

**Modernized Royalty Framework: Formulas
Natural Gas (Methane) and Ethane
For wells spud on or after January 1, 2017**

R% = Price Component (r_p) + Quantity Adjustment (r_q)

R% has a minimum of 5% and maximum of 36%

Royalty Parameters		
	Price (C\$/GJ)	% Change (%/\$/GJ)
P1	2.40	6.00000%
P2	3.00	4.25000%
P3	6.75	2.25000%

Price Component (r_p)	
Price (\$/GJ)	r_p
PP≤2.40	5%
2.40<PP≤3.00	((PP-2.40)*0.06000+0.05000)*100
3.00<PP≤6.75	((PP-3.00)*0.04250+0.08600)*100
PP>6.75	((PP-6.75)*0.02250+0.24538)*100
Maximum	36%

Maturity Threshold		
	Q	% Change
Q gas equivalent volumes	345.5 (e ³ m ³ e/month)	0.04937% (%/e ³ m ³ e/month)
Quantity Adjustment (gas equivalent volume)		
Quantity (e³m³e/month)	r_q	
Q ≥345.5	0%	
Q <345.5	[(Q-345.5)*0.0004937]*100	
Note: Quantity is calculated at a well level, where e ³ m ³ e/month = e ³ m ³ equivalent per month.		
Note: r_q is 0 or negative		

A well will pay 5% royalty rate until revenue equals C*(\$). R% applies once a well's revenues exceed C* (post-C* phase). The minimum royalty rate in the post-C* phase is 5%.