GARDNER PINFOLD CONSULTANTS INC.

1186 Rockcliffe Street
Halifax, Nova Scotia
B3H 3Y6
Tel: 902.221.3592
Email: mgardner@gardnerpinfold.ca

46 Weldon Street
Sackville, New Brunswick
E4L 4N4
Tel: 506.939.2261
Email: gregmacaskill@gardnerpinfold.ca

PETROLEUM PRODUCTS
BENCHMARK AND MARGIN REVIEW

Pricing formula using NYH as the benchmark price

Attention: Ms. Nicole McKenna
Carr, Stevenson & MacKay
65 Queen Street
Charlottetown, Prince Edward Island
C1A 7L1

Prepared by
Gardner Pinfold Consultants Inc.

July 2023

IRAC pricing formula using NYH as the benchmark price

1. Components of the formula

The pricing formula using NYH as the benchmark contains several terms reflecting the complexity of integrating all relevant cost factors into the final retail selling price of the regulated fuels. The benchmark price for each fuel (gasoline, diesel, and furnace oil) is based on the weekly average of the daily average NYMEX (New York Mercantile Exchange) market price. Daily NYMEX prices may be found in various Price Reporting Agency publications (Argus, Platts, OPIS). Prices are converted to CAN$ at the Bank of Canada noon rate and expressed in cents per litre.

The table below sets out a price formula relying on NYMEX/NYH values. This formula is modelled on that used by the Nova Scotia and New Brunswick regulators (which rely on NYMEX/NYH as the benchmark). A new benchmark price is set each week based on the US$/CAN$ exchange rate adjusted change in the NYMEX price for each fuel. The values in the table are based on the change in the NYMEX price between July 14, and July 21, 2023.

The several items added to the Benchmark price to arrive at the Wholesale price and finally the Pump or Retail price are identified with explanatory notes. Most of these apply regardless of which benchmark is used. Some notes require further information:

- Forward averaging adjustment: this could be a positive or negative value and is calculated formulaically and applied automatically in NS and NB. In PEI it is applied on a discretionary basis and hence not part of the formula used to derive the weekly wholesale and retail price setting. Accordingly, no value is given in the table.
- Unless and until the Commission changes the method for determining the grade price premium, 3.0 and 6.0 cpl would be added to the price shown for regular unleaded.
- The cost added for winter blending varies by month and would be the same whichever benchmark were used.
- The price of carbon is set by federal regulation and would be the same whichever benchmark were used.
- The clean fuel adjuster represents the cpl cost to obligated parties (refiners and importers of transportation fuels) of meeting the Clean Fuel Standard (CFS). With a Rack benchmark, this cost would be flowed through to consumers as refiners reflect their costs in the Rack price (to the extent competition allows). With a NYH benchmark, the regulator would set the adjuster based on industry costs or by using a proxy (in the absence of industry data). In recent decisions, the NSUARB set the adjuster based on the federal Clean Fuel Regulations “Credit Clearing Mechanism” (CCM at 3.74 cpl for gasoline and 4.17 cpl for diesel). The NBEUB applied a formula aimed at determining a proxy value of the compliance cost based on the use of renewable diesel (about double the NS amount).
- The wholesale margin differs greatly depending on the benchmark, in terms of the scope of activities it captures and consequently the amount. With a Rack benchmark, the wholesale margin accruing to the primary wholesaler is incorporated in the Rack price (and essentially forms part of the refining margin). It is indistinguishable from all the other factors that make up the Rack price. (Please refer to my response to IRAC IR 2 for a full explanation.) The 5.0 cpl

wholesale margin as it is currently defined under the Rack benchmark covers costs from Rack to retail. The scope of wholesale activity expands under a NYH benchmark to incorporate marine transportation from NYH to the Charlottetown terminal and the operation of the terminal (this is the approach used in NS and NB). In effect, these wholesale costs shift from the Rack price to the wholesale margin. This is evident from the table, where the wholesale margin increases from the current level of 5.0 cpl to 13.0 cpl (for gasoline and diesel) and to 9.0 cpl for furnace oil (under current arrangements, there is no wholesale margin for distributors; this amount accrues to the primary wholesaler). The data used to quantify the wholesale margin were obtained from industry as part of the margin review. These data were obtained in confidence and are subject to a non-disclosure agreement with the consultant.

