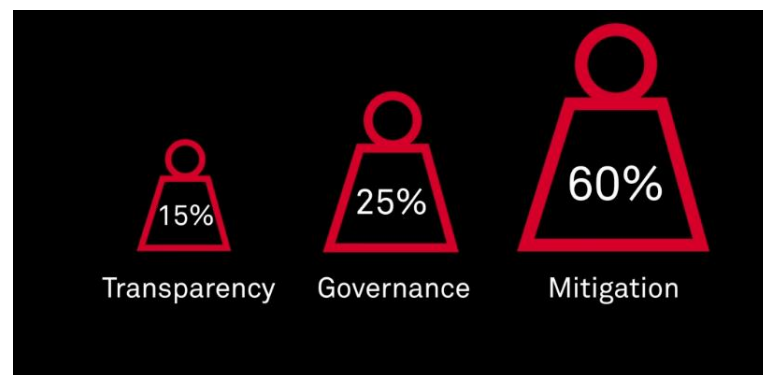
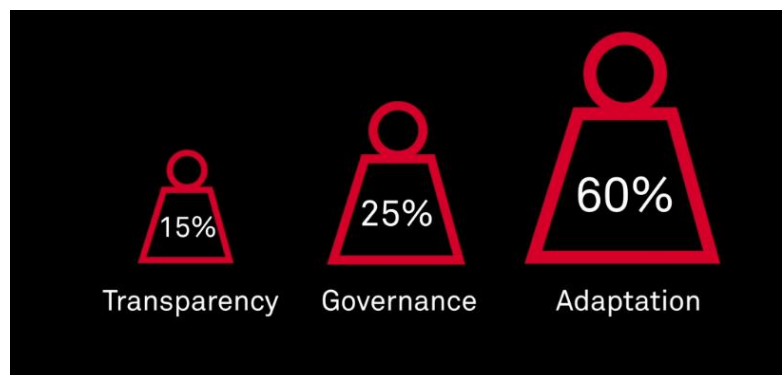


S&P Global's Green Evaluation Tool - Airports



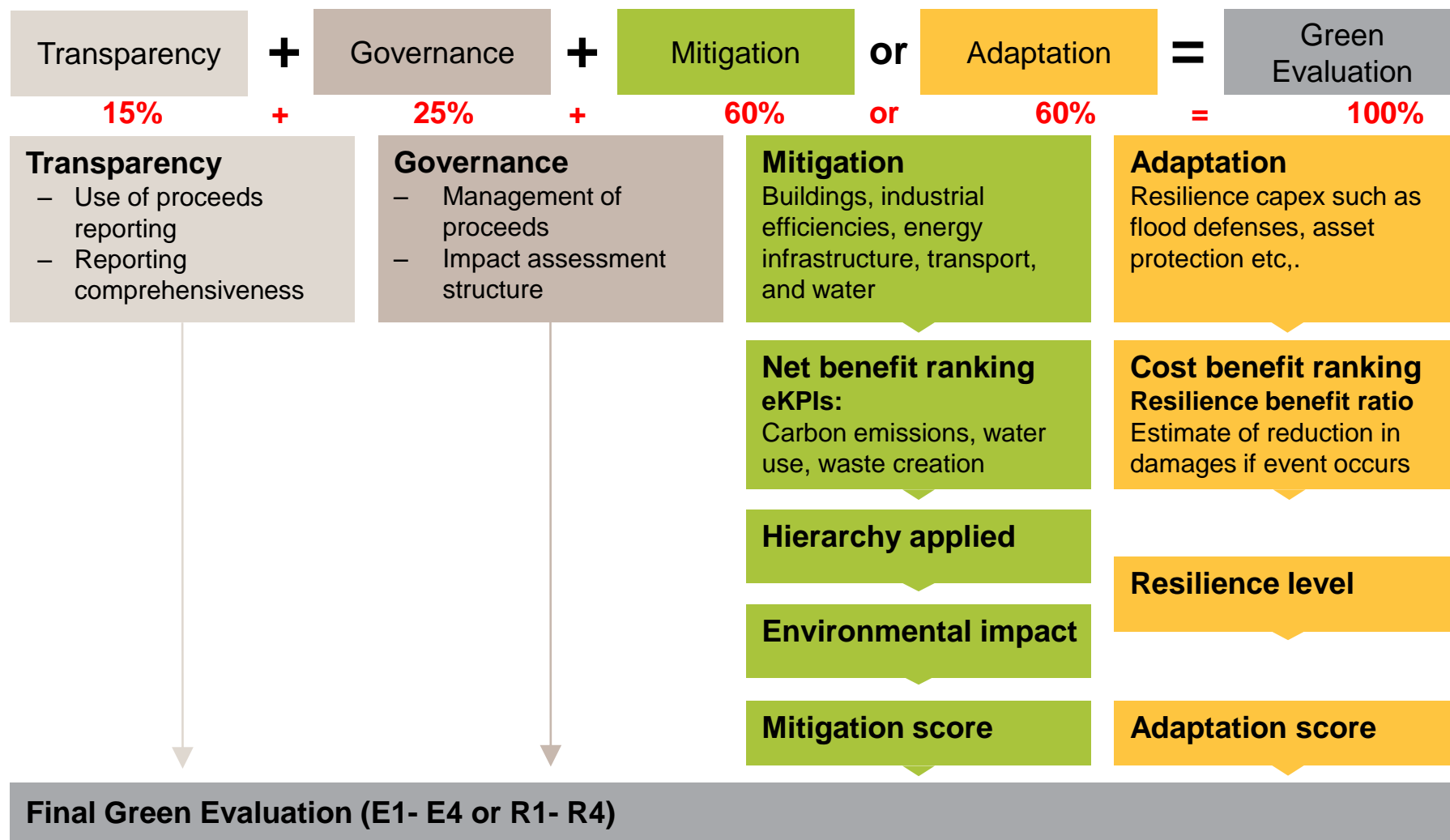
S&P Global Ratings Green Evaluation – for Mitigation and Adaptation Projects

