



<b>A #:</b>	7429
<b>P&amp;S #:</b>	6999
<b>Date:</b>	May 24, 2012
<b>To:</b>	All Participants
<b>Attention:</b>	Managing Partner/Officer; Operations Partner/Officer; Manager P&S Department; Manager Data Processing Department
<b>From:</b>	Product Management
<b>Subject:</b>	Rewrite of the Exchange Traded Fund System

Subject to SEC approval, NSCC is enhancing its Exchange Traded Fund (ETF) system in order to meet the needs of the changing marketplace and to accommodate future growth. These enhancements will be available in early Q1 2013. This notice provides members with early notification of the changes NSCC plans to implement. The key enhancements are briefly described below and detailed on the following pages:

- A. Enhanced Portfolio Composition File (PCF) Submission Process
  - Single PCF submission format
  - Flexible Trade Date (T)-1 and supplemental submission processes
- B. Enriched PCF Reporting
  - Additional asset class components and PCF details
- C. Streamlined PCF Distribution
  - Single consolidated PCF report output
  - Subscription based reporting
  - Alert for new and supplemental portfolios
  - Web Interface for PCF reporting and download
- D. Enhanced Create and Redeem Process
  - Support hybrid portfolios (both NSCC and non-NSCC eligible components)
  - Allow portfolios to be customized on the create and redeem instructions file
  - Report ETF Agent's Settlement Instructions (SI) on non-DTC settling components
  - Report create and redeem data on Universal Trade Capture (UTC) output
- E. Self-service Web Interface for ETF Agent and Authorized Participant (AP) relationship

NSCC is not mandating conversion to the enhanced ETF functionality and will continue to support the legacy formats after implementation. Participants will be able to migrate to the new ETF application according to their own schedule. With prior notice, NSCC will retire the legacy formats after a majority of the participants have converted to the enhanced formats.

DTCC offers enhanced access to all important notices via a Web-based subscription service. The notification system leverages RSS Newsfeeds, providing significant benefits including real-time updates and customizable delivery. To learn more and to set up your own DTCC RSS alerts, visit [http://www.dtcc.com/subscription\\_form.php](http://www.dtcc.com/subscription_form.php).

Non-Confidential

The enhanced formats are available on the [DTCC website](#).

## **ETF Rewrite Features**

### **A. Enhanced PCF Submission Process**

NSCC will introduce a new consolidated PCF submission format, and enhance the T-1 and supplemental (T) PCF submission processes.

<b>A. Enhanced PCF Submission Process</b>		
<b>Consolidated PCF Submission Format</b>	Submission Format	<p><b>New:</b> NSCC will provide a single standard PCF submission format for all portfolio types.  <i>Please visit the <a href="#">DTCC website</a> to view the <b>Enhanced Consolidated Portfolio Composition Input MRO (DATATRAK # 11301)</b></i></p>
		<p><b>Legacy:</b> The current process requires separate submissions for domestic and foreign portfolios.</p>
<b>Enhanced T-1 PCF Submission Process</b>	File Submissions	<p><b>New:</b> NSCC will accept multiple T-1 PCF submissions via any of the following three formats:</p> <ul style="list-style-type: none"> <li>Enhanced Consolidated Portfolio Composition Input MRO (DATATRAK # 11301)</li> <li>Legacy Domestic Portfolio Composition Input MRO (DATATRAK # 11297)</li> <li>Legacy Foreign Portfolio Composition Input MRO (DATATRAK # 26364)</li> </ul> <p>If a portfolio is submitted multiple times, the last accepted version will be treated as the master record. The previously submitted portfolios will be retained by NSCC for audit purposes but will not be displayed or reported to participants.</p>
		<p><b>Legacy:</b> The current process does not accept multiple PCF submissions.</p>
	Data Validation and Reject Reporting	<p><b>New:</b> NSCC will edit each submission in real time, and send the Enhanced Consolidated Portfolio Composition Receipt Reject Report to the ETF Agent in the existing print format and/or in the new Machine Readable Output (MRO).</p> <p>Real time edit output will allow the ETF Agent to amend portfolios for warned or rejected data prior to the close of PCF submissions, and prior to sending the final transmission notification (<a href="#">see next</a>) to NSCC.</p> <p><i>Please visit the <a href="#">DTCC website</a> to view the <b>Enhanced Consolidated Portfolio Composition Receipt Reject MRO (AutoRoute # 02261255)</b></i></p>
		<p><b>Legacy:</b> The current process performs a single batch edit and sends the existing Portfolio Composition Receipt Reject Report to the ETF Agent in print format.</p>

