

## Homer Surcharge Calculation Example

**Assumptions:**

1. All line and column references are to the Calculation Example Schedule which starts on page 5.
2. Homer Line Extension Surcharge Balance of \$5,862,076 at December 31, 2018 is broken into two amounts, original capital cost to be funded by surcharge of \$3,630,072 (Lines 2 and 9) and unrecovered carrying costs at 12/31/18 of \$2,232,004 (line 10). The unrecovered carrying costs will be amortized over the estimated life of the Surcharge, now estimated to be 30 years under current projections, resulting in a charge against surcharge receipts of \$6,200 per month (line 10).
3. Effective January 1, 2019, ENSTAR will use its cost of debt from its most recent rate case determination as its rate of return for calculating carrying costs. The cost of debt rate from U-16-066(19) is 5.06% (line 6). The income tax recovery rate on 5.06% is 1.04%.
4. Assume that the billed sales for the Homer Surcharge are as shown in column F, Lines 14 through 373 on the Schedule. Lines 11 through 13 are actual billed volumes.
5. Volume projections for billed sales are based upon the following:
  - Normalized use per customer and 10-year average weather (normalized usage is similar to 2017 actual use per customer).
  - Customer Growth Estimates

	G1	G2	G3	G4
2014 Actual	268%	371%	1400%	100%
2015 Actual	30%	27%	20%	0%
2016 Actual	13%	14%	0%	0%
2017 Actual	12%	13%	14%	0%
2018 Actual	10%	4%	6%	-17%
2019	7%	7%	5%	1.5%
2020	6%	6%	4%	1%
2021	5%	5%	3%	0.5%
2022	4%	4%	2%	0.25%
2023	3%	3%	1%	0.25%
2024	2%	2%	0.5%	0.25%
2025	1%	1%	0.5%	0.25%
2026	1%	0.5%	0.5%	0.25%
2027	1%	0.5%	0.5%	0.25%
2028	1%	0.5%	0.5%	0.25%
2029	1%	0.5%	0.5%	0.25%
2030	1%	0.5%	0.5%	0.25%
After 2030	0%	0%	0%	0%

## Calculation Examples:

### *January 2019 (Line 14)*

1. Because of Assumption 2 above, the Beginning Balance for the calculation of the January 2019 carrying costs (column A) becomes the original capital cost to be funded by surcharge of \$3,630,072 (from Lines 2 and 9).
2. The Rate of Return in Column C of \$15,244 is calculated by taking the average of the Beginning Balance from Column A and the Beginning Balance less Surcharge Receipts from Column G  $((\$3,630,072 + \$3,630,072 - \$29,820) \div 2 = \$3,615,162$  multiplied by the Rate of Return rate of 5.06% from Line 6, divided by 12 (to convert to a monthly amount).
3. The Income Tax Recovery of \$3,137 in Column D is calculated by taking the average of the Beginning Balance from Column A and the Beginning Balance less Surcharge Receipts from Column G  $((\$3,630,072 + \$3,630,072 - \$29,820) \div 2 = \$3,615,162$  multiplied by the Income Tax Recovery rate of 1.04% from Line 6, divided by 12 (to convert to a monthly amount).
4. Total Carrying Cost of \$18,381 in Column E is the sum of Columns C and D.
5. The Mcf Sales of 29,820 are the estimated sales billed for January 2019 as stated in Assumption 4 above.
6. The Surcharge Receipts of \$29,820 in Column G is the total amount of (estimated for this example) surcharge billed on invoices for January 2019, and is calculated by taking the Mcf Sales from Column F and multiplying it by the Line Extension Surcharge of \$1.00 from Line 7.
7. The Unrecovered Carrying Cost Amortization of \$6,200 in Column H is from Line 10, which takes the Unrecovered Carrying Costs at 12/31/18 of \$2,232,004, divides it by an estimated 30 year amortization period and divides by 12 to arrive at a monthly amortization amount.
8. The Ending Balance of \$3,624,833 in Column I is calculated by taking the sum of Beginning Balance of \$3,630,072 from Column A, the Total Carrying Cost of \$18,381 from Column E, the Unrecovered Carrying Cost Amortization of \$6,200 from Column H, less the Surcharge Receipts of \$29,820 from Column G. The Ending Balance from Line 14 becomes the Beginning Balance for Line 15 (February 2019 calculations).

