



Snohomish County Heating Technology 2024

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Summary

In Snohomish, in 2024, 88.7% of new construction or remodels included installations of heat pumps. 10.5 included natural gas installations. The remainder (less than 1%) were mostly served by resistance electric heating.

Details

Data

The Snohomish County Assessor's office provides data on improved properties [here](#). If they change the URL of the data page, the new page can probably be found by searching on "Snohomish county improvement record data file parcel number", or relying on the Wayback Machine.

A few details about the improvement data file:

- Parcels are identified in the LRSNum field.
- Update dates are weirdly populated. It looks like, usually, when a row is updated all rows of that parcel have their LastUpdD value replaced with the most recent date.
- The PropExt field encodes update number and whether the parcel is commercial or residential. For example, "R09" means that the row is the ninth update for a residential parcel.
- YrBuilt is the last year that the property was built or remodeled.
- Each parcel appears twice, once for the owner and once for the taxpayer, who is usually, but not always, the same.
- HeatTypeCode is sometimes missing. When it is missing, HeatTypeDesc frequently (maybe always) contains square footage data.
- The data included is only what the Snohomish County Assessor has been notified of. Any home modifications done without permitting do not show up, and some modifications done with permitting do not show up either.
- There are two tabs in the Improvements Excel Workbook. The two tabs contain the same data.

The Improvements data does not include what city or zip code each property is in. To get geographical data, join the Improvements data with data from the Assessor Roll, available [here](#). LRSNum is stored as PropId in the Assessor Roll data.

Analysis & Conclusions

Current Heating

To report on current buildings, only the rows with the highest PropExt values for each parcel are included in this analysis.

After discarding where HeatTypeCode is null, there are 13 values in the HeatTypeDesc field:

Table 1

HeatTypeDesc Value	Count	Percent
Forced hot air-gas	124,592	56%
Electric baseboard	30,046	14%
Heat pump	23,889	11%
Forced hot air-elec	23,613	11%
Wall units	10,407	5%
Forced hot air	4,449	2%
Electric radiant	1,209	0.5%
Hot water	1,122	0.5%
Forced hot air-oil	897	0.4%
No heat-wood stove/insert	466	0.2%
None	325	0.15%
Space heater	87	0.04%
Solar Passive	13	0.006%

It is not known whether “Forced hot air”, or “Hot water” are heating by electricity, natural gas, or oil. For this analysis, the 3% of homes with those values are set aside. This analysis also sets aside “None”, “No heat-wood stove/insert”, and “Solar Passive”.

There is only a single HeatTypeDesc value that is unambiguously natural gas: “Forced hot air-gas”. “Electric baseboard”, “Heat pump”, “Forced hot air-elec”, “Wall units”, “Electric radiant” and “Space heater” are all coded here as electric heating.

Table 2 shows the counts of natural gas, electric, and oil heating. It also shows separately heat pump heating counts that are included in electric heating.

Table 2

Heating	Count	Percent
Natural Gas	124,592	57%
Electric	89,251	41%
Heat pumps	23,889	11%
Oil	897	0.4%

The percents shown in table 2 are of the 97% of homes that have known natural gas, electric, or oil heat.

Recent Trend

To see how building and remodeling has changed over time, I pulled the data on HeatTypeDesc for each LRS Number and each PropExt update number for properties where HeatTypeCode was not

missing. I left in the 3% of properties that were recorded as “Forced hot air” or “Hot water”, and I left in all other properties (oil, solar, none), other than properties that had not HeatTypeCode recorded.

Before 1950, about 8% of builds and remodels used a heating technology that was not natural gas or electricity. By 2001, 99.8% of builds and remodels used either natural gas or electricity.

The earliest build or remodel recorded in the data is from 1868. From 1868 to 1900, there were fewer than 100 builds or remodels each year. From 1900 to 1945, annual counts ranged from 48 to 1,042. Building accelerated after WWII.

Figure 1 shows the portion of builds and remodels that were heated with natural gas and with electricity between 1945 and 2024.

