



Comptroller of the Currency
Administrator of National Banks

Washington, DC 20219

**Interpretive Letter #1040
September 2005**

September 15, 2005

Subject: [] (“Bank”) Emissions Derivatives Proposal

Dear []:

This is in response to the Bank’s request to engage in customer-driven¹ physically settled derivative transactions in emissions allowances. The Bank also requests to enter into physical transactions in emissions allowances to manage the risks of the emissions derivatives transactions. For the reasons discussed below, we conclude that the Bank may engage in the transactions it proposes, provided the Bank’s examiner-in-charge is satisfied that the Bank has adequate risk management and measurement systems and controls to conduct the activities on a safe and sound basis.

I. Background

The Bank currently engages in a variety of financial intermediation transactions involving a wide range of energy-related commodities. The Bank has received authority to engage in perfectly matched cash-settled emissions derivative transactions to enable its customers to manage the price risk associated with various commodities including emissions allowances, subject to certain conditions.² The Bank now proposes to enter into physically settled emissions derivatives

¹ A “customer-driven” transaction is one entered into for a customer’s valid and independent business purpose. *See* OCC Interpretive Letter No. 892 (Sept. 13, 2000).

² *See* OCC Interpretive Letter No. 1039 (Sept. 13, 2005). An emission allowance is an authorization or license that gives affected entities the right to emit certain pollutants. It is not solely a license to pollute, however. Emission allowances may be bought or sold by any individual or entity that establishes an account at the relevant governmental authority. For those entities that trade emissions allowances or purchase allowance with the intent to “retire” them (typically environmental groups), emissions allowances are not used as administrative licenses, but rather are more akin to intangible contract rights. Thus, a hedge fund that purchases an emission allowance for investment acquires an intangible contract right that may be transferred or sold to other entities. Emissions allowances exist and are stored and tracked on the records of the relevant government body (*e.g.*, U.S.

transactions.³ The Bank also proposes to hedge the market risk associated with the proposed emissions derivatives transactions on a transaction-by-transaction or portfolio basis, primarily with physical emissions allowances.⁴ The Bank represents that it will engage in the proposed emissions derivative transactions and hedges solely for the accommodation of customers or for its own risk management purposes.

The proposed emissions derivatives transactions⁵ will be linked to three emission allowance markets: the U.S. SO₂ (Sulfur Dioxide)⁶ and NO_x (Nitrogen Oxide)⁷ markets and the European Union's CO₂ (carbon dioxide⁸) market.⁹ These emissions markets are volatile and price fluctuates considerably. Market participants manage price risk through the use of derivative structures, such as forwards, futures, options, caps and floors. These derivatives are generally physically settled, because the current emissions market is primarily physical in nature.¹⁰

Environmental Protection Agency ("EPA") or European Union ("EU")). There are no transportation, environmental, storage or insurance risks associated with possession of emission allowances.

³ The Bank also may enter into customer-driven, cash-settled emissions derivatives transactions when sufficient liquidity and depth develops in the emissions derivatives market. The market is currently a physical market.

⁴ The Bank also may hedge with cash-settled over-the-counter transactions and, when sufficient liquidity and depth develops in the market, exchange-traded futures and options. The Bank also may enter into to back-to-back hedges with market participants or with nonbank affiliate. If the Bank engages in transactions with affiliates, the Bank represents that it will comply with the requirements of sections 23A and 23B of the Federal Reserve Act and the Federal Reserve Board's Regulation W and with the Bank's Section 23A and 23B and Regulation W policy.

⁵ "Emission derivatives transactions" encompass all transactions where a portion of the return (including interest, principal or payment streams) is linked to the price of the allowances to emit sulfur dioxide, nitrogen oxides and carbon dioxide, including derivatives transactions such as futures, forwards, options, swaps, caps, and floors.

⁶ The Acid Rain Program, which created the SO₂ emission allowances, was established to achieve significant reductions in SO₂, the primary cause of acid rain. The SO₂ market is the most liquid of the environmental markets and trades actively on a daily basis.