### *February 2019 (Line 15)*

1. The Beginning Balance for the calculation of the February 2019 carrying costs (column A) of \$3,624,833 is the Ending Balance for January 2019 (Line 14, Column I).
2. The Rate of Return in Column C of \$15,200 is calculated by taking the average of the Beginning Balance from Column A and the Beginning Balance less Surcharge Receipts from Column G  $((\$3,624,833 + \$3,624,833 - \$40,189) \div 2 = \$3,604,739$  multiplied by the Rate of Return rate of 5.06% from Line 6, divided by 12 (to convert to a monthly amount).
3. The Income Tax Recovery of \$3,128 in Column D is calculated by taking the average of the Beginning Balance from Column A and the Beginning Balance less Surcharge Receipts from Column G  $((\$3,624,833 + \$3,624,833 - \$40,189) \div 2 = \$3,604,739$  multiplied by the Income Tax Recovery rate of 1.04% from Line 6, divided by 12 (to convert to a monthly amount).
4. Total Carrying Cost of \$18,328 in Column E is the sum of Columns C and D.
5. The Mcf Sales of 40,189 are the estimated sales billed for February 2019 as stated in Assumption 4 above.
6. The Surcharge Receipts of \$40,189 in Column G is the total amount of (estimated for this example) surcharge billed on invoices for February 2019, and is calculated by taking the Mcf Sales from Column F and multiplying it by the Line Extension Surcharge of \$1.00 from Line 7.
7. As with the January 2019 calculation example (Line 14), the Unrecovered Carrying Cost Amortization of \$6,200 in Column H is from Line 10, which takes the Unrecovered Carrying Costs at 12/31/18 of \$2,232,004, divides it by an estimated 30 year amortization period and divides by 12 to arrive at a monthly amortization amount.
8. The Ending Balance of \$3,609,172 in Column I is calculated by taking the sum of Beginning Balance of \$3,624,833 from Column A, the Total Carrying Cost of \$18,328 from Column E, the Unrecovered Carrying Cost Amortization of \$6,200 from Column H, less the Surcharge Receipts of \$40,189 from Column G. The Ending Balance from Line 15 becomes the Beginning Balance for Line 16 (March 2019 calculations).

***May 2019 (Line 18)***

1. The Beginning Balance for the calculation of the May 2019 carrying costs (column A) of \$3,596,325 is the Ending Balance for April 2019 (Line 17, Column I).
2. The Rate of Return in Column C of \$15,122 is calculated by taking the average of the Beginning Balance from Column A and the Beginning Balance less Surcharge Receipts from Column G  $((\$3,596,325 + \$3,596,325 - \$19,961) \div 2 = \$3,586,344$  multiplied by the Rate of Return rate of 5.06% from Line 6, divided by 12 (to convert to a monthly amount).

