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Mexico City Airport Trust NAFIN F/80460

Green Bond Assessment

Summary Analysis

Summary Opinion

On September 6, 2016 Moody's assigned a GB1 (Excellent) Green Bond Assessment to the senior secured notes (Baa1) issued by Mexico City Airport Trust NAFIN F/80460 (Mexico City Airport Trust). The trust is a special purpose trust that is expected to issue up to $6 billion of debt, in increments through 2018, to partially fund the design, construction, development and operation of the Mexico City New International Airport (NAICM), an airport project conceptualized to achieve a neutral carbon footprint and 100% clean energy operation. The GB1 grade reflects the following considerations:

» Allocation of net proceeds to finance an equivalent dollar amount of eligible beneficial environmental projects that have been identified and qualified pursuant to a formally adopted Green Bond Framework.

» The creation of a Green Bond Committee with broad representation and expertise to consider and evaluate eligible environmental project proposals on the basis of explicit criteria established for oversight, evaluation and decision-making.

» Grupo Aeroportuario de la Ciudad de México, S.A. de C.V. (GACM, the project sponsor) Treasury will maintain internal records for tracking the allocation of net proceeds. While at least two regulatory bodies perform GACM oversight, an independent audit of the tracking function within GACM is not currently anticipated.

» Commitments to disclose the nature of investments, their dollar amounts and impacts on a quarterly basis, starting within three months of the issuance of the notes and continuing until the net proceeds are fully allocated.

Factor	Factor Weights	Score	Weighted Score
Organization	15%	1	0.15
Use of Proceeds	40%	1	0.40
Disclosure on the Use of Proceeds	10%	1	0.10
Management of Proceeds	15%	2	0.30
Ongoing Reporting and Disclosure	20%	2	0.40
Weighted Score			1.35

The transaction-weighted score, using the Green Bond Scorecard, is 1.35. This, in turn, corresponds to a GB1 grade.

Transaction Summary

Mexico City Airport Trust plans to issue up to $6 billion in debt, in increments through 2018, to partially fund the design, construction, development and operation of the Mexico City New International Airport (NAICM), in line with a long-term financial plan. (See “Mexico City International Airport Financing Plan”, below.) Corresponding coupons and maturities are to be determined at closing. The notes are being issued by the Mexico City Airport Trust, a special purpose trust created and operating under Mexican law for the sole purpose of securitizing receivables from collected passenger charges (Airport Usage Tariff, TUA) realized by Mexico City's Benito Juárez International Airport, as well as the Mexico City New International Airport.[1]

