

# Winter, Wilderness & Climate: Threats & Solutions

Jim Ramey, The Wilderness Society  
Lindsay Bourgoine, Protect Our Winters  
October 2016



## How to participate in poll questions

- 1) text the message TWSCO to the number 22333
- 2) send a second text indicating your answer to the question (A, B, C...)
- 3) at the end of tonight's event, send a final text with the message LEAVE so that you logout of the poll



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# Snowboarding

**POW**   
PROTECT OUR WINTERS

 THE  
WILDERNESS  
SOCIETY



**IB**  
**BRECK**  
2015-16  
SEASON 4



# Also, Snowshoeing





*The Wilderness Society's mission is to protect wilderness and inspire Americans to care for our wild places.*





MORE THAN  
**80 YEARS**  
AS AN ORGANIZATION

Founded in 1935, The Wilderness Society has led the effort to permanently protect 109 million acres of wilderness and to ensure sound management of our shared national lands.

**700,000**



WILDERNESS SUPPORTERS



**1.3 MILLION**

ACRES PERMANENTLY PROTECTED, including more than 1 million acres designated as national monuments and 275,000 acres as wilderness.

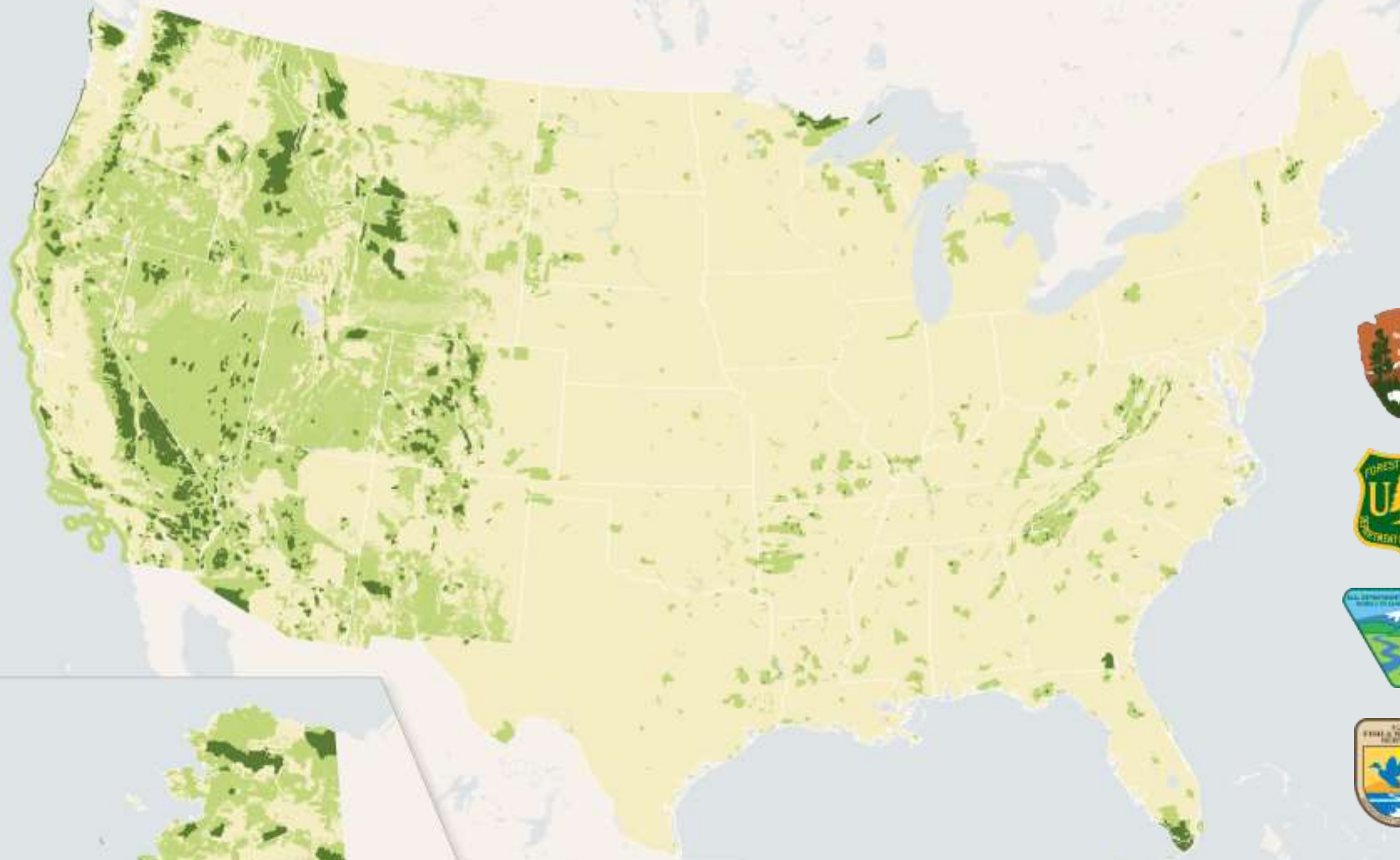


**12** OFFICES AROUND THE COUNTRY



**6.5 MILLION** people engaged through Facebook, Twitter and Instagram in 2015

# PUBLIC LANDS & WILDERNESS



- Designated Wilderness
- Other Federal Public Land



SOURCE: WILDERNESS.NET, PAD-US, NATURAL.EARTH





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# Fueling Climate Change: Our Broken Public Lands Energy Programs



# Energy Development on Public Lands

1. Coal
2. Oil
3. Natural Gas
4. Solar
5. Wind
6. Geothermal



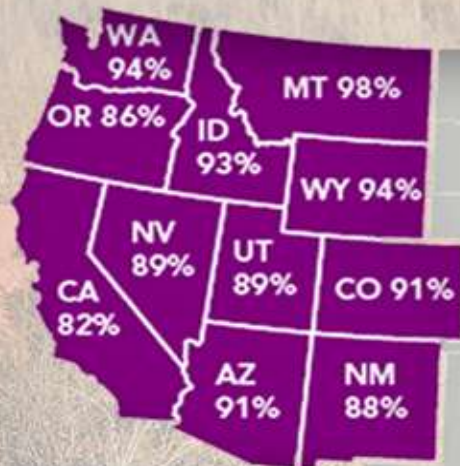
Credits: Kentucky Photo File, flickr; Mason Cummings; Black Rock Solar, flickr; Credit Daniel Hoherd, flickr; U.S. Dept. of Energy.

