

# Bill components

December 1, 2018, Prices – Southern Zone

## Rate D<sub>1</sub> (General Service) – For a Monthly Volume of 47,000 m<sup>3</sup>

<b>NATURAL GAS SUPPLY</b>	Natural gas supplied to the appliances at the service address					
	47 000	m <sup>3</sup>	X	15,762 ¢/m <sup>3</sup>	=	\$7 408
<b>TRANSPORTATION</b>	Transportation of natural gas up to Énergir's territory					
	47 000	m <sup>3</sup>	X	2,907 ¢/m <sup>3</sup>	=	\$1 366
<b>LOAD-BALANCING</b>	Management of variations between winter and summer loads					
<u>D<sub>1</sub> General Distribution Service Customers</u>						
	47 000	m <sup>3</sup>	X	3,056 ¢/m <sup>3</sup>	=	\$1 436
<u>D<sub>1</sub> General Distribution Service with Transitional Rebate Customers</u>						
Two information sheets describe load-balancing for these customers.						
<b>INVENTORY-RELATED ADJUSTMENTS</b>	Price fluctuations and costs incurred to maintain inventories					
<u>D<sub>1</sub> General Distribution Service Customers</u>						
	47 000	m <sup>3</sup>	X	(0,178) ¢/m <sup>3</sup>	=	-\$84
<u>D<sub>1</sub> General Distribution Service with Transitional Rebate Customers</u>						
An information sheet describes calculations of inventory-related adjustments for these customers.						
<b>DISTRIBUTION</b>	Transportation of natural gas through Énergir's network up to the service address					
An information sheet describes calculations at Rate D <sub>1</sub> without and with a transitional rebate.						
For illustration purposes, the result of the calculation without the transitional rebate is stated below:						
	47 000	m <sup>3</sup>	X	12,463 ¢/m <sup>3</sup>	=	\$5 858
<b>CAP-AND-TRADE EMISSION ALLOWANCE SYSTEM</b>	Emission allowance cost for natural gas combustion					
	47 000	m <sup>3</sup>	X	4,015 ¢/m <sup>3</sup>	=	\$1 887
<b>TOTAL</b>						
<u>D<sub>1</sub> General Distribution Service Customer</u>	47 000	m <sup>3</sup>	X	38,025 ¢/m <sup>3</sup>	=	17 872 \$

# Rate D<sub>1</sub> (General Service)

Customers with Natural Gas Supply Service from Énergir

## CONSUMPTION HISTORY

PERIOD	WITHDRAWN VOLUMES		WINTER VOLUMES		
	Number of Days	Monthly Volumes (m <sup>3</sup> )	Number of Days	Monthly Volumes (m <sup>3</sup> )	Average Daily Volumes (m <sup>3</sup> /day)
OCT 2017	31	24 000			
NOV 2017	30	37 000	30	37 000	1 233
DEC 2017	31	47 000	31	47 000	1 516
JAN 2018	31	49 000	31	49 000	1 581
FEB 2018	28	43 000	28	43 000	1 536
MAR 2018	31	38 000	31	38 000	1 226
APR 2018	30	30 000			
MAY 2018	31	20 000			
JUN 2018	30	20 000			
JUL 2018	31	20 000			
AUG 2018	31	20 000			
SEP 2018	30	22 000			
<b>ANNUAL TOTAL</b>	<b>365</b>	<b>370 000</b>			
<b>WINTER TOTAL</b>			<b>151</b>	<b>214 000</b>	
<b>MAXIMUM AVERAGE DAILY VOLUME (ADV max)</b>					<b>1 581</b>

## CALCULATION OF PARAMETERS

$$\begin{aligned}
 \text{A Annual Average Daily Load} &= \frac{370\,000 \text{ m}^3}{365 \text{ days}} = 1\,014 \text{ m}^3/\text{day} \\
 \text{W Winter Average Daily Load} &= \frac{214\,000}{151} = 1\,417 \\
 \text{P Daily Peak Load} &= \text{ADV max} \times \text{Multiplier} \\
 \text{Multiplier} &= \frac{2,1 - (1,1 \times \text{A} / \text{ADV max})}{2,1 - (1,1 \times 1\,014 / 1\,581)} = 1,394 \\
 \text{Daily Peak Load} &= 1\,581 \times 1,394 = 2\,204
 \end{aligned}$$