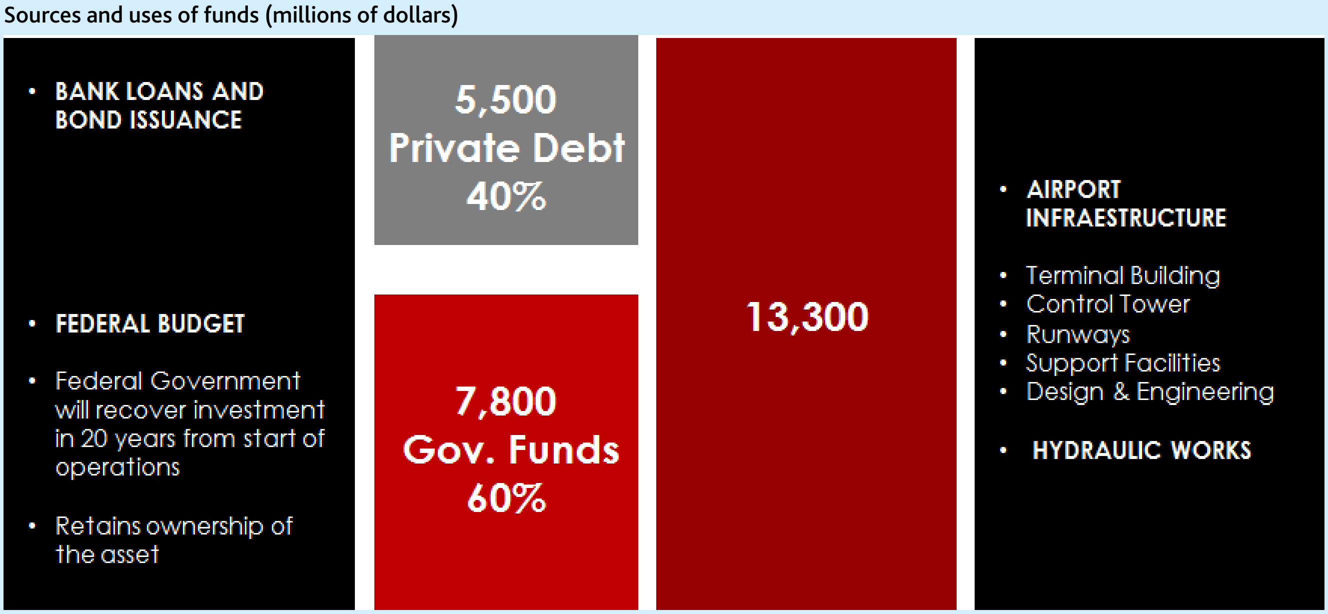
Following the assignment of the GBA, the Mexico City Airport Trust issued $2 billion of debt securities – two tranches of $1 billion of 4.250% Senior Secured Notes due 2026, and $1 billion of 5.500% Senior Secured Notes due 2046, marketed under Rule 144A and Regulation S.

Mexico City International Airport Financing Plan

The net proceeds from the notes offerings, after deductions for underwriting discounts and other estimated expenses payable in connection with the offerings, will be approximately $5.5 billion. They will be used to finance and refinance existing and future eligible environmental projects. The proceeds will also be used to repay indebtedness incurred under a $3 billion revolving credit facility. The facility was established with a syndicate of banks, and used for preparatory work for the new airport and to partially fund the new airport's design, construction and development. The senior secured notes will eventually replace the credit facility.

The total funding required for the construction and initial operation of the new airport is estimated at up to $13.3 billion, of which the Mexican government will contribute approximately 60% using public funds. Approximately 40% is expected to be funded from a combination of bank loans (mainly through debt incurred under the credit agreement) and the issuance of the senior secured notes, which will be offered on the domestic and international capital markets. The exhibit below summarizes the funding plan for the new airport's development, including the contribution of federal budget funds from the Mexican government.

Sources and uses of funds (millions of dollars)



Source: Company reports

Strengths and Weaknesses

Strengths	Weaknesses
Allocation of net proceeds to finance an equivalent dollar amount of eligible beneficial environmental projects that have been identified and qualified pursuant to a formally adopted Green Bond Framework.	External or independent audit of systems used for tracking disbursements earmarked for eligible projects will not be provided and ongoing disclosures, while issued on a quarterly basis, will continue until the net proceeds are fully allocated and as necessary hereafter in the event of new developments.
The creation of a Green Bond Committee with broad representation and expertise to consider and evaluate eligible environmental project proposals on the basis of explicit criteria established for oversight, evaluation and decision making.	
GACM Treasury will maintain internal records for tracking the allocation of net proceeds. While there is GACM oversight performed by at least two regulatory bodies, it is not, at the present time, anticipated that an independent audit of the tracking function within GACM will be conducted.	
Commitments to disclose the nature of investments, their dollar amounts and impacts on a quarterly basis, starting within three months of the issuance of the notes and continuing until the net proceeds are fully allocated.	

Organization

Grupo Aeroportuario de la Ciudad de México, S.A. de C.V., (GACM) is sponsoring the airport project. GACM is a state-owned company controlled by the Mexican Ministry of Communications and Transportation, which holds the concession to build, develop, operate, manage and exploit the new airport.

