



## Heating Resource Guide



**Wood, Coal, and Pellet Stoves:**



**Pros**

- Reliable
- Economic if wood and/or coal supply is easily available. If gathering fuel consider cost for equipment, transportation, fuel, time, etc.
- Can operate without electricity
- Wood is renewable resource

*Pellet Stoves*

- Less creosote production than wood lowering risk of chimney fire
- Cleaner burning than wood or coal resulting in better indoor and outdoor air quality

**Cons**

- Can be difficult to heat entire house
- Can pollute indoor air causing respiratory issues and other diseases
- Requires constant attention to maintain heat output
- Stoves and chimney's require frequent maintenance
- Fuel source requires proper storage

*Pellet Stove*

- Wet pellets can damage stove
- Require electricity

Heating Device	CO Risk	Fire Risk	Retail Cost	Install Cost	Operating Costs	Maintenance
Wood or Coal Stove	Yes	High	\$1,000-\$5,000	\$1500-\$3000	Wood: \$600-\$1,000 (200 per cord of wood; average home 3-5 cords per winter)  Coal: (\$50-70 per truck load * 3-5 loads per season + \$250 gas)	High-Daily cleaning needs; Chimney should be swept minimum of 1-2 times per year.
Pellet Stove	Yes	High	\$1,000-\$5,000	\$1500-\$3000	\$1000 (3-4 tons per season-1 pallet = 50-40lbs bags @ \$250)	High: clean and vacuum out the main burn chamber areas and empty ash pan. Recommend to have annual inspection by professional

### Furnaces Gas and Electric

			<b>Pros</b>		<b>Cons</b>	
			<u>Propane</u> <ul style="list-style-type: none"> <li>• Provides powerful heat</li> <li>• Efficient-typically 90% or higher</li> <li>• Still works during power outage</li> </ul>		<u>Propane</u> <ul style="list-style-type: none"> <li>• Can be expensive to install if gas lines are not in place</li> <li>• House needs duct work</li> </ul>	
			<u>Electric</u> <ul style="list-style-type: none"> <li>• Affordable upfront costs</li> <li>• Do not require special venting, fuel pipes or storage tanks.</li> </ul>		<u>Electric</u> <ul style="list-style-type: none"> <li>• Will not heat during power outage</li> <li>• Typically not economical if used as primary heat source due to cost of electricity</li> <li>• House needs duct work</li> </ul>	
			<b>Heating Device</b>	<b>CO Risk</b>	<b>Fire Risk</b>	<b>Retail Cost</b>
Propane	Yes	Low	\$700-\$2,000	\$50-\$75 per/hr	Average household 400-800 gallons per year * Price per gallon (\$3.00-\$4.00 per gallon-lkard). Average cost to hook up new system \$300-400.  \$1200-\$3200	Low-Change filter per manufacture guidelines
Electric	No	Low	\$400-1,100	\$50-\$75 per/hr	\$1500-\$4500	

## Space Heaters



### Pros

- Inexpensive purchase price
- Zone heating
- Good for supplemental heat
- Doesn't require duct system

### Cons

- High fire risk
- Burn risk
- High operating costs
- Should never be used while sleeping
- High CO Risk (Propane Stove)
- Safety features can fail at higher altitudes (Propane Stove)

Heating Device	CO Risk	Fire Risk	Retail Cost	Install Cost	Operating Cost	Maintenance
Electric (includes baseboard, radiant, wall heaters)	No	High	\$25-\$300	\$0	<p>\$80-\$100 per month for one heater (150 sqft) running 16 hours per day.</p> <p>Calculate Daily Cost:</p> <ul style="list-style-type: none"> <li>• Multiply 1500W by X hours of use = A.</li> <li>• Multiply A by your electricity rate per kilowatt hour = B</li> <li>• Divide B by 1000.</li> </ul>	Keep free of dust and away from combustible items
Propane	High	High	\$200-\$500	<p>\$0 (vented)</p> <p>\$250-\$500 (vented)</p>	<p>\$270-\$370 per month using a 20,000 BTU Heater (500 sqft) 15 hrs per day.</p> <p>A gallon of propane has a burn rate of approximately 100,000 BTUs. 15 hours a day will use 3 gallons of propane @ \$3.00- \$4.00 per gallons.</p>	<p>Keep free of dust and combustible items. Have unit inspected by certified professional yearly.</p> <p><u>*Tip: It is highly recommend that you install a vented propane heater. They have a much lower CO risk.</u></p>

