



New Communications Standards for Environmental Projects and Financial Instruments by APX Inc.

APX Inc., the leading infrastructure provider for environmental and energy markets, has announced two new communications and messaging standards for global environmental markets, the

- **APX Universal Project Number™** (APX UPN), and the
- **APX Environmental Instrument Number™** (APX EIN).

The APX UPN provides a globally distinct identifier for carbon and renewable energy projects, while the APX EIN uniquely identifies tradable environmental instruments, including carbon credits, emission allowances, and renewable energy credits. The approach is designed to allow additional environmental projects and commodity instruments to be added in the future.

Those familiar with U.S. financial securities markets will be familiar with the CUSIP number, where CUSIP stands for Committee on Uniform Securities Identification Procedures. A CUSIP number identifies most securities, including stocks of all registered U.S. and Canadian companies, and U.S. government and municipal bonds. The CUSIP system facilitates the clearing and settlement process of securities and is essential to a well functioning market.

Outside the US, the International Securities Identification Number (ISIN) uniquely identifies a security, as defined by ISO 6166. Securities for which ISINs are issued include bonds, commercial paper, stocks, options, derivatives, and futures. The ISIN code is a 12-character alpha-numerical code that serves for uniform identification of a security at trading and settlement. Another analogous identifier used in the UK and Ireland is SEDOL (Stock Exchange Daily Official List), a list of security identifiers used for clearing purposes, and embedded in the security's ISIN.

Think of APX EIN as the CUSIP or ISIN/SEDOL number for environmental instruments markets.

These market identifier codes provide a necessary and additional level of detail in financial and transactional communications and transparency, which will facilitate greater efficiency in environmental markets.

What international standards organizations have expressed support for these new standards?

The standards are supported by SWIFT (Society for Worldwide Interbank Financial Telecommunication), the leader in standards and messaging for the financial services industry.



SWIFT is a member-owned cooperative that provides the communications platform, products and services to connect over 8,500 banking organizations, securities institutions and corporate customers in more than 200 countries. SWIFT enables its users to exchange automated, standardized financial information securely and reliably, thereby lowering costs, reducing operational risk and eliminating operational inefficiencies. SWIFT also brings the financial community together to work collaboratively to shape market practice, define standards and debate issues of mutual interest. For more information, visit www.swift.com

What is APX's vision with regard to the important role of such standards?

“With the growth in voluntary and compliance carbon markets around the globe, companies will need to connect and exchange information reliably to trade project-based carbon credits,” said Brian Storms, Chairman and CEO, APX Inc. “As Congress acknowledges the importance of international offsets and allowances in US markets, we believe that the new identifiers are essential to standardize financial transactions in carbon and other environmental markets, and will serve to lower costs while increasing market confidence.”

What does the APX Environmental Instrument Number represent?

The APX EIN is a unique market identifier code that represents a distinct environmental instrument, providing information on the nature of the instrument, its attributes, and the issuer.

Is the APX EIN the same as the serial number of an environmental credit, such as an offset or allowance?

No. The APX EIN represents the type of credit or allowance, not the credit itself.

For example, EU Allowances (EUAs) are one type of environmental instrument and are represented by one EIN. There are millions of EU Allowances, each with a unique serial number.

Because EUAs are completely fungible in the marketplace and have one price, only one EIN is needed for each vintage.

In contrast, for voluntary project credits, price depends on both vintage and project details (such as project type, standard, and geography), so EINs related to offset projects are project specific.



Is the EIN always project specific?

Not always. Examples of EINs include:

- EINs representing emissions allowances are not project specific, since emission allowances are granted by a governmental entity.
- EINs representing environmental instruments created by carbon offset projects, renewable projects, or other project based sources will be project-specific.

Different state, regional, and national programs will likely have different rules regarding the acceptance of project offsets and allowances from other qualified programs. For example, CERs generated by CDM projects may be fully fungible for EU compliance. However, it is possible that only a subset may qualify for in a U.S. program. Another example is the case in which a subset of carbon project types for a current voluntary standard are recognized in a U.S. compliance program, but other types are excluded. The communications standard approach is designed to allow such possibilities.

Why does each yearly vintage of EU Allowances (EUAs) need to be split out with a separate EIN when there is banking and they are recognized as the same from 2008 to 2012, for example?