A Green Bond Framework that encapsulates the issuance of green bonds by the Mexico City Airport Trust has been adopted by NAICM, and is explicitly referenced in the Offering Memorandum. A copy of the Green Bond Framework is posted in its entirety on NAICM's website.

A Green Bond Committee with responsibility for governing the NAICM Green Bond Framework has been established. The committee will include sustainability experts and senior managers from the GACM Environmental and Sustainability, Infrastructure, Planning and Treasury teams, as well as from Parsons Corporation, the NAICM project manager.

The GACM environmental and sustainability team and other sustainability experts involved in the NAICM project will identify potential green projects based on the eligibility criteria outlined in the NAICM Green Bond Framework Use of Proceeds, as well as the projects' alignment with the plans, goals or criteria identified in the NAICM Environmental Master Plan, NAICM environmental plans and programs, and NAICM environmental impact assessments.

The NAICM Green Bond Committee will review and approve all proposed (existing and future) potential green projects to determine their eligibility under the NAICM Green Bond Framework.

Examples of potentially eligible projects and eligibility criteria for selection are as follows:

1. Sustainable Buildings. Any project for an existing or new building that has received, or expects to receive (based on its design, construction and operational plans) certification according to third-party verified green building standards such as LEED Silver or higher, or an equivalent certification scheme, and which has achieved, based on third-party assessment, a reduction in energy consumption of at least 15% relative to industry standards and benchmarks such as ASHRAE 90.1 (a US energy minimum energy standard for buildings) or equivalent.

2. Renewable Energy. Development, construction, installation, operation and upgrades of equipment or facilities wholly dedicated to renewable energy generation, or wholly dedicated transmission infrastructure for renewable energy generation sources. The projects must meet the definitions of renewable energy outlined in Mexico's Energy Transition Law (Ley de Transición Energética), and may include wind, solar, tidal, geothermal, biomass and run-of-river hydro projects.

3. Energy Efficiency. Development, construction, installation, operation and upgrades of any projects (products or technology) that reduce energy consumption or improve resource efficiency in airport management and operations. Such initiatives include, but are not limited to, projects that enable energy performance monitoring and modelling, such as design and installation of computer controls, sensors, or building information systems; projects that optimize the amount and timing of energy consumption and minimize peak loads, such as the design and installation of metering, peak load shedding, or fuel switching systems; and projects that involve the installation, maintenance or replacement of energy efficient heating, ventilation, air-conditioning, cooling, lighting and electrical equipment.

4. Water and Wastewater Management. Development, construction, installation, operation and upgrades of any projects (products or technology) that reduce water consumption or improve resource efficiency in airport management and operations. Such initiatives include, but are not limited to, new or existing facilities used for the collection, treatment, recycling, or re-use of water, rainwater, wastewater or sewage; or infrastructure for flood prevention, flood defense or storm-water management, such as wetland wetlands, retention berms, reservoirs, lagoons, sluice gates, drainage systems, tunnels and channels.

5. Pollution Prevention and Control. Development, construction, installation, operations and upgrades of any projects (products or technology) that reduce and manage waste generated in airport management and operations. Such initiatives include, but are not limited to, new or existing facilities, systems and equipment used for the collection, treatment, recycling or re-use of solid waste, hazardous waste or contaminated soil; or new or existing facilities, systems and equipment used to divert waste from landfills and reduce emissions from the transport of waste.

6. Conservation and Biodiversity. Any projects for reforestation and ecological restoration; the creation and protection of forests and wetlands; or monitoring and mitigating adverse impacts on flora and fauna, such as potential impacts from construction and noise pollution.