### Ductless Mini-Split Heat Pump

			<b>Pros</b>			<b>Cons</b>	
			<ul style="list-style-type: none"> <li>• Mini split heat pump systems offer energy savings of up to 50% of other zonal (space) electric heat sources</li> <li>• Provides heat and air conditioning</li> <li>• Zone heating</li> <li>• No heat loss through duct system (can be as high as 30% loss)</li> <li>• Doesn't negatively impact indoor air quality</li> </ul>			<ul style="list-style-type: none"> <li>• Requires electricity</li> <li>• Expensive upfront costs</li> <li>• Require outdoor ground or roof space for compressor unit</li> </ul>	
<b>Heating Device</b>	<b>CO Risk</b>	<b>Fire Risk</b>	<b>Retail Cost</b>	<b>Install Cost</b>	<b>Operating Cost</b>	<b>Maintenance</b>	
Mini-split heat pump	No	No	\$1,000-\$2,000	\$1,500-\$3,000	30-50 % lower than other forms of electrical heating.	Changing filters and keeping out door unit free of debris	

### Solar Furnace



#### Pros

- Free energy
- Simple design that can be used without electricity
- Does not pollute indoor air
- Environmentally friendly

#### Cons

- Only heats on cloud free sunny days
- Requires shade free location and ideally southern exposure
- 3x7 foot panel takes up wall or roof space and provide heat for roughly 500 sqft.

Heating Device	CO Risk	Fire Risk	Retail Cost	Install Cost	Operating Cost	Maintenance
Solar Heater	No	No	\$1500	\$1500	\$0	Minimal

## HVAC Service Providers

### Boyer Heating and Cooling

Phone: 928-527-4200

Overview: Comprehensive HVAC installation and repair

### Flagstaff Heating and Cooling

Phone: 928-774-4124

Overview: Offers a wide range of HVAC installation and repair services. Specializes in mini-split heat pump installations.

### Intermountain Plumbing, Mechanical, Solar

Phone: (928) 526-7006/ (928) 526-6231

Overview: Radiant (in-floor) and hydronic heating

### Master Mechanical

Phone: 928-527-1555

Overview: Comprehensive HVAC installation and repair

## **Wood and Stove Dealers and Chimney Sweep Providers**

### **Aspen Fireplace and Stone**

Address: 1750 Railroad Spring Blvd, Flagstaff, AZ 86001

Phone: 928-774-0265

Overview: Sale of coal, gas, and wood stoves and installation components.

### **Flagstaff Hearth and Home**

Address: 2109 N Fourth St #2, Flagstaff, AZ 86004

Phone: 928-779-6464

Overview: Flagstaff Hearth and Home offers the highest quality brands, with a large selection to fit every budget. We have over 15 years of experience. We have wood burning, gas and pellet heating. We offer full services in Flagstaff and across Northern Arizona

### **HomCo Lumber and Hardware**

Address: 1763 E Butler Ave, Flagstaff, AZ 86001

Phone: 928-779-6111

Our team is Northern Arizona's only Certified Chimney Sweep. They will clean and inspect your chimney with Chim Scan, a specially designed camera to detect cracks that otherwise go undetected. The National Fireplace Institute meaning we promise to ensure the safety of your family and home certifies HomCo. We also carry a large selection of heating stoves.

### **Roof Dancers**

Address: 2708 N Fourth St z, Flagstaff, AZ 86004

Phone: (928) 774-5481

Overview: We sell and service all fireplace and chimney products: chimneys, stoves, fireplaces, wood, gas, pellet and we do roof repairs, too! We also clean dryer vents and gutters. We install our hearth products and we are licensed to run gas and electricity to our units. We repair and reline chimneys on the inside and we do outside chimney repairs, as well. We design fireplace faces and mantles, which often include cultured stone. We service Coconino, Yavapai, and Navajo counties. Call today for more information

**Wizards Hearth & Home, Inc.**

Address: 6200 N. Hwy 89, Flagstaff

Phone: 928-779-0101

Overview: Wizard's Hearth & Home has a huge selection of fireplaces, woodstoves, pellet stoves, and gas stoves from many major manufacturers available for purchase and installation. To accompany your new fireplace or stove we also carry hearth pads, glass doors, and a large selection of hearth accents and accessories. Service: Wizard's Hearth & Home provides professional chimney sweeping. We also repair all type fireplaces, gas stoves, pellet stoves, woodstoves, chimneys and stovepipes.

**Additional Retail Stoves Sales and Materials:**

- Home Depot (Flagstaff, AZ)
- Tractor Supply (Flagstaff, AZ)
- CAL Ranch (Flagstaff, AZ)

Floyd Albert

Phone: 928-206-6699

Overview: HVAC- Furnace repair and installation

Laban Construction

Phone: Cellular: 928-313-5400; Landline: 928-737-2577

Overview: Comprehensive Construction Services

Lewis Quiyo

Phone: (928) 313-8111

Overview: Chimney Cleaning and Stove Install

Gabriel Talayumptewa

Phone: 928-734-3000

Overview: Chimney Cleaning