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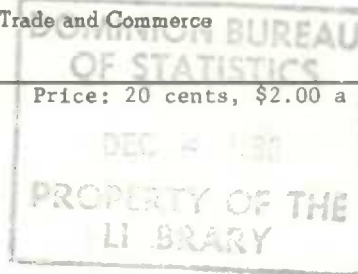
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GAS UTILITIES

(Transport and Distribution Systems)

APRIL 1963



During April 1963 gas utilities received from field gathering systems and processing plants 67,816,425 Mcf. of natural gas. The transport systems accounted for 4,817,434 Mcf. from fields and 45,448,449 Mcf. from processing plants, while the distribution systems received 11,394,674 Mcf. and 6,155,868 Mcf. respectively; natural gas received from storage was 773,968 Mcf. The total supply of gas utilities totalled 69,715,750 Mcf. and was 12.5 per cent higher than in April 1962. Of the total supply, 40,329,665 Mcf., were sold to ultimate customers in Canada, an increase of 6.0 per cent, while exports amounted to 29,464,060 Mcf., an increase of 14.5 per cent. The difference between gas supply and deliveries was accounted for by losses including cyclical billing adjustments, line pack changes and small deliveries to storage. Transport systems delivered 22,906,425 Mcf. to distribution systems, an increase of 19.9 per cent over last year. For the twelve-month period ended April 1963 exports totalled 377,902,897 Mcf., while net deliveries amounted to 811,222,087 Mcf.

The transport systems which represent virtually all of the major "intercity" movements of natural gas had traffic amounting to 46.5 billion commodity (Mcf.) miles during April 1963 compared with 41.8 billion for the same period a year ago. Ton-miles totalled 1,060 million for April 1963. The daily average deliveries of gas utilities amounted to 2.4 million Mcf./day.

Alberta natural gas utility receipts totalled 55.3 billion cubic feet; of this 24.3 per cent was sold to ultimate customers in Alberta, 22.9 per cent in Ontario, 3.8 per cent in Quebec, 3.5 per cent in Manitoba, 3.3 per cent in Saskatchewan and 1.3 per cent in British Columbia. In Table 3 deliveries of natural gas are considered as terminating and receipts from storage as originating in the province where the storage is located.

Revenue for the natural gas utilities for the month was \$34,731,866 and for manufactured and liquefied petroleum gases systems \$222,302, giving a combined Gas Utilities total of \$34,954,168.

This report has revisions in concept to bring it into line with the practice of industry, as well as several revisions by respondents to adopt the new concepts. All gas volumes are now given in cubic feet measured at 14.73 p.s.i.a. and 60° F; that is, without adjustments to a common B.T.U. base. Gas sales and exports in cubic feet containing 1,000 B.T.U.'s at 14.73 p.s.i.a. and 60° F are given separately in Tables 4 and 5 in the companion publication "Sales of Manufactured and Natural Gas", Catalogue number 45-005. As a result of these changes it has been necessary to revise certain of the 1962 figures, particularly exports, to enable more meaningful comparisons. Unfortunately, there is no precise comparison of residential, commercial and industrial sales although the reported sales volumes are believed to be within 1 to 2 per cent of what volumes would have been under the revised concepts.

Residential sales and a substantial portion of the smaller commercial sales are for the most part "displacement meter" sales, and adjustments to a common base are only close approximations; industrial and larger commercial sales are for the most part "orifice meter" sales which are easily adjusted to the common base. All sales are reported on a billing month basis, consequently "Line losses and unaccounted for" include a cyclical billing adjustments.

