

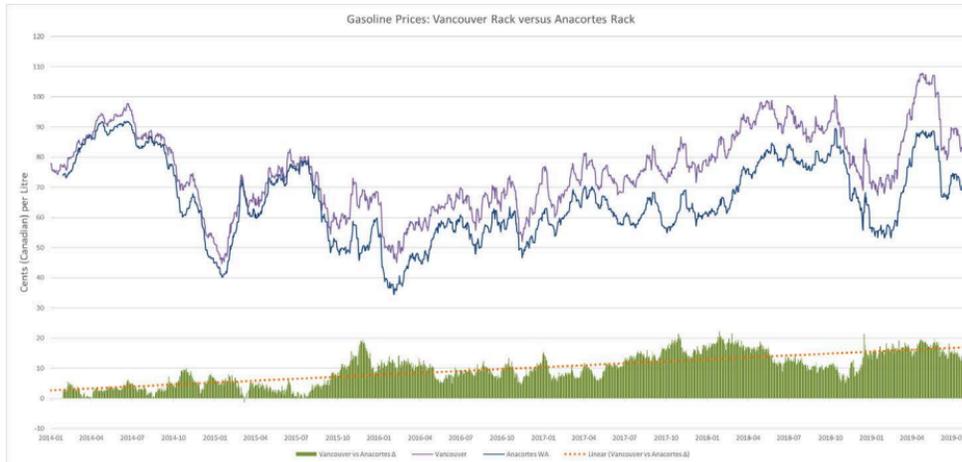
**BC Utilities Commission Inquiry into Gasoline and Diesel Prices in British Columbia**

**Comments on Oil Price Information Service Data BCUC Staff Analysis – Exhibit A2-30**

*Advanced Biofuels Canada*

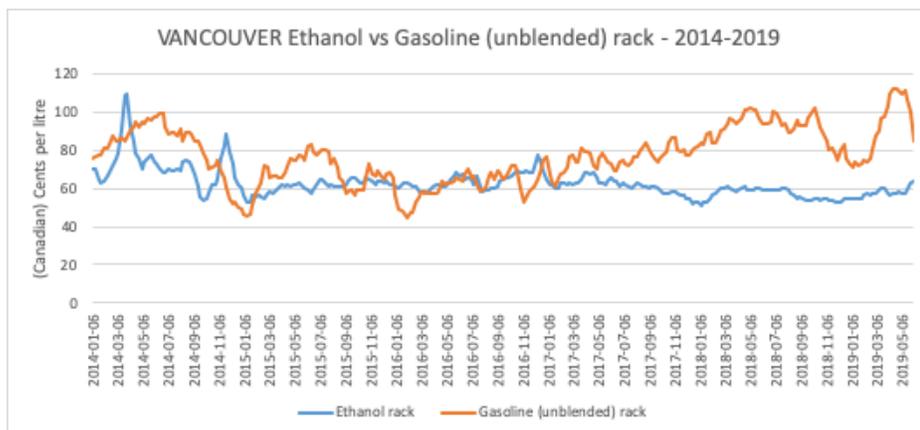
Comments — Vancouver vs Anacortes Rack

BCUC provided this graph on Vancouver and Anacortes racks (2014-2019).



- In mid-2016 the two racks begin to exhibit sustained decoupling
- Ethanol content and prices can be assessed to determine if they played a role in the divergence
  - o Some intervenors have stated that regulations have added to fuel prices
- From 2016 onward, ethanol prices went down the opposite direction of Vancouver gasoline prices
  - o For 2016, ethanol was \$0.028/litre *more* expensive than unblended (suboctane) gasoline
  - o For 2017, ethanol was \$0.145/litre *less* expensive than unblended (suboctane) gasoline
  - o For 2018 onward, the gasoline-ethanol spread continued to grow (see Chart 1)

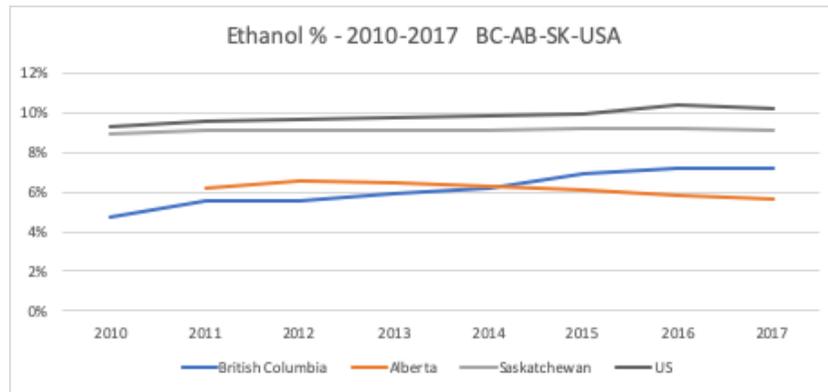
**Chart 1 – Vancouver Ethanol vs Gasoline 2014-2019**