3. The Income Tax Recovery of \$3,112 in Column D is calculated by taking the average of the Beginning Balance from Column A and the Beginning Balance less Surcharge Receipts from Column G  $((\$3,596,325 + \$3,596,325 - \$19,961) \div 2 = \$3,586,344$  multiplied by the Income Tax Recovery rate of 1.04% from Line 6, divided by 12 (to convert to a monthly amount).
4. Total Carrying Cost of \$18,234 in Column E is the sum of Columns C and D.
5. The Mcf Sales of 19,961 are the estimated sales billed for May 2019 as stated in Assumption 4 above.
6. The Surcharge Receipts of \$19,961 in Column G is the total amount of (estimated for this example) surcharge billed on invoices for May 2019, and is calculated by taking the Mcf Sales from Column F and multiplying it by the Line Extension Surcharge of \$1.00 from Line 7.
7. As with the January 2019 and February 2019 calculation examples (Line 14 & 15), the Unrecovered Carrying Cost Amortization of \$6,200 in Column H is from Line 10, which takes the Unrecovered Carrying Costs at 12/31/18 of \$2,232,004, divides it by an estimated 30 year amortization period and divides by 12 to arrive at a monthly amortization amount.
8. The Ending Balance of \$3600,798 in Column I is calculated by taking the sum of Beginning Balance of \$3,596,325 from Column A, the Total Carrying Cost of \$18,234 from Column E, the Unrecovered Carrying Cost Amortization of \$6,200 from Column H, less the Surcharge Receipts of \$19,961 from Column G. The Ending Balance from Line 18 becomes the Beginning Balance for Line 19 (June 2019 calculations).

**ENSTAR Natural Gas Company  
Homer Line Extension Surcharge  
Calculation Example Schedule**

<u>Line #</u>		<u>Total Cost</u>	Funded by <u>State Grant</u>	Funded by <u>Surcharge</u>
1	Cost of Pipeline as of 10/31/2013	\$ 11,710,421.39	\$ 8,150,000.00	\$ 3,560,421.39
2	Final Cost of Pipeline	\$ 11,780,072.22	\$ 8,150,000.00	\$ 3,630,072.22
			<u>Rate of Return</u>	<u>Income Tax Recovery Rate</u>
3	Prior to Oct 2017 (From Docket U-99-69)		9.25%	4.50%
4	Effective Oct 2017 (Order U-16-066(19) issued on 9-22-2017)		8.59%	4.29%
5	Federal Tax Rate Change Effective Jan 2018 (2017 TCJA)		8.59%	2.44%
6	Proposed methodology change Effective January 1, 2019		5.06%	1.04%
7	Line Extension Surcharge =	\$ 1.00		
8	Balance at 12/31/18	\$ 5,862,076		
9	Final Cost Funded by Surcharge	\$ 3,630,072		
10	Unrecovered Carrying Costs at 12/31/18	\$ 2,232,004	Est. Amort. Period (Years)	30
			Monthly Amort. =	\$ 6,200.01

