather to constitute a risk to utility revenues. If this statement is accurate, please provide all support Mr. Doyle relied on for this conclusion.

**Response:**

The Prefiled Direct Testimony of Daniel A. Doyle, Exhibit No. \_\_\_\_ (DAD-4T), does not take the position that "equity and debt investors do not consider the effects of weather to constitute a risk to utility revenues." Instead, the cited testimony states that the portion of decoupling revenue adjustments attributable to weather has no material *long-term* effect on utility revenues or cash flows and can be disregarded in terms of assessing any impacts on cost of capital:

The effects of weather that is absorbed by PSE's decoupling mechanisms should not be considered in the context of determining PSE's ROE. Indeed, in the short term, the effects of weather on utility revenues can go either way. Customers can benefit under decoupling if weather is colder than normal causing increased usage in the cold weather months, and PSE can benefit if weather is warmer than normal. Equity and debt investors take a longer view that over the long term, the effects of weather on utility revenues will cancel out or be averaged away over time. Thus, over time, the portion of decoupling revenue adjustments attributable to weather has no material long-term effect on utility revenues or cash flows and can be disregarded in terms of assessing any impacts on cost of capital.

Exhibit No. \_\_\_\_ (DAD-4T) at page 25, lines 3-12. This quoted testimony sets forth the position of Puget Sound Energy, Inc. ("PSE") that the short-term effects of weather on

utility revenues may be material but that the long-term effects of weather on utility revenues are not. In other words, weather variations over the short-term revert to the mean with time. As a result, there would be no material impact, over time, on the underlying cash flows upon which equity and debt investors rely upon for dividends and debt service payments, respectively.

Attached as Attachment A to PSE’s Response to ICNU Data Request No. 027 are six graphs that provide the annual heating degree days (HDDs) and annual cooling degree days (CDDs) for the period 1949 to 2012 for each of Olympia, Seattle-Tacoma, and Blaine.<sup>1</sup> These graphs demonstrate that there may be materials variations in the number of HDDs<sup>2</sup> and CDDs<sup>3</sup> during any given year, but these variations average out over time to a mean number of HDDs and CDDs for a given area.

The following chart provides the maximum, minimum, and mean annual HDDs for each of Olympia, Seattle-Tacoma, and Blaine:

Weather Station	Minimum	Mean	Maximum
Olympia (WA456114)	4,587 (1958)	5,572.62	6366.5 (1955)
Seattle-Tacoma (WA457453)	4,063.5 (1995)	4,954.62	6,249.5 (1955)
Blaine (WA450729)	4,872.5 (2010)	5,783.22	6,604.1 (1955)

<sup>1</sup> The source for the data presented in Attachment A to PSE’s Response to ICNU Data Request No. 027 is the Western Regional Climate Center (<http://www.wrcc.dri.edu/>). The NOAA weather stations selected for Olympia, Seattle-Tacoma, and Blaine, are as follows: WA456114 (Olympia), WA457453 (Seattle-Tacoma), and WA450729 (Blaine).

<sup>2</sup> The Western Regional Climate Center defines HDDs as follows: “Heating degree-days are determined by subtracting the mean temperature for the day from the reference temperature. Thus, if the mean temperature for a day is 50F and the reference temperature is 65F, there would be 15 (65-50) heating degree-days on this day. On days when the mean temperature is above the reference temperature, there are no heating degree-days. Therefore, the lower the average daily temperature, the more heating degree-days and the greater the consumption of fuel.” Western Regional Climate Center, “Degree Days,” available at <http://www.wrcc.dri.edu/ams/degdays.html>. The base or reference temperature for the HDD data provided by the Western Regional Climate Center and used in PSE’s Response to ICNU Data Request No. 027 and Attachment A to PSE’s Response to ICNU Data Request No. 027 is 65 degrees Fahrenheit.