Source: ABFC, OPIS, Kent Marketing

- At the same time, ethanol content in BC gasoline increased slightly relative to ethanol in WA gasoline (but still trails absolute WA blend levels)
    - Ethanol in gasoline in the WA market was 10.3% in 2016 (source: EIA) and has stayed at that level since
    - Ethanol in gasoline in the BC market was 7.2% in 2016 (source: Navius, NRCan), and 7.8% in 2018
- Note: Metro Vancouver and Anacortes racks can be expected to have both 10% (E10) content in RUL

**Chart 2 – Comparative ethanol blends (Canada, US)**



- While ethanol became increasingly less expensive than gasoline and its content in Vancouver gasoline, the Vancouver premium over Anacortes racks continued to grow
  - This does not support statements that regulatory content in BC gasoline is contributing to higher gasoline prices
    - For 2018-2019YTD, wholesale ethanol has been \$0.323/L less expensive than unblended gasoline
  - Statements that assigning storage capacity to ethanol instead of gasoline has raised costs are not only inaccurate, they are illogical
    - Ethanol does not make less liquid fuel available, it simply substitutes gasoline with ethanol
    - Had ethanol not been used, more expensive gasoline would have been required, raising fuel prices (were process tied to costs, which has not been demonstrated for the BC market)

Vancouver Rack Regression Analysis – Inter refiner (Shell vs Suncor)

The BCUC staff OPIS analysis compared BC and other jurisdictions and assessed the correlation between the racks.

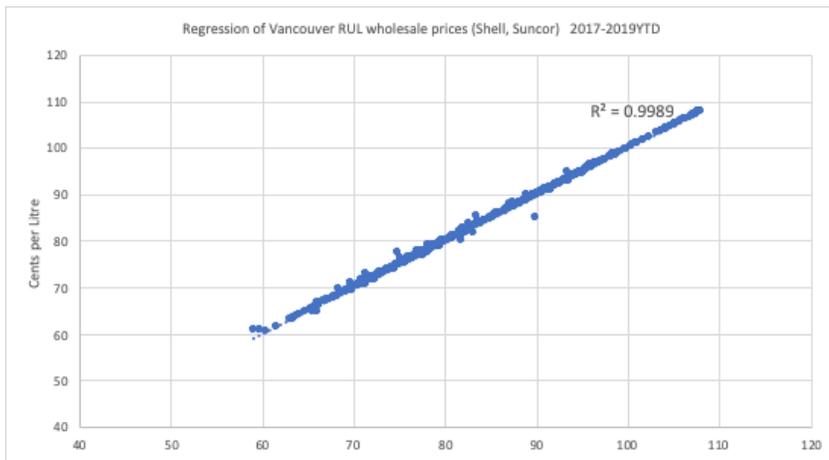
We believe that the same methodology, if undertaken for the rack-rack prices in BC, can provide important information about the competitiveness of racks in BC markets.

Our analysis is based on daily prices reported for Shell Canada and Suncor by Kent Marketing for regular unleaded gasoline (RUL) in Kamloops, Vancouver, and Nanaimo for the period January 1, 2017 and August 13, 2019. *Note:* Data for 2016 and prior year is not available from Kent Marketing.

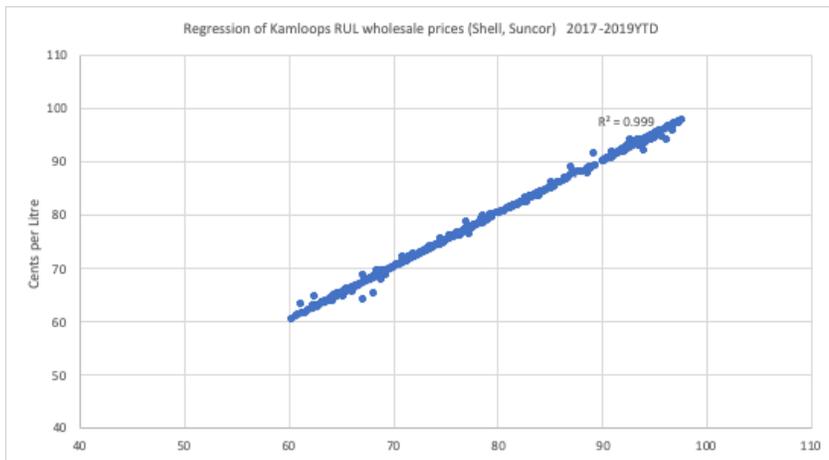
The coefficient of correlation (also called R-squared or  $R^2$ ) is used to explain how well data fit a regression model.

