Proposal to amend Section VIII of the Exchange Pricing Schedule, Nasdaq PSX Fees, to modify the fee schedule for PSX TotalView to reflect substantial enhancements to the product since the current fees were set in 2010.
The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change * **

The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO] -xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3).

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications **

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire **

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies **

The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text **

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment **

If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.
1. **Text of the Proposed Rule Change**

   (a) Nasdaq PHLX LLC (“Phlx” or “Exchange”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)\(^1\) and Rule 19b-4 thereunder,\(^2\) is filing with the Securities and Exchange Commission (“SEC” or “Commission”) a proposal to amend Section VIII of the Exchange’s Pricing Schedule, Nasdaq PSX Fees, to modify the fee schedule for PSX TotalView to reflect substantial enhancements to the product since the current fees were set in 2010. Specifically, the Exchange proposes to: (i) introduce a monthly non-display usage fee of $50 per Professional Subscriber for PSX TotalView based upon Direct Access; and (ii) increase the monthly enterprise license fee for non-display usage of PSX TotalView from $16,000 to $17,000. The proposal is described in further detail below.

   A notice of the proposed rule change for publication in the Federal Register is attached as Exhibit 1. The text of the proposed rule change is attached as Exhibit 5.

   (b) Not applicable.

   (c) Not applicable.

2. **Procedures of the Self-Regulatory Organization**

   The proposed rule change was approved by senior management of the Exchange pursuant to authority delegated by the Board of Directors (the “Board”) on September 19, 2017. Exchange staff will advise the Board of any action taken pursuant to delegated authority. No other action is necessary for the filing of the rule change.

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Questions and comments on the proposed rule change may be directed to:

Daniel A. Cantu
Associate General Counsel
Nasdaq, Inc.
(301) 978-8469

3. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

a. Purpose

The Exchange proposes to adjust the fee schedule for PSX TotalView to reflect substantial enhancements to the product since the current fees were set in 2010.³ Specifically, the Exchange proposes to: (i) introduce a monthly non-display usage⁴ fee of $50 per Professional Subscriber⁵ for PSX TotalView based upon Direct Access; and (ii) increase the monthly enterprise license fee for non-display usage of PSX TotalView from $16,000 to $17,000.

PSX TotalView

PSX TotalView, like Nasdaq and BX TotalView, is a real-time market data feed that provides access to every displayed quote and order at every price level in Nasdaq-

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⁴ “Non-display usage” refers to the usage of Exchange data by a computer for calculations and routing decisions that does not provide a means to display data on a screen. See Securities Exchange Act Release No. 62876 (September 9, 2010), 75 FR 56624 (September 16, 2010) (SR-Phlx-2010-120).

⁵ A “Subscriber” is a method of accessing data, defined as “any access that a distributor of the data entitlement package(s) provides to: (1) access the information in the data entitlement package(s); or (2) communicate with the distributor so as to cause the distributor to access the information in the data entitlement package(s).” See Phlx Pricing Schedule, Section VIII, PSX TotalView (d).
NYSE-, NYSE American-, NYSE Arca-, CBOE- and IEX-listed securities.\(^6\) PSX TotalView also provides anonymous interest and administrative messages relating to trading halts and symbol directory messages.\(^7\) PSX TotalView today is available for a monthly charge of $40 per Subscriber.\(^8\) A “Subscriber” is “any access that a distributor of the data entitlement package(s) provides to: (1) access the information in the data entitlement package(s); or (2) communicate with the distributor so as to cause the distributor to access the information in the data entitlement package(s).”\(^9\) The current monthly charge is based on the number of Subscribers, without regard to whether a Subscriber is used for non-display or display usage.

For firms that utilize PSX TotalView internally for non-display purposes, the product may also be purchased through an enterprise license fee of $16,000 per month for unlimited internal use of non-display data. This enterprise license, which provides an alternative to monthly per Subscriber fees, is designed to relieve firms with a large number of internal Subscribers from the administrative burden of identifying, tracking and reporting such Subscribers.

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\(^6\) In contrast with Nasdaq and BX TotalView, all displayed orders for PSX TotalView are displayed without attribution to the entering market participant.

\(^7\) Symbol directory messages include basic security data such as the market tier and financial status indicator.

\(^8\) The PSX fee of $40 applies to all securities; the BX Exchange charges separate fees of $20 for Nasdaq-listed securities and $20 for securities listed on NYSE and regional exchanges.

\(^9\) See Nasdaq PSX Fees, PSX TotalView Entitlement (d).
Proposed Changes

PSX TotalView is one of a number of market information services offered by the Exchange. Such services are inextricably connected to trade execution: market information services require trade orders to provide useful information, and investors use market information to make trading decisions. Over the seven years that have elapsed since the current fee schedule for non-display usage and enterprise licenses for PSX TotalView were introduced, the Exchange has invested in an array of upgrades to both its trade execution and market information services, which have increased the value of these services overall, and PSX TotalView in particular.