## NO EXIT:



How much land in your state is on the highway to oil & gas development?

### PERCENT OF LAND OPEN TO LEASING:



A staggering **90 %** of public lands and minerals managed by the BLM are open to oil and gas leasing











## THE DURANGO HERALD

*Since 1881*

**Study finds oil and gas industry largest contributor to 'hot spot'**

Aug. 15, 2016

## THE DAILY SENTINEL

**Air impacts from Utah projects hit BLM radar screen**

Oct. 3, 2016

## THE DENVER POST

**Ground-level ozone pollution alert issued for Denver, Front Range**

Aug. 16, 2016





ABOUT

**41%**

of American coal is produced on public lands.

OVER

**85%**

of that comes from the Powder River Basin in Montana and Wyoming.

Photo: The Powder River Basin, Ecoflight





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# Powder River Basin in 1984



Landsat 5  
June 29, 1984





# Powder River Basin in 2016



Landsat 8  
June 21, 2016



# Public Coal Costs Less than a Big Mac







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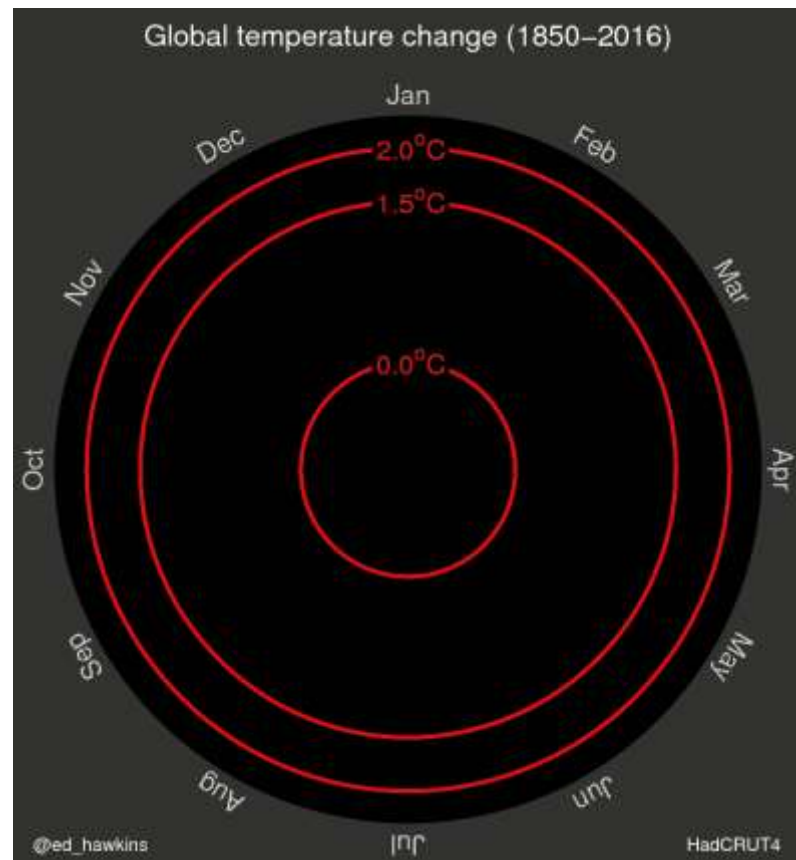


## August marks ongoing trend of record-breaking heat for the globe

Climate | Climate analyses and statistics

SHARE    

September 20, 2016 —







## Press Release: Interior Secretary Jewell Announces Study Showing Spring Starting Earlier in National Parks

10/6/2016



# Climate Impacts on Winter & Outdoor Recreation







**POW**   
PROTECT OUR WINTERS

PROTECT OUR WINTERS

## A POW OVERVIEW



**130,000+**  
supporters globally

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### Chapters In:

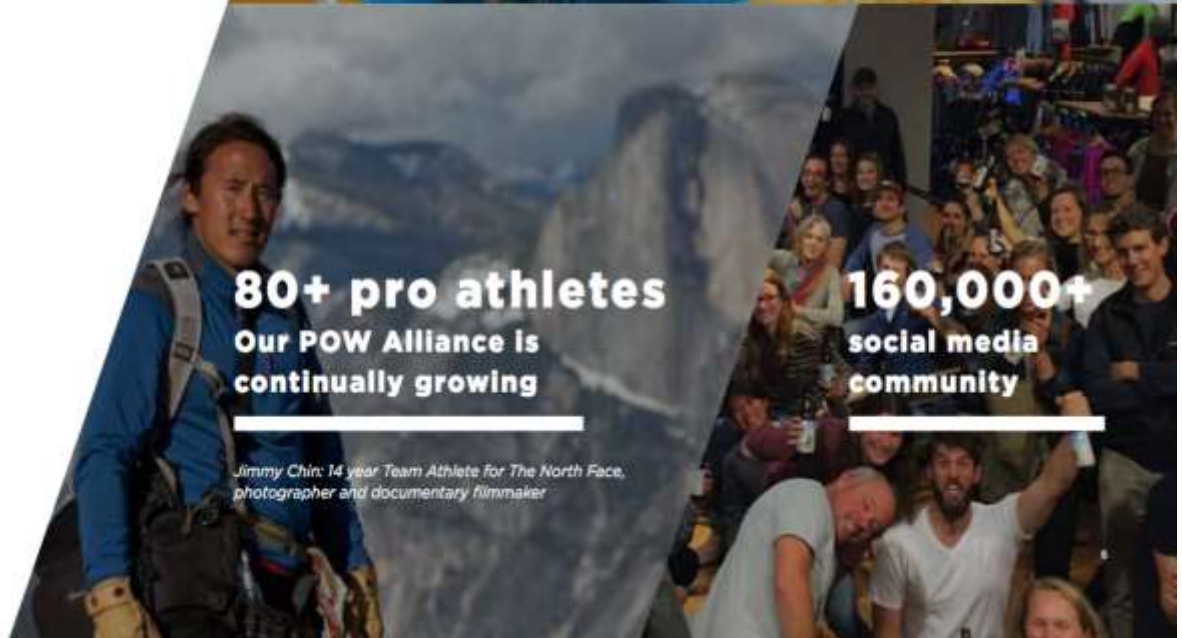
- United States
- Canada
- Europe
- Australia

### Partners:



Founded in 2007  
by professional  
snowboarder  
Jeremy Jones

---



**80+ pro athletes**  
Our POW Alliance is  
continually growing

---

**160,000+**  
social media  
community

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*Jimmy Chin: 14 year Team Athlete For The North Face,  
photographer and documentary filmmaker*