- Provides an asset-level environmental benchmark that goes beyond existing green frameworks to provide a relative environmental impact taking into account the location and technology being applied.
- Defines the value of "green" for capital markets and any other financing – whether it is labelled by the issuer or not. Enable institutional investment in sustainability by providing the confidence of independent evaluation of environmental impact.
- Can opine on alignment with International Capital Markets Association's Green Bond Principles.
- For Mitigation projects, we evaluate and score 0-100 the relative net benefit of the projects financed by proceeds over their lifetime relative to a local baseline on a E1-E4 scale.
- For Adaptation projects, we evaluate and score 0-100 the relative resilience benefits of the projects financed by proceeds over their lifetime on a R1-R4 scale.



Green Evaluation Analytical Approach

Weighted aggregate of three:



* eKPI – Environmental Key Performance Indicator

Full list of technology types that are currently in scope



Renewable Energy

- Solar PV
- Solar thermal
- Hydro small (<30mw)
- Hydro large (>30mw)
- Onshore wind
- Offshore wind
- Wave & tidal
- Landfill gas
- Geothermal
- Biomass



Transport

- Rail (electric and diesel)
- High speed rail
- Underground urban rail
- Overground urban rail
- Hybrid vehicles
- Electric vehicles
- Hydrogen fuel cell vehicles
- Electric buses
- Diesel buses



Buildings

- New build commercial
- New build residential
- Refurbishment HVAC
- Refurbishment LED lighting
- Refurbishment wall insulation
- Refurbishment roof insulation
- Refurbishment door & window insulation



Energy Efficiency

- Heating and cooling
- Electronics
- Residential appliances
- Office equipment
- Commercial food services equipment
- Industrial efficiencies – Aluminium
- Industrial efficiencies – Cement
- Industrial efficiencies – Chemicals
- Industrial efficiencies – iron & steel
- Industrial efficiencies – pulp & paper



Water

- Conservation measures in residential buildings
- Conservation measures in commercial buildings
- Conservation measures in industrial equipment
- Smart metering in residential buildings
- Reducing water losses in the water distribution network
- Water desalination to supply potable municipal water
- Recycling wastewater to supply potable municipal water
- Recycling wastewater to supply non-potable water for agricultural uses
- Recycling wastewater to supply non-potable water for other industries
- Wastewater treatment to with no energy recovery
- Wastewater treatment with energy recovery



Fossil Fuels

- New clean coal (sub critical, super critical, ultra-supercritical and advanced ultra-supercritical)
- Coal to gas
- Power plant improvements



Nuclear

- Nuclear (refurb or new)

Carbon Hierarchy

The Mitigation or Adaptation categories account for 60% of the final score. In recognition of the varying levels of contribution to avoiding climate change by different technology, we consider each technology's overall contribution to decarbonization that would not be fully captured by our regional net benefit calculation alone.