<sup>3</sup> The Western Regional Climate Center defines CDDs as follows: “Cooling degree-days are used during warm weather to estimate the energy needed to cool indoor air to a comfortable temperature. Mean daily temperature is converted to cooling degree-days by subtracting the reference temperature from the mean. For example, a day with a mean temperature of 80F and a reference temperature of 65F would correspond to (80-65), or 15 cooling degree-days. Higher values indicate warm weather and result in a high power production for cooling. Knowledge of the number of cooling degree-days in an area in the summer gives power companies a way of predicting the energy demand during peak energy periods. A summary of heating and cooling degree-days can give a practical indication of the energy needed over the year.” Western Regional Climate Center, “Degree Days,” available at <http://www.wrcc.dri.edu/ams/degdays.html>. The base or reference temperature for the CDD data provided by the Western Regional Climate Center and used in PSE’s Response to ICNU Data Request No. 027 and Attachment A to PSE’s Response to ICNU Data Request No. 027 is 65 degrees Fahrenheit.

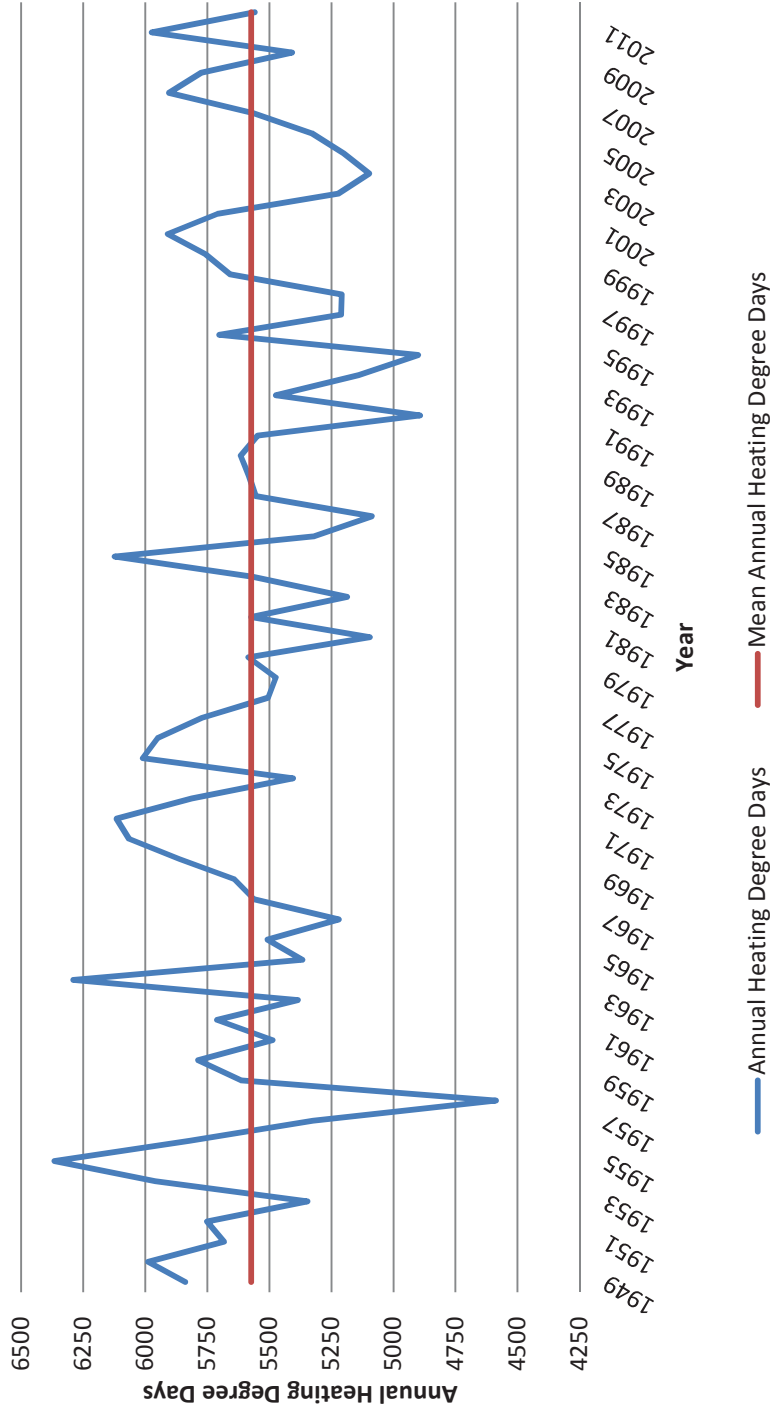
The following chart provides the maximum, minimum, and mean annual CDDs for each of Olympia, Seattle-Tacoma, and Blaine:

<b>Weather Station</b>	<b>Minimum</b>	<b>Mean</b>	<b>Maximum</b>
Olympia (WA456114)	7 (1954)	92.14	282 (1958)
Seattle-Tacoma (WA457453)	5 (1954)	158.11	349.5 (1967)
Blaine (WA450729)	0 (1954/1976)	19.67	63.5 (1990)

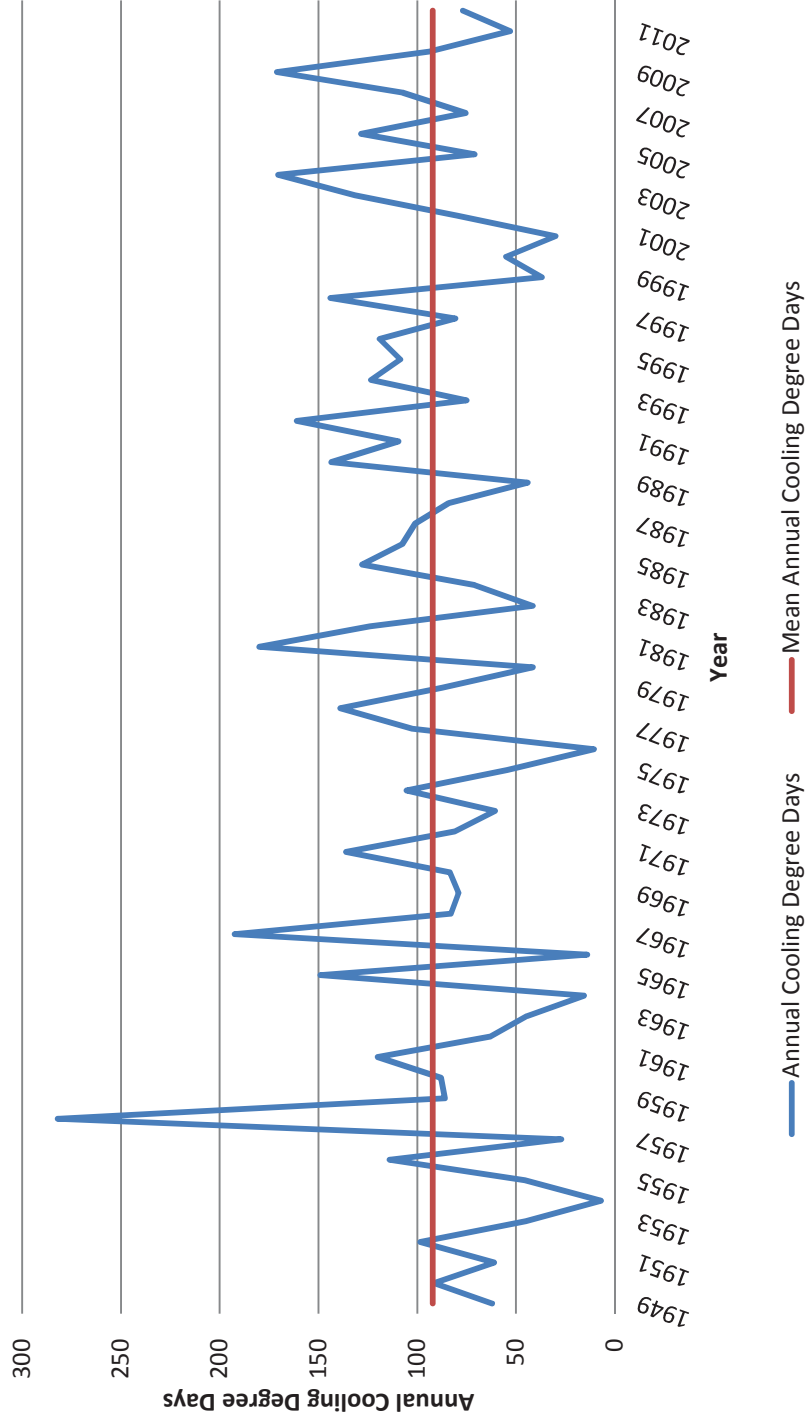
As demonstrated in the graphs in Attachment A to PSE's Response to ICNU Data Request No. 027 and the tables provided above, there are material variations around the mean number of HDDs and CDDs in any given year, but these variations revert to the mean number of HDDs and CDDs over time. As stated in the Prefiled Direct Testimony of Daniel A. Doyle, Exhibit No. \_\_\_\_ (DAD-4T), equity and debt investors take a longer view that, over time, the effects of weather on utility revenues will cancel out or be averaged away. Thus, the portion of decoupling revenue adjustments attributable to weather has no material long-term effect on utility revenues or cash flows and can be disregarded in terms of assessing any impacts on cost of capital.