⁷ NO_x emission allowances program, now known as the NO_x SIP Call budget trading program, is similar to the SO₂ emissions allowance program.

⁸ The CO₂ program includes CO₂ and other green house gases regulated under the Kyoto Treaty. The CO₂ program is currently in a pilot phase.

⁹ These emission allowance programs are based on a "cap and trade" design. For example, in the SO₂ Allowance Program, affected utilities are allocated allowances based on their historic fuel consumption and a specific emissions rate. Each allowance permits a unit to emit one ton of SO₂ during or after a specified year. The EPA, in a central database called the Allowance Tracking System ("ATS") records SO₂ allowances. Allowances are issued in the ATS on a vintage year basis from 2000-2030. On an annual basis, for each ton emitted, one ton is then retired in the ATS. Affected sources with shortfalls of allowances may buy them from sources that have reduced emissions below their allocated level. Unused allowances of a given vintage year may also be "banked forward" to the next or future years.

¹⁰ In the U.S., the primary liquidity source for emissions allowances trading is in the OTC markets. There is no established exchange-based trading. The Chicago Climate Exchange has received Commodity Futures Trading Commission ("CFTC") approval for SO₂ futures, and the NYMEX has proposed to open a market as well. The

In view of the current market, the Bank proposes to physically settle its customer-driven emissions derivatives transactions and use physical hedges in emissions allowances. The Bank believes these physical transactions are a natural extension of the Bank's existing financial intermediation activities in emission derivatives and other energy commodities and will benefit the customer as well as the Bank.¹¹ The major difference between financial intermediation activities the OCC has previously approved for the Bank and the proposed emissions derivatives transactions is that the proposed transactions will be physically settled. The Bank contends that physical settlement of emissions derivatives does not pose the same risks as other physical commodities, such as natural gas and petroleum, because physical settlement of emissions derivatives essentially involves a book entry in the relevant governmental agency's database. For example, in the SO₂ and NO_x markets, the EPA records the allocation and transfer of SO₂ and NO_x allowances in its ATS database.¹² The EU maintains a similar tracking system for CO₂ emission allowances.

The Bank believes its emissions derivative business will provide its customers risk management tools in substantively the same manner as the Bank provides such tools in connections with its existing energy commodity business. For example, a utility that is net short SO₂ allowances in the near term either must purchase additional emission allowances or reduce its existing emissions in order to maintain operations. It can purchase near term forward emission allowances through the derivatives market and can compare the cost of the technological abatement to arrive at the most efficient way to continue its operations in the long run. The derivatives markets also enable the utility to forecast the cost of allowances into the future and lock in supply at prices it deems attractive. A utility that is net long SO₂ allowances can enter into forward contracts or can sell call options to lock in pricing it deems attractive and thus generate additional revenue.

The Bank commits that it will apply to the emissions derivatives business the same risk management processes and procedures that it applies to its existing commodity derivative business. Specifically, prior to engaging in emissions allowances transactions (both derivative and physical), the Bank commits that it will adopt and implement all necessary policies,

exchanges have yet to provide the liquidity necessary to encourage active trading. In Europe, several exchanges are developing products linked to emissions allowances, but none are actively trading at this time.

¹¹ The CFTC views emissions allowances as "commodities" under the Commodity Exchange Act. For example, the CFTC approved the application of the Chicago Climate Futures Exchange ("CCFE") for designation as a contract market. The CCFE had proposed to offer trading on emissions allowances and offer options on emissions allowance futures. *See* CFTC Letter and Order Regarding the Application of the CCFE for Designation as a Contract Market (Nov. 9, 2004) and the CFTC Staff DCM Designation Memorandum Regarding the CCFE Application (Nov. 3, 1994).

