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**The Flight Path to Renewable Electricity  
and Partnerships Needed**

**Ron Stella, Senior Sustainability Analyst**

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A large sea turtle is swimming towards the right side of the frame. Below it is a dense, green coral reef. In the upper portion of the image, a large school of small, reddish-orange fish is swimming. The entire scene is overlaid with a semi-transparent blue and white gradient that serves as a background for the text.

**Could you imagine the benefits of companies operating with Renewable Electricity?**

- **Airline Net Zero Commitment**
- **Levers towards 100% Renewable Electricity**
- **Partnership, Partnership, Partnership**
- **The major role STL plays in the larger picture**
- **Future: Net Zero Electricity Target**

# Airline Net Zero Commitment



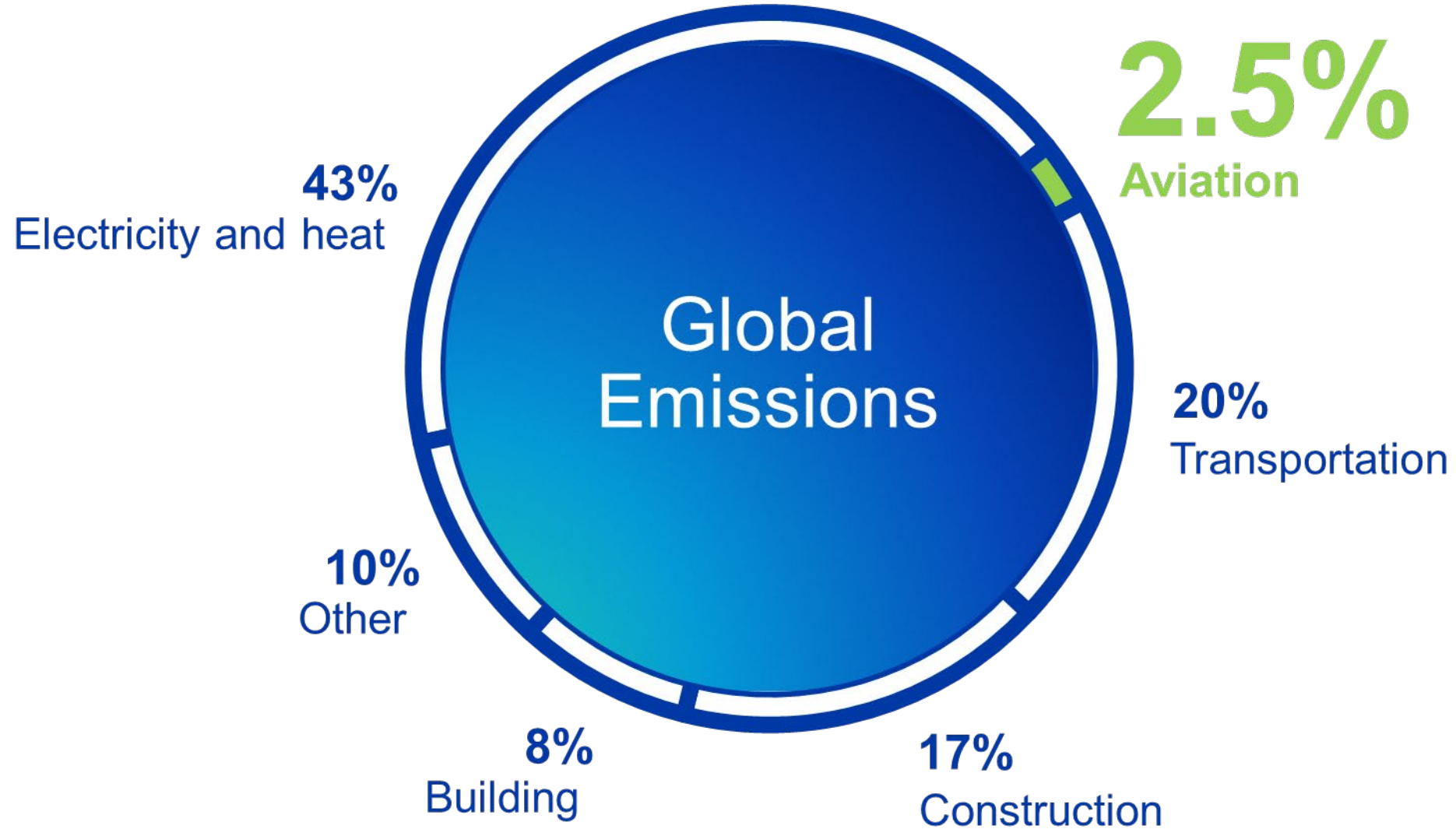
Source:  
International  
Air Transport  
Association