## CALCULATION OF THE LOAD-BALANCING PRICE, FROM OCTOBER 1, 2017 TO SEPTEMBER 30, 2018

$$\begin{aligned}
 &\frac{419,0 \text{ ¢/m}^3 \times (\text{P} - \text{W}) + 1\,988,6 \text{ ¢/m}^3 \times (\text{W} - \text{A})}{\text{A} \times \# \text{ days of 12 months}} \\
 &\frac{419,0 \text{ ¢/m}^3 \times (2\,204 - 1\,417) + 1\,988,6 \text{ ¢/m}^3 \times (1\,417 - 1\,014)}{1\,014 \times 365} = 3,056 \text{ ¢/m}^3
 \end{aligned}$$

# Rate D<sub>1</sub> (General Service)

Customers with Natural Gas Supply Service from a Supplier Other than Énergir

## CONSUMPTION HISTORY

PERIOD	WITHDRAWN VOLUMES		DELIVERED VOLUMES		TRANSPosed VOLUMES	
	Number of Days	Monthly Volumes (m <sup>3</sup> )	DCV <sup>(1)</sup> (m <sup>3</sup> )	TUD <sup>(2)</sup> (m <sup>3</sup> )	Monthly Volumes (m <sup>3</sup> )	Average Daily Volumes (m <sup>3</sup> /day)
		①	②	③	① - ② + ③	
OCT 2017	31	24 000	30 000	31 425	25 425	
NOV 2017	30	37 000	22 000	30 411	45 411	1 514
DEC 2017	31	47 000	20 000	31 425	58 425	1 885
JAN 2018	31	49 000	20 000	31 425	60 425	1 949
FEB 2018	28	43 000	20 000	28 384	51 384	1 835
MAR 2018	31	38 000	20 000	31 425	49 425	1 594
APR 2018	30	30 000	24 000	30 411	36 411	
MAY 2018	31	20 000	43 000	31 425	8 425	
JUN 2018	30	20 000	49 000	30 411	1 411	
JUL 2018	31	20 000	47 000	31 424	4 424	
AUG 2018	31	20 000	38 000	31 424	13 424	
SEP 2018	30	22 000	37 000	30 411	15 411	
<b>ANNUAL TOTAL</b>	<b>365</b>	<b>370 000</b>	<b>370 000</b>	<b>370 001</b>	<b>370 001</b>	
<b>WINTER TOTAL</b>	<b>151</b>			<b>ROUNDED VALUE</b>	<b>265 070</b>	
<b>MAXIMUM AVERAGE DAILY VOLUME (ADV max)</b>						<b>1 949</b>

<sup>(1)</sup> Daily Contract Volume  
<sup>(2)</sup> Theoretical Uniform Delivery = Sum of DCVs / Number of days with DCVs X Number of days of the month

## CALCULATION OF PARAMETERS (according to transposed volumes)

**A** Annual Average Daily Load =  $\frac{370\,000 \text{ m}^3}{365 \text{ days}} = 1\,014 \text{ m}^3/\text{day}$

**W** Winter Average Daily Load =  $\frac{265\,070}{151} = 1\,755$

**P** Daily Peak Load = ADV max x Multiplier

Multiplier =  $\frac{2,1 - (1,1 \times A / \text{ADVmax})}{2,1 - (1,1 \times 1\,014 / 1\,949)}$  = 1,528

**Daily Peak Load** = 1 949 x 1,528 = 2 978

## CALCULATION OF THE LOAD-BALANCING PRICE, FROM OCTOBER 1, 2017 TO SEPTEMBER 30, 2018

$$\frac{419,0 \text{ ¢/m}^3 \times (P - W) + 1\,988,6 \text{ ¢/m}^3 \times (W - A)}{A \times \# \text{ days of 12 months}}$$

$$\frac{419,0 \text{ ¢/m}^3 \times (2\,978 - 1\,755) + 1\,988,6 \text{ ¢/m}^3 \times (1\,755 - 1\,014)}{1\,014 \times 365} = 5,366 \text{ ¢/m}^3$$