The Exchange proposes to adjust its fee schedule for PSX TotalView to reflect the value of the many investments improving the product, which include:

- **Glimpse Snapshot Facility.** In 2013, the Exchange substantially updated the Glimpse snapshot facility, which allows firms to obtain a snapshot of the Nasdaq order book at any point during the trading day. The service may be used to validate order book displays or to recover from data gaps during the trading day.

- **Enhanced Data Feed.** In 2014, the Exchange enhanced the PSX TotalView data feed by: (i) converting to binary codes to make more efficient use of bandwidth and to provide greater timestamp granularity; (ii) adding a symbol

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11 Many of these upgrades are common to several Nasdaq-affiliated exchanges, as improvements to the products and services of one exchange are reproduced in other exchanges.

directory message to identify a security and its key characteristics; (iii) adding a new IPO message for Nasdaq-listed securities for quotation release time and IPO price; and (iv) adding the Market Wide Circuit Breaker (“MWCB”) Decline Level message to inform recipients of the setting for MWCB breach points for the trading day, and an MWCB Status Level Message to inform data recipients when an MWCB has breached an established level.  

- **Geographic Diversity.** In 2015, all of the Nasdaq Exchanges moved their Disaster Recover (“DR”) center from Ashburn, Virginia, to Chicago Illinois. As a result, customers can both receive market data and send orders through the Chicago facility, potentially reducing overall networking costs. Adding such geographic diversity helps protect the market in the event of a catastrophic event impacting the entire East Coast.  

- **Chicago “B” Feeds.** In 2017, all of the Nasdaq exchanges added a multicast IP address for proprietary equity and options data feeds in Chicago, allowing firms the choice of having additional redundancy to ensure data continuity.  

- **Extended Transmission Hours.** In 2014, the Exchange began to transmit data between 3:00 and 4:00 a.m. Eastern, approximately three hours earlier than  

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previously,\textsuperscript{16} to provide customers with an opportunity to test connectivity before pre-market sessions open at 8:00 a.m. Eastern.\textsuperscript{17}

While these many changes were in the process of implementation, fees for PSX TotalView were falling in real terms as a result of price inflation. Indeed, the proposed increase in the enterprise license fee from $16,000 to $17,000 remains below the rate of inflation of that period.\textsuperscript{18} Moreover, the proposed non-display fee increase from $40 to $50 is largely offset by inflation, and only represents an approximately 3.24 percent annual increase over the course of seven years.

As a result of these substantial upgrades and the impact of overall price inflation, the Exchange proposes two substantive changes to the PSX TotalView fee schedule: (i) introduce a monthly non-display usage fee of $50 per Subscriber based upon Direct Access; and (ii) increase the monthly enterprise license fee for non-display usage from $16,000 to $17,000.\textsuperscript{19}

\textsuperscript{16} The extended schedule for data transmission did not extend pre-market trading hours.

\textsuperscript{17} See http://www.nasdaqtrader.com/TraderNews.aspx?id=dtn2014-08

\textsuperscript{18} The Consumer Price Index indicates price increases of approximately 13 percent between September 2010 and November 2017. See https://www.bls.gov/data/inflation_calculator.htm

\textsuperscript{19} In addition to these two substantive changes, the Exchange proposes four technical changes. First, the Exchange proposes to add the phrase “for display usage” to Paragraph (a)(1) to distinguish between display usage fees, which shall remain unchanged, and non-display usage fees, which will increase. Second, the Exchange proposes to change the reference to per Subscriber fees in new paragraph (a)(3) from (a)(1) to (a)(2) because non-display fees have been moved from paragraph (a)(1) to (a)(2). Third, the Exchange proposes to renumber former paragraph (a)(2) to (a)(3) to reflect the introduction of new paragraph (a)(2). Fourth, the Exchange proposes to delete the unnecessary word “in” from the phrase “as provided [in ]elsewhere in this rule . . . .” from paragraph (a)(1) as a grammatical correction.
The current fee structure allows firms to purchase PSX TotalView for display or non-display usage by professionals for a monthly charge of $40 per Subscriber. The Exchange proposes to separate this fee into two distinct fees: one for display usage by professionals and non-professionals and another for non-display usage based upon Direct Access. The fee for display usage for professionals will remain unchanged at $40 per month, as will the fee for non-display usage without Direct Access, while the new non-display usage fee based upon Direct Access will be set at $50 per month. With this change, the pricing structure for PSX TotalView will conform to the pricing structure for Nasdaq TotalView (which has differential fees for display and non-display usage), and the proposed pricing structure for BX TotalView (proposed in a separate filing for the BX Exchange), albeit at a lower rate than the two other exchanges. The PSX TotalView pricing structure will also be similar to the non-display fee structure for NYSE and other exchanges, as differential pricing for display and non-display usage has become the industry norm.

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20 Any Subscriber within a firm that obtains Exchange data through a Subscriber with Direct Access from that same firm has obtained such data “based upon Direct Access.”

21 “Direct Access” refers to the method for receiving Exchange data. A firm may have Direct Access to receive Exchange data through: (i) a telecommunications interface with the Exchange for receiving Exchange data, (ii) an Exchange data feed within the Exchange co-location facility, or (iii) via an extranet access provider. See Phlx Pricing Schedule, Section VIII, Market Data Distributor Fees (c).