<b>A. Enhanced PCF Submission Process</b>		
<b>Enhanced T-1 PCF Submission Process</b> (continued)	Final Submission Indicator	<b>New:</b> NSCC will add a trailer record to the new input layout to identify the final portfolio submission for the day. The ETF Agent can include the final transmission notification in their final PCF submission or send it as a separate transmission. The record will also include balancing information. The number of records reported by the ETF Agent will be balanced against the number of records processed by NSCC.
		<b>Legacy:</b> The current layout does not include final PCF submission indicator or balancing information.
<b>Enhanced Supplemental (or T) PCF Submission Process</b>	Supplemental File Submissions	<b>New:</b> NSCC will allow multiple supplemental PCF submissions for all portfolios except for foreign portfolios submitted in legacy format.
		<b>Legacy:</b> The current process does not allow multiple supplemental PCF submissions and limits submission to new or rejected domestic portfolios. Supplemental foreign portfolios cannot be submitted.
	Data Validation and Reject Reporting	<b>New:</b> Similar to the T-1 process, NSCC will edit each submission in real time and send the Enhanced Consolidated Portfolio Composition Receipt Reject Report to the ETF Agent in print and/or MRO.
		<b>Legacy:</b> The current process performs a single batch edit and sends the existing Portfolio Composition Receipt Reject Report to the ETF Agent in print format.
	Portfolio View	<b>New:</b> Accepted supplemental portfolios will immediately be made available for viewing within the new Portfolio Web Interface. If a portfolio is submitted multiple times, the last accepted version will be treated as the master record and will be reported on the supplemental PCF output report.
		<b>Legacy:</b> The current process does not provide PCF web reporting. Supplemental portfolios can only be accessed through the supplemental PCF output report.
Processing Times	<b>New:</b> The supplemental process will be available from 10:00 pm to 1:00 am on T-1 and from 8:00 am until noon on T.	
	<b>Legacy:</b> The current supplemental process is available on T only.	
<b>Additional Note (impacts all ETF Agents)</b>	An ETF Agent may choose to convert to the new PCF submission layout piecemeal. Portfolios sent in the legacy format will be edited using legacy rules and portfolios sent in the consolidated format will be edited using new rules. The Enhanced Consolidated Portfolio Composition Receipt Reject Report will be generated for all portfolio submissions.	

**B. Streamlined PCF Distribution**

NSCC will introduce a new PCF output that will be distributed in a single format and be subscription based. In addition, a new PCF web interface will provide portfolio view and download on a subscription basis. Email alerts will be used to inform participants of new and supplemental portfolios. Please note that PCF print reports will no longer be distributed to participants effective Q1 2013, but will be available on SMART/Search.

Streamlined PCF Distribution		
<b>Streamlined PCF Distribution</b>	Distribution Format	<p><b>New:</b> NSCC will generate a single consolidated PCF MRO for all portfolios.  <i>Please visit the <a href="#">DTCC website</a> to view the Enhanced Consolidated Portfolio Composition Output MRO (AutoRoute # 02261256).</i></p>
		<p><b>Legacy:</b> The current process has separate outputs for foreign and domestic portfolios.</p>
	Distribution Criteria	<p><b>New:</b> The consolidated PCF output will be distributed to all participants that have converted and those that request access to the web interface.</p>
		<p><b>Legacy:</b> Legacy output distribution will continue.</p>
	Subscription Based Reporting	<p><b>New:</b> The consolidated PCF output will contain each participant’s subscribed portfolios only. The same will apply to supplemental PCF distribution. Participants can subscribe to portfolios via Portfolio Web Interface.</p>
		<p><b>Legacy:</b> The domestic and foreign PCF outputs will continue to report on all portfolios; participants will not have the option to select portfolios for receipt.</p>
	Alert for New and Supplemental Portfolios	<p><b>New:</b> NSCC will send an email alert to notify participants when NSCC begins distributing a new portfolio. The email alert will be generated for five business days following the go-live date of a new portfolio. New portfolios will also be highlighted on the web interface.                      NSCC will also send email alert to all subscribers of a supplemental portfolio as soon as it is validated and accepted by the ETF application.</p>
		<p><b>Legacy:</b> The portfolio alerts will not be provided to participants that have not converted or those that do not have access to the new web interface.</p>