- Airline industry committed to achieve Net Zero carbon emissions by 2050
- Airline commitment aligns with the Paris Agreement goal to reduce emissions so that global warming does not to exceed 1.5°C
- Boeing is committed to supporting our aviation partner's climate ambitions

# Commercial Aviation's Impact

Green House Gas (GHG) Impacts Globally

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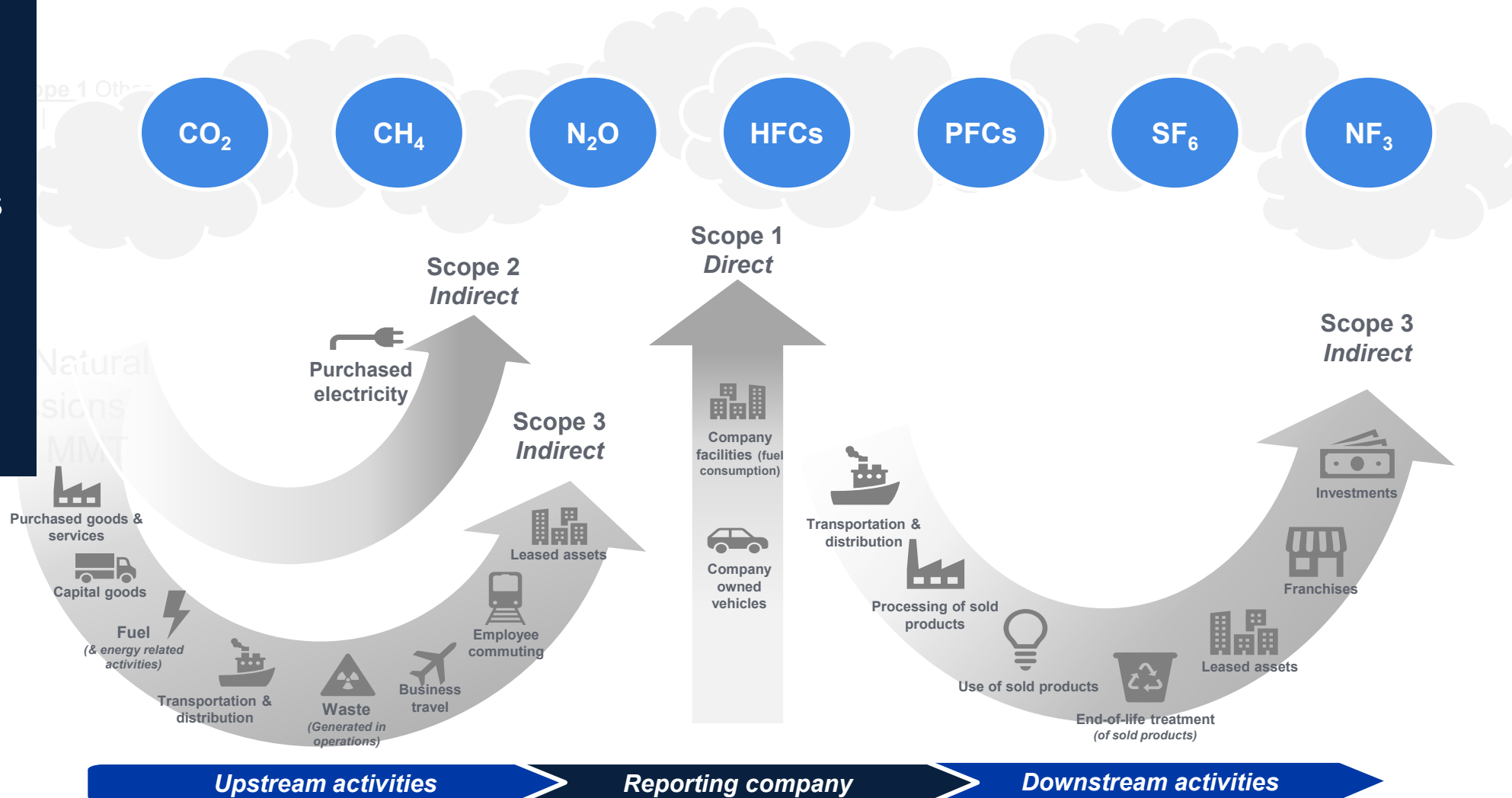
Source:  
2019,  
World  
Resources  
Institute

# GHG Emissions

CO2e standards

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Each GHG has a different warming potential. These 7 greenhouse gases are converted to equivalent CO2 (CO2e) for standardization.