This gives us the overall score.

Role In Green Transition

Systematic decarbonization of economies

Significant Decarbonization of Key sectors through low-carbon solutions

Decarbonization by alleviating emissions in intensive industries

Decarbonization technologies with significant environmental hazards

Improvement of fossil fuel based activities' environmental efficiency & impact

Technology

Wind and Solar Power, Small and Large Hydro

Energy management and control

Green Transport apart from hybrid/fuel efficient vehicles

Green buildings new built best standards/net zero

Industrial efficiencies

Green Transport (with fossil fuel combustion) Green buildings refurbishment/new built lower standard

Energy-efficient products

Nuclear

Large Hydro in tropical areas

Coal to natural gas, Clean fuel production, Clean use of coal

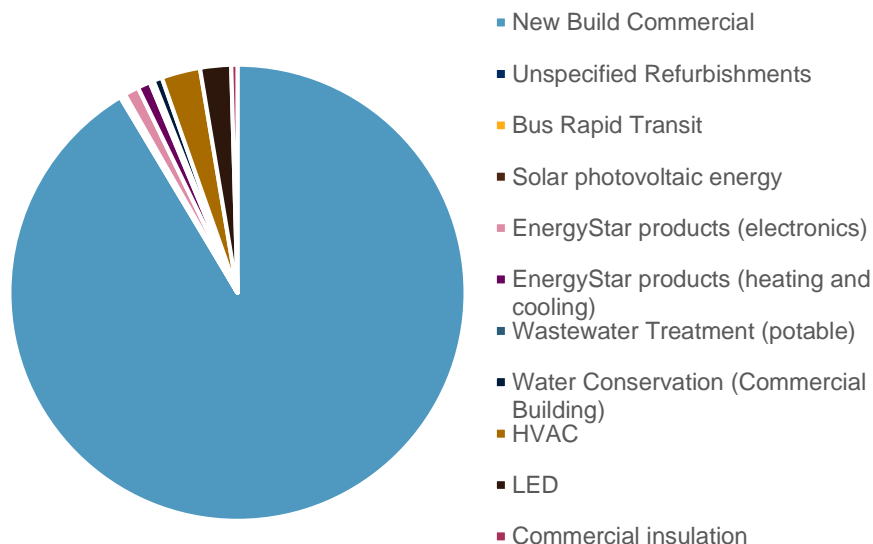
Increasing contribution to climate change avoidance

Airport Green Evaluations

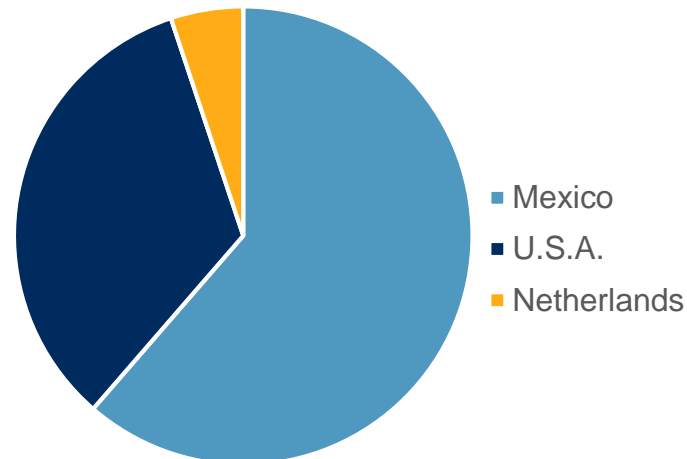
Green Evaluations of Airport Transactions (proposed and final)

As of Oct 15, 2018

Split by Technology (USD millions equivalent)



Split By Country (USD millions equivalent)