Industry Division

November 1963
8506-503

TABLE 1. Receipts and Disposition of Natural Gas Utilities by Province

April 1963

| No. | | New Brunswick | Quebec | Ontario |
|-----|--|------------------|-----------|-------------|
| | | | Mcf. | |
| | <u>Receipts</u> | | | |
| 1 | By transport systems: | | | |
| 1a | Fields | - | - | - |
| 1b | Processing plants | - | - | - |
| 2 | By distribution systems: | | | |
| 2a | Fields | 10,058 | - | 973,787 |
| 2b | Processing plants | - | - | - |
| 3 | Total (1 + 2) | 10,058 | - | 973,787 |
| 4 | Imports | - | - | 1,118,662 |
| 5 | Other receipts | - | - | - |
| 6 | Total net receipts (3 + 4 + 5) | 10,058 | - | 2,092,449 |
| 7 | Received from storage | - | - | 688,849 |
| 9 | Total supply of gas utilities (6 + 7) | 10,058 | - | 2,781,298 |
| | Transfers from: | | | |
| 11 | Other provinces | - | 2,259,461 | 15,005,043 |
| 12 | Distribution to transport (primary) | - | - | 507,102 |
| 13 | Other gas utilities | - | 2,259,461 | 18,746,164 |
| 19 | Total gross receipts (9 + 11 + 12 + 13) | 10,058 | 4,518,922 | 37,039,604 |
| | <u>Disposition</u> | | | |
| | Sales: | | | |
| 20 | Residential | 5,598 | 549,224 | 6,128,546 |
| 21 | Industrial | - | 1,403,487 | 7,365,964 |
| 22 | Commercial | 1,800 | 174,332 | 1,963,572 |
| 30 | Total sales (20 + 21 + 22) | 7,398 | 2,127,043 | 15,458,082 |
| 31 | Exports | - | - | 130,087 |
| 32 | Other deliveries | - | - | 335 |
| 33 | Total net deliveries (30 + 31 + 32) | 7,398 | 2,127,043 | 15,588,504 |
| 34 | Delivered to storage | - | - | 903,550 |
| 35 | Line pack fluctuation | - | - 3,250 | - 101,440 |
| 36 | Gas used in system | - | 46,156 | 524,861 |
| 37 | Line losses and unaccounted for | 2,660 | 89,512 | - 1,388,595 |
| 39 | Total demand on gas utilities (33 + 34 + 35 + 36 + 37) | 10,058 | 2,259,461 | 15,526,880 |
| | Transfers to: | | | |
| 40 | Other provinces | - | - | 2,259,461 |
| 41 | Distribution by transport (primary) | - | 2,259,461 | 13,535,292 |
| 42 | Other gas utilities | - | - | 5,717,974 |
| 49 | Total disposition (39 + 40 + 41 + 42) | 10,058 | 4,518,922 | 37,039,606 |

† Revised figures.