PROTECT OUR WINTERS

**POW IS THE LEADING  
VOICE ON CLIMATE  
CHANGE FOR THE  
OUTDOOR SPORTS  
COMMUNITY.**

**We're building  
a social movement for  
positive climate action  
around the globe.**

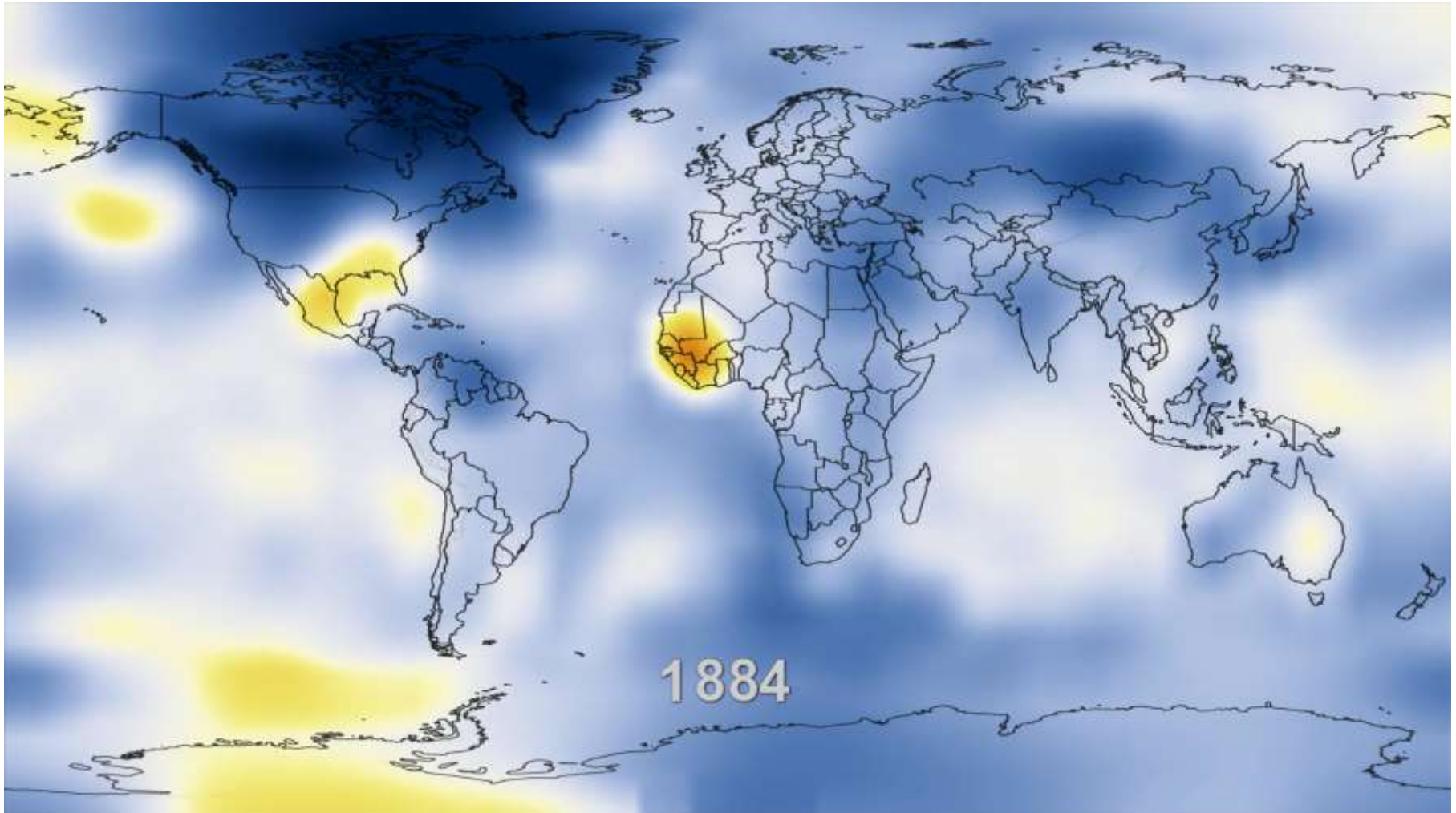




## Meet Jake Black

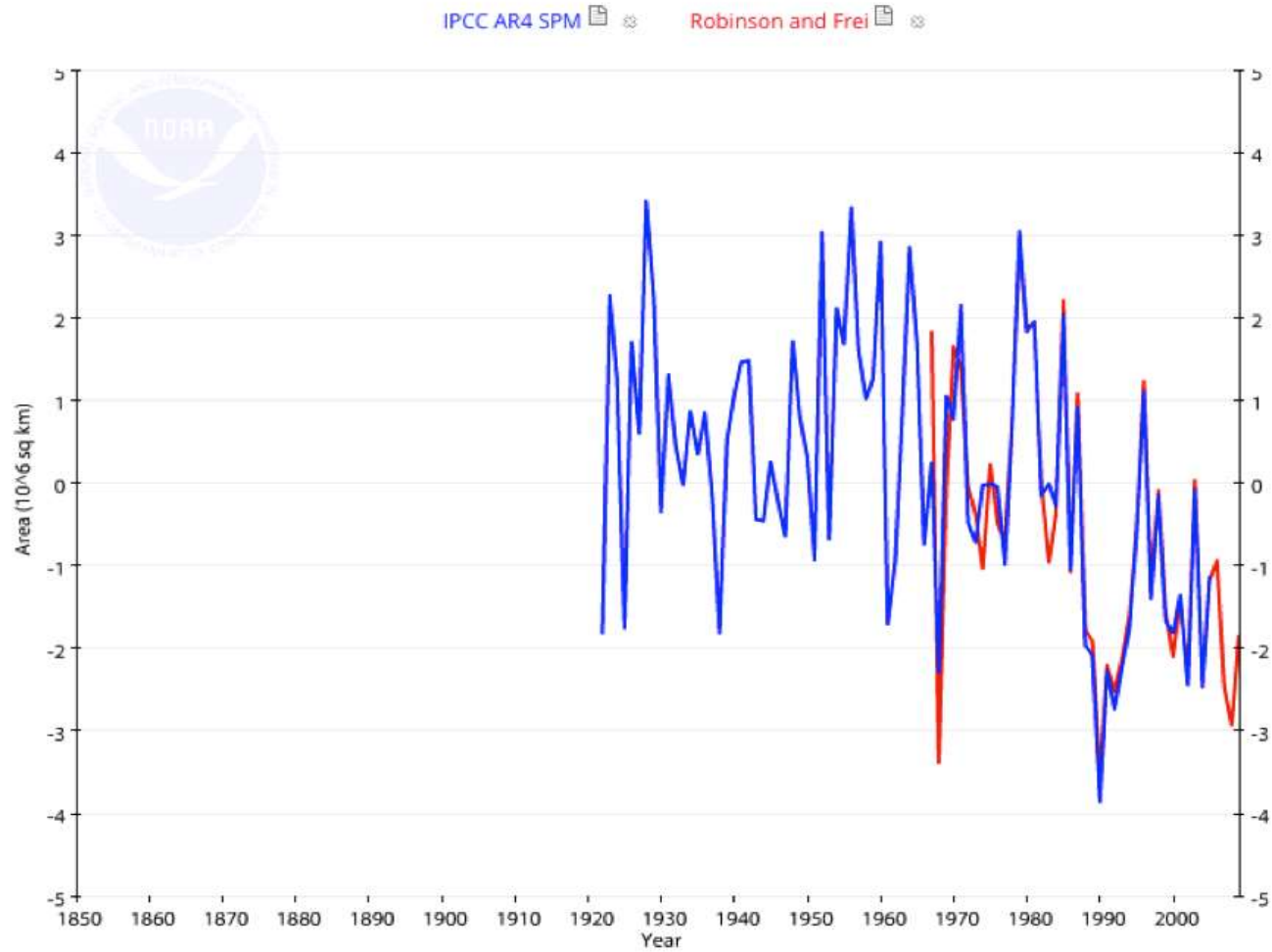


## Global Surface Temperatures 1884-2012





## Northern Hemisphere (March-April) Snow Cover







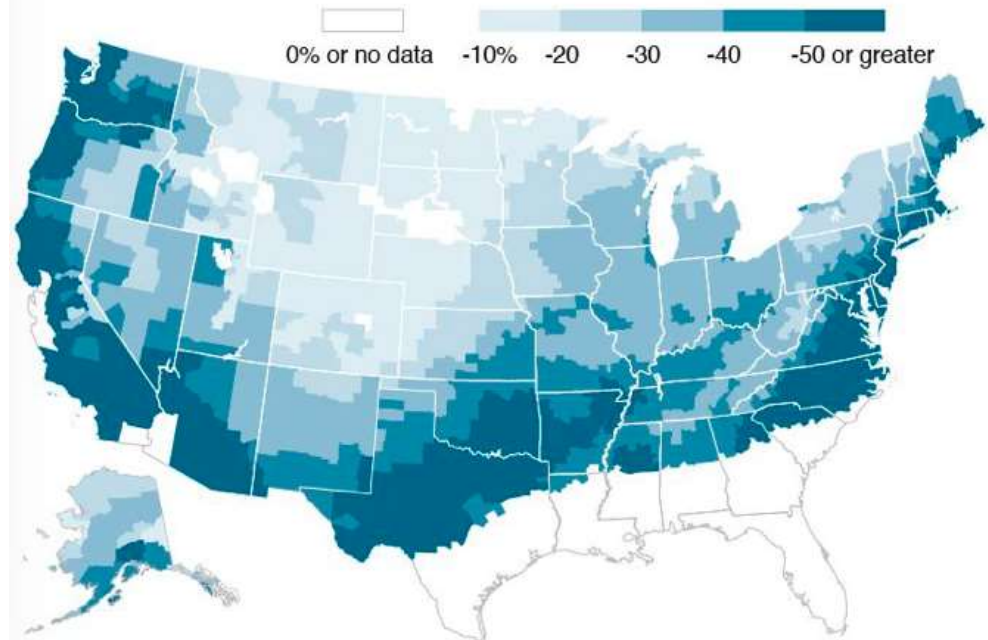
# How is climate change impacting winter?

