

# U.S. EPA Federal Green Challenge Web Academy

## Federal Procurement of Sustainable Photovoltaics

April 24<sup>th</sup>, 2019

**Sustainability Leadership Standard for PV Modules and Inverters**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

# Disclaimer

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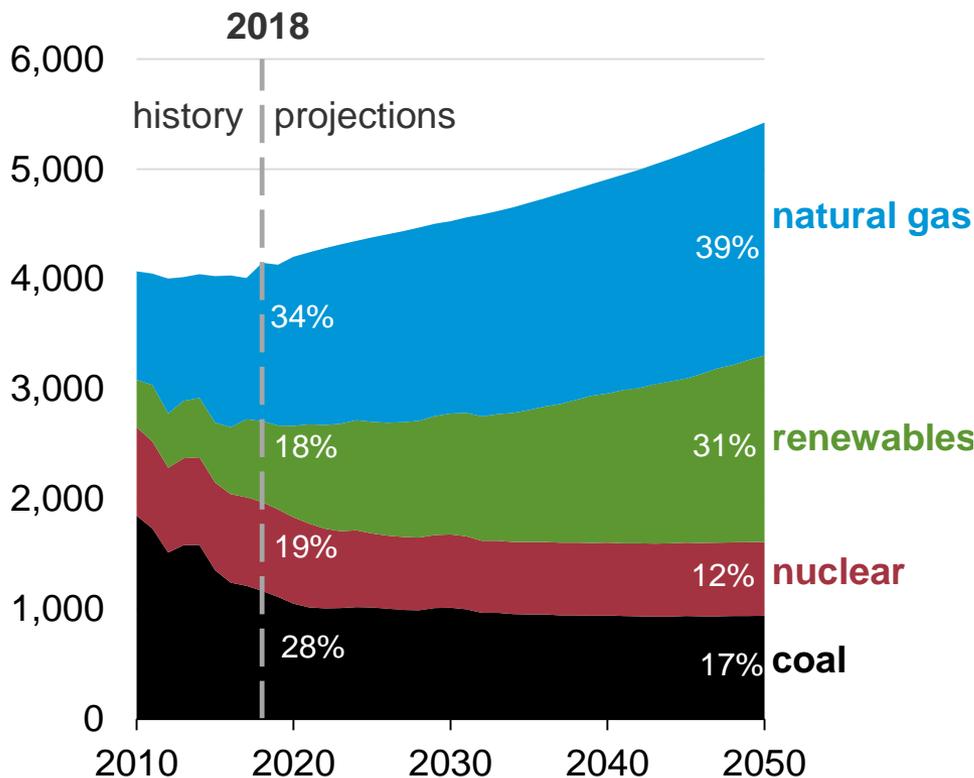


# Electricity generation from natural gas and renewables increases, and the shares of nuclear and coal generation decrease—

**Electricity generation from selected fuels**

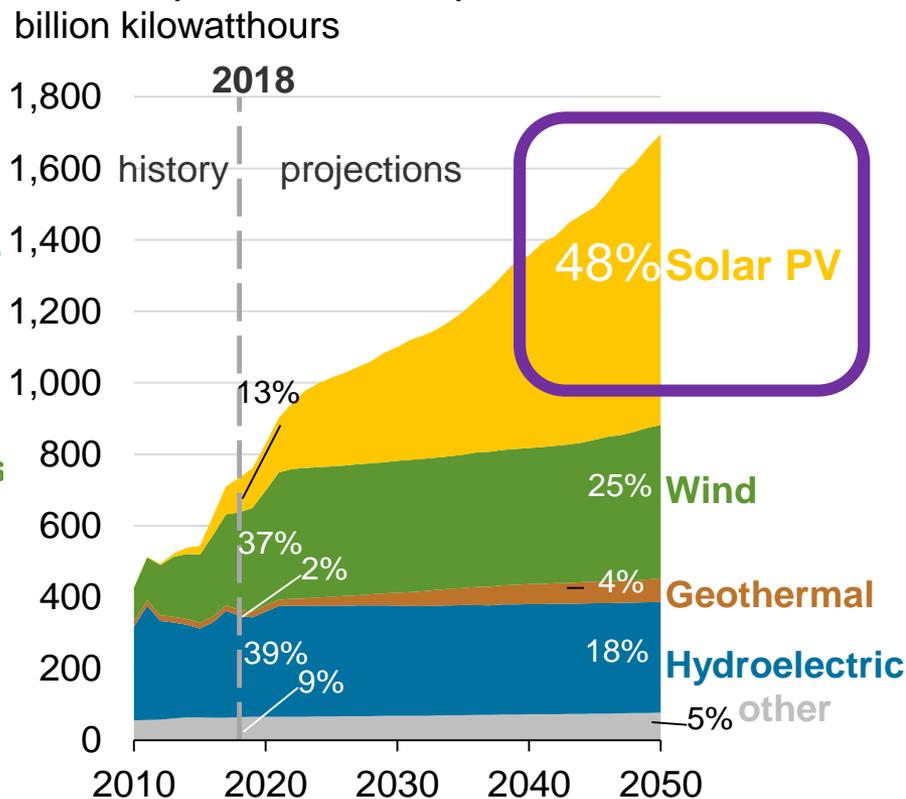
(Reference case)