TABLE I. Receipts and Disposition of Natural Gas Utilities by Province

April 1963

| Manitoba | Saskatchewan | Alberta ^r | British Columbia | Canada | April ^r 1962 | No. |
|------------|--------------|----------------------|---------------------|-------------|----------------------------|-----|
| | | | | | Canada | |
| Mcf. | | | | | | |
| - | - | 4,656,291 | 161,143 | 4,817,434 | 43,786,955 | 1a |
| - | - | 36,246,127 | 9,202,322 | 45,448,449 | | 1b |
| - | 178,977 | 10,226,646 | 5,206 | 11,394,674 | 16,915,252 | 2a |
| - | 2,010,780 | 4,108,288 | 36,800 | 6,155,868 | | 2b |
| - | 2,189,757 | 55,237,352 | 9,405,471 | 67,816,425 | 60,702,207 | 3 |
| - | - | 6,254 | - | 1,124,916 | 909,453 | 4 |
| 441 | - | - | - | 441 | 330 | 5 |
| 441 | 2,189,757 | 55,243,606 | 9,405,471 | 68,941,782 | 61,611,990 | 6 |
| - | 71,423 | 13,696 | - | 773,968 | 360,268 | 7 |
| 441 | 2,261,180 | 55,257,302 | 9,405,471 | 69,715,750 | 61,972,258 | 9 |
| 21,670,800 | 23,729,812 | - | 16,255,160 | ... | ... | 11 |
| - | 449,836 | 2,031,879 | - | 2,988,816 | 29,324,575 | 12 |
| 1,822,140 | 2,052,490 | 2,706,956 | 3,082,047 | 30,669,258 | | 13 |
| 23,493,381 | 28,493,318 | 59,996,137 | 28,742,678 | 103,373,824 | 91,296,833 | 19 |
| 884,483 | 1,469,271 | 3,668,126 | 1,203,525 | 13,908,773 | 13,642,351 | 20 |
| 659,763 | 1,891,990 | 7,053,351 | 1,515,693 | 19,890,248 | 18,102,553 | 21 |
| 607,008 | 667,448 | 2,730,349 | 386,135 | 6,530,644 | 6,291,451 | 22 |
| 2,151,254 | 4,028,709 | 13,451,826 | 3,105,353 | 40,329,665 | 38,036,355 | 30 |
| 4,619,749 | - | 2,451,364 | 22,262,860 | 29,464,060 | 25,728,288 | 31 |
| - | - | 58,859 | - | 59,194 | 12,919 | 32 |
| 6,771,003 | 4,028,709 | 15,962,049 | 25,368,213 | 69,852,919 | 63,777,562 | 33 |
| - | 461,354 | 183,861 | - | 1,548,765 | 1,690,300 | 34 |
| - 22,077 | - 16,915 | - 60,994 | 16,244 | - 188,432 | - 288,027 | 35 |
| 236,799 | 512,452 | 48,253 | 203,864 | 1,572,385 | 1,292,061 | 36 |
| - 319,527 | - 665,408 | - 860,839 | 72,310 | - 3,069,887 | - 4,557,122 | 37 |
| 6,666,198 | 4,320,192 | 15,272,330 | 25,660,631 | 69,715,750 | 61,914,774 | 39 |
| 15,005,043 | 21,670,800 | 39,984,972 | - | ... | ... | 40 |
| 1,822,140 | 2,052,490 | 210,497 | 3,026,545 | 22,906,425 | 19,112,539 | 41 |
| - | 449,836 | 4,528,338 | 55,502 | 10,751,649 | 10,269,520 | 42 |
| 23,493,381 | 28,493,318 | 59,996,137 | 28,742,678 | 103,373,824 | 91,296,833 | 49 |

TABLE 2. Receipts and Disposition of Natural Gas Utilities by Month, Canada, 1963