Source: S&P Global Ratings

S&P Global Ratings' Public Green Evaluations

Green Evaluation	Region	Financing Value (millions)	Green Labelled	Overall score (0-100)	Overall score (E1-E4)
Royal Schiphol Group Green Bond	Netherlands	€ 500 (proposed)	Yes	74	E2
DZ Bank AG Preferred Senior Notes	Germany	€ 250	Yes	85	E1
Denver Airport System Revenue Bonds	USA	US\$2,280	No	87	E1
Greenalia Biomass Power Curtis Teixeira	Spain	€125	No	77	E1
Ygrene Energy Fund Inc.	USA	US\$340.47	Yes	76	E1
ACS Servicios Comunicaciones y Energia S.L	Global	€750	Yes	83	E1
Eolica Mesa La Paz S. de R.L de C.V	Mexico	US\$303	No	91	E1
Modern Land (China) Co. Ltd.	China	US\$350	Yes	84	E1
BIF III Holtwood LLC	USA/Global	US\$350	No	90	E1
Landsea Green Group Co., Ltd.	China	US\$200	Yes	84	E1
Ence Energia	Spain	€220	No	79	E1
Bazalgette Finance Tideway	U.K.	£10,000	No	95	E1
Hannon Armstrong	USA	US\$163.75	No	80	E1
Province of La Rioja	Argentina	US\$200	Yes	85	E1
Brookfield Power New York Finance	USA	US\$305	No	91	E1
Tennet Holding	Germany	€1,000	Yes	95	E1
Greater Orlando Aviation Authority Revenue Bonds	USA	US\$997	No	78	E1
Capital Region Water	USA	US\$44	No	87	E1
Mexico City Airport Trust Program	Mexico	US\$6,000	Yes	77	E1
DC Water & Sewer Authority	USA	US\$100	Yes	92	E1
Brookfield White Pine Hydro	USA	US\$475	No	90	E1
Three Gorges Finance II	EMEA	€650	Yes	83	E1
Göteborg (City of)	Sweden	SEK 1,000	Yes	67	E2
Cross Sound Cable	USA	US\$120	No	87	E1

Green Evaluation

Royal Schiphol Group Proposed €500 Million Green Bond

Transaction Overview

In Q4 2018, Royal Schiphol Group N.V. (Schiphol) plans to issue a €500 million green bond. This is the first green-labeled bond that Schiphol will issue. The company will raise the proceeds under its €3 billion euro medium-term note program and will use the proceeds to improve the energy efficiency of its airport terminals and pier buildings, commercial and other real estate, build new energy-efficient buildings as well as invest in clean transportation assets and infrastructure in Amsterdam, the Netherlands. In our opinion, this proposed transaction is aligned with the Green Bond Principles 2018 (GBP).

Entity:	Royal Schiphol Group N.V.
Subsector:	Airport Services
Location (HQ):	Netherlands
Financing value:	€500 million
Amount evaluated:	100%
Evaluation date:	Oct. 1, 2018
Contact:	Noemie de la Gorce +44 (0) 207 176 9836 Noemie.delagorce@spglobal.com

Green Evaluation Overview

Transaction's Transparency

- Use of proceeds reporting
- Reporting comprehensiveness

70

Transaction's Governance

- Management of proceeds
- Impact assessment structure

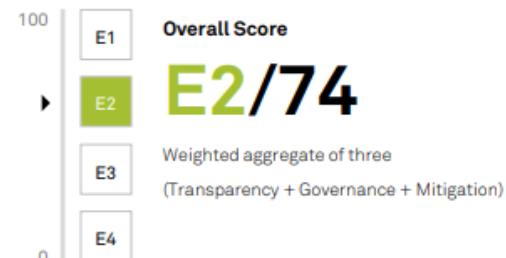
90

Mitigation

Sector	→ Net Benefit Ranking	→ Hierarchy Adjustments	
Green Building	Refurbishment - Commercial	Alleviating emissions of existing carbon-intensive industries	74
	New Build - Commercial	Significant decarbonization in sectors already aligned with a green economy	
Green Transport	Bus Rapid Transit		

Adaptation

NA



Schiphol Airport proposed Green bond

The excellent Governance score (90) reflects the robust practices that Schiphol has adopted to support the greenness of its transaction. The company has set up a sustainability committee that is in charge of selecting projects in the green building and green transportation sectors, in line with its green bond framework. Green proceeds will not be transferred to a separate sub-account, but their allocation to eligible projects will be tracked by the committee and audited by Schiphol's external auditor. The company is also committed to monitoring the environmental impact of all projects financed by its €500 million green bond, on a life-cycle basis for its green building projects, and over the economic life of its green transport projects.

The Governance score further benefits from Schiphol's commitment to certify its green buildings against higher industry standards. The company's green portfolio only includes new buildings receiving one of the following certifications:

- LEED Platinum or Gold
- BREEAM Outstanding, Excellent, or Very Good
- Energy Performance of Buildings Directive (EPBD) A

Furthermore, Schiphol will only include retrofitted buildings, demonstrating a minimum two-step improvement in energy label and achieving at least an EPBD B. Buildings receiving an EPBD B are among the 15% most energy-efficient buildings in the Netherlands.