All three BC racks demonstrate high internal correlations, above .99. In somewhat simplified terms, over 99% of the change in one rack price is explained by the movement of the other rack's price. Put simply, these racks move in unison.

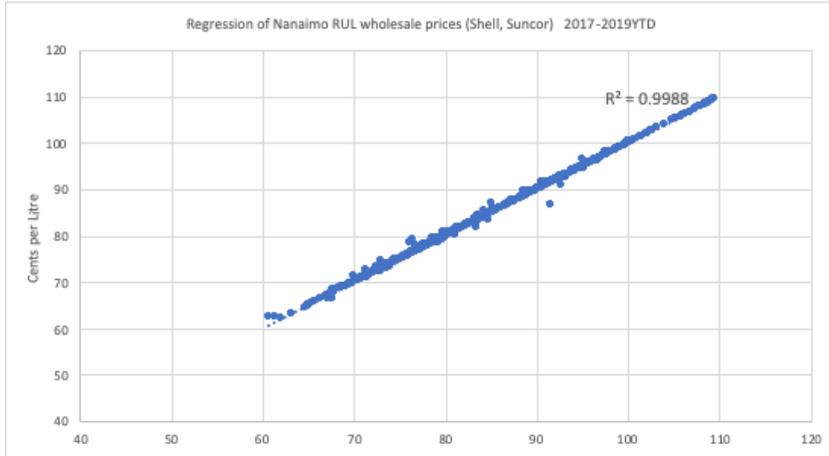
**Chart 3 – Vancouver RUL inter-rack wholesale price regression 2017-2019**



**Chart 4 – Kamloops RUL inter-rack wholesale price regression 2017-2019**



**Chart 3 – Nanaimo RUL inter-rack wholesale price regression 2017-2019**



However, how this relates to competitiveness requires assessing the impact on retail fuel pricing.

Inter-rack Regression Data Analysis

Other data pulled from the same RUL rack pricing 2017-2019TYD for three BC racks shows that when rack prices largely move in unison, this significantly constrains retail competitiveness.

Only Suncor and Shell report rack prices on their websites; Parkland’s rack is reported by OPIS (subscription); Husky and Imperial Oil do not post or report rack prices.

Further analysis of daily prices reported by Shell Canada and Suncor (Kent Marketing) for regular unleaded gasoline (RUL) in Kamloops, Vancouver, and Nanaimo for the period January 1, 2017 and August 13, 2019 show how little BC wholesale price vary.

	Inter-rack daily average rack price difference \$/litre (1)	Annual wholesale fuel buy cost difference (inter-rack) for an average retail site (2)	Days with identical wholesale prices	R <sup>2</sup>
Kamloops	\$ 0.00012	\$ 511	69%	0.9989
Vancouver	\$ 0.00055	\$ 2,364	71%	0.9988
Nanaimo	\$ 0.00053	\$ 2,270	70%	0.999

Notes

- (1) This is the total variance between the rack prices spread across all 682 daily price points 2017-2019TYD. For Vancouver, 211 of 682 days saw different rack prices. More than 55% of the spreads (110 days) in Vancouver were 1/5<sup>th</sup> of a cent or less.
- (2) This figure shows the annual cumulative effect of the price differentials in fuel supply costs for an average BC retail site.

## Impact on Retail Prices

Branded retailers purchase fuel from the rack at prices set by the terms of their fuel supply agreements.

For the 2017-2019 period, Shell and Suncor prices varied \$0.00055/litre on a daily basis averaged over the 682 price points in the period (M-F only).

The average BC retail site sells 4.3 million litres of fuel a year. For illustration, this is assumed to be all gasoline. The Vancouver rack average differential – in terms of a retail site's annual buy – is \$2,365. Compared with total annual fuel costs for a retail site of \$3.457 million (2017-2019 average), the differentials in Vancouver represent 0.067% (less than 1/10<sup>th</sup> of one percent) of total fuel costs for an average site.

The impact of this on retail competitiveness is stark; given that ~90% of BC retail sites operate under a refiner-owned brand (Deetken), there is almost no prospect that brand switching will carry with it better price terms. It is not plausible to propose that a brand-A retailer would successfully negotiate a brand switching arrangement to Brand-B, with the latter indexing the retailers' price under a new agreement to be rack-minus indexed to Brand-A's rack price. There would be no assurance whatsoever that the price formula specified in the new agreement would be any improvement over its current terms. The potential for several thousand dollars of possible price advantage is no match for the hundreds of thousands of dollars borne by the retailer to re-brand each retail site.