- Diminished snowpack
- Glacial recession
- Snow levels rising
- Shorter season

## Longterm snow dropoff predicted for the U.S.

Annual snowfall is likely to greatly decrease by the end of this century if carbon dioxide emissions continue to grow at a modest rate.

Simulated percent change in average annual snowfall, present day vs. end of century



SOURCE: NOAA Geophysical Fluid Dynamics Laboratory

AP

## How is climate change impacting snowsports?



- Spring arrives in Lake Tahoe three weeks earlier now than it did in 1965
- Under a high emissions scenario, by 2100, Aspen's climate will be more like Texas today
- With a temperature rise of 4C, about 40% of precipitation that currently falls as snow will fall as rain at 7,000 feet, which is the base elevation at Canyons, Park City, and Deer Valley

## Why is the snowsports industry so important?

- The winter sports community generates \$66 billion annually and supports 965,000 jobs
- Outdoor recreation spending generates \$646 billion, supporting 6.1 million jobs
- What other industry has economic power to speak out on climate?





## What is at risk?



- The downhill ski resort industry is estimated to have lost \$1.07 billion in revenue
- In a high emissions scenario:
  - In the Northeast, only 4 out of 14 major ski resorts will remain profitable by 2100
  - Park City will lose all mountain snowpack by 2100 while Aspen's snowpack will be confined to the top quarter of the mountain

#ActOnClimate

**POW**   
PROTECT OUR WINTERS

 THE  
WILDERNESS  
SOCIETY



Climate Solutions

## The New York Times

**Can Economies Rise as Emissions  
Fall? The Evidence Says Yes**

Apr. 6, 2016



**Energy-related CO2 emissions for first six  
months of 2016 are lowest since 1991**

Oct. 12, 2016



**Paris Climate Change Agreement Set to Take  
Effect After Quick Ratification Process**

Oct. 5, 2016

**theguardian**

**Paris climate deal a 'turning point' in  
global warming fight, Obama says**

Oct. 5, 2016





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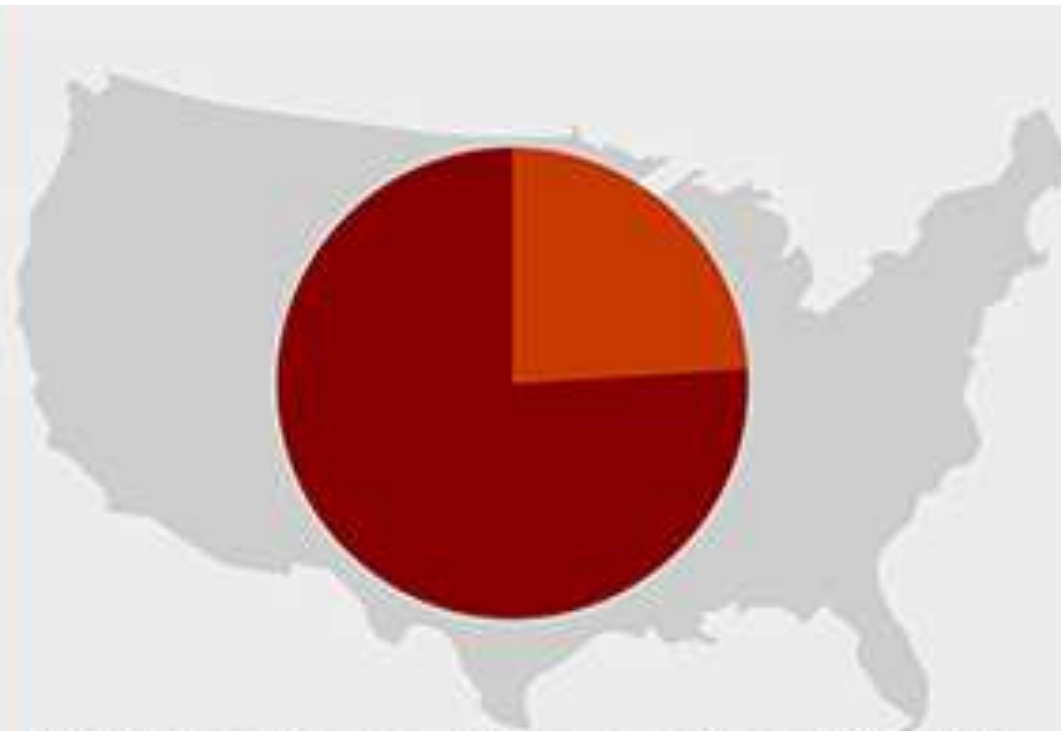
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# ACTING ON CLIMATE