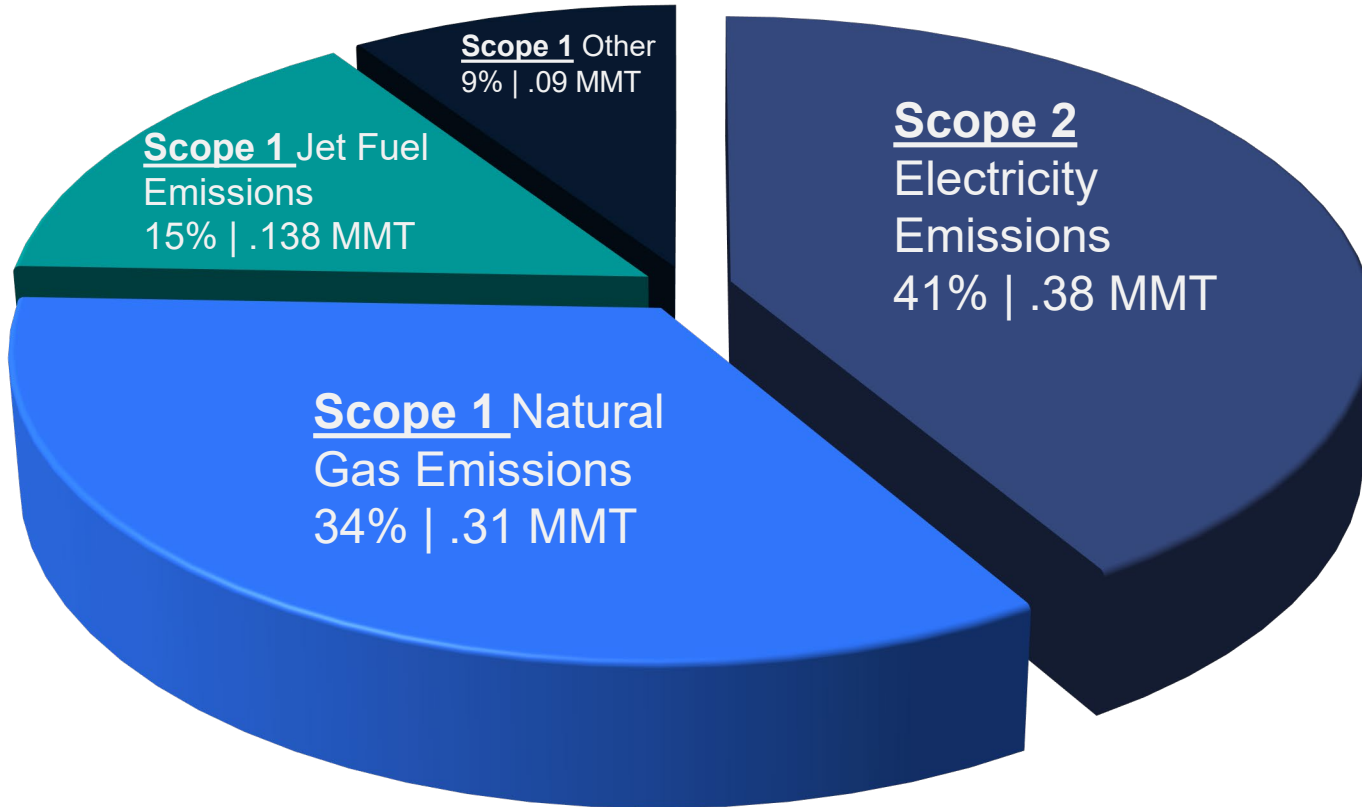


Source: GHG Protocol Scope 2 Guidance

# Boeing's 2023 Operational GHG Emissions

Operational Scope 1 & Scope 2 emissions ~0.917 Million MT (CO<sub>2</sub>e)

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## Our Reduction Levers

- Improve operational efficiency
- Increase Sustainable Aviation Fuel (SAF) use
- Enable electrification & fuel transition
- **Procure Renewable Electricity** to reduce Scope 2 emissions



➤ Our work is directly tied to our overall Sustainability Goals

➤ **2024 Sustainability & Social Impact Report:**

➤ <https://www.boeing.com/content/dam/boeing/boeingdotcom/sustainability/pdf/2024-boeing-sustainability-socialImpact-report.pdf>