Factor 1: Organization (15%)	Yes	No
Environmental governance and organization structure appears to be effective	●	
Policies and procedures enable rigorous review and decision making process	●	
Qualified and experienced personnel and/or reliance on qualified third parties	●	
Explicit and comprehensive criteria for investment selection, including measurable impact results	●	
External evaluations for decision making in line with project characteristics	●	
Factor Score	1	

Use of Proceeds

All the net proceeds (after deducting amounts primarily associated with issuance expenses and funding of debt service reserve funds) will be allocated for investment pursuant to the above framework. The Mexico City New International Airport was conceptualized to achieve a neutral carbon footprint and 100% clean energy operation. An estimated $5.9 billion in potentially eligible environmental projects have been identified and will be financed in line with the Green Bond framework that GACM, the airport sponsor, has adopted across five eligible environmental categories: renewable energy, energy efficiency, water and wastewater management, pollution prevention and control, and conservation and biodiversity. Furthermore, potentially eligible projects have been identified, and a dedicated Green Bond Committee with broad representation and expertise has been established to consider and evaluate eligible environmental project proposals. Explicit criteria have been established for evaluation, decision-making and oversight, within a broader context of sustainability goals and objectives for the airport project.

A listing of potentially eligible projects is included in the Exhibit below.

Listing of potentially eligible projects and corresponding environmental impact indicators

Eligible Green Project Category	Examples of Potentially Eligible Projects	Potential Environmental Impact Indicators
1. Sustainable Buildings	Design, Planning and Construction of specific buildings seeking LEEDv4 Certification: (1) Passenger Terminal Building; (2) Ground Transportation Center; (3) Air Traffic Control Center	LEEDv4 Scorecards: Third-party LEED Commissioning Agent (Revitaliza Consultores; retained in March 2016 until post-occupancy) responsible for measurement, verification, LEED credit documentation and oversight to ensure project compliance with LEED certification requirements
2. Renewable Energy	Plans for on-site solar PV installation: Transmission infrastructure designed to incorporate potential future development of on-site and local renewable energy generation projects (e.g: expansion of solar PV capacity); development of biogas and landfill gas projects	Renewable energy generation capacity in MW; renewable energy production (MWh/year)
3. Energy Efficiency	Two central utility plant facilities focused on the modeling, optimization, monitoring and control of energy consumption; Energy Star and other energy efficient equipment and systems	Energy consumption of various buildings and facilities (KWh/year); reduction in electricity and fuel consumption relative to industry baselines
4. Water and Wastewater Management	Water treatment plants for potable and grey water; sewage treatment plant	Potable and non-potable water consumption (m^3); volume of water treated on-site (m^3); volume of water recycled on-site (m^3)
5. Pollution Prevention and Control	Waste collection, sorting, and treatment facility; soil remediation and treatment projects	Volume of waste diverted from landfill (tons); volume of hazardous waste treated (tons)
6. Conservation and Biodiversity	Various projects scoped through Environmental Impact and Risk Studies and in consultation with regulators (e.g. SEMARNAT) and technical advisors (e.g. Instituto Politecnico Nacional) including: (1) mitigation of impacts to wetlands ecology; (2) flora and fauna rescue and relocation; (3) monitoring and conservation of avian species	Qualitative descriptions of projects, initiatives and commitments: (1) reforestation (hectares); (2) maintenance and conservation of wetlands (hectares)

Source: Company reports

Factor 2: Use of Proceeds (40%)	Yes	No
>95% - 100% of proceeds allocated to eligible project categories that are determined based on the issuer's adopted policies and the categories established under the Green Bond Principles that will be further informed by one or more robust and widely recognized green bond frameworks or taxonomies that qualify eligible projects, including any applicable regulatory guidelines.	●	
Factor Score	1	

Disclosure on the Use of Proceeds

GACM will use the net proceeds to finance the design, construction, development and operation of NAICM in accordance with the NAICM Green Bond Framework, which provides a detailed description of potentially eligible projects. The framework includes a process for evaluating and selecting green projects based on determined eligibility criteria.