**A BLIND SPOT:  
GREENHOUSE GAS  
EMISSIONS  
FROM OUR  
PUBLIC  
LANDS**

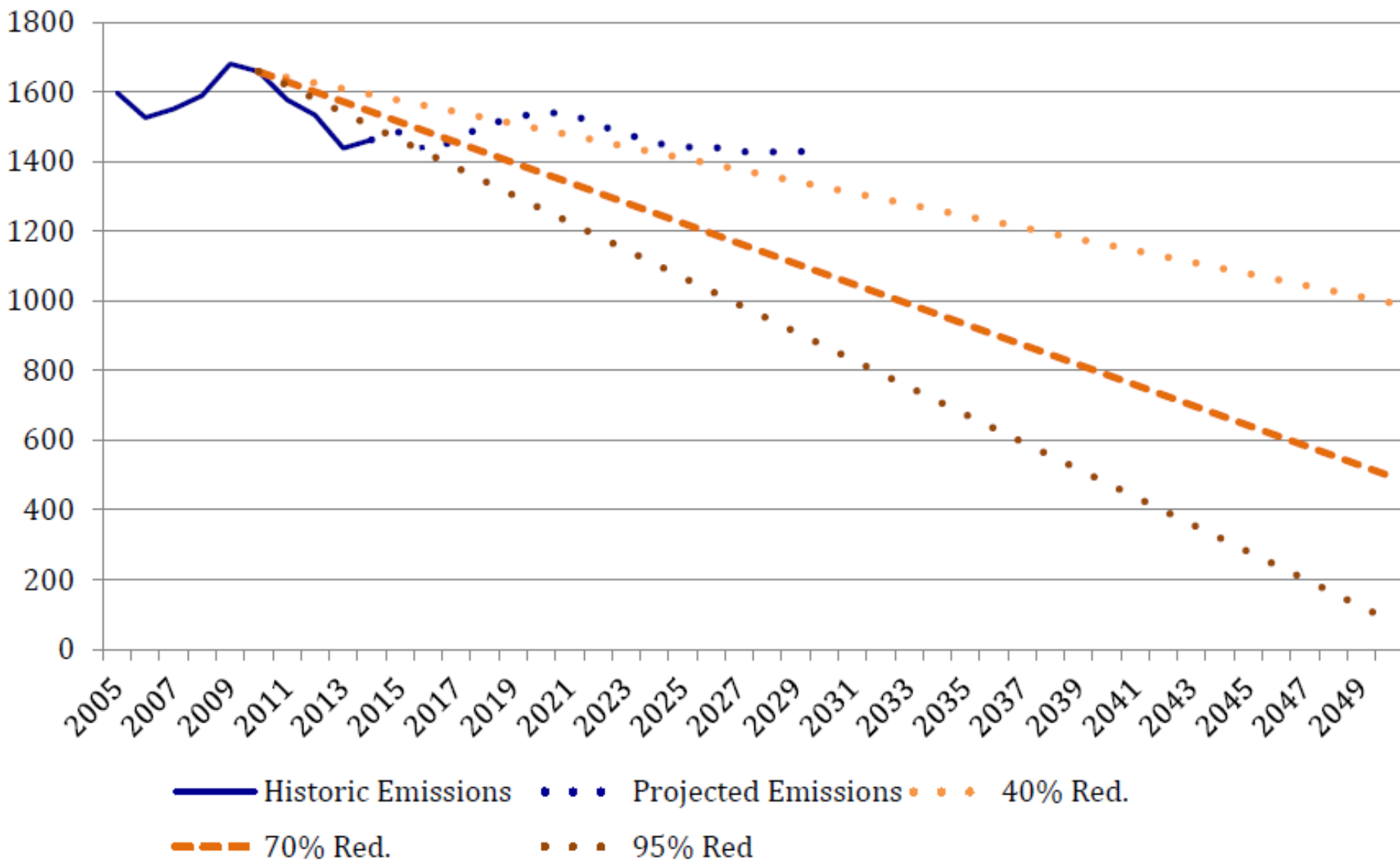


Public lands account for more than 1/5 of the greenhouse gas footprint in the U.S.



# Carbon Budget

Federal Lifecycle CO<sub>2</sub>e Compared to IPCC 2°C and 1.5°C Reduction Goals (million tons)





