



Information Circular: Royal Bank of Canada

To: Head Traders, Technical Contacts, Compliance Officers, Heads of ETF Trading, Structured Products Traders

From: NASDAQ / BX / PHLX Listing Qualifications Department

Date: July 29, 2014

Exchange-Traded Notes

Symbol **CUSIP #**

Royal Bank of Canada ETNs due July 19, 2034 Linked to the Yorkville MLP Distribution Growth Leaders Liquid PR Index YGRO 78011D104

Information on the Notes

The Royal bank of Canada ("RBC" or the "Issuer") has issued Exchange Traded Notes ("ETNs" or "Notes" or "Securities") that are linked to the performance of the Yorkville MLP Distribution Growth Leaders Liquid PR Index (the "Index"). The ETNs do not guarantee any return of principal. Investors should be willing, if the Index declines, to lose up to 100% of their investment. The ETNs may pay a quarterly coupon as described in this pricing supplement. Since the payment of any quarterly coupon is uncertain, investors should not expect to receive fixed periodic interest payments.

The ETNs are senior unsecured medium-term notes of the Issuer, Series F, maturing July 19, 2034, subject to adjustment as provided in the prospectus. The denomination and stated principal amount of each ETN is \$20. Any future issuances of ETNs may be issued at a price that is higher or lower than the stated principal amount, based on the indicative value of the ETNs at that time.

The securities considered for inclusion in the Index must be publicly traded securities that represent the limited partner interests of a master limited partnership that is traded on a recognized U.S. securities exchange (each, an "MLP").

If the ETNs have not previously been repurchased by RBC, investors will receive at maturity a cash payment, per \$20 principal amount ETN, calculated as (a) the product of (i) \$20 and (ii) the Index Factor as of the last Valuation Date in the Final Measurement Period, plus (b) the final Coupon Payment determined on the Final Valuation Date, if any, minus (c) the fee shortfall on the Final Valuation Date, if any. In no event, however, will the payment at maturity be less than zero.

The Index Factor on any Valuation Date will be equal to the Final Index Level on that Valuation Date divided by the Initial Index Level. The closing level is not the same as the closing price or any other trading price of the ETNs in the secondary market.

On each Coupon Payment Date, for each \$20 principal amount ETN, investors will receive a cash payment equal to (a) the MLP Distribution Amount minus (b) the Investor Fee, each calculated as of the corresponding Coupon Valuation Date. To the extent that the MLP Distribution Amount is less than the Investor Fee, there will be no Coupon Payment made on the corresponding Coupon Payment Date, and an amount equal to the absolute value of the difference between the MLP Distribution Amount and the Investor Fee calculated on that Coupon Valuation Date (the "fee shortfall") will be added to the Investor Fee with respect to the next Coupon Valuation Date.

The applicable Valuation Date means (i) with respect to a repurchase at the option of the ETN holder, the Trading Day immediately succeeding the Business Day on which you deliver a valid repurchase notice to RBC, (ii) with respect to a repurchase of the ETNs at our option, each of the five Trading Days during the Call Measurement Period and (iii) with respect to the Maturity Date, the five Trading Days during the Final Measurement Period, ending on the Final Valuation Date. The "Final Valuation Date" will be the Trading Day that falls on July 14, 2034. If any of the applicable Valuation Dates, including the last Valuation Date in the Call Measurement Period or the Final Valuation Date, is not a Trading Day, then such Valuation Date, last Valuation Date in the Call Measurement Period or Final Valuation Date shall be the next following Trading Day. If a Market Disruption Event occurs or is continuing on any Valuation Date (including the last Valuation Date in the Call Measurement Period or the Final Valuation Date), then such Valuation Date will be postponed to the next Trading Day.

The Multiplier is equal to 0.0852079, the quotient of \$20 divided by the Initial Index Level. The Initial Index Level is 234.72, the closing level of the Index on the Initial Trade Date. The Final Index Level, as determined by the Calculation Agent, is the arithmetic mean of the Index closing levels measured on each Valuation Date during the Call Measurement Period or the Final Measurement Period, or the Index closing level on any Valuation Date relating to a Repurchase Date for a repurchase at the option of the holder.