<b>Streamlined PCF Distribution</b>		
<b>Web Interface for PCF Reporting</b>	PCF Web Reporting	<p><b>New:</b> NSCC will provide PCF web reporting for all T-1 and supplemental portfolios:</p> <ul style="list-style-type: none"> <li>▪ All portfolios will be reported in the new consolidated format; NSCC will reconfigure the portfolios that are submitted in the legacy formats to the new consolidated format.</li> <li>▪ Only the final version of T-1 portfolios will be reported.</li> <li>▪ All supplemental versions of a standard portfolio will be reported, whereas only the last supplemental version of a custom portfolio will be reported.</li> <li>▪ Participants will also be able to view and download four prior business day's PCF reports for subscribed portfolios.</li> </ul>
		<b>Legacy:</b> Web interface is not available under the current process.
	Web Interface Access	<p><b>New:</b> All ETF participants will be allowed to access the web interface. Web access will not be conditional upon conversion to the new formats.</p>
		<b>Legacy:</b> Web interface is not available under the current process.
<b>Discontinue Print PCF Output Reports</b>	PCF Subscription Requirement	<p><b>New:</b> Participants will subscribe to portfolios they want to view or download via the web interface:</p> <ul style="list-style-type: none"> <li>▪ Participants will be able to view or download the PCF data for subscribed portfolios only.</li> <li>▪ Participant will be required to select standard portfolios for subscription. The subscription indicator will automatically be turned on for custom portfolios.</li> <li>▪ The participants may unsubscribe from a standard portfolio as long as the subscription was not enabled on the same day.</li> </ul>
		<b>Legacy:</b> The current process does not provide a web interface or the option for participants to receive reporting on selected portfolios only.
	Web Interface Details	Details on the web interface will be provided in the ETF User Guide, which will be published in Q3 2012. A training webcast will also be posted to the DTCC Learning Center in Q4 2012.
	Print PCF Output Reports	NSCC will discontinue the distribution of PCF print reports effective Q1 2013 after which participants can access print reports via SMART/Search. Access instructions will be included in the ETF User Guide. MRO report distribution will continue.

### C. Enriched PCF Reporting

NSCC’s Enhanced Consolidated Portfolio Composition Output MRO will contain additional asset class, cash-in-lieu and short position components. The enhanced output will also provide more comprehensive reporting.

<b>Enriched PCF Reporting</b>		
<b>New PCF Reporting</b>	New Asset Class Components	<b>New:</b> NSCC will extend reporting to additional asset class components such as options and futures on its new consolidated format. <i>Please visit the <a href="#">DTCC website</a> to view the <b>Enhanced Consolidated Portfolio Composition Output MRO (AutoRoute # 02261256)</b>.</i>
		<b>Legacy:</b> New asset classes will not be reported on the current output.
	Cash-in-lieu (CIL) Components	<b>New:</b> NSCC will generate new portfolio details including CIL components on its new consolidated format.
		<b>Legacy:</b> CIL components will not be reported on the current output.
	Short Position Components	<b>New:</b> NSCC will report on short position components on the new consolidated format. These components can only be created or redeemed using cash.
		<b>Legacy:</b> Short position components will not be reported on the current output.
	Additional Data Fields	<b>New:</b> Additional data fields will be added to the new consolidated format for more comprehensive reporting: <ul style="list-style-type: none"> <li>▪ ETF Agent-provided optional input: <ul style="list-style-type: none"> <li>○ ETF expense ratio</li> <li>○ Estimated value of CIL components per creation unit</li> <li>○ Total Asset Value of the ETF Fund at the close of business on T-1</li> <li>○ External settlement date for non-DTC settling components</li> <li>○ CIL indicator by component</li> </ul> </li> <li>▪ NSCC-generated data on the PCF output: <ul style="list-style-type: none"> <li>○ Create and redeem eligibility indicator by ETF CUSIP and component</li> <li>○ CNS eligibility indicator by ETF CUSIP and component</li> <li>○ Indicator for CNS eligible components undergoing corporate action</li> <li>○ Indicator for carry forward of a prior day’s portfolio</li> <li>○ ETF type / classification (new, to be defined by NSCC)</li> </ul> </li> </ul>
<b>Legacy:</b> The new data fields will not be reported on the current outputs.		

**D. Enhanced Create and Redeem Process**

NSCC will enhance its create and redeem process to support hybrid and custom portfolios. It will also provide the APs with ETF Agent’s SI information on non-DTC settling components. In addition, participants can receive create and redeem information via standard UTC output. Lastly, subject to SEC approval, create and redeem instructions reported on the index receipt detail report will no longer be netted prior to appearing on the report.