- Taxes remain unchanged.
- The current retail margins would be unaffected by a shift to an NYH benchmark.

Implications of a shift

The main implication of a shift from Rack to NYH lies in how the wholesale margin is defined. All other factors in the formula are common to both approaches. Under a Rack benchmark, all refiner costs (including transportation to and operation of the terminal) are recovered through the Rack price; under the NYH approach used in NS and NB, such costs become explicit and are regulated, requiring evidence of change (and a public hearing) before a wholesale margin adjustment is approved. Moreover, no distinction is made between the primary and secondary components of the wholesale margin (NYH to Rack; Rack to retail). It is left to industry to sort out how any adjustments are divided. The Commission could decide to adopt this approach or implement an approach with separate primary and secondary components.

It would be tempting to compare the wholesale and retail price results, Rack vs. NYH, arising from a shift to NYH. Caution is required. The NYH benchmark table shows a gasoline pump price of 172.9 cpl vs. 177.2 cpl (max self-serve) for the July 21, 2023 setting. The 4.3 cpl difference would appear to be attributable to the clean fuel adjuster built into the Charlottetown Rack price. The table adds 3.74 cpl to the NYH benchmark (as explained in note 5) while the current IRAC setting using the Rack price incorporates an increment about double this amount (apparently, this increment is about double that applied by the terminal operator). The spread between NYH and Rack expanded from 11.2 to 17.1 cpl once CFR was implemented.

Formula for determining the wholesale and retail fuel prices if IRAC adopted NYH as the benchmark price

NYH price data: July 14 vs. July 21	Notes	Gasoline	Diesel	Furnace oil
		(all values in cents per litre)		
Benchmark price (previous setting, July 14th		92.10	89.78	77.30
Exchange rate adjusted change in NYMEX	1	0.73	0.74	0.74
New Benchmark Price (July 21)		92.83	90.52	78.04
Grade price premium (if applicable)	2		n.a.	n.a.
Winter blending (as applicable)	3	n.a.		
Carbon price	4	14.31	17.38	17.38
Clean fuel adjuster	5	3.74	4.17	n.a.
Wholesale margin	6	13.00	13.00	9.00
Federal excise tax	7	10.00	4.00	n.a.
GST	8	n.a.	n.a.	5.00
Provincial fuel tax	9	8.47	14.14	n.a.
Wholesale price		142.35	143.21	109.42
Retail margin (maximum)	10	8.00	8.00	21.50
HST (.15)	11	22.55	22.68	n.a.
Pump/retail price		172.90	173.89	130.92

Notes

1. Impact on benchmark price resulting from the change in the NYMEX commodity price converted to CAN$
2. Apply the current grade adjstment method unless IRAC switches to a benchmark approach
3. This is unchanged. Reflects the incremental cpl cost (weighted by volume) of adding ultra-low sulfur kerosene (ULSKero) to maintain fuel performance
4. The carbon price will change annually as the cost of carbon increases by $15 per year to a maximum of $170/t in 2030
5. This is based on the CFR's CCM of $300/tCO2e (adjuster varies according to the carbon intensity of the fuel). It will be replaced by the Credit Price once the credit market is sufficiently liquid.
6. This covers wholesale costs from NYH to retail, incorporating both the primary (refiner) and secondary (delivery) wholesaler margins. With the Rack as benchmark, the primary wholesaler margin is incorporated in the rack price.
7. This is unchanged.
8. This is unchanged.
9. This is unchanged.
10. The current retail margin
11. The current HST level applied to the sum of the costs between the benchmark price and the retail margin. HST is not applied to furnace oil (GST is).