## Press Release: Secretary Jewell Launches Comprehensive Review of Federal Coal Program

1/15/2016

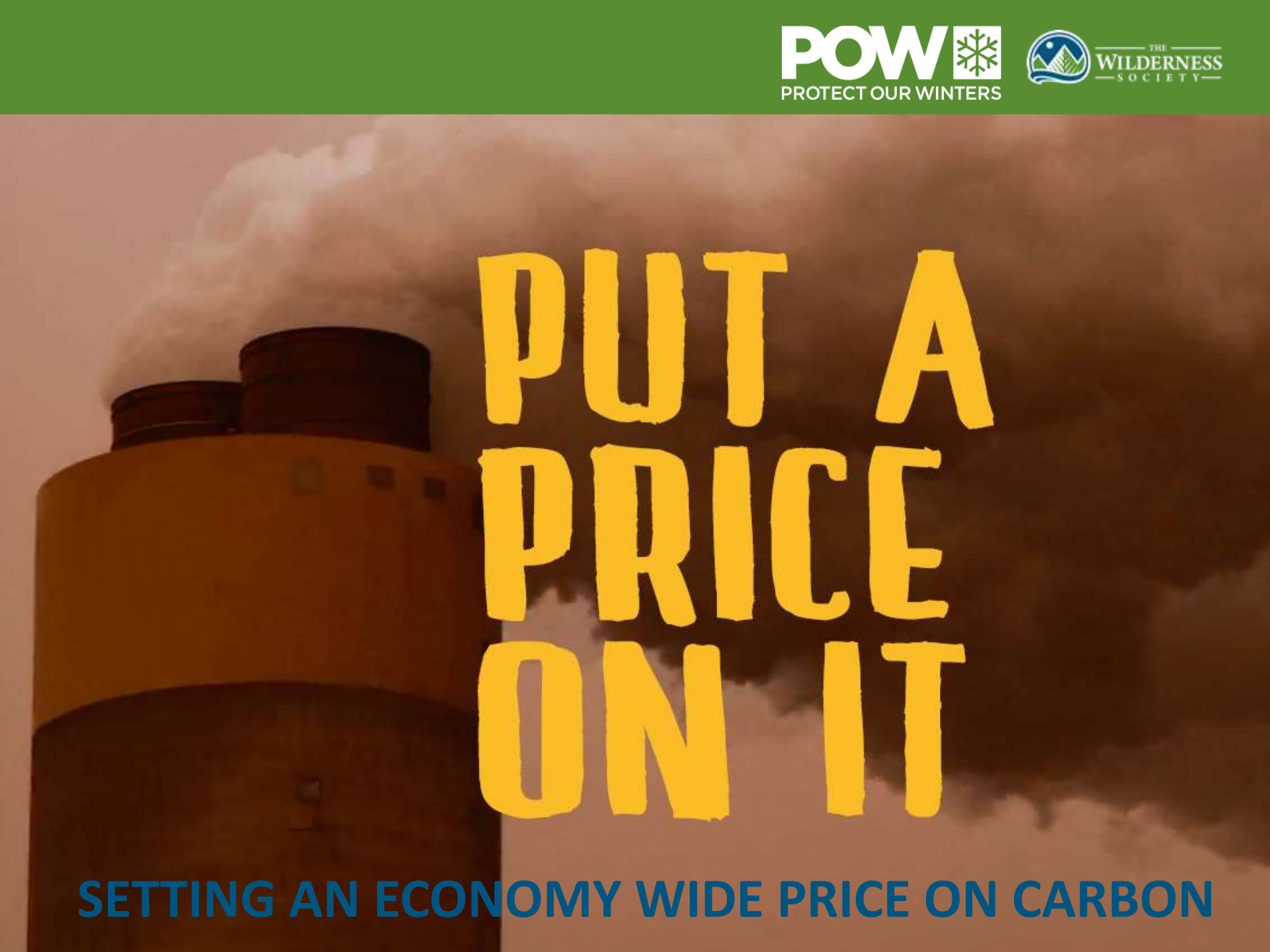




# UTILIZING INNOVATIVE TRANSPORTATION







# PUT A PRICE ON IT

SETTING AN ECONOMY WIDE PRICE ON CARBON

# INVESTING IN A CLEAN ENERGY ECONOMY





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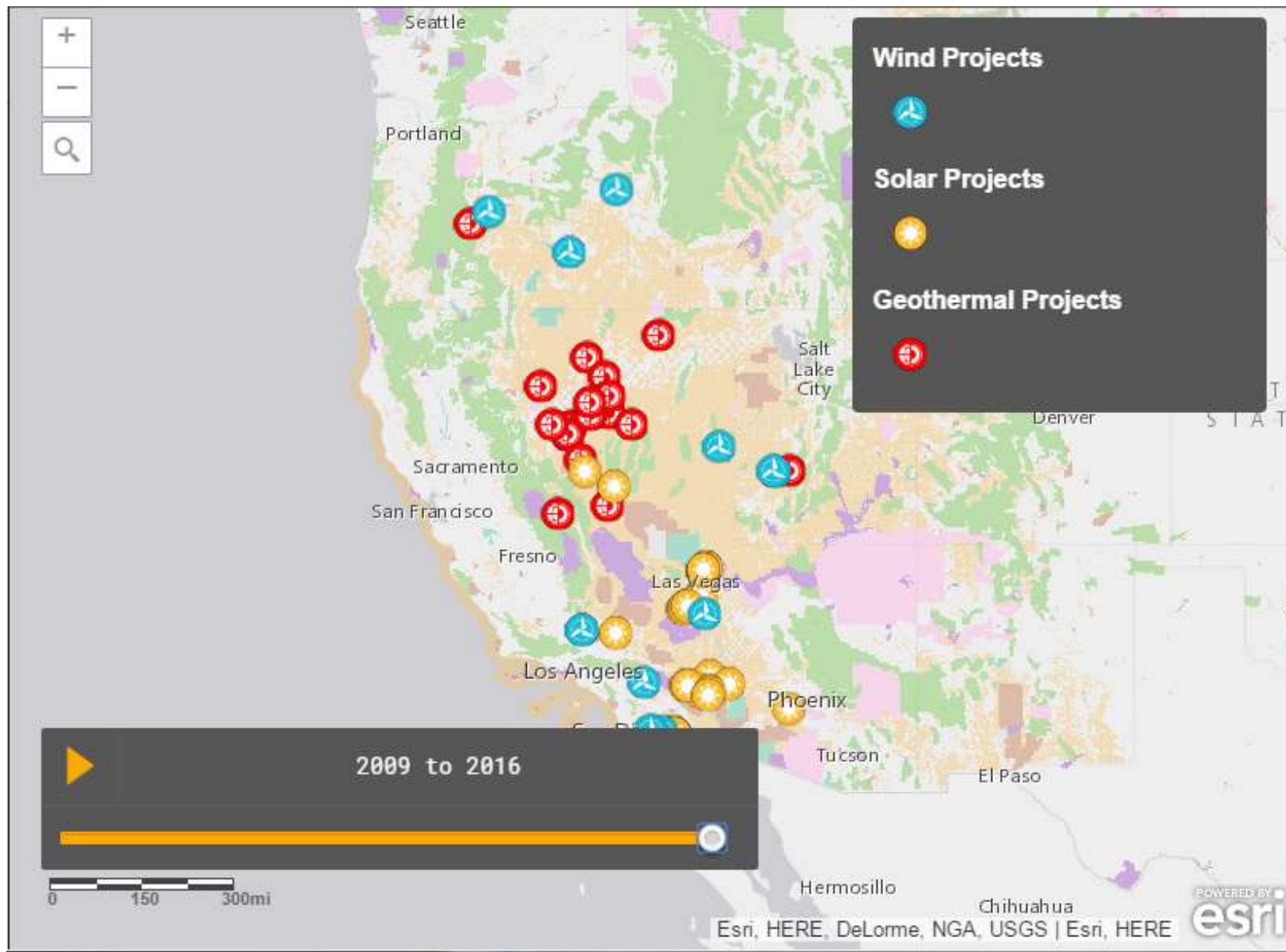
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# Renewable Energy on Public Lands