¹² The ATS discloses the identity of buyers and sellers, but does not provide price information. Instead emission allowance price information is discoverable through brokers or direct discussions with other market sources. The Argus AIR Daily produces daily, weekly and monthly indices for the SO₂ (SOPI Indices) and NO_x (NOPI indices) spot markets. The SOPI and NOPI indices (often called the AIR Daily indices), track the SO₂ and NO_x markets by means of a daily phone survey of active brokers and traders.

procedures, and controls (including those set forth in the OCC Handbook: *Risk Management of Financial Derivatives*¹³ and OCC Banking Circular No. 277¹⁴) and meet all regulatory standards and that the Bank has in place all appropriate mechanisms to identify, monitor, limit and control the risks inherent in these transactions. In addition, the Bank commits to conducting a full evaluation of (i) pricing, hedging, processing, record keeping, documentation, accounting, operations and risk management, (ii) knowledge and staff development, and (iii) training of personnel by the Compliance Department and development of a supervisory framework to ensure compliance with these policies and procedures, including trading practices. All commodity derivative transactions, including the proposed emissions derivative transactions, are subject to the Bank's Appropriateness Policy for Over-the-Counter Foreign Exchange, Derivatives and Structured Securities Transactions with Clients, and, when required, structured transactions are subject to further review by the Bank's Policy Review Committee. Finally, the Bank will apply the policies, procedures, and controls that govern its existing physical commodity activities, which include the conditions to these activities set out by the OCC in BC-277 and the *OCC Derivatives Handbook*.¹⁵

The Bank also commits that its activities in "physical" emissions allowances will be used only to supplement the Bank's risk management activity and to reduce risks associated with otherwise permissible banking activities and entered into with customer-driven transactions and not as a vehicle to speculate in emissions allowances.

II. Discussion

In our opinion, the Bank may engage in customer-driven, physically settled emissions derivative transactions and hedge risks arising from these permissible banking activities with physical transactions in emission allowances, provided the Bank has established an appropriate risk measurement and management process to conduct the activities on a safe and sound basis for its emission derivative and hedging activities that is satisfactory to the Bank's examiner-in-charge. This process is necessary for the Bank to achieve its customer risk management objectives in a safe and sound manner and thus must be established before the OCC can determine that the proposed activities are permissible.

¹³ OCC Handbook: *Risk Management of Financial Derivatives* (Jan. 1997) ("*OCC Derivatives Handbook*").

¹⁴ OCC Banking Circular No. 277 (Oct. 27, 1993) ("*BC-277*").

¹⁵ The Bank commits that the volume of its risk management activity with respect to emissions derivatives will be a small percentage of the Bank's overall commodity derivatives risk management activity. The proposed physical transactions in emissions allowances are expected to be a significant percentage of the Bank's risk management activities in emission derivatives, however. This reflects the fact that the current emissions market is primarily a physical market and thus, hedges will be in the appropriate physical vintage. Given the intangible nature of the emission allowances, discussed below, this level of physical activity is not excessive.

A. National banks may engage in customer-driven physically settled emissions derivatives and hedging transactions pursuant to 12 U.S.C. § 24(Seventh).

The OCC previously determined that the Bank may engage in perfectly matched cash-settled emissions derivatives transactions.¹⁶ The Bank now proposes to physically settle and hedge emission derivative transactions on a transaction-by-transaction or portfolio basis. The proposed physical transactions will enable the Bank to participate fully in the emissions markets and provide customers with a broader range of sophisticated risk management tools to address their financial, risk management and liquidity needs. The ability to engage in physical transactions in the emissions markets also will increase the Bank's hedging options and its ability to control risks in its emissions derivatives business.

The OCC has previously concluded in a variety of contexts that national banks may engage in customer-driven commodity transactions and hedges that are physically settled, cash-settled and settled by transitory title transfer.¹⁷ For example, the OCC has determined that a national bank may physically hedge the risks arising from their commodity-linked activities in markets that involve physical delivery of commodities where the physical hedging would achieve a more accurate and economical hedge than cash-settled hedge transactions.¹⁸ The OCC concluded that the activities were convenient and useful to bank permissible commodity-linked activities and therefore, permissible for national banks under 12 U.S.C. § 24(Seventh). The OCC conditioned its approval on the condition that the transactions supplement the bank's existing risk management activities, constitute a limited amount of a bank's risk management activities and are used only to manage risk.