### The Boeing Company 2024 Sustainability & Social Impact Report

President & CEO Letter

#### | Business Approach

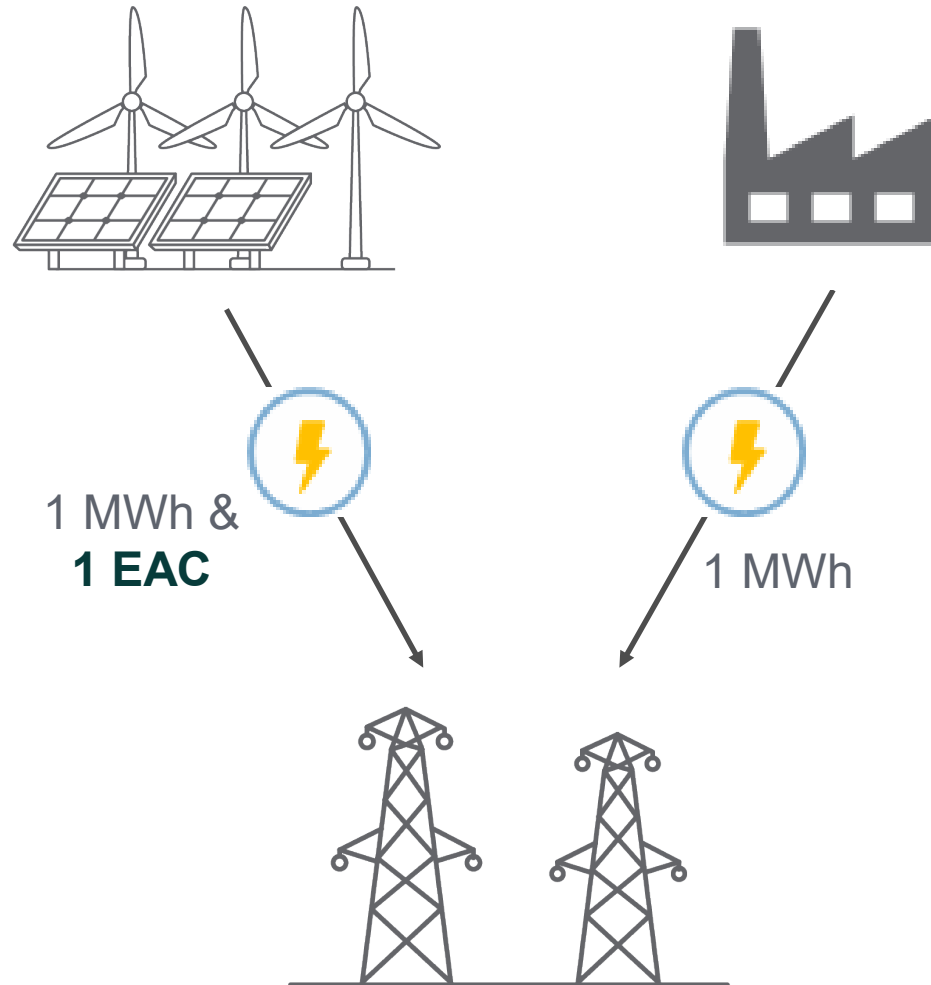
2023 Company Profile

CSO Letter

Stakeholder Engagement

Goal	2030 Target	Progress
<b>Sustainable Operations<sup>1</sup></b>		
Reduce greenhouse gas emissions from Boeing operations through conservation and renewable energy	Achieve 55% absolute reduction in Scope 1 and Scope 2 market-based GHG emissions from 2017 base year <sup>2</sup>	Achieved 26% absolute GHG reduction at year-end 2023 from 2017 base year toward 2030 goal (Scope 1 and Scope 2)
	Achieve 100% renewable electricity <sup>3</sup>	Achieved 39% renewable electricity in 2023 through a combination of direct purchases and renewable energy credits