The solid Transparency score (70) reflects Schiphol's commitment to annually disclose the allocation of green proceeds along with the environmental impact of some of its eligible projects, including the energy certificates of its green buildings. The company is planning to have independent assurance of its environmental impact data and disclose the methodology used to calculate this data. The Transparency score is weakened by Schiphol's commitment to report data by project categories--Green Buildings and Green Transport, and not at the individual project level.

Second Opinion On GBP Alignment

Based on a Transparency score of 70 and Governance score of 90, and that 100% of proceeds have or will be allocated to green projects, we expect this bond to meet the basics of the four pillars of the voluntary GBP given the issuer has committed to:

- Allocating the full amount of the net proceeds of bonds to eligible green projects – as defined by the issuer,
- Using clear "green" criteria (as defined by the issuer) to select projects for funding,
- Managing and tracking proceeds, and
- Committing to regular reporting of environmental impact and use of proceeds.

A Green Evaluation is a point in time assessment and is not monitored.

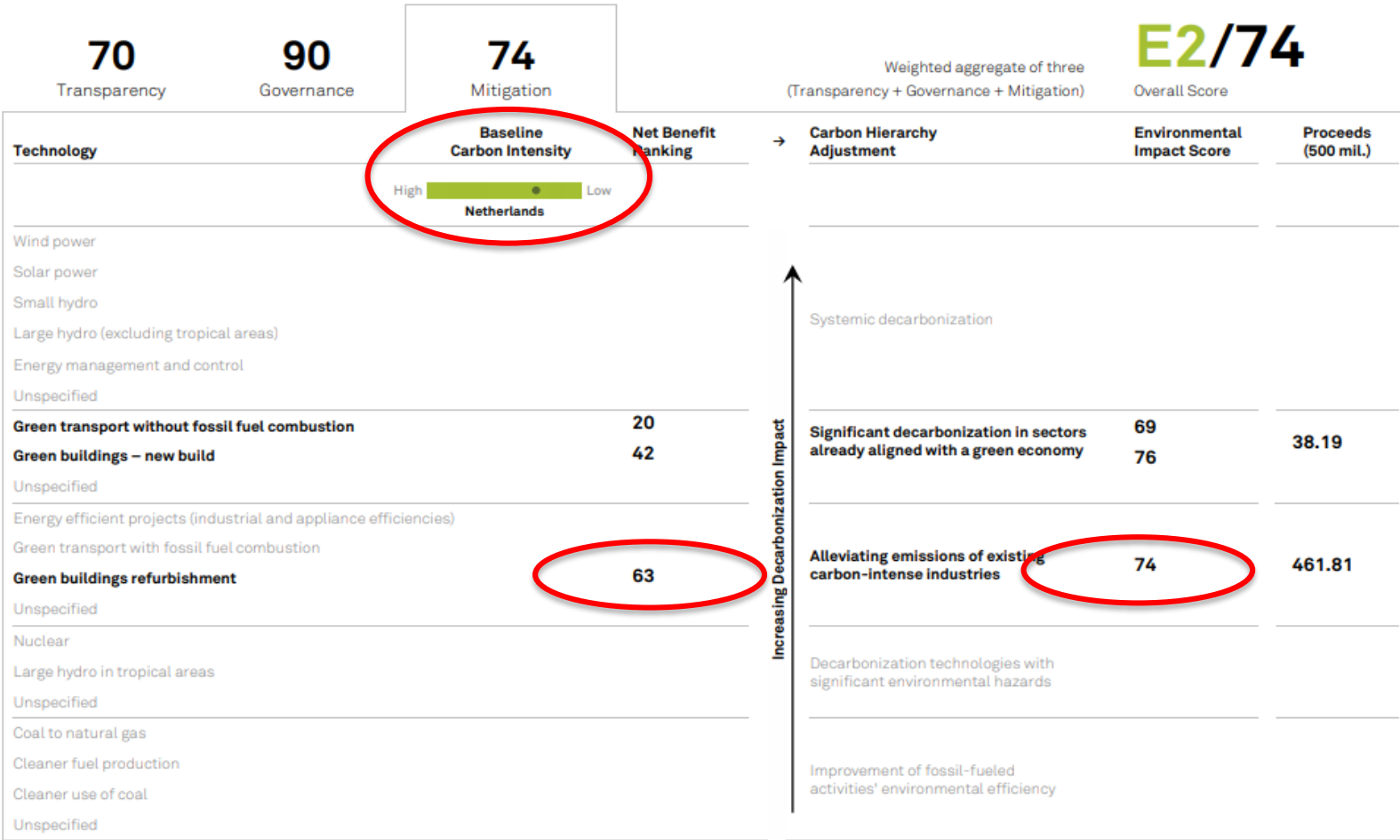
Sector level scores

Sector	Location	Technology	Use of Proceeds (MIL. €)	Use of Proceeds Treatment	Net Benefit Ranking
Green Buildings	Netherlands	Refurbishment – Commercial HVAC	230.90	Estimated	70
Green Buildings	Netherlands	Refurbishment – Commercial LED	184.72	Estimated	60
Green Buildings	Netherlands	Refurbishment – Commercial Insulation	36.94	Estimated	45
Green Buildings	Netherlands	New Build - Commercial	33.70	Estimated	42
Green Buildings	Netherlands	Refurbishment – Not Specified	9.24	Estimated	10
Green Transport	Amsterdam, Netherlands	Bus Rapid Transit	4.49	Estimated	20
			500		

Schiphol Airport proposed Green bond

Carbon

Green Evaluation Process



Green Evaluation

Mexico City Airport Trust

Transaction Overview

Fideicomiso 80460 (the Mexico City Airport Trust) is a financing trust that has the benefit of an assignment of all airport passenger charges (Tarifa de Uso de Aeropuertos; TUA) generated by Mexico City's existing Aeropuerto Internacional de la Ciudad de México (AICM) airport and future TUA from the city's new airport (NAICM), which is under construction. This trust, issued in September 2016, the first series of senior