<b>Enhanced Create and Redeem Process</b>		
<b>Enhanced Create and Redeem Process</b>	Hybrid Portfolios	<b>New:</b> NSCC will enable the create and redeem of hybrid portfolios. Components that are NSCC eligible and not flagged as CIL components will settle at DTC, and components that are not NSCC eligible or are CIL components will settle for cash.
		<b>Legacy:</b> The current process does not report CIL components.
	Custom Portfolios*	<b>New:</b> NSCC will allow ETF Agents to customize a portfolio on the create and redeem instruction without requiring a separate custom portfolio. The ETF Agents can replace a custom component with cash and/or other NSCC eligible component(s) on the create and redeem instructions. These instructions can only be submitted through the Enhanced ETF Create and Redeem Instruction Input MRO. The Enhanced ETF Create and Redeem Instruction Output MRO will report replaced components and identify added components. <i>Please visit the <a href="#">DTCC website</a> to view the <b>Enhanced ETF Create and Redeem Instruction Input MRO (DATATRAK # 11300)</b>.</i> <i>Please visit the <a href="#">DTCC website</a> to view the <b>Enhanced ETF Create and Redeem Instruction Output MRO (AutoRoute # 02261254)</b>.</i>
		<b>Legacy:</b> Custom Instructions cannot be submitted through the legacy Create and Redeem Instruction Input file. The legacy Create and Redeem Instruction Output report will not report replaced components or identify added components. Participants must subscribe to the Enhanced ETF Create and Redeem Instruction Output MRO ( <i>AutoRoute # 02261254</i> ) to receive substitution information.

\* NSCC will continue to support the current custom basket process

### Enhanced Create and Redeem Process

Pass-through of SI information

**New:** NSCC will accept ETF Agent’s SI information on non-DTC settling components:

- NSCC will pass-through ETF Agent’s SI information on non-DTC settling components through the Enhanced Create and Redeem Instruction Input and Output formats.
- The SI is available for CIL components or for an entire basket of non-DTC settling components.
- NSCC will not edit or store SI information.

**Legacy:** SI information will not be available on the existing Create and Redeem Instruction Input and Output formats.

### Enhanced Create and Redeem Process

Leverage UTC for Create and Redeem Output Reporting

**New:** Participants can choose to receive their create and redeem output through UTC, thereby normalizing data with their street side activity:

- UTC will generate a separate trade record for the ETF share and for each of its underlying create or redeem components.
- Participants subscribing to UTC Contract MRO and FIX format output will receive their ETF create and redeem data along with the related ETF transaction fees. The ETF data will be reported under the Market Code ‘920’, thereby segregating it from other activity. Please see below for details on the fields that will report the ETF Market Code and the ETF Transaction Fees:

#### ETF Market Code on UTC output= 920

AutoRoute ID#	Report Name	Field Name	Field Position	Field Type
02081673	UTC Contract MRO	Market	Position 58-60	A/N
N/A	UTC Contract in FIX format	Market	FIX Tag No. 30	A/N

#### ETF Transaction Fees on UTC output

AutoRoute ID#	Report Name	Field Name	Field Position	Field Type
02081673	UTC Contract MRO	Commission /Explicit Fees	Position 390-398	A/N
N/A	UTC Contract in FIX format	Commission /Explicit Fees	FIX Tag No. 137, Fee ID - 10	A/N



Enhanced Create and Redeem Process		
<b>Enhanced Create and Redeem Process</b> (continued)	Leverage UTC for Create and Redeem Output Reporting	<ul style="list-style-type: none"> <li>▪ The UTC output may be received via real time messages or hourly MRO.</li> <li>▪ Participants that opt to receive the UTC output can also choose to receive the ETF Create and Redeem Instruction Output in the legacy or the new format.</li> </ul> <p>For more information on UTC please see Important Notice <a href="#">A# 7030, P&amp;S# 6601</a> dated July 21, 2010.</p>
		<p><b>Legacy:</b> The current process does not provide the option for participants to receive their create and redeem output through UTC.</p>
<b>Additional Notes (impacts all ETF Agents)</b>	Create /Redeem Reject Reporting	<p>NSCC will enhance the Create and Redeem Receipt/Reject Report (currently known as Agent Receipts/Results report) to accommodate new fields and record types on the Enhanced Create and Redeem Instruction Input MRO and to provide more detailed information on rejects and warnings. Similar to the current process, the enhanced report will be sent to the ETF Agent in print format.</p> <p><i>Please visit the <a href="#">DTCC website</a> to view the <b>Enhanced ETF Create Redeem Receipt/Reject Report (AutoRoute # 02120098)</b>.</i></p>
<b>Additional Notes (impacts all ETF Agents)</b>	Caution for Create or Redeem Instruction	<p>ETF Agents may submit their create and redeem instructions using the enhanced or the legacy Create and Redeem Instruction Input file. However, if the same create and redeem instruction is submitted in both formats, it will be processed twice.</p>
<b>Additional Note (impacts all participants)</b>	Eliminate Pre-Net of ETF Creates and Redeems	<p>NSCC will eliminate the pre-netting of all create and redeem instructions prior to the NSCC netting process. There will be no impact to the participant’s clearing fund requirements. This will minimally increase billed equity clearance “into the net” fees.</p>