The GACM Environmental and Sustainability team and other sustainability experts will identify potential green projects, based on eligibility criteria outlined in the NAICM Green Bond Framework (use of proceeds section) and the projects' alignment with the plans, goals or criteria identified in various environmental plans, programs and impact assessments. These include the NAICM Environmental Master Plan, NAICM environmental plans and programs, and NAICM environmental impact assessments.

The NAICM Green Bond Committee will review all proposed (existing and future) potential green projects to determine their eligibility under the NAICM Green Bond Framework.

GACM has committed to track the net proceeds of the 2016 notes, and will confirm that such proceeds were used for eligible project categories and projects as set out in the Green Bond Framework. GACM has also committed to continued disclosure on the portfolio balance of unallocated proceeds.

Factor 3: Disclosure on the Use of Proceeds (10%)	Yes	No
Description of green projects, including portfolio level descriptions, actual and/or intended	●	
Adequacy of funding and/or strategies to complete projects	●	
Quantitative and/or qualitative descriptions for targeted environmental results	●	
Methods and criteria, both qualitative or quantitative, for calculating performance against targeted environmental results	●	
Issuer relies on external assurances: Second party reviews, audits and/or third party certifications	●	
Factor Score	**1**	

Management of Proceeds

The net proceeds will be segregated and deposited directly into a trust held by GACM, which the Mexican Ministry of Communications and Transportation (SCT) wholly owns. GACM is responsible for maintaining internal records showing the allocation of net proceeds to fund eligible green projects until the proceeds are fully spent.

Pending the allocation of net proceeds to existing and new eligible green projects, the proceeds may be used to repay outstanding debt, or for cash investments (or other liquid market instruments) or other lending purposes. GACM has committed to monitor and account for net proceeds, to ensure that the allocation of such proceeds, even in the short term, complies with eligible projects and meets the eligibility criteria detailed in the framework.

To the extent that proceeds are invested in liquid investments, these will consist of short-dated government securities.

GACM has also undertaken a number of measures to increase transparency around the projects and uses of net proceeds, including establishing a Transparency Unit to ensure that relevant information about the NAICM project is made available to the public. Documentation on the project is updated regularly and made available to the public through its website (www.aeropuerto.gob.mx).

In terms of audits, two main entities are currently involved in the auditing and oversight of GACM: the Ministry of Public Administration (Secretaría de la Función Pública, SFP) through the Internal Control Body (Órgano Interno de Control, OIC) of SCT; and the Superior Audit Office (Auditoría Superior de la Federación, ASF), which oversees all parts of the general government sector, reports to Congress, and is completely independent of GACM and the executive branch of government. However, it does not appear that there will be a direct focus on the system used for tracking disbursements earmarked for eligible projects.

Factor 4: Management of Proceeds	Yes	No
Bond proceeds are segregated and separately tracked on an accounting basis or via a method by which proceeds are earmarked	●	
Application of proceeds is tracked by environmental category and project type	●	
Robust process for reconciling planned investments against actual allocations	●	
Clear eligibility rules for investment of cash balances	●	
Audit by external organization or independent internal audit unit		●
Factor Score	2	

Ongoing Reporting and Disclosure

To provide additional transparency around the complex airport program, its scale and the potentially longer lead times associated with the allocation of the proceeds, NAICM has committed to providing quarterly updates, starting within three months of the notes' issuance and continuing until the net proceeds are fully allocated and as necessary thereafter in case of new developments. Where feasible, the NAICM Green Bond Report will include qualitative and (if reasonably practicable) quantitative environmental performance indicators on the eligible green projects. Performance indicators may change from year to year, and may include some of the following indicators:

1. List of eligible buildings that received third-party verified green building certification
2. Energy and/or water consumption of buildings
3. Energy and/or water use reduction achieved by eligible green projects
4. Greenhouse gas emissions reduced by an eligible green project
5. Amount of waste reduced or diverted from landfill
6. Energy purchased or generated on-site from renewable sources

GACM obtained a second-party opinion from consultancy Sustainalytics to confirm the validity of the NAICM Green Bond Framework, which will be published on the NAICM website. GACM will also engage an appropriate external reviewer to review the allocation of net proceeds and provide a report on its conformity with the NAICM Green Bond Framework. The review will be conducted annually until the net proceeds are fully allocated to eligible green projects. The external reviewer's report will be published on the NAICM website.