Figure 1

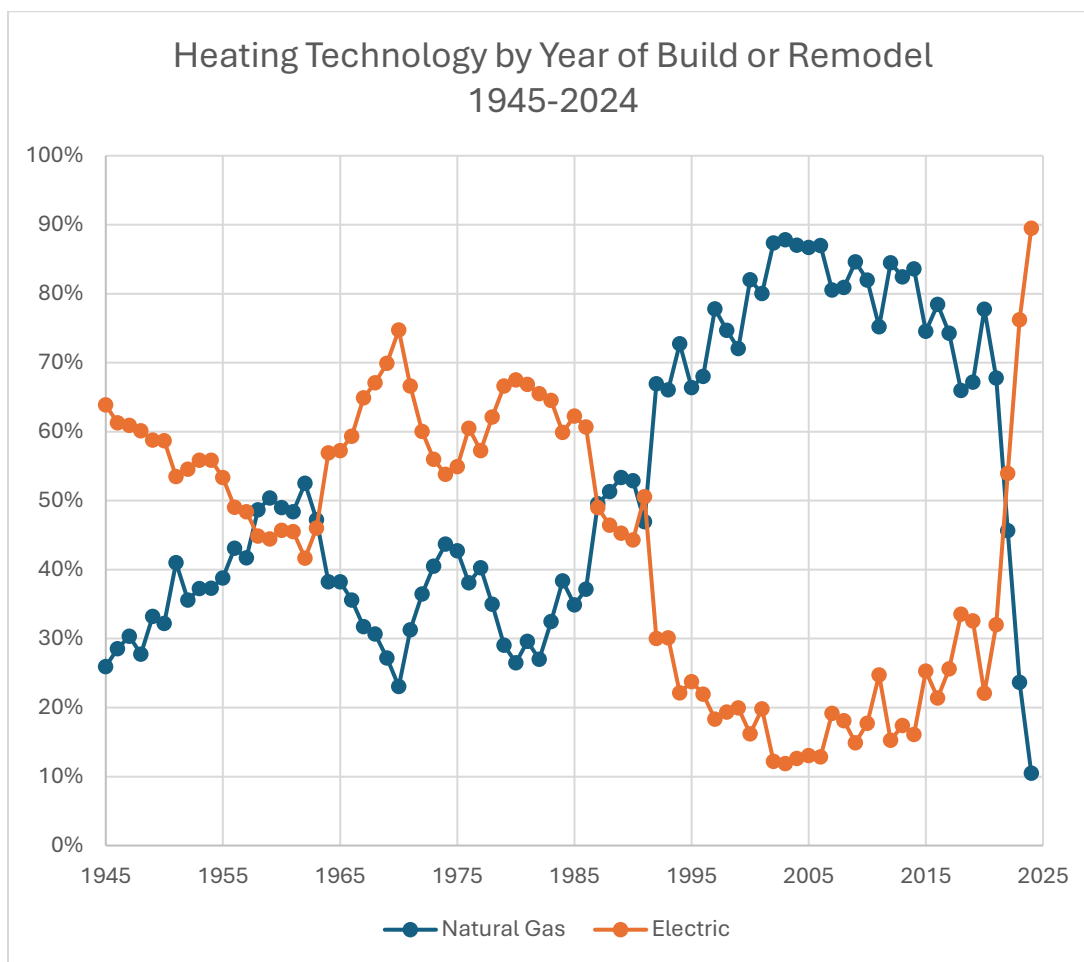


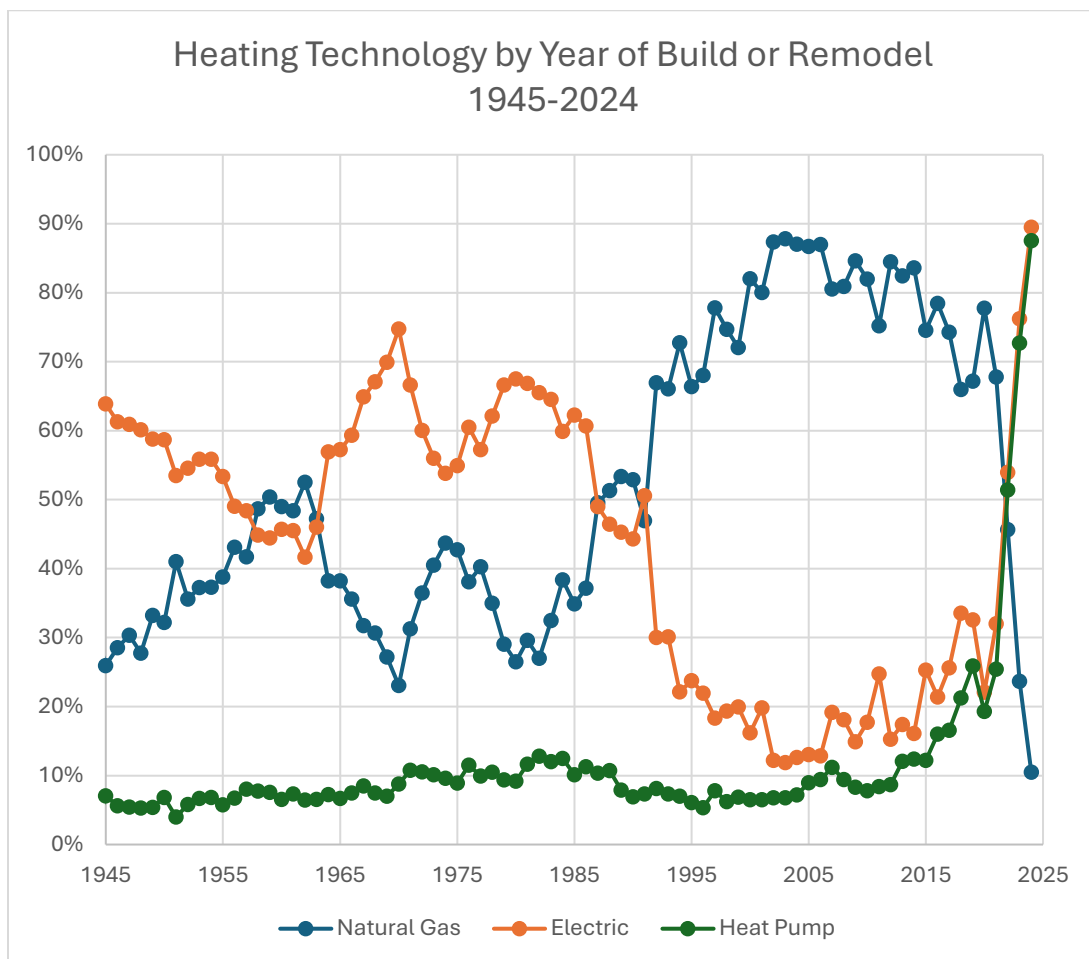
Figure 2 clarifies what is shown in figure 1. Figure 2 includes the portion of homes for each build/remodel year that have heat pumps. Homes built as early as 1945 are listed as having heat pumps. Almost certainly, what this means is that the heating system was replaced with a heat

pump, probably after 2000, but the change to the building was not enough to lead the assessor to code it as a remodel.

The switch to heat pump may have come from a natural gas system. That means that the orange and blue lines in figures 1 and 2 are what those buildings have for heating now. For example, in 1955, the portion with natural gas is listed as 40%. That does not mean that that building had natural gas in 1955. It may have been heated with coal or resistance electricity. If so, sometime between 1955 and now, the heating was replaced with natural gas.

That means that figures 1 and 2 show the current heating technology by the year of the properties' builds or remodels. For example, about 88% of homes with builds or remodels between 2002 and 2006 now have natural gas heating.

Figure 2



Except for 2024, we can't tell whether we're looking at changes that happened after the build/remodel. The data is straightforward for 2024: 10.5% of 2024 builds got natural gas. 88.7% got heat pumps, and the rest are mostly resistance electric.