Similarly, the OCC permitted a national bank to make and take physical delivery of commodities in connection with transactions to hedge commodity price risk in commodity linked transactions. The OCC concluded that physical hedging was part of or incidental to the business of banking and a permissible activity for national banks under 12 U.S.C. § 24(Seventh), since physical hedging allows banks to reduce the risks associated with an otherwise permissible banking activity, engaging in commodity-linked transactions.¹⁹

In these decisions, the approved activities were subject to a number of conditions due to the risks associated with physical transactions in certain commodities. Those risks included storage (*e.g.*,

¹⁶ OCC Interpretive Letter No. 1039, *supra*.

¹⁷ *See, e.g.*, OCC Interpretive Letter No. 937 (June 27, 2002) (national bank may engage in customer-driven, cash-settled electricity derivative transactions and hedge risks arising from those permissible banking activities, provided the bank has an appropriate risk management and measurement process in place) and OCC Interpretive Letter No. 962, (April 21, 2003) (national bank may settle and hedge its customer-driven bank permissible electricity derivative transactions by transitory title transfers).

¹⁸ OCC Interpretive Letter No. 632 (June 30, 1993).

¹⁹ OCC Interpretive Letter No. 684 (Aug. 4, 1994).

storage tanks, pipelines), transportation (*e.g.*, tankers, barges, pipelines), environmental (*e.g.*, pollution, fumigation, leakage, contamination) and insurance (*e.g.*, damage to persons and property, contract breach, spillage). Physical settlement of emissions derivatives and hedging with physicals would not pose those risks, however. Emission allowances are not tangible physical commodities, such as electricity or natural gas. Rather, they are intangible rights or authorizations. They can be bought and sold like other commodities, but they exist only as a book entry in an emissions account.²⁰

The OCC has previously recognized that physical transactions in equities are permissible hedges without limiting the positions to a nominal percentage of the bank's risk management activities,²¹ in part because holding equities did not pose the storage, transportation, environmental and insurance risks associated with holding nonfinancial commodities.²²

This same reasoning can be applied to physically-settled emissions derivatives transactions and physical hedges in emission allowances. The activities are convenient and useful to the Bank in conducting its emissions derivatives business, and they do not pose the risks associated with other commodities. Thus, they are permissible activities for national banks under 12 U.S.C. § 24(Seventh).

Congress also has recognized the authority of national banks to engage in commodity derivatives transactions. That authority is not limited to cash-settled transactions. Under the Gramm-Leach-Bliley Act,²³ banks may offer "identified banking products" without registration under the Securities Exchange Act of 1934,²⁴ subject to banking law requirements and supervision. "Identified banking products" include certain swap agreements, defined as "any individually negotiated contract, agreement, warrant, note or option that is based, in whole or in part, on the value of, any interest in, or any quantitative measure or the occurrence of any event relating to, one or more commodities, securities, currencies, interest or other rates, indices, or other assets."²⁵ There is nothing in the GLBA's definition of "swap agreement" that requires cash-

²⁰ The Bank has represented that the proposed physical transactions are subject to the EPA's regulatory scheme but are not subject to Federal Energy Regulatory Commission or CFTC regulatory jurisdiction. The EPA regulatory scheme is centered on maintaining the integrity of the allowance trading system and ensuring that end-users (utilities) are relying on genuine allowances and that a unit's emissions do not exceed the number of allowances it holds. This is accomplished through an Allowance Tracking System that records allowance transfers.

²¹ As a policy matter, the OCC has limited national banks' equity holdings with voting rights to no more than 5% of a class of securities of any issuer. *See* OCC Interpretive Letter No. 935 (May 14, 2002).

²² *Id.* *See also* OCC Interpretive Letter No. 892, *supra* (national banks use of equities to hedge permissible equity derivative transactions provides the most accurate, least costly hedges, and thus is convenient and useful in conducting permissible banking activities, and incidental to the business of banking).