Factor 5: Ongoing Reporting and Disclosure (20%)	Yes	No
Reporting and disclosure post issuance provides/to be provided detailed and timely status update on projects	●	
Ongoing annual reporting is expected over the life of the bond		●
Disclosures provide granular detail on the nature of the investments and their expected environmental impacts	●	
Reporting provides/to be provided a quantitative and/or qualitative assessment and the environmental impacts actually realized to-date	●	
Reporting includes/to include quantitative and/or qualitative explanation of how the realized environmental impacts compare to projects at the time the bonds were sold	●	
Factor Score	2	

About Mexico City's New Airport

GACM sponsors the airport project. The group holds the concession to build, develop, operate, manage and exploit the new airport, which will be constructed in phases calibrated to meet increases in passenger traffic. The first phase is estimated to be completed in 2020, with capacity to support 50 million passengers. Once the second phase of construction is complete, the airport is expected to have capacity to support 125 million passengers. The airport includes the following main components:

» Airdrome, including runways, taxiways and access roads, platforms, air navigation services and equipment, and air traffic control tower

» Passenger terminal

» Parking lots and public access areas, connections to external streets and traffic, network roads, ground transportation center

» Support areas, including general aviation, cargo, logistics center, administration, central plant services, military and government installations and fuel facilities

» Aerotropolis (future residential and commercial development areas)

» Ecological restoration and conservation areas, water and waste management facilities, and energy generation and transmission infrastructure

Background on Mexico City International Airport

In September 2014, Mexico's President Enrique Peña Nieto announced the development and construction of a new international airport in Mexico City to meet the projected long-term demands of air travel in the city. The new airport, which was originally proposed in the early 2000s, is one of the most important infrastructure projects to be undertaken in Mexico in recent decades.

Consistent with Mexico's ambitious Paris Agreement commitment, under which its greenhouse gas emissions peak in 2026 and then decline by 22% by 2030, the plans call for the airport to be 100% environmentally sustainable. Notwithstanding that pollution and noise will be generated during the construction phase and once NAICM is fully operational, an environmental master plan has been adopted. The plan aims to address adverse environmental impacts and achieve a balance between economic, environmental and social considerations.

The environmental master plan, which the Mexican Ministry of Environmental and Natural Resources (SEMARNAT) coordinated, established a set of ambitious goals for the airport. Key objectives include:

» Achieving a neutral carbon footprint

» 100% clean energy operation

» Attainment of LEED certifications. The airport is on target to achieve LEEDv4 platinum certifications for the passenger terminal building, and LEEDv4 Gold certification for the air traffic control tower and ground transportation center

» Achieving 30% savings in water consumption

» Restoring an environmentally degraded area

» Using solar energy to generate electricity

» Water usage to be sourced to on-site treated wastewater

» Preserving and protecting bird habitats in the area

» Sanitizing nine eastern rivers

A team with proven experience in airport design and construction has led the project's design and integration. Members include ARUP, the developer of the master plan; Foster + Partners, working in collaboration with Fernando Romero Enterprise (FR-EE) architects; and Netherlands Airport consultants, serving as master engineer. US construction firm Parsons was retained to form a consortium with Mexican companies to build the airport.

In addition to meeting federal environmental laws and regulations, which have been increasing in Mexico in recent years, NAICM is also subject to state and municipal rules and regulations. Assessments of the environmental and social risks and impacts linked to the NAICM project were prepared in the form of an environmental impact assessment and an environmental risk study submitted for evaluation to SEMARNAT. (Information continues on the following page.)