22 See Nasdaq Rule 7023(b)(2).

The second proposed substantive change will increase the monthly enterprise license fee for internal non-display usage of PSX TotalView from $16,000 to $17,000.

PSX TotalView is optional in that the Exchange is not required to offer it and broker-dealers are not required to purchase it. Firms can discontinue use at any time and for any reason, including an assessment of the fees charged.

The proposed change does not change the cost of any other Exchange product.

b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act, in general, and furthers the objectives of Sections 6(b)(4) and 6(b)(5) of the Act, in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among members and issuers and other persons using any facility, and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Commission and the courts have repeatedly expressed their preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. In Regulation NMS, while adopting a series of steps to improve the current market model, the Commission highlighted the importance of market forces in determining prices and self-regulatory organization (“SRO”) revenues and, also, recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”


25  15 U.S.C. 78f(b)(4) and (5).

Likewise, in *NetCoalition v. Securities and Exchange Commission*\(^{27}\) ("NetCoalition") the D.C. Circuit upheld the Commission’s use of a market-based approach in evaluating the fairness of market data fees against a challenge claiming that Congress mandated a cost-based approach.\(^{28}\) As the court emphasized, the Commission "intended in Regulation NMS that ‘market forces, rather than regulatory requirements’ play a role in determining the market data . . . to be made available to investors and at what cost."\(^{29}\)

Further, “[n]o one disputes that competition for order flow is ‘fierce.’ … As the SEC explained, ‘[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution’; [and] ‘no exchange can afford to take its market share percentages for granted’ because ‘no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers’……”\(^{30}\)

The Exchange believes that the proposed fee changes are equitable allocations of reasonable dues, fees and other charges in accordance with Section 6(b)(4) of the Act, and not designed to permit unfair discrimination between customers, issuers, brokers, or dealers in accordance with Section 6(b)(5) of the Act. Both the monthly non-display per Subscriber usage fee and the monthly enterprise license fee for non-display usage are equitable allocations because, as has been widely recognized, display and non-display

\(^{27}\) *NetCoalition v. SEC*, 615 F.3d 525 (D.C. Cir. 2010).

\(^{28}\) See *NetCoalition*, at 534 - 535.

\(^{29}\) Id. at 537.

\(^{30}\) Id. at 539 (quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74782-83 (December 9, 2008) (SR-NYSEArca-2006-21)).
functions provide different value to the consumer because of differences in speed and efficiency between the two modes of distribution, and it has become standard industry practice to charge differing fees for these two different modes of data consumption. Non-Display Usage provides greater value to the customer because the computer systems utilizing Non-Display data are able to analyze trading information thousands of times faster than their human counterparts, hundreds of different securities can be analyzed simultaneously, trading strategies can be executed much more quickly, error rates are lower, and each hour of the trading day can be used more efficiently. In addition, discounts based on high levels of usage such as the enterprise license for non-display usage have routinely been adopted by exchanges and approved as equitable allocations of reasonable dues, fees and other charges.\textsuperscript{31} As such, the proposed fees vary solely based on reasonable and well-established industry norms regarding types of data usage, as discussed above.

The proposed changes do not permit unfair discrimination between customers, issuers, brokers, or dealers because the Exchange makes all services and products subject to these fees available on a non-discriminatory basis to similarly-situated recipients. The proposed fees are structured in a manner comparable to the corresponding fees of Nasdaq already in effect, and compare favorably to fees charged by Nasdaq and BX for the same product. The fees are uniform except with respect to reasonable and well-established distinctions between display and non-display data discussed above.

The Act does not prohibit all distinctions among customers, but rather discrimination that is unfair. As the Commission has recognized, “[i]f competitive forces

\textsuperscript{31} For example, the Commission has approved pricing discounts for market data under Nasdaq Rule 7023.
are operative, the self-interest of the exchanges themselves will work powerfully to constrain unreasonable or unfair behavior.” 32 Accordingly, “the existence of significant competition provides a substantial basis for finding that the terms of an exchange’s fee proposal are equitable, fair, reasonable, and not unreasonably or unfairly discriminatory.”33 The proposed fees, like all market data fees, are constrained by the Exchange’s need to compete for order flow, and are subject to competition from other exchanges and among broker-dealers for customers. If the Exchange is incorrect in its assessment of price, it may lose market share as a result.

4. **Self-Regulatory Organization’s Statement on Burden on Competition**

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. In terms of inter-market competition, the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive, or rebate opportunities available at other venues to be more favorable. In such an environment, the Exchange must continually adjust its fees to remain competitive with other exchanges and with alternative trading systems that have been exempted from compliance with the statutory standards applicable to exchanges. Because competitors are free to modify their own fees in response, and because market participants may readily adjust their order routing practices, the Exchange believes that the degree to which fee changes in this market may impose any burden on competition is extremely limited.

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33 Id.
PSX TotalView is a type of depth-of-book product, which consists of “outstanding limit orders to buy stock at prices lower than, or to sell stocks at prices higher than, the best prices on each exchange.” The question of whether the prices of depth-of-book products are constrained by competitive forces was examined in 2016 by an Administrative Law Judge in an application for review by the Securities Industry and Financial Markets Association of actions taken by Self-Regulatory Organizations.