billion kilowatthours



**Renewable electricity generation, including end-use (Reference case)**

billion kilowatthours

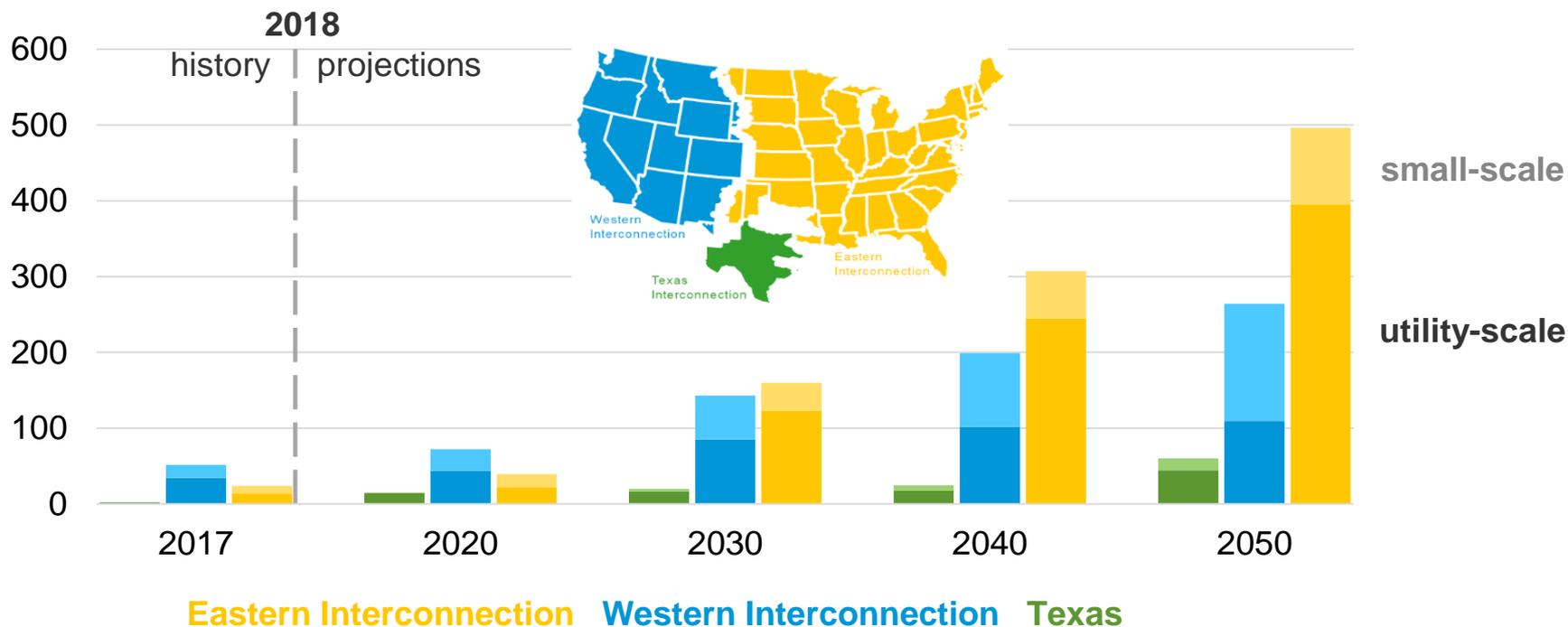




## Solar generation grows for both utility- and small-scale sectors—

### Solar photovoltaic electricity generation by region (Reference case)

billion kilowatthours





# Federal Green Challenge

## Federal Agencies Leading by Example in Sustainable Operations



[epa.gov/fgc](http://epa.gov/fgc)



Presidio Trust, San Francisco

Rethink

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# Contents

- What is the Federal Green Challenge (FGC)?
- How to participate.
- Benefits.
- Success!



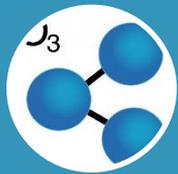
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# EPA mission:

To protect human health and the environment.



*EPA's first Administrator, William Ruckelshaus*



1971-2016: Cut air pollutants by 70%



93% compliance with drinking water standards.



>9 million tons of virgin materials avoided.





# US Federal Footprint Data

*We can make a difference!*

The Federal Government:

- Nation's largest vehicle fleet operator.
- One of the largest IT purchasers.
- Largest purchaser of goods and services in the U.S.
- Controls a real estate portfolio of more than 330,000 buildings.



Photo by EPA R9.

Chet Holifield  
Federal Building



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# What is the Federal Green Challenge?