**ATTACHMENT A to PSE's Response to  
ICNU Data Request No. 027**

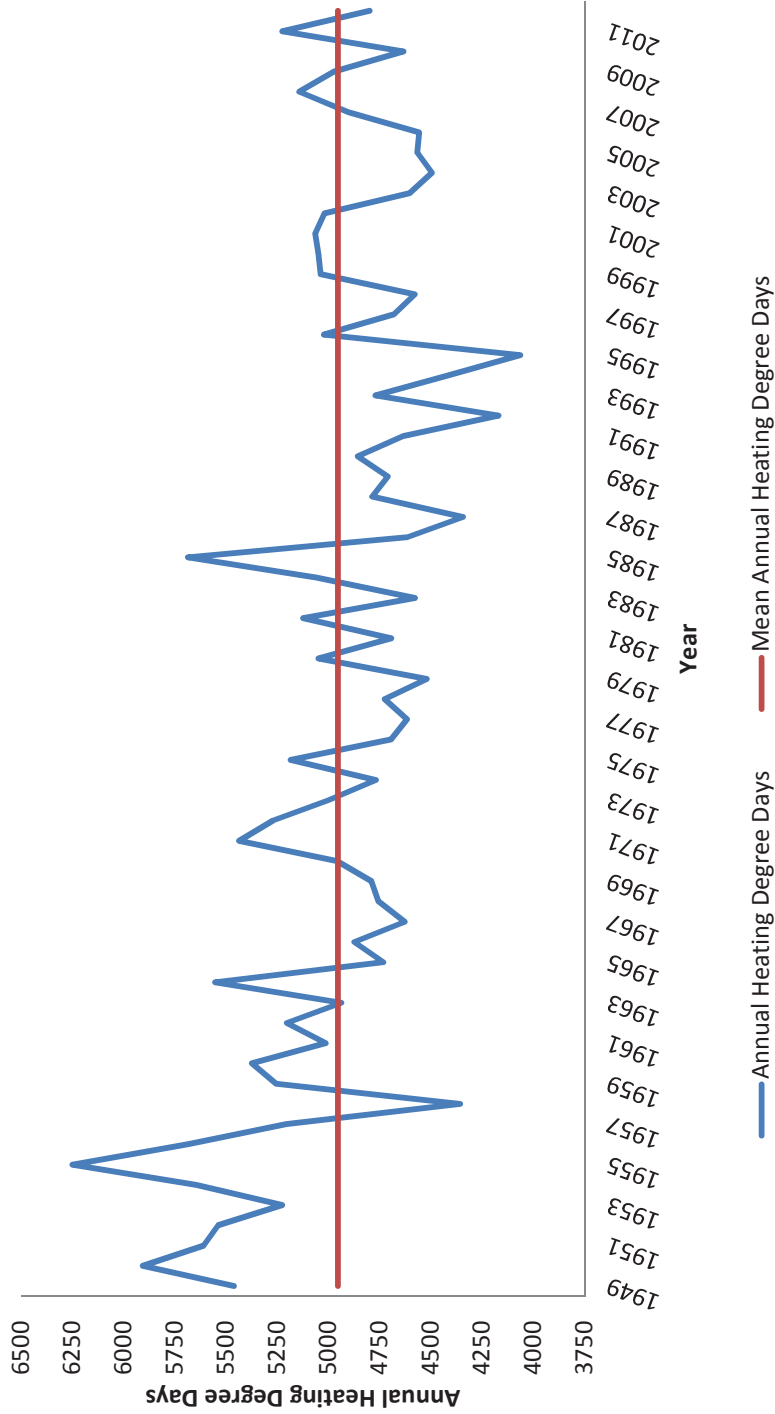
**Annual Heating Degree Days (HDD)**  
**Olympia, Washington (1949 - 2012)**  
(NOAA Station Id: WA456114)