After a four-day hearing and presentation of substantial evidence, the administrative law judge stated that “competition plays a significant role in restraining exchange pricing of depth-of-book products” because “depth-of-book products from different exchanges function as substitutes for each other,” and, as such, “the threat of substitution from depth-of-book customers constrains their depth-of-book prices.” As a result, “[s]hifts in order flow and threats of shifting order flow provide a significant competitive force in the pricing of . . . depth-of-book data.” The judge concluded that “[u]nder the standards articulated by the Commission and D.C. Circuit, the Exchanges have shown that they are subject to significant competitive forces in setting fees for depth-of-book data: the


35 Id.

36 Id. at *92.

37 Id.

38 Id. at *93

39 Id. at *104.
availability of alternatives to the Exchanges’ depth-of-book products, and the Exchanges’ need to attract order flow from market participants constrains prices.”

The proposed changes will: (i) introduce a monthly non-display usage fee of $50 per Professional Subscriber based upon Direct Access; and (ii) increase the monthly enterprise license fee for non-display usage from $16,000 to $17,000. These proposed price changes will not impose any burden on competition because market data fees are but one aspect of the overall competition among exchanges to solicit order flow; if the overall price of interacting with the Exchange rises above competitive levels because of market data fees, market forces would cause the Exchange to lose market share.

Market forces constrain fees for PSX TotalView, as well as other market data fees, in the competition among exchanges and other entities to attract order flow and in the competition among Distributors for customers. Order flow is the “life blood” of the exchanges. Broker-dealers currently have numerous alternative venues for their order flow, including SRO markets, as well as internalizing broker-dealers (“BDs”) and various forms of alternative trading systems (“ATSs”), including dark pools and electronic communication networks (“ECNs”). Each SRO market competes to produce transaction reports via trade executions, and two FINRA-regulated Trade Reporting Facilities (“TRFs”) compete to attract internalized transaction reports. The existence of fierce competition for order flow implies a high degree of price sensitivity on the part of BDs, which may readily reduce costs by directing orders toward the lowest-cost trading venues.

40 Id. at *86.
The level of competition and contestability in the market for order flow is demonstrated by the numerous examples of entrants that swiftly grew into some of the largest electronic trading platforms and proprietary data producers: Archipelago, Bloomberg Tradebook, Island, RediBook, Attain, TracECN, BATS Trading and BATS/Direct Edge. A proliferation of dark pools and other ATSs operate profitably with fragmentary shares of consolidated market volume. For a variety of reasons, competition from new entrants, especially for order execution, has increased dramatically over the last decade.

Each SRO, TRF, ATS, and BD that competes for order flow is permitted to produce proprietary data products. Many currently do or have announced plans to do so, including NYSE, NYSE Amex, NYSE Arca, BATS, and IEX. This is because Regulation NMS deregulated the market for proprietary data. While BDs had previously published their proprietary data individually, Regulation NMS encourages market data vendors and BDs to produce proprietary products cooperatively in a manner never before possible. Order routers and market data vendors can facilitate production of proprietary data products for single or multiple BDs. The potential sources of proprietary products are virtually limitless.

The markets for order flow and proprietary data are inextricably linked: a trading platform cannot generate market information unless it receives trade orders. As a result, the competition for order flow constrains the prices that platforms can charge for proprietary data products. Firms make decisions on how much and what types of data to consume based on the total cost of interacting with PSX and other exchanges. Data fees are but one factor in a total platform analysis. If the cost of the product exceeds its
expected value, the broker-dealer will choose not to buy it. A supracompetitive increase
in the fees charged for either transactions or proprietary data has the potential to impair
revenues from both products. In this manner, the competition for order flow will
constrain prices for proprietary data products.

Competition among Distributors provides another form of price discipline for
proprietary data products. If the price of PSX TotalView were set above competitive
levels, Distributors purchasing PSX TotalView would be at a disadvantage relative to
their competitors, and would therefore either curtail their purchase or forego the product
altogether.

Market forces constrain the price of depth-of-book data such as PSX TotalView
through the competition for order flow and in the competition among vendors for
customers. If the changes proposed herein are unattractive to market participants, it is
likely that the Exchange will lose market share as a result. Accordingly, the Exchange
does not believe that the proposed changes will impair the ability of members or
competing order execution venues to maintain their competitive standing in the financial
markets.

5. **Self-Regulatory Organization’s Statement on Comments on the Proposed Rule
   Change Received from Members, Participants, or Others**

   No written comments were either solicited or received.

6. **Extension of Time Period for Commission Action**

   Not applicable.
7. **Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)**

Pursuant to Section 19(b)(3)(A)(ii) of the Act, the Exchange has designated this proposal as establishing or changing a due, fee, or other charge imposed by the self-regulatory organization on any person, whether or not the person is a member of the self-regulatory organization, which renders the proposed rule change effective upon filing.

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

8. **Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission**

Not applicable.

9. **Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act**

Not applicable.