		Beginning Balance A	Additional Costs B	Rate of Return C	Income Tax Recovery D	Total Carrying Cost E	Mcf Sales F	Surcharge Receipts G	Unrecovered Carrying Cost Amortization H	Ending Balance I
11	10/31/2018	\$ 5,762,827	\$ -	41,211	\$ 11,718	\$ 52,930	11,421	\$ (11,421)	\$ -	\$ 5,804,336
12	11/30/2018	\$ 5,804,336	\$ -	41,463	\$ 11,790	\$ 53,253	24,100	\$ (24,100)	\$ -	\$ 5,833,489
13	12/31/2018	\$ 5,833,489	\$ -	41,669	\$ 11,848	\$ 53,517	24,929	\$ (24,929)	\$ -	\$ 5,862,076
14	1/31/2019	\$ 3,630,072	\$ -	15,244	\$ 18,381	\$ 3,137	29,820	\$ (29,820)	\$ 6,200	\$ 3,624,833
15	2/28/2019	\$ 3,624,833	\$ -	15,200	\$ 18,328	\$ 3,128	40,189	\$ (40,189)	\$ 6,200	\$ 3,609,172
16	3/31/2019	\$ 3,609,172	\$ -	15,147	\$ 18,264	\$ 3,117	33,901	\$ (33,901)	\$ 6,200	\$ 3,599,735
17	4/30/2019	\$ 3,599,735	\$ -	15,120	\$ 18,231	\$ 3,111	27,842	\$ (27,842)	\$ 6,200	\$ 3,596,325
18	5/31/2019	\$ 3,596,325	\$ -	15,122	\$ 18,234	\$ 3,112	19,961	\$ (19,961)	\$ 6,200	\$ 3,600,798
19	6/30/2019	\$ 3,600,798	\$ -	15,140	\$ 18,255	\$ 3,115	20,590	\$ (20,590)	\$ 6,200	\$ 3,604,663
20	7/31/2019	\$ 3,604,663	\$ -	15,170	\$ 18,291	\$ 3,121	14,100	\$ (14,100)	\$ 6,200	\$ 3,615,054
21	8/31/2019	\$ 3,615,054	\$ -	15,218	\$ 18,349	\$ 3,131	12,181	\$ (12,181)	\$ 6,200	\$ 3,627,423
22	9/30/2019	\$ 3,627,423	\$ -	15,268	\$ 18,409	\$ 3,142	13,173	\$ (13,173)	\$ 6,200	\$ 3,638,859
23	10/31/2019	\$ 3,638,859	\$ -	15,313	\$ 18,464	\$ 3,151	14,434	\$ (14,434)	\$ 6,200	\$ 3,649,089
24	11/30/2019	\$ 3,649,089	\$ -	15,324	\$ 18,477	\$ 3,153	29,968	\$ (29,968)	\$ 6,200	\$ 3,643,798
25	12/31/2019	\$ 3,643,798	\$ -	15,298	\$ 18,445	\$ 3,148	31,863	\$ (31,863)	\$ 6,200	\$ 3,636,580
26	1/31/2020	\$ 3,636,580	\$ -	15,268	\$ 18,410	\$ 3,142	31,317	\$ (31,317)	\$ 6,200	\$ 3,629,873
27	2/29/2020	\$ 3,629,873	\$ -	15,217	\$ 18,348	\$ 3,131	42,221	\$ (42,221)	\$ 6,200	\$ 3,612,201
28	3/31/2020	\$ 3,612,201	\$ -	15,156	\$ 18,275	\$ 3,119	35,610	\$ (35,610)	\$ 6,200	\$ 3,601,065
29	4/30/2020	\$ 3,601,065	\$ -	15,123	\$ 18,235	\$ 3,112	29,223	\$ (29,223)	\$ 6,200	\$ 3,596,277
30	5/31/2020	\$ 3,596,277	\$ -	15,120	\$ 18,231	\$ 3,111	20,931	\$ (20,931)	\$ 6,200	\$ 3,599,777
31	6/30/2020	\$ 3,599,777	\$ -	15,134	\$ 18,248	\$ 3,114	21,559	\$ (21,559)	\$ 6,200	\$ 3,602,666
32	7/31/2020	\$ 3,602,666	\$ -	15,160	\$ 18,280	\$ 3,119	14,762	\$ (14,762)	\$ 6,200	\$ 3,612,384
33	8/31/2020	\$ 3,612,384	\$ -	15,205	\$ 18,334	\$ 3,129	12,727	\$ (12,727)	\$ 6,200	\$ 3,624,191
34	9/30/2020	\$ 3,624,191	\$ -	15,253	\$ 18,391	\$ 3,139	13,780	\$ (13,780)	\$ 6,200	\$ 3,635,003
35	10/31/2020	\$ 3,635,003	\$ -	15,296	\$ 18,443	\$ 3,147	15,115	\$ (15,115)	\$ 6,200	\$ 3,644,531
36	11/30/2020	\$ 3,644,531	\$ -	15,301	\$ 18,450	\$ 3,149	31,443	\$ (31,443)	\$ 6,200	\$ 3,637,738
37	12/31/2020	\$ 3,637,738	\$ -	15,269	\$ 18,410	\$ 3,142	33,468	\$ (33,468)	\$ 6,200	\$ 3,628,880
38	1/31/2021	\$ 3,628,880	\$ -	15,233	\$ 18,367	\$ 3,134	32,609	\$ (32,609)	\$ 6,200	\$ 3,620,839