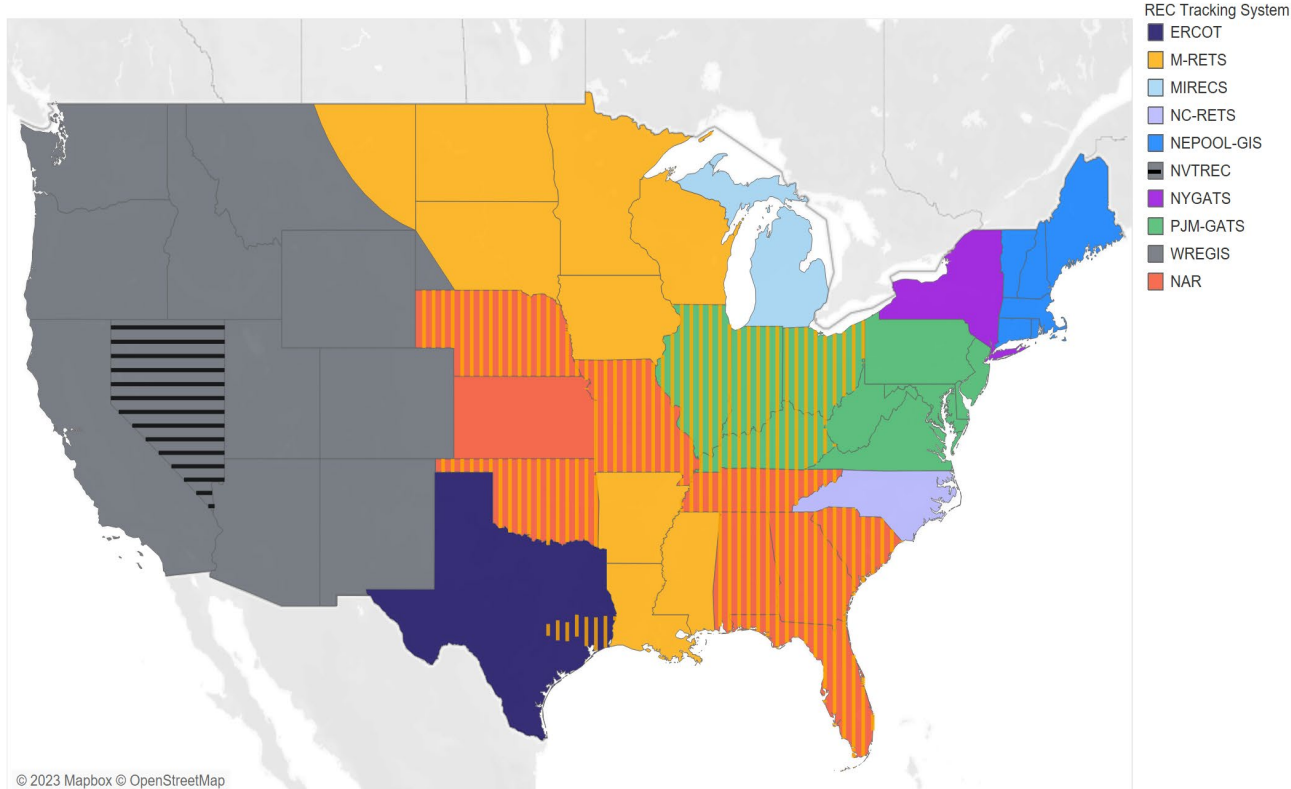
# Renewable Electricity Lever



- **Show of hands - how many people know what a REC is?**
- In the US, energy attribute certifications are called Renewable Energy Certificates or **RECs**
- When a renewable resource (ex. solar, wind, hydro) generates 1 MWh of electricity, it also generates an associated REC
- **RECs** represent the zero-carbon emissions attributes of the power produced from renewable energy projects

# Renewable Electricity Certificates (RECs)

U.S. Renewable Energy Certificate Tracking Systems

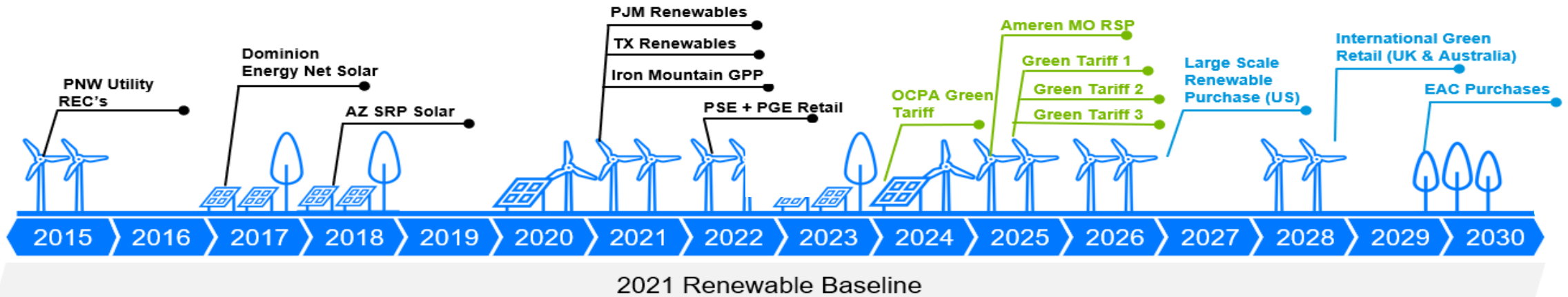


- Boeing procures RECs to cover electricity load throughout the US
- RECs from construction of new generation also allows companies to claim additionality
- Additionality means companies played a critical role in bringing new renewable energy projects into existence

# Roadmap to 100% Renewable Electricity

Our Global Roadmap

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**39% Renewable in 2023**  
**50% Renewable by end of 2025**

*100% Renewable Energy by 2030 from energy efficiency, large scale renewable purchases, and refresh of retail renewable purchases*