“more cost effective  
than natural gas”





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# 100 DAYS TO CHANGE OUR WAYS!

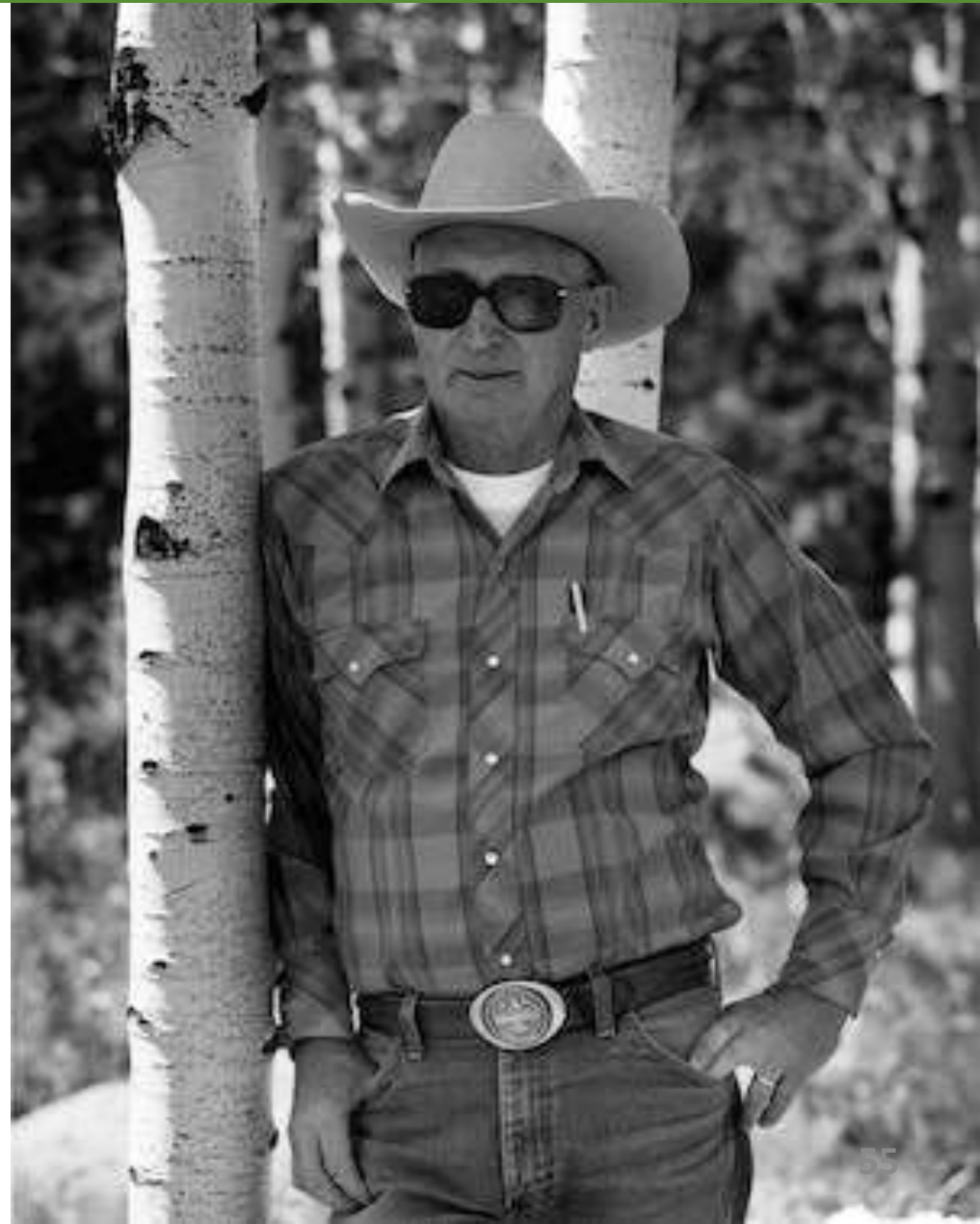
[protectourwinters.org/100days](http://protectourwinters.org/100days)



**ALSO,  
HAVE A PINT!**

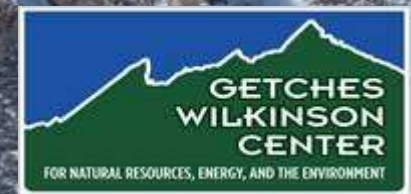
“In such moments of vulnerability, ambivalence, and detachment from one another, we must choose: Do we get involved with saving something bigger than ourselves or do we remain silent and watch it slowly disappear?”

- Tom Bell





# #ActOnClimate



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