10. **Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act**

Not applicable.

11. **Exhibits**


5. Text of the proposed rule change.

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Self-Regulatory Organizations; Nasdaq PHLX LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to amend Section VIII of the Exchange’s Pricing Schedule, Nasdaq PSX Fees, to Modify the Fee Schedule for PSX TotalView to Reflect Substantial Enhancements to the Product Since the Current Fees Were Set in 2010

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹, and Rule 19b-4 thereunder,² notice is hereby given that on January 3, 2018, Nasdaq PHLX LLC (“Phlx” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”) the proposed rule change as described in Items I, II, and III, below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend Section VIII of the Exchange’s Pricing Schedule, Nasdaq PSX Fees, to modify the fee schedule for PSX TotalView to reflect substantial enhancements to the product since the current fees were set in 2010. Specifically, the Exchange proposes to: (i) introduce a monthly non-display usage fee of $50 per Professional Subscriber for PSX TotalView based upon Direct Access; and (ii) increase the monthly enterprise license fee for non-display usage of PSX TotalView from $16,000 to $17,000. The proposal is described in further detail below.


II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to adjust the fee schedule for PSX TotalView to reflect substantial enhancements to the product since the current fees were set in 2010.3

Specifically, the Exchange proposes to: (i) introduce a monthly non-display usage4 fee of $50 per Professional Subscriber5 for PSX TotalView based upon Direct Access; and (ii)

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4 “Non-display usage” refers to the usage of Exchange data by a computer for calculations and routing decisions that does not provide a means to display data on a screen. See Securities Exchange Act Release No. 62876 (September 9, 2010), 75 FR 56624 (September 16, 2010) (SR-Phlx-2010-120).

5 A “Subscriber” is a method of accessing data, defined as “any access that a distributor of the data entitlement package(s) provides to: (1) access the information in the data entitlement package(s); or (2) communicate with the distributor so as to cause the distributor to access the information in the data entitlement package(s).” See Phlx Pricing Schedule, Section VIII, PSX TotalView (d).
increase the monthly enterprise license fee for non-display usage of PSX TotalView from $16,000 to $17,000.

**PSX TotalView**

PSX TotalView, like Nasdaq and BX TotalView, is a real-time market data feed that provides access to every displayed quote and order at every price level in Nasdaq-, NYSE-, NYSE American-, NYSE Arca-, CBOE- and IEX-listed securities.\(^6\) PSX TotalView also provides anonymous interest and administrative messages relating to trading halts and symbol directory messages.\(^7\) PSX TotalView today is available for a monthly charge of $40 per Subscriber.\(^8\) A “Subscriber” is “any access that a distributor of the data entitlement package(s) provides to: (1) access the information in the data entitlement package(s); or (2) communicate with the distributor so as to cause the distributor to access the information in the data entitlement package(s).”\(^9\) The current monthly charge is based on the number of Subscribers, without regard to whether a Subscriber is used for non-display or display usage.

For firms that utilize PSX TotalView internally for non-display purposes, the product may also be purchased through an enterprise license fee of $16,000 per month for unlimited internal use of non-display data. This enterprise license, which provides an

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\(^6\) In contrast with Nasdaq and BX TotalView, all displayed orders for PSX TotalView are displayed without attribution to the entering market participant.

\(^7\) Symbol directory messages include basic security data such as the market tier and financial status indicator.

\(^8\) The PSX fee of $40 applies to all securities; the BX Exchange charges separate fees of $20 for Nasdaq-listed securities and $20 for securities listed on NYSE and regional exchanges.

\(^9\) See Nasdaq PSX Fees, PSX TotalView Entitlement (d).
alternative to monthly per Subscriber fees, is designed to relieve firms with a large number of internal Subscribers from the administrative burden of identifying, tracking and reporting such Subscribers.

Proposed Changes

PSX TotalView is one of a number of market information services offered by the Exchange. Such services are inextricably connected to trade execution: market information services require trade orders to provide useful information, and investors use market information to make trading decisions. Over the seven years that have elapsed since the current fee schedule for non-display usage and enterprise licenses for PSX TotalView were introduced, the Exchange has invested in an array of upgrades to both its trade execution and market information services, which have increased the value of these services overall, and PSX TotalView in particular.

The Exchange proposes to adjust its fee schedule for PSX TotalView to reflect the value of the many investments improving the product, which include:

- **Glimpse Snapshot Facility.** In 2013, the Exchange substantially updated the Glimpse snapshot facility, which allows firms to obtain a snapshot of the Nasdaq order book at any point during the trading day. The service may be used to validate order book displays or to recover from data gaps during the trading day.

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11 Many of these upgrades are common to several Nasdaq-affiliated exchanges, as improvements to the products and services of one exchange are reproduced in other exchanges.

• Enhanced Data Feed. In 2014, the Exchange enhanced the PSX TotalView data feed by: (i) converting to binary codes to make more efficient use of bandwidth and to provide greater timestamp granularity; (ii) adding a symbol directory message to identify a security and its key characteristics; (iii) adding a new IPO message for Nasdaq-listed securities for quotation release time and IPO price; and (iv) adding the Market Wide Circuit Breaker (“MWCB”) Decline Level message to inform recipients of the setting for MWCB breach points for the trading day, and an MWCB Status Level Message to inform data recipients when an MWCB has breached an established level.  