secured bonds for a total amount of about US\$2 billion. We expect bond debt to gradually increase, reaching up to US\$6 billion over the next two to three years. We expect the trust to issue at least three tranches through 2020, with maturities ranging from five years to 20 years or more. This analysis addresses the entire amount of the financing to be raised by the trust within the construction phase. All proceeds will partially fund the construction of the NAICM and will be labeled as green. The remaining funds for the financing of the NAICM (estimated at about US\$7 billion) will come from the Mexican government, the airport's sponsor and concession holder.

Green Evaluation Overview

Transparency

- Use of proceeds reporting
- Reporting comprehensiveness

88

Governance

- Management of proceeds
- Impact Assessment Structure

75

Mitigation

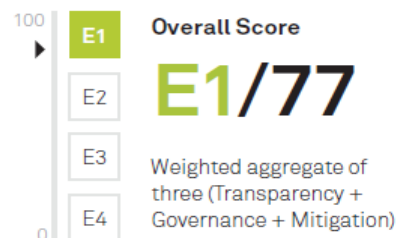
Sector	→ Net Benefit Ranking	→ Hierarchy overlay
Green Energy	Solar photovoltaic power generation	
Green Buildings	New build - commercial	
Energy Efficiency	Energy Star products - electronics; Energy Star products - heating and cooling	
Water	Wastewater treatment	

78

Adaptation

NA

Entity: Mexico City Airport Trust
ICB subsectors: N.A.
Location (HQ): Mexico
Financing value: US\$6 billion
Amount evaluated: 98%
Evaluation date: July 21, 2017
Contact: Candela Macchi
+54-11-4891-2110
candela.macchi@spglobal.com



Denver Airport System Subordinate Revenue Bonds Series 2018A And 2018B

Transaction Overview

The Department of Aviation of the City and County of Denver, Colorado (Denver) owns and operates the Denver International Airport (DEN). Denver is issuing \$2.3 billion in airport system subordinate revenue bonds maturing in December 2048. A portion of the proceeds of the series 2018A and 2018B bonds will be used for capital investments under the 2018-2022 Capital Improvement Plan (CIP), including to expand and rehabilitate the airport's concourses and Great Hall, as well as to improve other facilities. While other portions of the CIP will have environmental impacts and may be within the scope of our analytical approach, per the issuer's request, our Green Evaluation's exclusive focus is the projects related to the expansions of Concourses A, B, and C, which are being built to LEED Gold standards. For this reason, we are only evaluating \$921.75 million (or 41%) of the proceeds of the series 2018A, 2018B, and 2018C issuance.