**E. Self-Service Web Interface for ETF Agent and AP Relationship**

NSCC will provide a web based self-service relationship management tool to allow participants to establish, monitor and maintain the ETF Agent and AP relationships.

<b>Self-Service Web Interface for ETF Agent and AP relationship</b>	
<b>Self-Service Relationship Management Tool (impacts all participants)</b>	<p>NSCC will implement an online facility by which participants will establish, monitor and maintain the ETF Agent and AP relationships:</p> <ul style="list-style-type: none"><li>▪ NSCC will continue to process only create and redeem instructions with valid relationships.</li><li>▪ Relationship set-up or deletion requests can be initiated by either side of the relationship, i.e., the ETF Agent or the AP, but must be approved by an authorized approver of the opposite side.</li><li>▪ The current criteria for establishing relationships at the clearing firm/family level will be maintained.</li><li>▪ Please note that the legacy process will not be available after implementation of the self-service web application. All new relationships after the go-live date will need to be established and managed through the online facility. Existing relationships will be converted by NSCC.</li></ul>
<b>Additional Note</b>	Details on the self-service relationship management tool will be provided in the ETF User Guide, which will be published in Q3 2012.

## Additional Information

- **Participant Testing**

- **Canned Test Data:** NSCC will make the following canned test (sample) input and output available to the participants as of July 23, 2012:

PARTICIPANT INPUT TO NSCC		
DATATRAK ID #	Canned Test DATATRAK ID #	Report Name
11301	41301	Enhanced Consolidated Portfolio Composition Input MRO
11300	41300	Enhanced ETF Create and Redeem Instruction Input MRO

PARTICIPANT OUTPUT FROM NSCC		
AutoRoute ID #	Canned Test AutoRoute ID #	Report Name
02261256	02981256	Enhanced Consolidated Portfolio Composition Output MRO
02261255	02981255	Enhanced Consolidated Portfolio Composition Receipt Reject MRO (new output)
02261254	02981254	Enhanced ETF Create and Redeem Instruction Output MRO

The canned test data will be available from the Participant Services Environment (PSE). Participants will require access to the PSE region to retrieve the test data. Please contact [RMSupport@dtcc.com](mailto:RMSupport@dtcc.com) for access to the PSE region and for assistance with testing.

- **Parallel and Conditional Test:** Parallel and conditional testing is planned for Q4 2012. Additional information and detailed instructions on conditional and parallel testing will be provided in an important notice in Q3 2012.

- **User Guide**

NSCC will publish an ETF User Guide in Q3 2012 with detailed descriptions of the ETF product services and new functionality.

- **New reporting formats**

The ETF rewrite will provide enhanced formats for PCF and Create/ Redeem Instruction reporting. Participants who intend to convert to the new application must be prepared to read and submit data using the enhanced record types.

Please visit the [DTCC website](#) to view the following enhanced formats:

<b>PARTICIPANT INPUT TO NSCC</b>	
<b>DATATRAK ID #</b>	<b>Report Name</b>
11301	Enhanced Consolidated Portfolio Composition Input MRO
11300	Enhanced ETF Create and Redeem Instruction Input MRO

<b>PARTICIPANT OUTPUT FROM NSCC</b>	
<b>AutoRoute ID #</b>	<b>Report Name</b>
02261256	Enhanced Consolidated Portfolio Composition Output MRO
02261255	Enhanced Consolidated Portfolio Composition Receipt Reject MRO (new output)
02261254	Enhanced ETF Create and Redeem Instruction Output MRO
02120098	Enhanced ETF Create Redeem Receipt / Reject Report

For questions about the ETF rewrite, please contact your Relationship Manager or the undersigned at [Abhardwaj@dtcc.com](mailto:Abhardwaj@dtcc.com)

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Product Management