²³ *See* Gramm-Leach-Bliley Act, §§ 201, 202, and 206, P.L. 106-102, 113 Stat. 1338 (1999) ("GLBA").

²⁴ 15 U.S.C. § 78a, *et seq.*

²⁵ *See* GLBA §§ 201, 202, and 206.

settlement. Thus, physically settled emissions derivative transactions would qualify as swap agreements and therefore would be regarded as “identified banking products” under the GLBA.

For these reasons, we conclude that the Bank may engage in customer-driven physically settled emissions derivative transactions and hedge the risks of those transactions with physical transactions in emissions allowances pursuant to 12 U.S.C. § 24(Seventh), provided the Bank’s examiner-in-charge is satisfied that the Bank has established adequate risk measurement and management controls to conduct its emission derivative and hedging activities on a safe and sound basis.²⁶

B. The derivatives and hedging activities must be conducted in a safe and sound manner.

For the Bank to permissibly engage in the proposed activity, the Bank’s risk measurement and management capabilities must be of appropriate sophistication to ensure that the activity can be conducted in a safe and sound manner and in accordance with applicable law. Consequently, in order for the OCC to conclude that this activity is permissible for the Bank because it is part of the business of banking or convenient and useful to conducting authorized banking activities, the Bank must demonstrate to the satisfaction of its EIC that the Bank has established an appropriate risk measurement and management process for its proposed activity. As detailed further in the *OCC Derivatives Handbook* and BC 277, an effective risk measurement and management process includes board supervision, managerial and staff expertise, comprehensive policies and operating procedures, risk identification and measurement, and management information systems, as well as an effective risk control function that oversees and ensures the appropriateness of the risk management process.

In addition to a risk management program, the Bank’s process must include an independent compliance-monitoring program to ensure ongoing compliance with the specific commitments made by the Bank described above.²⁷ The Bank must have an adequate and effective compliance monitoring program that includes policies, training, independent surveillance and well-defined exception approval and reporting procedures.

²⁶ The Bank also may engage in customer-driven cash-settled emissions derivative transactions and hedging with cash-settled emissions allowances pursuant to 12 U.S.C. § 24(Seventh), provided the Bank has established an appropriate risk measurement and management process for its emissions derivative and hedging activities.

²⁷ The OCC has long considered safety and soundness issues when determining whether an activity is part of, or incidental to the business of banking. See, e.g., OCC Interpretive Letter No. 892, *supra* (national bank may engage in equity hedging activities only if it has an appropriate risk management process in place); OCC Interpretive Letter No. 684, *supra* (commodity hedging is a permissible banking activity provided the activity is conducted in accordance with safe and sound banking practices); *Decision of the Office of the Comptroller of the Currency on the Request by Chase Manhattan Bank, N.A. to Offer the Chase Market Index Investment Deposit Account* (Aug. 8, 1988), 1988 OCC Ltr. LEXIS 266 (national banks have the authority to establish and determine the amount of the payments to be made and received under their deposit and loan contracts by reference to any index or standard as long as the bank is in compliance with safe and sound banking principles); and OCC Interpretive Letter No. 376 (Oct. 22, 1986) (indemnification from losses resulting from participation in the bank’s fiduciary securities lending program is a permissible incidental activity provided the indemnification is consistent with OCC guidance and safety and soundness).

The Bank may not commence the proposed activity unless and until its examiner-in-charge has concluded that the foregoing standards are met.

III. Conclusion

The Bank may conduct the proposed customer-driven, physically settled emissions derivative business and hedge risks arising from these permissible banking activities as an extension of its existing energy-related commodities derivatives business, provided the Bank's examiner-in-charge is satisfied that the Bank has adequate risk management and measurement systems and controls to conduct the activities on a safe and sound basis.

Sincerely,

/s/ Julie L. Williams

Julie L. Williams
First Senior Deputy Comptroller and Chief Counsel