### Annual Cooling Degree Days (CDD) Olympia, Washington (1949 - 2012) (NOAA Station Id: WA456114)

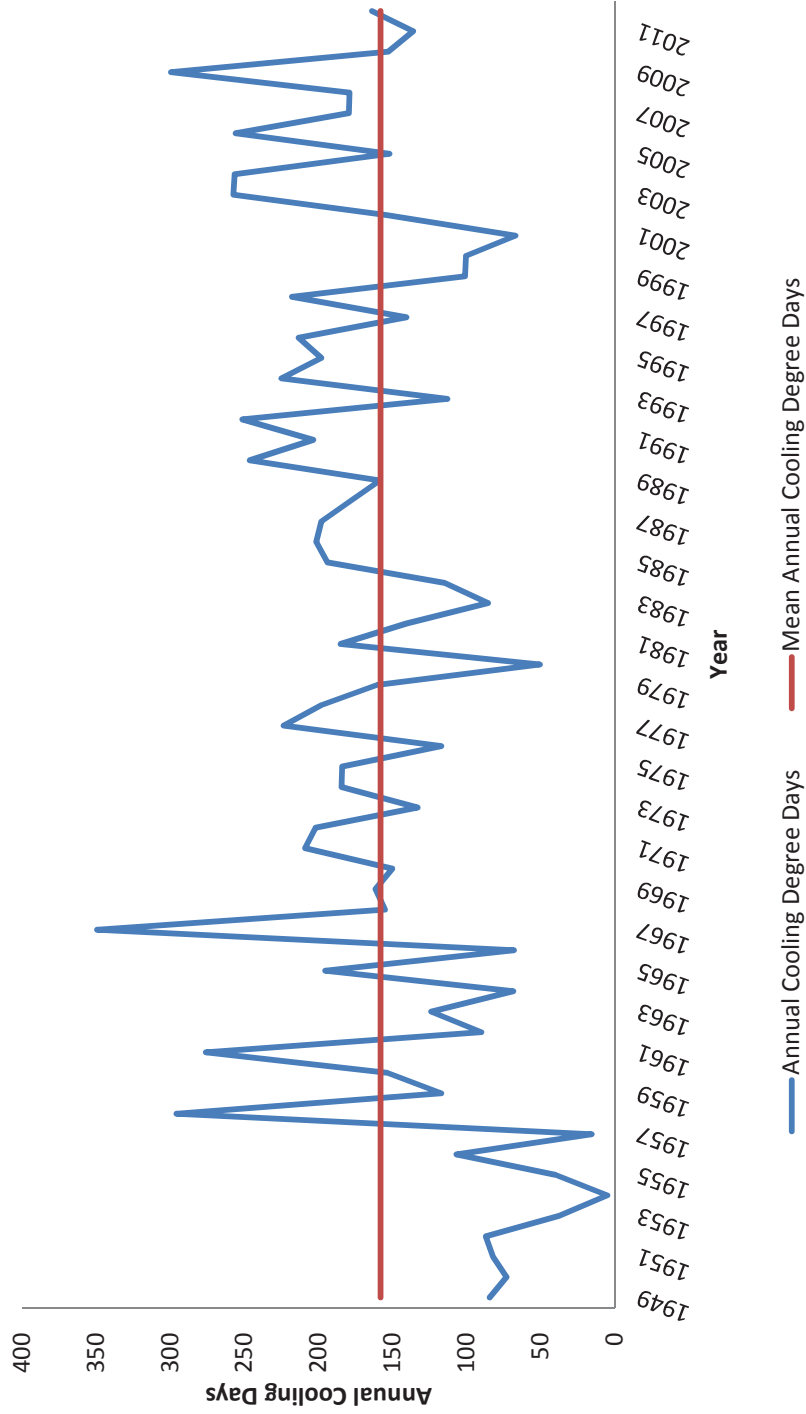


**Annual Heating Degree Days (HDD)**  
**Seattle-Tacoma, Washington (1949 - 2012)**  
(NOAA Station Id: WA457473)

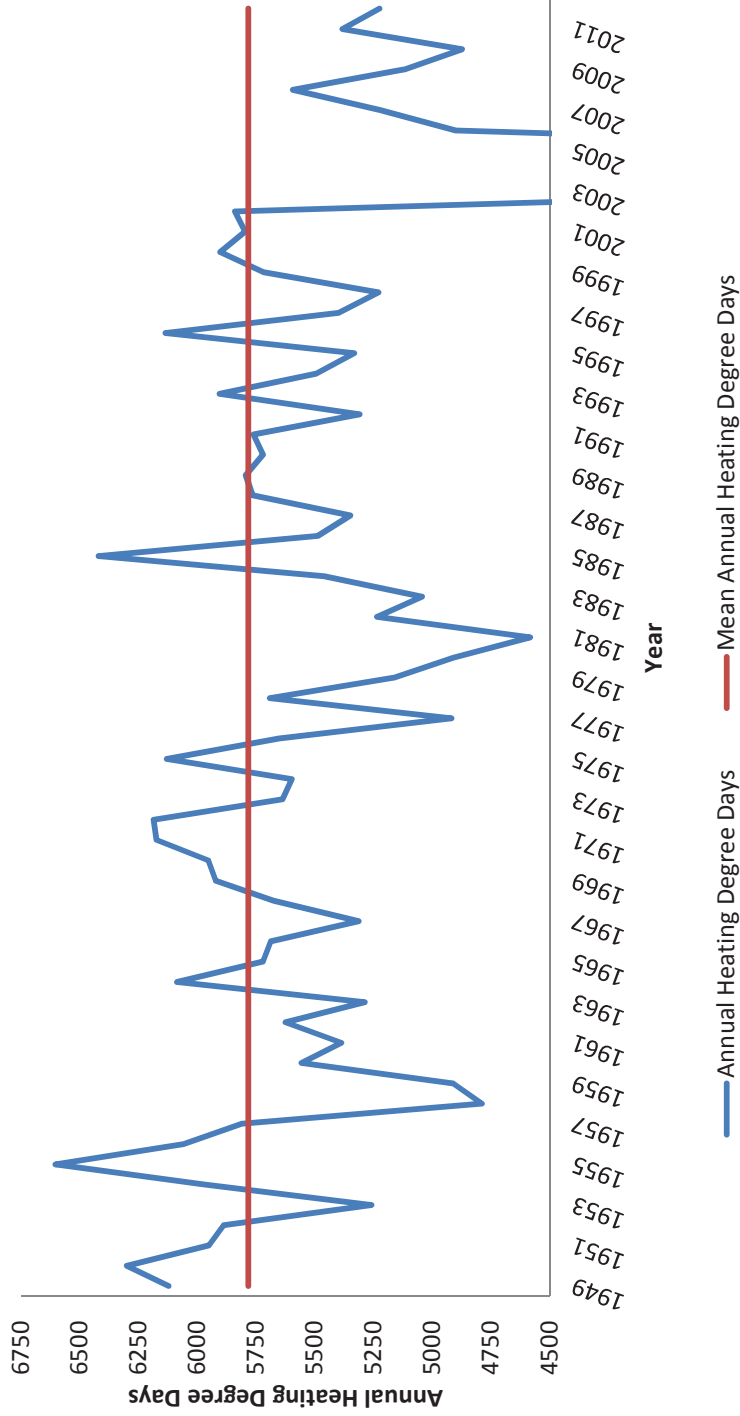