Actively Managed Renewable Purchases

Remaining to 2030 Goal

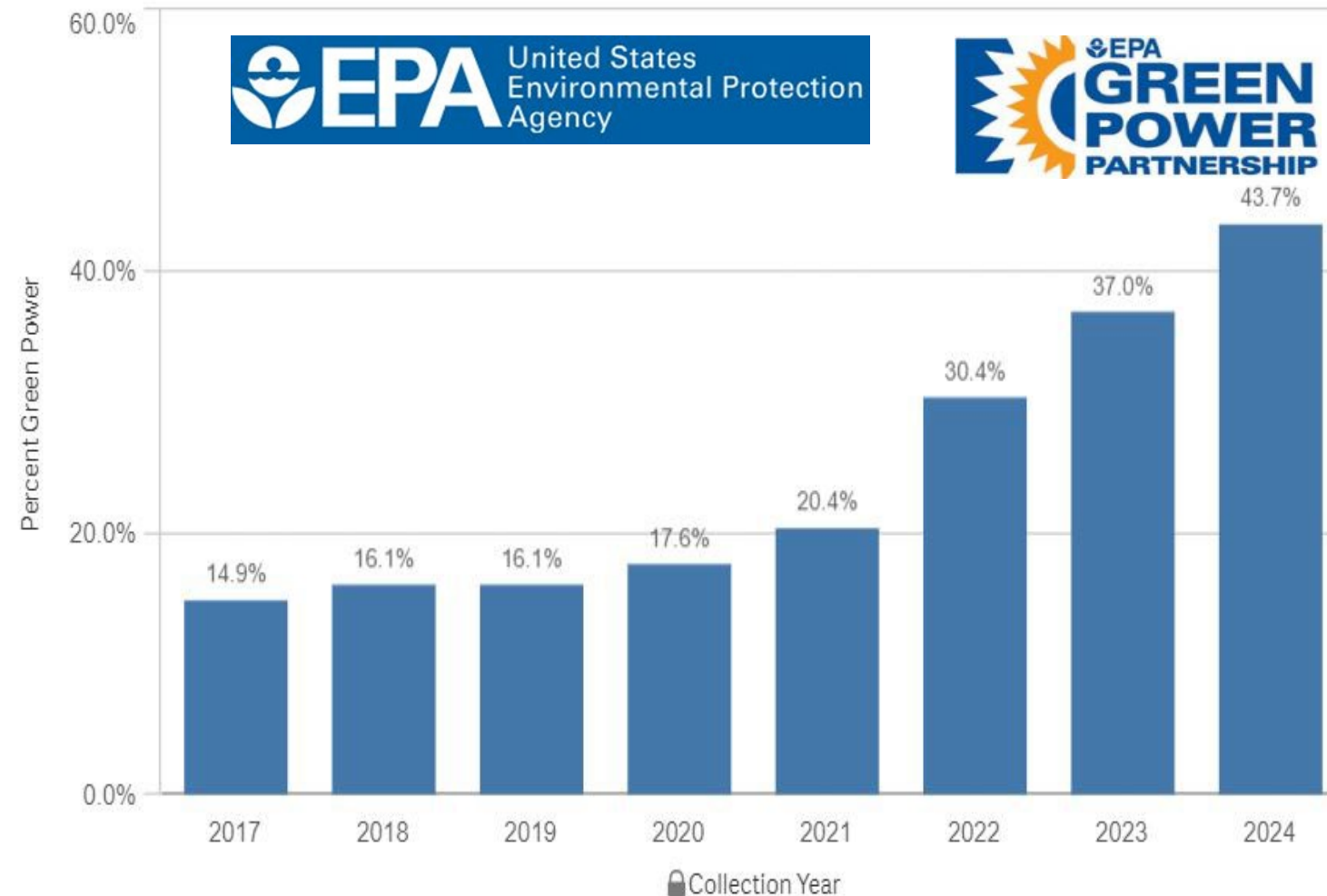
**100% by  
2030**

# Partnership – EPA

Nationally 44% Renewable Electricity

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## Green Power Percentage of Electricity Use



<https://www.epa.gov/greenpower/meet-our-partners?partner=theboeingcompany>



- Best practices on defining RECs and types
- Align ourselves with standard government guidelines and rules



# RENEWABLE SOLUTIONS

Renewable Solutions



**Subscription-Based  
Renewable Energy Program  
For a Sustainable Future**

# Partnership – Ameren

## Renewable Solutions Program

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- Renewable Solutions Program (RSP) a Subscription-based program
- Companies can replace up to 100% of their total energy with renewable sources
- RECs included on monthly energy statement and retired semi-annually
- Made possible by partnership



### EXPANDING LOCAL SOLAR GENERATION

**How the Renewable Solutions program works**

Eligible businesses and organizations interested in supporting a renewable energy future can subscribe to our Renewable Solutions program. With this program, you can replace up to 100% of your total energy usage with solar and wind. You subscribe to the program and Ameren Missouri builds, maintains and operates the facility to match customer demand – and cover the capital expenses. Together, we can work to reduce emissions with carbon-free generating assets and achieve affordable and reliable energy for more customers.