• Geographic Diversity. In 2015, all of the Nasdaq Exchanges moved their Disaster Recover (“DR”) center from Ashburn, Virginia, to Chicago Illinois. As a result, customers can both receive market data and send orders through the Chicago facility, potentially reducing overall networking costs. Adding such geographic diversity helps protect the market in the event of a catastrophic event impacting the entire East Coast.  

• Chicago “B” Feeds. In 2017, all of the Nasdaq exchanges added a multicast IP address for proprietary equity and options data feeds in Chicago, allowing firms the choice of having additional redundancy to ensure data continuity.  

• Extended Transmission Hours. In 2014, the Exchange began to transmit data between 3:00 and 4:00 a.m. Eastern, approximately three hours earlier than  

previously,\textsuperscript{16} to provide customers with an opportunity to test connectivity before pre-market sessions open at 8:00 a.m. Eastern.\textsuperscript{17}

While these many changes were in the process of implementation, fees for PSX TotalView were falling in real terms as a result of price inflation. Indeed, the proposed increase in the enterprise license fee from $16,000 to $17,000 remains below the rate of inflation of that period.\textsuperscript{18} Moreover, the proposed non-display fee increase from $40 to $50 is largely offset by inflation, and only represents an approximately 3.24 percent annual increase over the course of seven years.

As a result of these substantial upgrades and the impact of overall price inflation, the Exchange proposes two substantive changes to the PSX TotalView fee schedule: (i) introduce a monthly non-display usage fee of $50 per Subscriber based upon Direct Access; and (ii) increase the monthly enterprise license fee for non-display usage from $16,000 to $17,000.\textsuperscript{19}

\textsuperscript{16} The extended schedule for data transmission did not extend pre-market trading hours.

\textsuperscript{17} See http://www.nasdaqtrader.com/TraderNews.aspx?id=dtn2014-08

\textsuperscript{18} The Consumer Price Index indicates price increases of approximately 13 percent between September 2010 and November 2017. See https://www.bls.gov/data/inflation_calculator.htm

\textsuperscript{19} In addition to these two substantive changes, the Exchange proposes four technical changes. First, the Exchange proposes to add the phrase “for display usage” to Paragraph (a)(1) to distinguish between display usage fees, which shall remain unchanged, and non-display usage fees, which will increase. Second, the Exchange proposes to change the reference to per Subscriber fees in new paragraph (a)(3) from (a)(1) to (a)(2) because non-display fees have been moved from paragraph (a)(1) to (a)(2). Third, the Exchange proposes to renumber former paragraph (a)(2) to (a)(3) to reflect the introduction of new paragraph (a)(2). Fourth, the Exchange proposes to delete the unnecessary word “in” from the phrase “as provided [in ]elsewhere in this rule . . . .” from paragraph (a)(1) as a grammatical correction.
The current fee structure allows firms to purchase PSX TotalView for display or non-display usage by professionals for a monthly charge of $40 per Subscriber. The Exchange proposes to separate this fee into two distinct fees: one for display usage by professionals and non-professionals and another for non-display usage based upon Direct Access.\textsuperscript{20} The fee for display usage for professionals will remain unchanged at $40 per month, as will the fee for non-display usage without Direct Access, while the new non-display usage fee based upon Direct Access will be set at $50 per month.\textsuperscript{21} With this change, the pricing structure for PSX TotalView will conform to the pricing structure for Nasdaq TotalView (which has differential fees for display and non-display usage),\textsuperscript{22} and the proposed pricing structure for BX TotalView (proposed in a separate filing for the BX Exchange), albeit at a lower rate than the two other exchanges. The PSX TotalView pricing structure will also be similar to the non-display fee structure for NYSE and other exchanges, as differential pricing for display and non-display usage has become the industry norm.\textsuperscript{23}

\textsuperscript{20} Any Subscriber within a firm that obtains Exchange data through a Subscriber with Direct Access from that same firm has obtained such data “based upon Direct Access.”

\textsuperscript{21} “Direct Access” refers to the method for receiving Exchange data. A firm may have Direct Access to receive Exchange data through: (i) a telecommunications interface with the Exchange for receiving Exchange data, (ii) an Exchange data feed within the Exchange co-location facility, or (iii) via an extranet access provider. See Phlx Pricing Schedule, Section VIII, Market Data Distributor Fees (c).

\textsuperscript{22} See Nasdaq Rule 7023(b)(2).

The second proposed substantive change will increase the monthly enterprise license fee for internal non-display usage of PSX TotalView from $16,000 to $17,000.

PSX TotalView is optional in that the Exchange is not required to offer it and broker-dealers are not required to purchase it. Firms can discontinue use at any time and for any reason, including an assessment of the fees charged.

The proposed change does not change the cost of any other Exchange product.