**Annual Cooling Degree Days (CDD)  
Seattle-Tacoma, Washington (1949 - 2012)**  
(NOAA Station Id: WA457473)

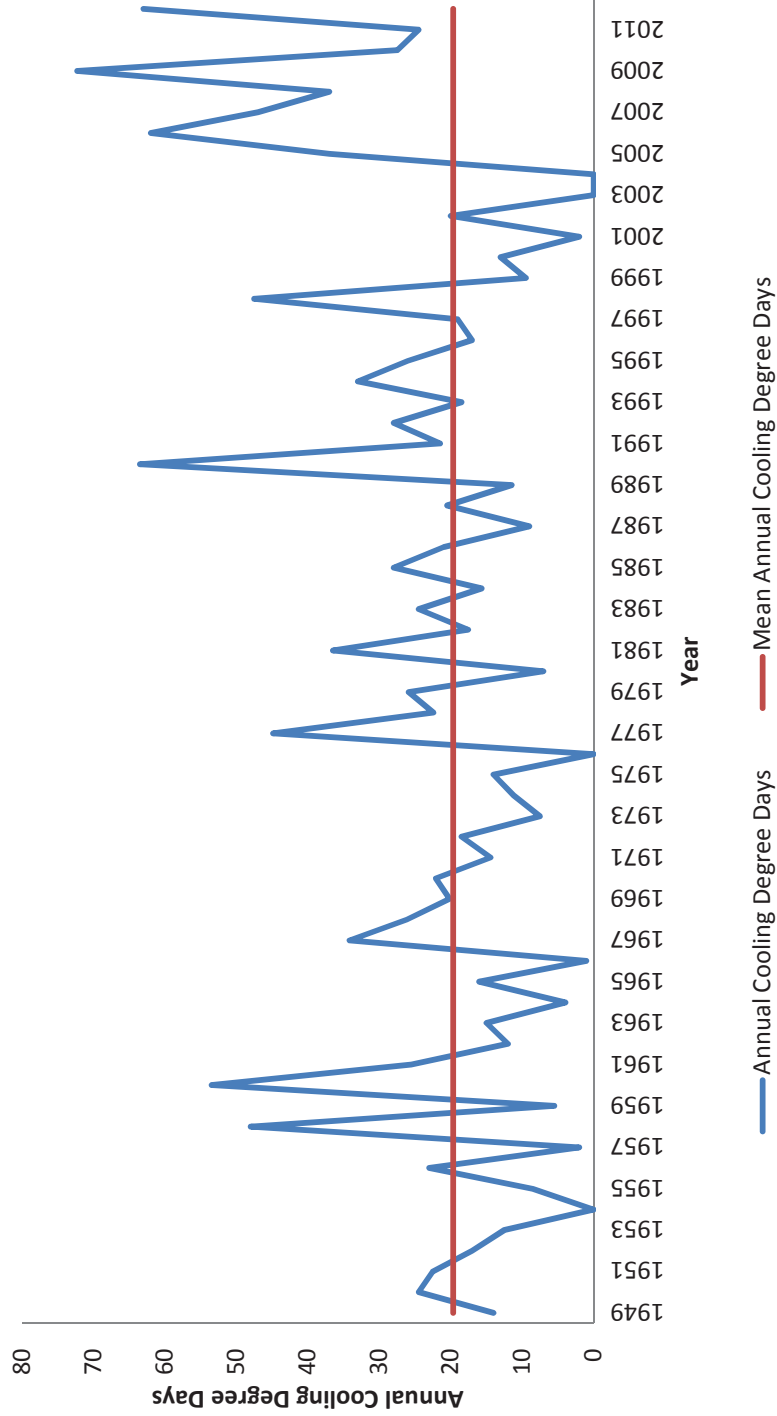


**Annual Heating Degree Days (HDD)  
Blaine, Washington (1949 - 2012)**  
(NOAA Station Id: WA450729)



**Note:** NOAA Station Id WA450729 for Blaine, Washington, is missing heating degree day data for the period beginning June 2003 through and including June 2005.

### Annual Cooling Degree Days (HDD) Blaine, Washington (1949 - 2012) (NOAA Station Id: WA450729)



**Note:** NOAA Station Id WA450729 for Blaine, Washington, is missing heating degree day data for the period beginning June 2003 through and including June 2005.