Entity:	Denver International Airport
Subsector:	N.A.
Location (HQ):	United States
Financing value:	\$2,275 million
Amount evaluated:	41%
Evaluation date:	Aug 6, 2018
Contact:	Erin Boeke Burke +1-212-438-1515 erin.boeke-burke @spglobal.com

Green Evaluation Overview

Transaction's Transparency

- Use of proceeds reporting
- Reporting comprehensiveness

79

Transaction's Governance

- Management of proceeds
- Impact assessment structure

76

Mitigation

Sector	→ Net Benefit Ranking	→ Hierarchy Adjustments
Green Buildings	New Build - commercial	Significant decarbonization in sectors already aligned with a green economy

93

Adaptation

NA



Green Evaluation

Greater Orlando Aviation Authority Priority Subordinated Airport Facilities Revenue Bonds, Series 2017A

Transaction Overview

The Greater Orlando Aviation Authority (GOAA) controls and operates Orlando International Airport (MCO). GOAA is issuing the series 2017A bonds to finance a portion of the costs of its South Terminal Complex (STC) project. The approximately US\$1 billion in Series 2017A bonds will mature on Oct. 1, 2052. Specifically, the bonds will finance portions of the construction costs of five new buildings and several enabling projects. The buildings within the STC have been designed and will be constructed in line with Leadership in Energy and Environmental Design (LEED) Version 4 standards. Bond proceeds will be applied directly to the project, to fund debt service reserve and capitalized interest funds, to refinance line of credit draws associated with the project's financing, and to pay the cost of issuance. Although the bonds will not be labeled green bonds, none of the proceeds will be applied to projects outside the scope of the STC project. As such, our Green Evaluation applies to the full par amount of \$997 million.

Entity: Greater Orlando Aviation Authority
ICB subsector: N.A.
Location (HQ): United States
Financing value: \$997 million
Amount evaluated: 100%
Evaluation date: Aug. 21, 2017
Contact: Andrew Bredeson
 (303) 721-4825
 andrew.bredeson@spglobal.com

Green Evaluation Overview

Transaction's Transparency

- Use of proceeds reporting
- Reporting comprehensiveness

44

Transaction's Governance

- Management of proceeds
- Impact Assessment Structure

85

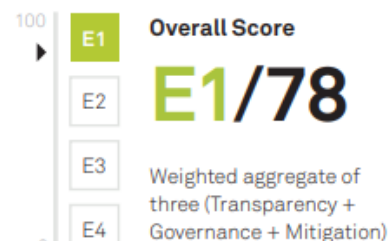
Mitigation

Sector	→ Net Benefit Ranking	→ Hierarchy adjustment
Green buildings	New build - commercial	Carbon

84

Adaptation

NA



Further Information: spratings.com/greenevaluation

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Green Evaluations

TIME TO TURN OVER A NEW LEAF?

Green issuance and investment is on a firm upward trajectory, propelled by the 2015 Paris Climate Agreement, and the impetus it created to finance \$1 trillion a year in investments for renewable energy and other initiatives to limit global warming.

At the same time, long-term investors are also recognizing the threat from greenhouse gases and have begun to diversify portfolios away from carbon-based investment. The final push is coming from corporations as they start to contend with the consequences of increasingly extreme and violent weather and flooding. Many are starting to see that managing environmental exposure may be more than risk management; it may be good for business.

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Sign up today

- BENEFITS FOR ISSUERS

Why go green?

- Diversify your investor base
- Potential to enjoy long term pricing advantages
- Internally benchmark your green performance Y-O-Y
- Send a strong, pro-active message to stakeholders
- Appeal to millennials as employees and customers

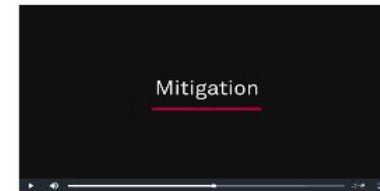
- BENEFITS FOR INVESTORS

Why go green?

- Meet your clients' needs/requests and satisfy your green mandates
- Balance risk-adjusted financial returns with sustainability benefits
- Reduce time to evaluate a complex and growing investment type

- WHY GO GREEN WITH S&P GLOBAL RATINGS?

S&P Global
Ratings



Green Evaluations Explained: Methodology for Mitigation Projects



Green Evaluations Explained: Methodology for Adaptation Projects



S&P Global Ratings Spotlight: Green Finance - Global Perspectives



Applying Our Green Evaluation To The Labeled Green Bond Universe

Q&A

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green.evaluation@spglobal.com**

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