

TEMPLATE FOR CALCULATING ESCALATION FACTORS

FOR CRUDE OIL and NATURAL GAS

SB 1505

CAG, LLC

Formula for the Escalation or De-Escalation of Crude Oil and Natural Gas Prices

The formula to determine the maximum average annual escalation or de-escalation percentage for years two through six of an appraisal is:

$$\left(\left(\frac{X}{100}\right)^{(1/Y)} - 1\right) \times 100 = \text{Percentage}$$

Where:

X = Most recent year annual average (not seasonally adjusted) Producer Price Index (PPI) for crude petroleum (domestic production) [Commodity Code 0561, Series ID# WPU0561] or natural gas [Commodity Code 0531] obtained from the Bureau of Labor Statistics during the month of January, which may contain preliminary statistics.

Y = Number of years from base year 1982 through the most recent year (most recent year minus base year).

The 100 denominator in the formula is the PPI annual average for domestically produced petroleum and natural gas in base year 1982.

	TAX YEAR	2013
Previous Calendar Year		2012
X (oil) =	273.4	for Crude petroleum (domestic production) - WPU0561
X (gas) =	118.3	for Natural gas - WPU0531
Y =	2012	- 1982 = 30
1/Y =	0.033333333	

Escalation Factor for Crude petroleum (domestic production)

$$\left(\left(\frac{X(\text{oil})}{100}\right)^{(1/Y)} - 1\right) * 100 = 3.409\%$$

Escalation Factor for Natural gas

$$\left(\left(\frac{X(\text{gas})}{100}\right)^{(1/Y)} - 1\right) * 100 = 0.562\%$$

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UNITED STATES DEPARTMENT OF LABOR

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Producer Price Index-Commodities

Series Id: WPU0561
 Not Seasonally Adjusted
 Group: Fuels and related products and power
 Item: Crude petroleum (domestic production)
 Base Date: 198200

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Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2002	48.6	53.5	65.0	70.7	77.1	63.6	68.3	72.8	77.5	76.7	67.6	72.9	67.9
2003	86.1	95.2	95.1	76.1	74.0	82.3	82.4	83.8	75.0	81.7	80.4	83.3	83.0
2004	90.9	89.9	96.6	98.4	106.5	99.2	105.5	119.3	118.3	139.9	125.0	108.7	108.2
2005	119.6	123.9	145.0	137.5	135.2	147.6	161.7	172.1	171.3	170.4	153.8	162.6	150.1
2006	171.9	160.2	167.3	187.1	191.9	187.2	202.0	198.7	172.2	155.9	154.3	162.7	176.0
2007	146.6	157.5	156.3	167.8	169.9	177.4	200.4	197.9	214.5	223.3	252.6	246.8	192.6
2008	253.5	257.0	297.7	314.4	349.5	367.5	384.3	321.6	291.5	215.6	150.9	104.5	275.7
2009	94.9	95.9	122.6	132.5	157.5	189.2	160.6	188.6	188.3	201.3	213.8	195.4	161.7
2010	217.6	204.8	223.3	233.1	205.1	206.5	208.1	211.8	207.1	224.0	237.1	243.9	218.6
2011	251.9	241.5	283.7	311.0	290.1	277.7	284.2	245.2	268.9	265.2	302.6	283.5	275.5
2012	291.7	295.3	305.4	297.8	273.0	241.4	247.6	271.3	283.3(P)	267.9(P)	254.0(P)	251.5(P)	273.4(P)

P : Preliminary. All indexes are subject to revision four months after original publication.

Producer Price Index-Commodities

Series Id: WPU0531
 Not Seasonally Adjusted
 Group: Fuels and related products and power
 Item: Natural gas
 Base Date: 198200

Download: [.xls](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2002	99.3	78.9	95.9	131.3	125.5	117.7	112.6	114.9	120.9	134.6	167.5	171.1	122.5
2003	193.5	216.5	330.1	201.9	211.2	237.4	219.4	195.4	202.4	184.1	181.2	200.6	214.5
2004	242.3	231.2	208.1	218.7	241.4	270.7	257.5	249.8	212.8	222.1	306.7	289.5	245.9
2005	252.4	253.2	257.4	298.2	278.2	260.5	296.0	316.0	417.3	492.7	486.4	416.0	335.4
2006	403.4	317.6	283.6	277.4	275.8	240.9	241.7	284.0	263.4	176.6	292.9	307.0	280.3
2007	241.7	295.5	298.1	288.4	301.9	304.7	274.0	241.3	216.8	248.6	282.3	292.1	273.8
2008	293.4	332.4	362.7	384.0	437.0	449.5	489.9	355.7	306.9	257.0	217.2	242.0	344.0
2009	229.4	175.9	146.8	138.7	135.6	140.2	151.5	147.8	123.3	154.0	181.5	195.1	160.0
2010	244.4	231.2	204.3	168.8	175.8	178.0	195.4	194.3	157.7	159.6	143.9	176.7	185.8
2011	179.6	183.0	165.0	178.6	182.4	183.9	184.0	182.5	167.1	158.4	148.3	144.4	171.4
2012	132.4	115.3	104.7	92.3	89.4	102.1	115.6	125.9	114.6(P)	125.5(P)	145.6(P)	156.0(P)	118.3(P)

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