With respect to any Coupon Valuation Date, including the Final Valuation Date or the last Valuation Date in the Call Measurement Period, the Investor Fee will be equal to (a) (i) the annual investor fee multiplied by (ii) the number of days in the Coupon Period with respect to such Coupon Valuation Date divided by 365 multiplied by (iii) \$20 multiplied by (iv) the Index Factor, plus (b) the fee shortfall from the previous Coupon Valuation Date, if any. There will only be a fee shortfall from the previous Coupon Valuation Date if the MLP Distribution Amount on such previous Coupon Valuation Date minus the Investor Fee on such previous Coupon Valuation Date was negative. In such case, the fee shortfall will be equal to the absolute value of such negative number. The annual investor fee is equal to 0.90%.

Because the Investor Fees reduce the Coupon Payment and may reduce the amount of return at maturity or upon repurchase, the level of the Index must increase by an amount equal to the percentage of the principal amount represented by the Investor Fee, minus the Coupon Payments, if any, in order for investors to receive an aggregate amount over the term of the ETNs equal to at least the principal amount of your investment. If the level of the Index decreases or does not increase sufficiently, investors will receive less, and possibly significantly less, than the principal amount of your investment at maturity or upon repurchase by RBC.

Please see the prospectus for the Notes for more details regarding the calculations and details regarding the Index.

It is expected that the market value of the Notes will depend substantially on the value of the Index and may be affected by a number of other interrelated factors including, among

other things: the general level of interest rates, the volatility of the Index, the time remaining to maturity, the dividend yield of the stocks comprising the Index, and the credit ratings of the Issuer.

Trading in the Notes on NASDAQ is on a UTP basis and is subject to NASDAQ equity trading rules. Trading in the Notes on BX is on a UTP basis and is subject to BX equity trading rules. Trading in the Notes on PHLX's PSX system is on a UTP basis and is subject to PHLX rules. The Notes will trade on NASDAQ from 7:00 a.m. until 8:00 p.m. Eastern Time. The Notes will trade on BX from 8:00 a.m. until 7:00 p.m. Eastern Time. The Notes will trade on PSX from 9:00 a.m. until 5:00 p.m. Eastern Time. For trading during each market's pre-market and post-market sessions, market participants should note that additional risks may exist with respect to trading the Notes during these sessions, when the underlying index's value or similar value may not be disseminated.

NASDAQ will halt trading in the Notes in accordance with NASDAQ Rule 4120. BX will halt trading in the Notes in accordance with BX Equity Rule 4120. PHLX will halt trading in the Notes in accordance with PHLX Rule 3100. The grounds for a halt under each of these rules include a halt by the primary market because the value of the underlying index or a similar value is not being disseminated as required, or a halt for other regulatory reasons. In addition, NASDAQ, BX and PHLX will also stop trading the Notes if the primary market delists the Notes.

Trading of the Notes on NASDAQ is subject to the provisions of NASDAQ Rule 2310. Trading of the Notes on BX is subject to the provisions of BX Rule 2310. Members recommending transactions in the Notes to customers should make a determination that the securities are suitable for the customer. In addition, members must possess sufficient information to satisfy the "know your customer" obligation that is embedded in the NASDAQ Conduct Rules and BX Conduct Rules.

Members and member organizations recommending transactions in the Notes to customers should make a determination that the recommendation is suitable for the customer, as provided by PHLX Rule 763.

Nasdaq members, BX members and PHLX members and member organizations should also review NASD Notice to Members 03-71 for guidance on trading these products. The Notice reminds members of their obligations to: (1) conduct adequate due diligence to understand the features of the product; (2) perform a reasonable-basis suitability analysis; (3) perform customer-specific suitability analysis in connection with any recommended transactions; (4) provide a balanced disclosure of both the risks and rewards associated with the particular product, especially when selling to retail investors; (5) implement appropriate internal controls; and (6) train registered persons regarding the features, risk and suitability of these products.

This Information Circular is not a statutory prospectus. NASDAQ members, BX members and PHLX members and member organizations should consult the registration statement or prospectus for the Notes for additional information.

Inquiries regarding this Information Circular should be directed to:

- Will Slattery, Listing Qualifications, at 301.978.8088
- NASDAQ / BX/ PSX Market Sales at 800.846.0477