2. **Statutory Basis**

The Exchange believes that its proposal is consistent with Section 6(b) of the Act, in general, and furthers the objectives of Sections 6(b)(4) and 6(b)(5) of the Act, in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among members and issuers and other persons using any facility, and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Commission and the courts have repeatedly expressed their preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. In Regulation NMS, while adopting a series of steps to improve the current market model, the Commission highlighted the importance of market forces in determining prices and self-regulatory organization (“SRO”) revenues and, also, recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”

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25 15 U.S.C. 78f(b)(4) and (5).

Likewise, in NetCoalition v. Securities and Exchange Commission27 ("NetCoalition") the D.C. Circuit upheld the Commission’s use of a market-based approach in evaluating the fairness of market data fees against a challenge claiming that Congress mandated a cost-based approach.28 As the court emphasized, the Commission “intended in Regulation NMS that ‘market forces, rather than regulatory requirements’ play a role in determining the market data . . . to be made available to investors and at what cost.”29

Further, “[n]o one disputes that competition for order flow is ‘fierce.’ … As the SEC explained, ‘[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution’; [and] ‘no exchange can afford to take its market share percentages for granted’ because ‘no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers’….”30

The Exchange believes that the proposed fee changes are equitable allocations of reasonable dues, fees and other charges in accordance with Section 6(b)(4) of the Act, and not designed to permit unfair discrimination between customers, issuers, brokers, or dealers in accordance with Section 6(b)(5) of the Act. Both the monthly non-display per Subscriber usage fee and the monthly enterprise license fee for non-display usage are equitable allocations because, as has been widely recognized, display and non-display

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27 NetCoalition v. SEC, 615 F.3d 525 (D.C. Cir. 2010).
28 See NetCoalition, at 534 - 535.
29 Id. at 537.
functions provide different value to the consumer because of differences in speed and efficiency between the two modes of distribution, and it has become standard industry practice to charge differing fees for these two different modes of data consumption. Non-Display Usage provides greater value to the customer because the computer systems utilizing Non-Display data are able to analyze trading information thousands of times faster than their human counterparts, hundreds of different securities can be analyzed simultaneously, trading strategies can be executed much more quickly, error rates are lower, and each hour of the trading day can be used more efficiently. In addition, discounts based on high levels of usage such as the enterprise license for non-display usage have routinely been adopted by exchanges and approved as equitable allocations of reasonable dues, fees and other charges. As such, the proposed fees vary solely based on reasonable and well-established industry norms regarding types of data usage, as discussed above.

The proposed changes do not permit unfair discrimination between customers, issuers, brokers, or dealers because the Exchange makes all services and products subject to these fees available on a non-discriminatory basis to similarly-situated recipients. The proposed fees are structured in a manner comparable to the corresponding fees of Nasdaq already in effect, and compare favorably to fees charged by Nasdaq and BX for the same product. The fees are uniform except with respect to reasonable and well-established distinctions between display and non-display data discussed above.

The Act does not prohibit all distinctions among customers, but rather

discrimination that is unfair. As the Commission has recognized, “[i]f competitive forces

31 For example, the Commission has approved pricing discounts for market data under Nasdaq Rule 7023.
are operative, the self-interest of the exchanges themselves will work powerfully to constrain unreasonable or unfair behavior.”32 Accordingly, “the existence of significant competition provides a substantial basis for finding that the terms of an exchange’s fee proposal are equitable, fair, reasonable, and not unreasonably or unfairly discriminatory.”33 The proposed fees, like all market data fees, are constrained by the Exchange’s need to compete for order flow, and are subject to competition from other exchanges and among broker-dealers for customers. If the Exchange is incorrect in its assessment of price, it may lose market share as a result.

B. Self-Regulatory Organization’s Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. In terms of inter-market competition, the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive, or rebate opportunities available at other venues to be more favorable. In such an environment, the Exchange must continually adjust its fees to remain competitive with other exchanges and with alternative trading systems that have been exempted from compliance with the statutory standards applicable to exchanges. Because competitors are free to modify their own fees in response, and because market participants may readily adjust their order routing practices, the Exchange believes that the degree to which fee changes in this market may impose any burden on competition is extremely limited.

33 Id.
PSX TotalView is a type of depth-of-book product, which consists of “outstanding limit orders to buy stock at prices lower than, or to sell stocks at prices higher than, the best prices on each exchange.” The question of whether the prices of depth-of-book products are constrained by competitive forces was examined in 2016 by an Administrative Law Judge in an application for review by the Securities Industry and Financial Markets Association of actions taken by Self-Regulatory Organizations. After a four-day hearing and presentation of substantial evidence, the administrative law judge stated that “competition plays a significant role in restraining exchange pricing of depth-of-book products” because “depth-of-book products from different exchanges function as substitutes for each other,” and, as such, “the threat of substitution from depth-of-book customers constrains their depth-of-book prices.” As a result, “[s]hifts in order flow and threats of shifting order flow provide a significant competitive force in the pricing of . . . depth-of-book data.” The judge concluded that “[u]nder the standards articulated by the Commission and D.C. Circuit, the Exchanges have shown that they are subject to significant competitive forces in setting fees for depth-of-book data: the


35 Id.

36 Id. at *92.

37 Id.

38 Id. at *93

39 Id. at *104.
availability of alternatives to the Exchanges’ depth-of-book products, and the Exchanges’ need to attract order flow from market participants constrains prices."