**Generating cleaner options for the energy grid**


- Adds a 150 MW utility scale solar energy center
- Includes approx. 330,000 solar panels
- Provides the energy needs for about 28,000 homes a year
- Leverages least-cost new generation to help rates stay affordable
- Invests significantly in the local economy, with emphasis on local construction and maintenance resources when possible

**Location**

- Project site is on approx. 2,200 acres of leased land in Cass County

**Proposed project schedule**

- June 2023: Start of site construction
- December 2024: Target for project to start providing clean energy to the grid



[AmerenMissouri.com/RenewableSolutions](https://www.AmerenMissouri.com/RenewableSolutions)



# Partnership – Ameren's Renewable Solutions

Locally in St. Louis

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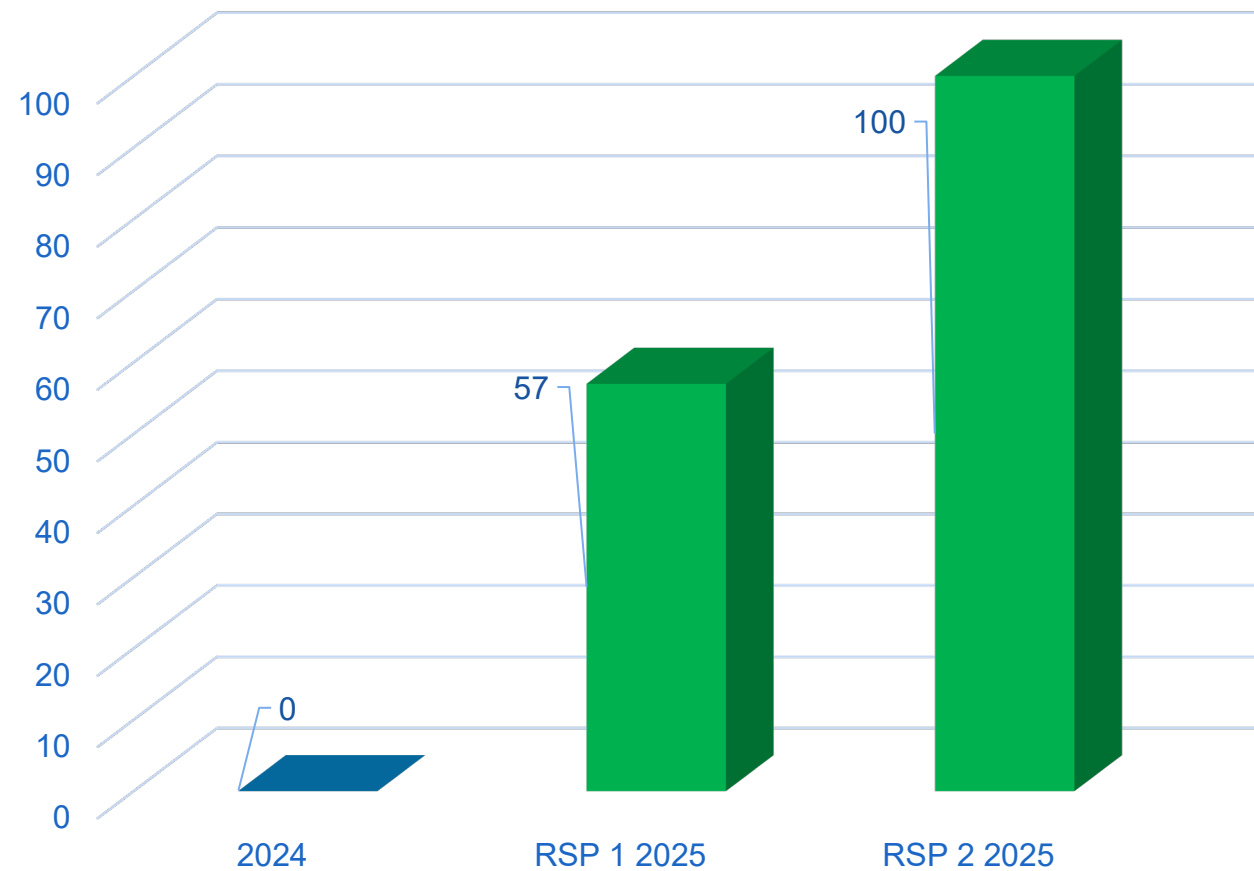
- Ameren listened to customer goals, created a price competitive program on a regulated grid
- 2021 – RSP 1 closed subscription to interested parties (starts 2025)
- 2024 – RSP 2 public auction, a first for Boeing (starts 2025)
- Like us supporting our airline partner goals, Ameren listened to their partners to build renewables