| No. | | January | February | March | April | May |
|-----|--|-------------|-------------|-------------|-------------|-----|
| | | | | Mcf. | | |
| | <u>Receipts</u> | | | | | |
| 1 | By transport systems: | | | | | |
| 1a | Fields | 6,490,502 | 5,665,269 | 5,185,435 | 4,817,434 | |
| 1b | Processing plants | 53,448,663 | 45,922,308 | 50,341,692 | 45,448,449 | |
| 2 | By distribution systems: | | | | | |
| 2a | Fields | 20,099,614 | 15,790,009 | 14,239,942 | 11,394,674 | |
| 2b | Processing plants | 6,544,092 | 6,772,147 | 7,614,165 | 6,155,868 | |
| 3 | Total (1 + 2) | 86,582,871 | 74,149,733 | 77,381,234 | 67,816,425 | |
| 4 | Imports | 213,784 | 166,149 | 987,966 | 1,124,916 | |
| 5 | Other receipts | 82,482 | 40,522 | 1,002 | 441 | |
| 6 | Total net receipts (3 + 4 + 5) | 86,879,137 | 74,356,404 | 78,370,202 | 68,941,782 | |
| 7 | Received from storage | 8,536,394 | 5,486,862 | 2,646,935 | 773,968 | |
| 9 | Total supply of gas utilities (6 + 7) | 95,415,531 | 79,843,266 | 81,017,137 | 69,715,750 | |
| | Transfers from: | | | | | |
| 11 | Other provinces | ... | ... | ... | ... | |
| 12 | Distribution to transport (primary) | 4,275,301 | 4,737,209 | 3,624,455 | 2,988,816 | |
| 13 | Other gas utilities | 43,342,270 | 38,021,384 | 35,730,383 | 30,669,258 | |
| 19 | Total gross receipts (9 + 11 + 12 + 13) | 143,033,102 | 122,601,859 | 120,371,975 | 103,373,824 | |
| | <u>Disposition</u> | | | | | |
| | Sales: | | | | | |
| 20 | Residential | 24,487,687 | 24,217,941 | 19,618,195 | 13,908,773 | |
| 21 | Industrial | 18,626,804 | 17,246,726 | 19,446,709 | 19,890,248 | |
| 22 | Commercial | 10,897,541 | 10,826,176 | 8,844,584 | 6,530,644 | |
| 30 | Total sales (20 + 21 + 22) | 54,012,032 | 52,290,843 | 47,909,488 | 40,329,665 | |
| 31 | Exports | 34,608,544 | 29,721,885 | 32,520,099 | 29,464,060 | |
| 32 | Other deliveries | 88,879 | 65,370 | 68,550 | 59,194 | |
| 33 | Total net deliveries (30 + 31 + 32) | 88,709,455 | 82,078,098 | 80,498,137 | 69,852,919 | |
| 34 | Delivered to storage | 607,009 | 363,974 | 680,971 | 1,548,765 | |
| 35 | Line pack fluctuation | 168,468 | - 110,881 | 254,266 | - 188,432 | |
| 36 | Gas used in system | 2,125,732 | 1,883,954 | 1,922,048 | 1,572,385 | |
| 37 | Line losses and unaccounted for | 3,804,867 | - 4,371,879 | - 2,338,285 | - 3,069,887 | |
| 39 | Total demand on gas utilities (33 + 34 + 35 + 36 + 37) | 95,415,531 | 79,843,266 | 81,017,137 | 69,715,750 | |
| | Transfers to: | | | | | |
| 40 | Other provinces | ... | ... | ... | ... | |
| 41 | Distribution by transport (primary) | 34,377,018 | 29,710,223 | 27,422,291 | 22,906,425 | |
| 42 | Other gas utilities | 13,240,553 | 13,048,370 | 11,932,547 | 10,751,649 | |
| 49 | Total disposition (39 + 40 + 41 + 42) | 143,033,102 | 122,601,859 | 120,371,975 | 103,373,824 | |

* Revised figures.

TABLE 2. Receipts and Disposition of Natural Gas Utilities by Month, Canada, 1963

| June | July | August | September | October | November | December | Year to date | | No. |
|------|------|--------|-----------|---------|----------|----------|--|--|----------------------|
| | | | | | | | 1963 ^F | 1962 ^F | |
| | | | | Mcf. | | | | | |
| | | | | | | | 22,158,640 195,161,112 |) 193,609,850 | 1a 1b |
| | | | | | | | 61,524,239 27,086,272 |) 83,978,753 | 2a 2b |
| | | | | | | | 305,930,263 | 277,588,603 | 3 |
| | | | | | | | 2,492,815 124,447 | 942,118 36,846 | 4 5 |
| | | | | | | | 308,547,525 | 278,567,567 | 6 |
| | | | | | | | 17,444,159 | 14,405,726 | 7 |
| | | | | | | | 325,991,684 | 292,973,293 | 9 |
| | | | | | | | ... | ... | 11 |
| | | | | | | | 15,625,781 147,763,295 |) 137,590,455 | 12 13 |
| | | | | | | | 489,380,760 | 430,563,748 | 19 |
| | | | | | | | 82,232,596 75,210,487 37,098,945 | 77,926,007 69,147,423 34,983,086 | 20 21 22 |
| | | | | | | | 194,542,028 | 182,056,516 | 30 |
| | | | | | | | 126,314,588 281,993 | 109,753,380 251,342 | 31 32 |
| | | | | | | | 321,138,609 | 292,061,238 | 33 |
| | | | | | | | 3,200,719 123,421 7,504,119 - 5,975,184 | 3,387,048 - 159,530 6,140,076 - 8,521,696 | 34 35 36 37 |
| | | | | | | | 325,991,684 | 292,907,136 | 39 |
| | | | | | | | ... | ... | 40 |
| | | | | | | | 114,415,957 48,973,119 | 92,753,399 44,903,213 | 41 42 |
| | | | | | | | 489,380,760 | 430,563,748 | 49 |