This is being structured in anticipation of future complexity in worldwide environmental markets. As multiple compliance regimes come on-line globally, the fungibility requirements related to transferring tradable units across programs will likely require yearly vintages be split out. Different state, regional, and national programs may have different rules regarding time periods, program phases, and acceptance of credits from other qualified programs.

How would a transaction work using the APX EIN? Can you give me an example?

Let's assume you own 20,000 units of EIN ZX03920291 -- which translates to a "CER - Jinan Landfill Gas 2009 Carbon Offsets - China". (CER is an acronym for a UNFCCC CDM project *Certified Emission Reduction*).

You log in to your APX Environmental Management Account (APX EMA) account and enter:

A sell order for ZX03920291
20,000; @ Market
Good Until Cancelled
Exchange - Any

The first thing APX EMA does is to find all potential exchanges that make a market for ZX03920291. In this hypothetical example, the system identifies that two platforms trade in this commodity -- BlueNext US and Green Exchange. It



then posts the order to both areas in order to find the best bid. It turns out BlueNext has a bid of \$13.25 and we pull the trigger. BlueNext's clearing organization confirms the order and gives APX settlement instructions which state 3 day settlement with the counterparty's EMA account #2929292929 (BlueNext will require each counterparty to have an EMA account for proper settlement) On the 3rd day, we initiate the settlement between your account and 2929292929. Cash is moved and during the transaction, we transfer the 20,000 units from your account to the counterparty's registry account. The underlying registry will need to resolve and verify that that the units in your account are (a) from the Jinan project and (b) for 2009 – and will need to complete the transfer. The registry will also need to have logic to resolve which specific credit serial numbers are transferred.

APX EMA does not require the underlying certificate numbers or block numbers for the 20,000 units. As with other automated markets, EINs provide participants with an identifier to clearly and unambiguously transact the instruments they would like to purchase or sell in the market. Similarly, EMA does not require knowledge of certificate numbers to function. With that said, EMA will offer clients the ability to look into most registries and retrieve the actual certificate numbers they hold should they need that information.

Will APX maintain a database of all environmental commodities as a lookup table for the EIN as well as the local registry serial numbers for each serialized credit or allowance?

No, this is not necessary. As in the securities world, there are no connections maintained by identifier providers between the instrument number and unit serial numbers.

Will EINs be developed and maintained for all previously issued credits?

Yes, to the extent possible.

Will EINs have meaning encoded in the 10 alphanumeric characters, such as the local registry serial number of each credit, or will they be arbitrary characters.

No, they will have no encoded meaning.

For which types of environmental commodities will EINs be available?

Initially, APX will supply Environmental Instrument Numbers to Carbon Offsets, Carbon Allowances, and US -based Renewable Energy Credits+.



How can a credit owner obtain EINs for their credits or allowances? Is there a fee for this service?

EINs are created by APX for all environmental commodities transacted in the leading environmental exchanges and transaction platforms, and in the APX Environmental Account. There is no effort or cost incurred on the part of market participants or financial intermediaries -- EINs are automatically created and all fees are waived for the first year.

How will EINs be used?

As the environmental commodity industry evolves, project and instrument identifiers will be required for everything from electronic trading and settlement to pricing, ratings, and research. As mentioned earlier, the EIN is similar to a CUSIP number for a security, which provides additional level of detail in financial and transactional communications, greater transparency, and thus greater market efficiency. For the environmental markets, the APX EIN serves a role similar to the CUSIP or ISIN numbers in securities markets.

What does the APX Universal Project Number (APX UPN) represent?

The APX UPN provides a globally distinct identifier for carbon offset projects. A UPN number identifies the entity linked to an offset-related environmental instrument (identified by an EIN). A non-project based EIN will not – as in the case of an environmental instrument that is an emissions allowance.

Exactly how is the APX EIN defined for each class of tradable unit, and what is the relationship between EINs and UPNs?

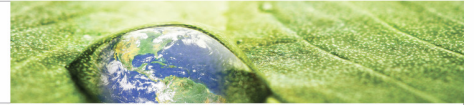
Environmental instrument numbers (EINs) will be 10 alphanumeric characters.

