Energy and Environment

At Amazon, we are putting our scale and inventive culture to work on sustainability not

HIGHLIGHTS

Amazon will host solar energy systems 15 fulfillment facility rooftops across th with the capacity to generate 41 mega (MW) of power. Amazon additionally ha a goal to host solar energy systems at fulfillment network buildings by 2020.

In September 2016, we announced Amazon Wind Farm Texas, our largest farm to date – a new 253 MW wind far that will generate 1 million megawatt h (MWh) of wind energy annually.

In April 2016, Amazon joined Apple, Google, and Microsoft in filing a legal b that supports the continued implemen of the U.S. Environmental Protection Agency's Clean Power Plan.

only because it is good for the environment, but also for the customer. By diversifying our energy portfolio, we can keep business costs low and pass along further savings to customers. It's a win-win-win.

Amazon has begun hosting large-scale rooftop solar systems on fulfillment centers across the country. Our goal is to have more than 50 fulfillment centers with rooftop solar installed by 2020; 15 sites are planned to be complete by the end of 2017. The solar systems in the initial deployment could generate as much as 41 MW of power.

Our commitment to on-site solar is about more than clean, renewable energy – it also reflects the strength of partnerships we develop with local utilities, clean energy service providers, community leaders and building owners. Our commitment is also to our associates – we expanded our innovative Career Choice offerings to include funding for associates to earn the North American Board of Certified Energy Practitioners (NABCEP) certification, which includes entry level knowledge assessment and accreditation to become a photovoltaic installation professional.

This first deployment of rooftop solar systems is part of a long-term initiative that will start in North America and spread across the globe.

For more information about the solar initiative, see the video and blog post here.

To date, Amazon has announced or commenced construction of a total of 3.6 million megawatt hours (MWh) of renewable energy, making Amazon the leading corporate purchaser of renewable energy in the United States in 2016.[1] In September 2016, we announced the plan to build our largest wind project to-date, Amazon Wind Farm Texas. A 253 MW wind farm in Scurry County with more than 100 turbines, the project will generate 1,000,000 MWh of wind energy annually – enough to power almost 90,000 U.S. homes.

Our energy and environmental efforts are taking place across the company, and at our

locations around the world. We are constantly looking for ways to build upon our best energy and environmental practices and implement them throughout Amazon. For example, we have Kaizens taking place in our fulfillment centers globally – employees participate in small teams to identify waste and streamline processes. These best practices can be repurposed throughout our operations network.

Clean Power Plan Amicus Brief

In April 2016, Amazon joined Apple, Google, and Microsoft in filing a legal brief that supports the continued implementation of the U.S. Environmental Protection Agency's Clean Power Plan (CPP) and discusses the technology industry's growing desire for affordable renewable energy across the U.S. Read the brief here.

American Business Act on Climate Pledge

In 2015, Amazon signed the White House's American Business Act on Climate Pledge to express support for action on climate change and to accelerate the transition to a low-carbon economy. The pledge brought over 150 companies together to voice support for a strong outcome in the 2015 Paris climate negotiations and to demonstrate their ongoing commitment to climate action.

Amazon Web Services (AWS) Wind and Solar Farms

AWS has a long-term commitment to achieve 100% renewable energy usage for our global infrastructure footprint. We've made a lot of progress on this commitment. AWS exceeded its goal of 40% renewable energy by the end of 2016, and set a new goal to be powered by 50% renewable energy by the end of 2017.

In 2015, AWS announced the construction of Amazon Solar Farm US East, Amazon Wind Farm Fowler Ridge, Amazon Wind Farm US Central and Amazon Wind Farm US East, located in Virginia, Indiana, Ohio and North Carolina respectively. Amazon Wind Farm Fowler Ridge became operational January 1, 2016, and Amazon Solar Farm US

East went into operation in October, 2016.

In 2016, AWS announced the construction of Amazon Wind Farm US Central 2, a 189 MW wind farm in Hardin County, Ohio. We also announced five additional solar farms: Amazon Solar Farm US East 2, Amazon Solar Farm US East 3, Amazon Solar Farm US East 4, Amazon Solar Farm US East 5 each have a capacity of 20 MW and are located in New Kent, Buckingham, Sussex, and Powhatan counties in Virginia. Amazon Solar Farm US East 6 is a 100 MW facility in Southampton County, Virginia.

These ten renewable energy projects will deliver a total of 2.6 million MWh of energy annually onto the electric grid powering AWS data centers located in the AWS US East (Ohio) and AWS US East (N. Virginia) Regions. The electricity produced from these projects is enough to power the equivalent of over 240,000 U.S. homes annually, which is approximately the size of the city of Portland, Oregon.

Recycling Energy

Amazon's newest buildings in the Denny Triangle area of Seattle are heated using an innovative approach to sustainability—recycling energy from a nearby data center. This "district energy" system works by capturing heat generated at a non-Amazon data center in the neighboring Westin Building and recycling that heat through underground water pipes instead of venting it into the atmosphere. This unique approach is nearly four times more efficient than traditional heating methods and will also enable the Westin Building data center to cut back on the energy it uses to cool its building.

The district energy system came about from a collaboration among Amazon, Clise Properties, McKinstry and the City of Seattle. Through it, Amazon will be able to heat three million square feet of office space. This ability to recycle energy from a neighbor is another big benefit of having an urban campus in the heart of Seattle.

[1] The State of Green Business 2017 Report, January 31, 2017, p. 30.

SUSTAINABILITY

AWS and Sustainability	Energy and Environment	Packaging	Amazon Products, Businesses and Initiatives
Our Urban Campus	Our Global Operations Footprint	External Engagement	Responsible Sourcing

Did you know? Amazon worked with Mayor Ed Murray's office and Mary's Place – a local Seattle nonprofit that provides housing and career services to homeless families, and one we've supported for a number of years – to turn a building we recently bought into a Mary's Place emergency family shelter until the spring of 2017. Check out the blog post.

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