TABLE 3. Receipts and Disposition of Natural Gas by Source

April 1963

| No. | | New Brunswick | Ontario | Saskatchewan | Alberta | British Columbia | Imports from U.S.A. | Total |
|-----|--|---------------|-----------|--------------|-------------|------------------|---------------------|-------------|
| | | | | | Mcf. | | | |
| | <u>Receipts</u> | | | | | | | |
| 1 | By transport systems: | | | | | | | |
| 1a | Fields | - | - | - | 4,656,291 | 161,143 | ... | 4,817,434 |
| 1b | Processing plants | - | - | - | 36,246,127 | 9,202,322 | ... | 45,448,449 |
| 2 | By distribution systems: | | | | | | | |
| 2a | Fields | 10,058 | 973,787 | 178,977 | 10,226,646 | 5,206 | ... | 11,394,674 |
| 2b | Processing plants | - | - | 2,010,780 | 4,108,288 | 36,800 | ... | 6,155,868 |
| 3 | Total (1 + 2) | 10,058 | 973,787 | 2,189,757 | 55,237,352 | 9,405,471 | ... | 67,816,425 |
| 4 | Imports | ... | ... | ... | ... | ... | 1,124,916 | 1,124,916 |
| 5 | Other receipts | - | - | - | 441 | - | ... | 441 |
| 6 | Total net receipts (3 + 4 + 5) | 10,058 | 973,787 | 2,189,757 | 55,237,793 | 9,405,471 | 1,124,916 | 68,941,782 |
| 7 | Received from storage | - | 688,849 | 71,423 | 13,696 | - | ... | 773,968 |
| 9 | Total supply of gas utilities (6 + 7) | 10,058 | 1,662,636 | 2,261,180 | 55,251,489 | 9,405,471 | 1,124,916 | 69,715,750 |
| | <u>Disposition</u> | | | | | | | |
| | Sales: | | | | | | | |
| 23 | British Columbia | - | - | - | 726,405 | 2,378,948 | - | 3,105,353 |
| 24 | Alberta | - | - | - | 13,445,572 | - | 6,254 | 13,451,826 |
| 25 | Saskatchewan | - | - | 2,231,185 | 1,797,524 | - | - | 4,028,709 |
| 26 | Manitoba | - | - | 194,870 | 1,956,384 | - | - | 2,151,254 |
| 27 | Ontario | - | 1,709,160 | - | 12,630,260 | - | 1,118,662 | 15,458,082 |
| 28 | Quebec | - | - | - | 2,127,043 | - | - | 2,127,043 |
| 29 | New Brunswick | 7,398 | - | - | - | - | - | 7,398 |
| 30 | Total sales (23 + 24 + 25 + 26 + 27 + 28 + 29) | 7,398 | 1,709,160 | 2,426,055 | 32,683,188 | 2,378,948 | 1,124,916 | 40,329,665 |
| 31 | Exports | - | - | - | 22,661,343 | 6,802,717 | ... | 29,464,060 |
| 32 | Other deliveries | - | - | - | 59,194 | - | ... | 59,194 |
| 33 | Total net deliveries (30 + 31 + 32) | 7,398 | 1,709,160 | 2,426,055 | 55,403,725 | 9,181,665 | 1,124,916 | 69,852,919 |
| 34 | Delivered to storage | - | - | 461,354 | 1,087,411 | - | - | 1,548,765 |
| 35 | Line pack fluctuation | - | - | 12,521 | - 216,314 | 15,361 | - | - 188,432 |
| 36 | Gas used in system | - | 21,363 | 38,852 | 1,382,236 | 129,934 | - | 1,572,385 |
| 37 | Line losses and unaccounted for | 2,660 | - 67,887 | - 677,602 | - 2,405,569 | 78,511 | - | - 3,069,887 |
| 39 | Total demand on gas utilities (33 + 34 + 35 + 36 + 37) | 10,058 | 1,662,636 | 2,261,180 | 55,251,489 | 9,405,471 | 1,124,916 | 69,715,750 |