Initially, APX will supply Environmental Instrument Numbers to Carbon Offsets, Carbon Allowances, and Renewable Energy Credits. Other types of environmental instruments will receive EINs in the future. The salient attributes that determine the uniqueness of each instrument captured in the APX Instrument Master (the database of all APX EINs) are the following:

Carbon Offset Units

Carbon offset units have the following unique characteristics:

- Project source: APX provides project sources with a global universal project number (UPN).
- Accrediting Regime/Programs: In the carbon offset space, there are multiple compliance and voluntary accrediting bodies with accrediting programs. APX assigns each of these accrediting programs with a globally unique number.
- Offset Type: Some carbon offset programs distinguish between offset types.
- Vintage: A vintage represents the time period during which the underlying offset was generated. Although vintage typically is represented by a calendar



year, there are circumstances where vintage must represent a more discrete period than calendar year. Vintage assigns multiple usage attributes to the offset unit.

Carbon Allowances

Carbon allowances are permits to emit CO₂ issued by a carbon regime. Unique characteristics of carbon allowances include:

- Accrediting Regime/Body: APX assigns each accrediting program with a globally unique number.
- Allowance type: Allowances may be assigned in different classes depending upon the carbon regime.
- Vintage: A vintage represents the time period during which the underlying offset was generated. Although vintage typically is represented by a calendar year, there are circumstances where vintage must represent a more discrete period than calendar year. Vintage assigns multiple usage attributes to the offset unit.

Renewable Energy Credits

Renewable energy credits are typically created through a Renewable Portfolio Standard created by a governmental body or by voluntary programs. Unique characteristics of RECs include:

- RPS Entity: Typically, a state, regional, or federal authority establishes an RPS regime. This is defined as the RPS entity and the entity defines many underlying attributes of the credit including fungibility between other RPS programs and its own.
- Credit Type: RPS regimes many times distinguish between different types of renewable power and sometimes assign different classes of credits based on the power type. Additionally, energy efficiency programs are sometimes embedded in the RPS regime which creates an additional type of credit.
- Vintage: A vintage represents the time period during which the underlying renewable energy was generated. Although vintage typically is represented by a calendar year, there are circumstances where vintage must represent a more discrete period than calendar year. Vintage assigns multiple usage attributes to the REC.

How are Universal Project Numbers (UPNs) assigned for carbon projects?

For existing projects, such as UNFCCC CDM projects or current Gold Standard, VCS, or Climate Action Reserve carbon offset projects, APX has already created and assigned UPNs, and borne the expense of doing so.

These are already set up in APX Project Track™, which is the project data management component of the APX Environmental Management Account.



For new projects, project sponsors should contact APX Inc. via the website www.emaccount.com to apply for UPNs for their projects. To encourage adoption and participation, fees are waived for the first year.

Why should project sponsors bother obtaining UPNs for their new projects?

APX UPNs and EINs provide enhanced transparency and detailed information to facilitate the buying and selling carbon offsets, Renewable Energy Credits (RECs) as well as forwards, futures, and other related financial projects. Obtaining a UPN is easy, quick, and fees are waived for the first year.

Will APX maintain a database of all environmental commodities as a lookup table for the EIN?

Yes, all environmental commodity types that can be transacted will be available.

Why are the APX EIN and APX UPN important?

As voluntary and compliance carbon regimes proliferate and evolve to be distinct from the UNFCCC, there is a need for globally distinct project and instrument identifiers:

- Global voluntary markets with multiple standards continue to develop for credits from pre-CDM projects. The APX UPN and APX EIN will help ensure that such credits and forwards are not double sold and can be reliably tracked and transacted.
- The US Federal compliance program, as proposed under legislation currently before Congress, calls for up to 1.5 billion international project based offset credits. A mechanism to ensure global uniqueness of projects, related credits, and emission allowances will be required.

Will APX have a UPN number for every carbon project?

The overwhelming majority of international CDM & JI projects, as well as voluntary carbon market projects (including VCS, Climate Action Reserve, and Gold Standard projects) will have a UPN number assigned by APX Inc. However, not every project in the initial scope will have been assigned a UPN number. For example, carbon offset projects whose public information appears incomplete or incorrect will be verified prior to assignment of a UPN, and APX will request the additional information from the project sponsor. For example, some land-based projects list geographic coordinates that place them mid-ocean! Such facts are being corrected and verified to ensure the highest integrity in UPNs and related project information.

APX's approach in ensuring global integrity in project information is unique and essential for well-functioning financial markets in environmental commodities.