SET POINT CHART FOR DUAL FUEL

This chart shows how to select the switchover temperature of a dual fuel ASHP installation

Note: This assumes cold climate product that is sized to meet the heating load of the home.

Natural gas rate, $/therm, (furnaces and boilers)

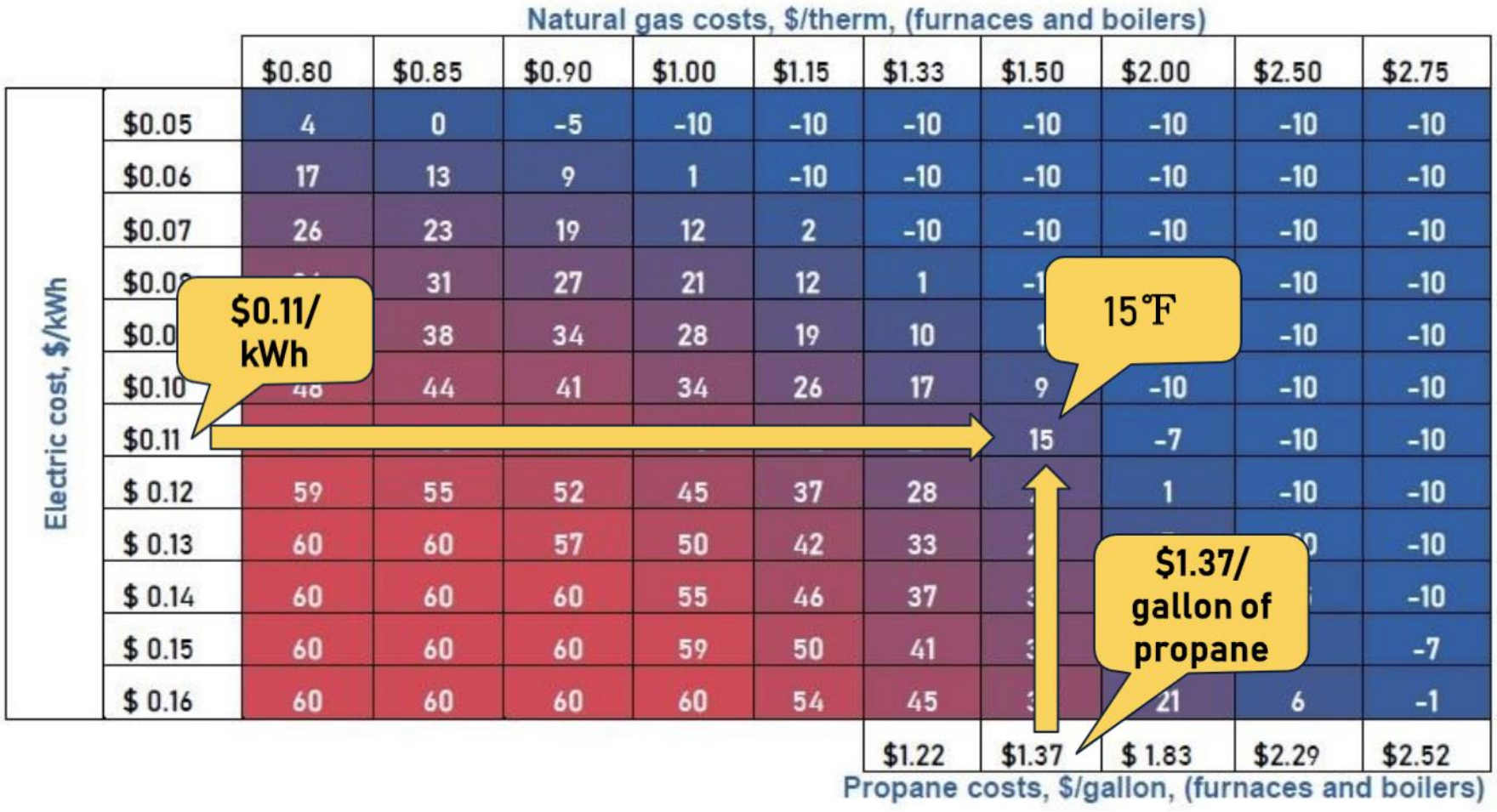
Electric rate, $/kWh (ASHP)	$0.80	$0.85	$0.90	$1.00	$1.15	$1.33	$1.50	$2.00	$2.50	$2.75
$0.05	4°	0°	-5°	-10°	-10°	-10°	-10°	-10°	-10°	-10°
$0.06	17°	13°	9°	1°	-10°	-10°	-10°	-10°	-10°	-10°
$0.07	26°	23°	19°	12°	2°	-10°	-10°	-10°	-10°	-10°
$0.08	34°	31°	27°	21°	12°	1°	-10°	-10°	-10°	-10°
$0.09	41°	38°	34°	28°	19°	10°	1°	-10°	-10°	-10°
$0.10	48°	44°	41°	34°	26°	17°	9°	-10°	-10°	-10°
$0.11	53°	50°	46°	40°	32°	23°	15°	-7°	-10°	-10°
$ 0.12	59°	55°	52°	45°	37°	28°	21°	1°	-10°	-10°
$ 0.13	60°	60°	57°	50°	42°	33°	26°	7°	-10°	-10°
$ 0.14	60°	60°	60°	55°	46°	37°	30°	12°	-5°	-10°
$ 0.15	60°	60°	60°	59°	50°	41°	34°	17°	1°	-7°
$ 0.16	60°	60°	60°	60°	54°	45°	38°	21°	6°	-1°
						$1.22	$1.37	$ 1.83	$2.29	$2.52

Propane rate, $/gallon, (furnaces and boilers)

Chart Instructions

This chart can be used to determine the ideal switchover temperature from an ASHP to the backup heating system. For example, if you install an ASHP in a home with a propane furnace, here is how you would determine the switchover temperature. Identify the homeowners cost of fuel, for this example lets assume rates of $0.11 per kWh and propane costs are $1.37 per gallon. To find the switchover temperature, locate the intersection of the cost of electricity and propane (see below). The intersection of these two costs points to the suggested switchover, which in this case is 15° F. This switchover tempurature will allow the homeowner to maximize energy savings and find the economic balance point with dual fuel applications.

Note: If you are installing an air source heat pump in a home using electric heat as a backup, such as baseboards or an electric furnace, you don't need to use this table. You'll want to set the switchover temperature to the lowest possible point without compromising homeowner comfort. We've found somewhere between 0° and 5° F to be the sweet spot.



Electric cost, $/kWh	$0.80	$0.85	$0.90	$1.00	$1.15	$1.33	$1.50	$2.00	$2.50	$2.75
$0.05	4	0	-5	-10	-10	-10	-10	-10	-10	-10
$0.06	17	13	9	1	-10	-10	-10	-10	-10	-10
$0.07	26	23	19	12	2	-10	-10	-10	-10	-10
$0.08		31	27	21	12	1	-1		-10	-10
$0.09		38	34	28	19	10	1		-10	-10
$0.10		44	41	34	26	17	9	-10	-10	-10
$0.11							15	-7	-10	-10
$ 0.12	59	55	52	45	37	28		1	-10	-10
$ 0.13	60	60	57	50	42	33			0	-10
$ 0.14	60	60	60	55	46	37				-10
$ 0.15	60	60	60	59	50	41				-7
$ 0.16	60	60	60	60	54	45		21	6	-1
						$1.22	$1.37	$ 1.83	$2.29	$2.52