TABLE 4. Operating Statistics: Natural Gas Utilities

April 1963

| | Natural gas transport systems | Natural gas distribution systems | Total natural gas utilities |
|---------------------------------|-------------------------------|----------------------------------|-----------------------------|
| Daily sendouts (Mcf.): | | | |
| April 1963: | | | |
| Daily average | 1,745,683 | 1,344,322 | 2,380,056 |
| Maximum(1) | 2,118,938 | ... | ... |
| Minimum(1) | 1,558,838 | ... | ... |
| Exports maximum(1) | 1,035,935 | ... | 1,035,935 |
| April 1962: ^F | | | |
| Daily average | 1,494,694 | 1,267,879 | 2,182,262 |
| Maximum(1) | 1,931,729 | ... | ... |
| Minimum(1) | 1,329,889 | ... | ... |
| Year to date 1963: | | | |
| Daily average | 2,006,088 | 1,621,184 | 2,702,828 |
| Maximum(1) | 2,627,885 | ... | ... |
| Minimum(1) | 1,558,838 | ... | ... |
| Commodity miles: | | | |
| Mcf. miles (thousands) | 46,511,704 | .. | .. |
| Ton-miles (millions) | 1,060 | .. | .. |
| Line pack: | | | |
| Beginning of month (Mcf.) | 6,609,067 | .. | .. |
| End of month (Mcf.) | 6,411,441 | .. | .. |
| Operating revenues | (\$17,234,333 | (\$26,072,692 | (\$34,731,866(2) |

(1) Non-coincident.

(2) Interindustry revenues eliminated.

.. Figures not available.

... Figures not appropriate or not applicable.

^F Revised figures.

TABLE 5. Manufactured and Liquefied Petroleum Gases Utilities

Receipts and Disposition

April 1963

| | Manufactured | Liquefied petroleum gases |
|--|--------------|---------------------------|
| | Mcf. | |
| Gas receipts | 125,232 | 138,473 |
| Deliveries to ultimate customers | 162,315 | 127,563 |
| Line pack fluctuations | - 1,588 | - 4,864 |
| Gas used in system | - 28,173 | - |
| Metering difference, line losses, cyclical billing adjustments and unaccounted for | - 7,322 | 15,774 |
| Total disposition | 125,232 | 138,473 |
| Daily average sendout | 5,411 | 4,252 |
| Revenues | (\$107,358 | (\$114,944 |



TABLE 6. Exports and Imports to and from the United States

April 1963

| Customs port | Exports ^r | Imports |
|------------------------------------|----------------------|-----------|
| | Mcf. | |
| Cornwall, Ontario | 130,087 | - |
| Ojibway, Ontario | - | 1,118,662 |
| Emerson, Manitoba | 4,619,749 | - |
| Coutts, Alberta | 389 | 6,254 |
| Aden, Alberta | 1,725,717 | - |
| Carway, Alberta | 725,258 | - |
| Kingsgate, British Columbia | 13,740,238 | - |
| Huntingdon, British Columbia | 8,522,622 | - |
| Canada | 29,464,060 | 1,124,916 |

^r Figures revised since publication in "Sales of Manufactured and Natural Gas", Catalogue No. 45-005