# STL - Renewable Electricity

Locally in St. Louis – scheduled 2025

## Boeing St. Louis ~ 100% Renewable Electricity starts in 2025

STL Direct RECs via Ameren RSP:



- Ameren Bill Calculator simplifies the renewable resource rate easy for partners to study
- Detailed internal market analysis guides our target cost
- Budget discussions to accommodate premium (less than 6%) to meet corporate goals
- **248,000 MWh Renewable Electricity St. Louis starts 2025**

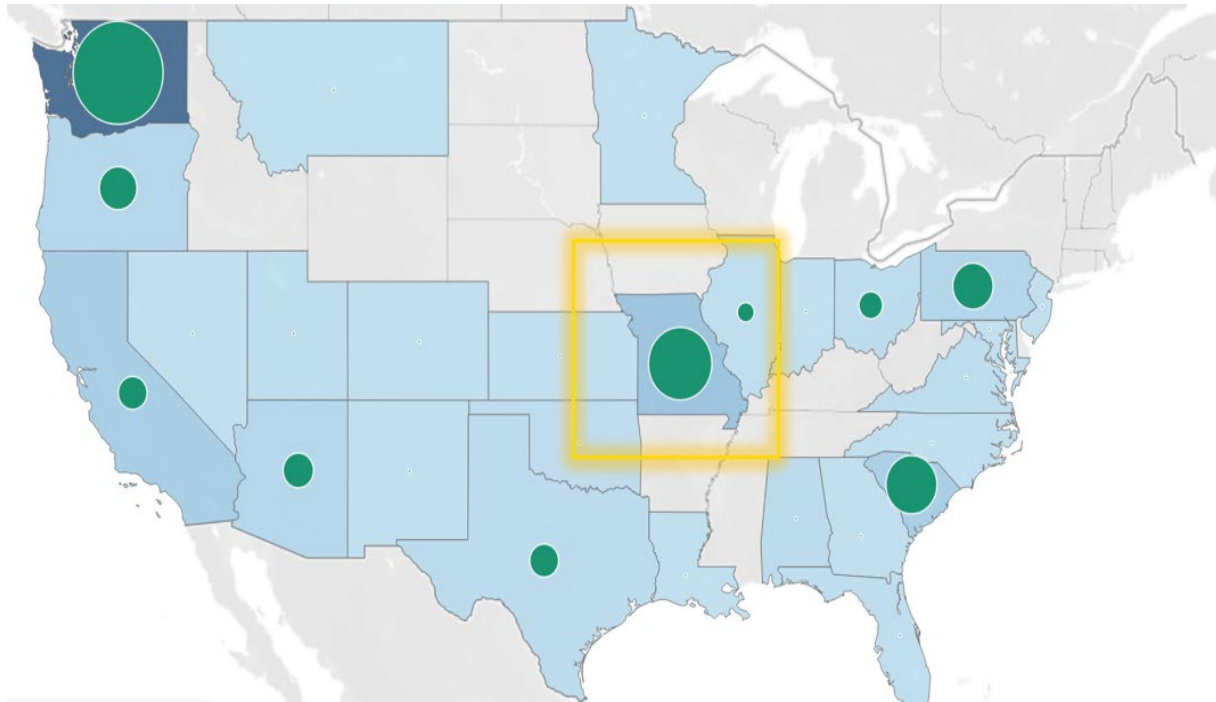
# Major role St. Louis plays in the larger picture

## Impact on Overall Scope 2 GHG Emissions

# GHG Impact Boeing St. Louis

St. Louis Investment in Renewal Electricity Drives Decreasing Emissions Globally

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- Boeing St. Louis – through RSP 1 & RSP 2 participation:
  - St. Louis is the single biggest lever towards our global goals!
  - **Reduces our total Scope 2 emissions by 18% across our entire enterprise!**

## Imagine if all companies:

- **Could contribute to the development of renewable resources on the electric grid**
- **Replace every MW of energy used by a renewable MW**
- **Align with partners to achieve climate goals**
- **Embed sustainability into their culture**

A person wearing a wide-brimmed hat, an orange shirt, and a fishing vest is seen from behind, holding a fishing rod and standing on a rocky bank next to a river. The water is clear and reflects the surrounding environment. A semi-transparent grey banner is overlaid across the middle of the image, containing the text.

**We no longer need to imagine operating with Renewable Electricity, we simply must leverage partnerships and commit to a more sustainable future**