# Rate D<sub>1</sub> (General Service)

Natural Gas Supply and Transportation Services from Énergir

## CALCULATION HYPOTHESIS

### CUSTOMER'S DATA

#### WINTER VOLUME

214 000 m<sup>3</sup>

151 days

#### ANNUAL VOLUME

370 000 m<sup>3</sup>

365 days

### ÉNERGIR'S DATA

#### SUPPLIED GAS

TOTAL INVENTORY AMOUNT  
14 673 000 \$

TOTAL INVENTORY VOLUME  
473 608 072 m<sup>3</sup>

#### TRANSPORTATION

TOTAL INVENTORY AMOUNT  
21 582 000 \$

TOTAL INVENTORY VOLUME  
687 930 420 m<sup>3</sup>

## CALCULATION OF CUSTOMER'S INVENTORY VOLUME

$$\left[ \frac{\text{Customer's winter volume}}{\text{Number of winter days}} - \frac{\text{Customer's annual volume}}{\text{Number of days in the year}} \right] \times \text{Number of winter days}$$

$$\left[ \frac{214\,000 \text{ m}^3}{151 \text{ days}} - \frac{370\,000 \text{ m}^3}{365 \text{ days}} \right] \times 151 \text{ days} = 60\,932 \text{ m}^3$$

## CALCULATION OF INVENTORY-RELATED ADJUSTMENTS RATES

$$\frac{\text{Customer's inventory volume}}{\text{Customer's annual volume}} \times \frac{\text{Énergir's total inventory amount}}{\text{Énergir's total inventory volume}}$$

### SUPPLIED GAS INVENTORY

$$\frac{60\,932 \text{ m}^3}{370\,000 \text{ m}^3} \times \frac{(14\,673\,000) \$}{473\,608\,072 \text{ m}^3} = (0,510) \text{ ¢/m}^3$$

### TRANSPORTATION INVENTORY

$$\frac{60\,932 \text{ m}^3}{370\,000 \text{ m}^3} \times \frac{21\,582\,000 \$}{687\,930\,420 \text{ m}^3} = 0,517 \text{ ¢/m}^3$$

### TOTAL OF THE INVENTORY-RELATED ADJUSTMENT RATES

0,007 ¢/m<sup>3</sup>

Rate D<sub>1</sub> (General Service)

## CALCULATION HYPOTHESIS

## CUSTOMER

Commercial

## NUMBER OF METERING DEVICES

1

## VOLUME WITHDRAWN IN DECEMBER 2018

47 000 m<sup>3</sup>

## NUMBER OF DAYS IN DECEMBER

31 days

## GENERAL SERVICE - CALCULATION

## BASIC FEE

metering device	days	φ/metering device/day	\$
1	x 31	x 184,983	57,34

## PRICE BY VOLUME WITHDRAWN

m <sup>3</sup> /day		days	=	m <sup>3</sup>	x	φ/m <sup>3</sup>	=	\$
30	first	x 31	=	930	x	27,530	=	256,03
70	next	x 31	=	2 170	x	18,799	=	407,94
200	next	x 31	=	6 200	x	16,251	=	1 007,56
700	next	x 31	=	21 700	x	12,310	=	2 671,27
2 000	next	x 31	=	16 000	x	9,110	=	1 457,60
7 000	next	x 31	=	0	x	6,402	=	0,00
20 000	next	x 31	=	0	x	5,150	=	0,00
70 000	next	x 31	=	0	x	4,270	=	0,00
1 000 000	and over	x 31	=	0	x	3,537	=	0,00

Subtotal Price of Withdrawals 5 800,40

## TOTAL DISTRIBUTION PRICE

		m <sup>3</sup>	x	φ/m <sup>3</sup>	=	\$
		47 000	x	12,463	=	5 857,74