- The federal component of EPA's Sustainable Materials Management Program.
- Meet goals under Executive Order 13834.
- Challenges federal facilities to aim for a 5% annual sustainability improvement in two of six target areas:



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# How to participate in FGC



[epa.gov/fgc](http://epa.gov/fgc)

[epa.gov/fgc](http://epa.gov/fgc)



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# Federal Green Challenge Reporting Form Energy Target Area

## Energy Data

ACTIVITY	BASELINE RESULTS	KBTU	GJ	FIRST YEAR'S GOAL (% DECREASE)
Electricity Consumed (kWh)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Natural Gas Consumed (Cubic Feet)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fuel Oil Consumed (gallons) (assumption is for #2 fuel oil)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ACTIVITY	BASELINE YEAR AMOUNT	FIRST YEAR'S GOAL (% INCREASE)
Renewable energy purchased or installed on-site (%)	<input type="text"/>	<input type="text"/>

**Renewable energy purchased or installed on-site (%).**



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Forest Service FGC awardee.

## FGC Benefits

- Maximize resources; save \$\$.
- Measure your facility's progress.
- Get recognized!



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Department of Energy  
East Tennessee Technology Park (ETTP)  
Oak Ridge, TN



## 2018 Federal Green Challenge Energy Awardee

- 2017 solar energy produced & sold back to grid, plus renewable energy credits purchased: 20,228,000 kWh.
- 2017 energy used: 13,543,000 kWh.



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[www.epa.gov/smm](http://www.epa.gov/smm)

Heritage Center

## National 2017 Results

*Participating Agencies:*



Diverted over 422,000 tons of waste from landfills, saving \$21.8 million.



Consumed 335 million fewer gallons of potable water in FY17 than FY16, saving an estimated \$1.3 million.



Fuel oil use decreased by 206,000 gallons, saving taxpayers \$557,000.



Sent 283 tons of used electronics to certified third party recyclers.



These combined efforts resulted in an estimated cost savings of almost \$22 million to U.S. taxpayers.



# EPA Recognizes Federal Green Challenge Winners and Their Efforts to Save Resources and Taxpayers' Money

06/14/2018

Contact Information:

EPA Press Office ([press@epa.gov](mailto:press@epa.gov))

**WASHINGTON** — Today, the U.S. Environmental Protection Agency (EPA) recognizes federal facilities for conserving resources and saving taxpayers' money as part of the Federal Green Challenge (FGC). These efforts across the federal government have not only resulted in approximately \$22 million in cost savings in the last year, but also further the goals of the President's May 17, 2018, Executive Order (EO) Regarding Efficient Federal Operations.

**"Federal agencies nationwide challenge themselves to improve efficiency and minimize environmental impact, and their achievements are saving American taxpayers tens of millions of dollars,"** said EPA Administrator Scott Pruitt.



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[www.epa.gov/smm](http://www.epa.gov/smm)



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Alcatraz Island, NPS.

[epa.gov/fgc](http://epa.gov/fgc)

 **Rethink**

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# Federal Procurement of Sustainable Photovoltaics (PV): Sustainable Leadership Standard for PV Modules & Inverters



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Foto: NREL



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# Federal Green Challenge Web Academy



epa.gov/fgc/federal-green-challenge-web-academy

## Web Academy Archives

Search:

Date	Topic
10/10/2018	<p><b>Green Energy Can Save Your Federal Facility Greenbacks</b></p> <ul style="list-style-type: none"> <li>• <a href="#">View Webinar Details and Presentations</a></li> <li>• <a href="#">View the Webinar</a> <input type="button" value="EXIT"/> (registration required)</li> </ul>
7/18/2018	<p><b>Supporting Monarch Butterflies as Pollinators - A New Mapping Tool and Case Study</b></p> <p><i>(pollinators, butterfly, monarch, habitat, milkweed)</i></p> <ul style="list-style-type: none"> <li>• <a href="#">View Webinar Details and Presentations</a></li> <li>• <a href="#">View the Webinar</a> <input type="button" value="EXIT"/> (registration required)</li> </ul>
5/2/2018	<p><b>EPA and GSA Webinar: E Scrap Management, Computers for Learning and the Federal Green Challenge</b></p>
4/18/2018	<p><b>From Fires to Floods and Everything In Between: How Federal Facilities Can Thrive in an Era of Billion Dollar Weather Events</b></p> <p><i>(Keywords: Weather, Disaster, Recovery, Fire, Flood, Hurricane, Blizzard, Tornado, Wildfire, NOAA, Facilities, Operations)</i></p> <ul style="list-style-type: none"> <li>• <a href="#">View Webinar Details and Presentations</a></li> <li>• <a href="#">View the Webinar</a> <input type="button" value="EXIT"/> (registration required)</li> </ul>
3/14/2018	<p><b>Simplifying Sustainable Purchasing Through Guidelines and Standards</b></p> <p><i>(Keywords: Green Purchasing, Ecolabels, Food Composting, Environmentally Sustainable Products and Services)</i></p> <ul style="list-style-type: none"> <li>• <a href="#">View Webinar Details and Presentations</a></li> <li>• <a href="#">View the Webinar</a> <input type="button" value="EXIT"/> (registration required)</li> </ul>

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