The proposed changes will: (i) introduce a monthly non-display usage fee of $50 per Professional Subscriber based upon Direct Access; and (ii) increase the monthly enterprise license fee for non-display usage from $16,000 to $17,000. These proposed price changes will not impose any burden on competition because market data fees are but one aspect of the overall competition among exchanges to solicit order flow; if the overall price of interacting with the Exchange rises above competitive levels because of market data fees, market forces would cause the Exchange to lose market share.

Market forces constrain fees for PSX TotalView, as well as other market data fees, in the competition among exchanges and other entities to attract order flow and in the competition among Distributors for customers. Order flow is the “life blood” of the exchanges. Broker-dealers currently have numerous alternative venues for their order flow, including SRO markets, as well as internalizing broker-dealers (“BDs”) and various forms of alternative trading systems (“ATSs”), including dark pools and electronic communication networks (“ECNs”). Each SRO market competes to produce transaction reports via trade executions, and two FINRA-regulated Trade Reporting Facilities (“TRFs”) compete to attract internalized transaction reports. The existence of fierce competition for order flow implies a high degree of price sensitivity on the part of BDs, which may readily reduce costs by directing orders toward the lowest-cost trading venues.

40 Id. at *86.
The level of competition and contestability in the market for order flow is demonstrated by the numerous examples of entrants that swiftly grew into some of the largest electronic trading platforms and proprietary data producers: Archipelago, Bloomberg Tradebook, Island, RediBook, Attain, TracECN, BATS Trading and BATS/Direct Edge. A proliferation of dark pools and other ATSs operate profitably with fragmentary shares of consolidated market volume. For a variety of reasons, competition from new entrants, especially for order execution, has increased dramatically over the last decade.

Each SRO, TRF, ATS, and BD that competes for order flow is permitted to produce proprietary data products. Many currently do or have announced plans to do so, including NYSE, NYSE Amex, NYSE Arca, BATS, and IEX. This is because Regulation NMS deregulated the market for proprietary data. While BDs had previously published their proprietary data individually, Regulation NMS encourages market data vendors and BDs to produce proprietary products cooperatively in a manner never before possible. Order routers and market data vendors can facilitate production of proprietary data products for single or multiple BDs. The potential sources of proprietary products are virtually limitless.

The markets for order flow and proprietary data are inextricably linked: a trading platform cannot generate market information unless it receives trade orders. As a result, the competition for order flow constrains the prices that platforms can charge for proprietary data products. Firms make decisions on how much and what types of data to consume based on the total cost of interacting with PSX and other exchanges. Data fees are but one factor in a total platform analysis. If the cost of the product exceeds its
expected value, the broker-dealer will choose not to buy it. A supracompetitive increase in the fees charged for either transactions or proprietary data has the potential to impair revenues from both products. In this manner, the competition for order flow will constrain prices for proprietary data products.

Competition among Distributors provides another form of price discipline for proprietary data products. If the price of PSX TotalView were set above competitive levels, Distributors purchasing PSX TotalView would be at a disadvantage relative to their competitors, and would therefore either curtail their purchase or forego the product altogether.

Market forces constrain the price of depth-of-book data such as PSX TotalView through the competition for order flow and in the competition among vendors for customers. If the changes proposed herein are unattractive to market participants, it is likely that the Exchange will lose market share as a result. Accordingly, the Exchange does not believe that the proposed changes will impair the ability of members or competing order execution venues to maintain their competitive standing in the financial markets.

C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act.41

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission’s Internet comment form (http://www.sec.gov/rules/sro.shtml); or

- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-Phlx-2018-04 on the subject line.

Paper comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-Phlx-2018-04. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s Internet Web site (http://www.sec.gov/rules/sro.shtml).
Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission’s Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-Phlx-2018-04 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority. 42

Eduardo A. Aleman
Assistant Secretary

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Deleted text is [bracketed]. New text is underlined.

Nasdaq PHLX Rules

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Nasdaq PHLX LLC Pricing Schedule

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VIII. Nasdaq PSX FEES

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PSX TotalView

(a) PSX TotalView Entitlement

The PSX TotalView entitlement allows a subscriber to see all individual Nasdaq PSX participant orders displayed in Nasdaq PSX, the aggregate size of such orders at each price level, and the trade data for executions that occur within Nasdaq PSX.

(1) Except as provided [in ]elsewhere in this rule, for the PSX TotalView entitlement there will be a $40 monthly charge for each Subscriber for display usage or non-display usage not based upon Direct Access.

(2) Distributors shall pay a monthly fee of $50 for each Professional Subscriber for non-display usage of PSX TotalView based upon Direct Access.

(3)[(2)] As an alternative to (a)(2)[1]), a market participant may purchase an enterprise license at a rate of $17,000[16,000] per month for internal use of non-display data, whether or not based upon Direct Access. The enterprise license entitles a distributor to provide PSX TotalView to an unlimited number of non-display devices within its firm.

(b) – (d) No change.

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