As recommended in the resolution to the environmental impact statement issued by SEMARNAT, mitigation measures are anticipated to address potential impacts to fauna and flora at the airport site and its surroundings. Furthermore, the businesses and neighborhoods that will develop post-construction will require water, which calls for investments that the National Water Commission is coordinating. The NAICM project has addressed these concerns with plans to rescue an ecologically degraded zone by developing green areas, particularly the Metropolitan Forest, which will comprise 670 hectares. In addition, 5,000 hectares will be reforested within the Valley of Mexico.

The environmental master plan sets ambitious goals for NAICM, such as obtaining the LEED certification, becoming the first non-European airport to operate with a neutral carbon fingerprint, and deriving 100% of its energy from clean local sources. In this respect, the plans include the construction of a biogas plant and taking advantage of solar intake conditions, which are much better than those of other some large airports.

A variety of measures and programs will be used to address the issues raised by the resolution to the environmental impact assessment. They primarily include obtaining insurance coverage to assure the implementation of the mitigation activities; preparation of evaluation, management, control and restoration programs, to be presented prior to the start of construction activities and implemented during the construction, operation and maintenance stages; implementation of monitoring programs; presentation of periodic reports; and the appointment of an environmental surveillance committee to evaluate the project's performance.

NAICM's environmental and social programs were found to be compliant with the requirements of the Equator Principles, as well as the International Finance Corporation's Performance Standards. The finding was based on an assessment conducted by URS Corporation Mexico, a subsidiary of AECOM, for the benefit of certain lenders, which formed part of the credit facility concluded in June 2015.

Moody's Green Bond Assessment (GBA)

Moody's GBA represents a forward-looking, transaction-oriented opinion on the relative effectiveness of the issuer's approach to manage, administer and allocate assets to, and report on, environmental projects financed by proceeds from green bond offerings. GBAs are expressed using a five-point relative scale, ranging from GB1 (Excellent) to GB5 (Poor). A GBA does not constitute a credit rating.

Moody's Related Research

Methodology:

» Green Bonds Assessment (GBA), March 30, 2016

Issuer In-Depth:

» Mexico City Airport Trust: Pre Sale Report, September 6, 2016

Sector In-Depth:

» Green Bonds - Global: France's Sovereign Offering Propels Strong First-Quarter 2017 Issuance, April 20. 2017

» Environmental Risks: Shift in US Climate Policy Would Not Stall Global Efforts to Reduce Carbon Emissions, February 16, 2017

» Green Bonds - Global: Record Year for Green Bonds Likely to Be Eclipsed Again in 2017, January 18, 2017

» Environmental Risks - Sovereigns: How Moody's Assesses the Physical Effects of Climate Change on Sovereign Issuers, November 7, 2016

» Regional and Local Governments - EMEA: Sub-sovereign green bond issuance has growth potential, September 21, 2016

» Environmental Risks: Risks and Opportunities: What the Paris Agreement Means for Capital Markets, July 20, 2016

» Cross Sector - Global: Moody's Approach to Assessing the Credit Impacts of Environmental Risks, November 30, 2015

» Environmental Risks: Heat Map Shows Wide Variations in Credit Impact Across Sectors, November 30, 2015

» Environmental, Social and Governance (ESG) Risks - Global: Moody's Approach to Assessing ESG Risks in Ratings and Research, September 8, 2015

Sector Comment:

» US - Utilities and Public Power: US Executive Order on Clean Power Plan Will Slow, But Not Halt, Transition Away From Coal, March 31, 2017

» Green Bonds - Global: Green Bond Principles (GBP) Are Updated and Expanded, August 31, 2016

Endnotes

1 The special purpose trust has been created pursuant to the Irrevocable Administration and Payment Trust Agreement No. 80460 (Contrato de Fideicomiso Irrevocable de Administración y Pago Número 80460) acting through Nacional Financiera, S.N.C., Institución de Banca de Desarrollo, Dirección Fiduciaria, in its capacity as trustee, and operating under the laws of Mexico

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