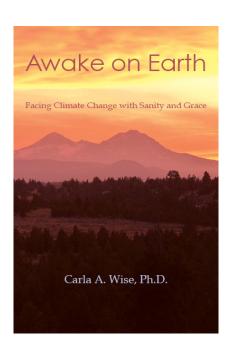
## Carla A. Wise, PhD **Climate Advocate and Writer**

- Executive Director, Power Up for Climate Solutions
- Co-founder, Corvallis chapter of Citizens' Climate Lobby
- Author of *Awake on Earth*: *Facing* Climate Change with Sanity and Grace

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DONATE



#### **Our Mission**

To share ideas, resources, and inspiration that help you take action on climate change

## **CLIMATE CHANGE: A Brief History (1988 to present)**

- 1988: First major scientific warning to Congress
- Disinformation campaign develops
- Scientific and public understanding slowly grows
- Fossil fuel lobby blocks action in 1997, 2009, and 2021, climate movement strengthens, climate impacts intensify
- 2010-2020 Technological/economic barriers to decarbonization increasingly coming down

## A Clean Energy Miracle: 2009-2020

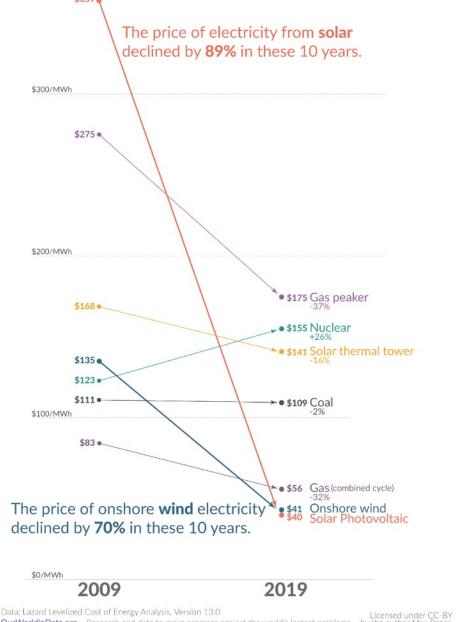
- Prices for Solar and lithium-ion batteries fell by 90%
- Prices for onshore wind have fell by 70%
- In most places new renewable power is now cheaper than new fossil fuel power
- Technologies follow learning curves: increasing installed capacity drives down the price.
- Incentives helped make this happen!

From Max Roser, "Why did renewables become so cheap so fast?" Our World in Data, 12/1/2020

#### The price of electricity from new power plants Our World

in Data

Electricity prices are expressed in 'levelized costs of energy' (LCOE). LCOE captures the cost of building the power plant itself as well as the ongoing costs for fuel and operating the power plant over its lifetime.



Data: Lazard Levelized Cost of Energy Analysis, Version 13.0

## PARIS CLIMATE AGREEMENT

❖ December of 2015: 195 countries agree on goal of limiting warming to 2°C and aspiring to 1.5°C and produce individual pledges to cut emissions

- U.S. pledges to cut emissions in half by 2030, and reach net-zero by 2050
- First global science-based plan to prevent catastrophic, run-away climate change
- No major emitters are on track to meet their pledges yet



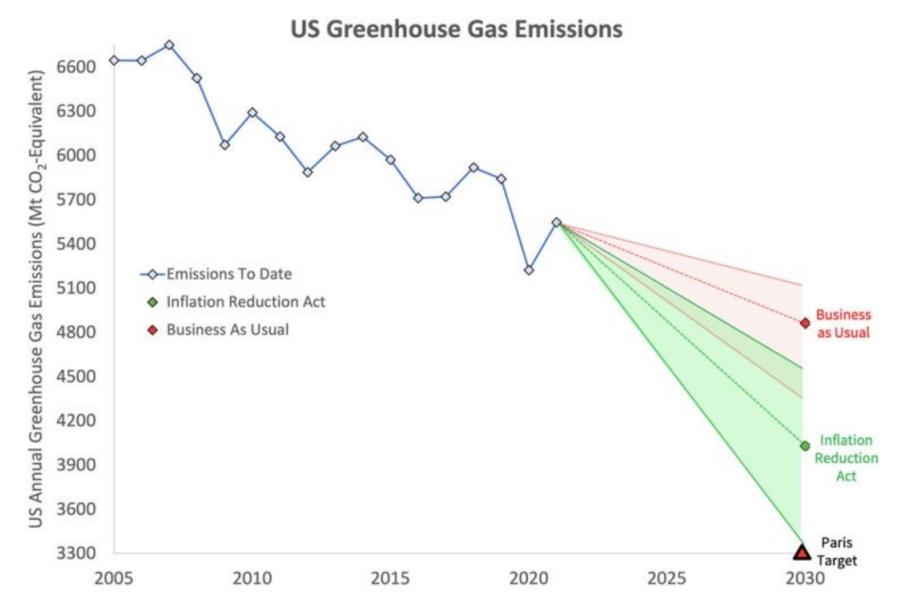
#### Signed into law August 16, 2022

## **Inflation Reduction Act**

- First comprehensive U.S. climate policy
- Primarily carrots, few sticks
- Complex law, mostly climate
- Major surprise and victory



#### **Inflation Reduction Act: Projected Impact**



Projected emissions under current policy (red), and with the Inflation Reduction Act according to Princeton REPEAT, Energy Innovation, and Rhodium Group analyses. (Created by Dana Nuccitelli)

#### **Inflation Reduction Act: How it works**

- Core approach: making clean energy cheaper
  - Subsidies, incentives and grants for individuals, businesses, states, tribes, non-profits, cities, rural power coops, and more
  - Stimulate innovation, economies of scale, continuing cost reductions for clean energy technologies (repeat 2009-2020 success)
- Green industrial policy to turn US into clean tech leader
- Funded through a 15% corporate minimum tax, and improving IRS tax enforcement

#### **Inflation Reduction Act: Goals**

SPEED clean energy transition, bring down US climate emissions

**BUT ALSO** 

 Maximize benefits of clean energy transition, and advance environmental justice

Turn US into clean technology leader

## **INFLATION REDUCTION ACT: Some specifics**

#### \$369 Billon in spending over 10 years

- ✓ CLEAN ELECTRICITY Extension of wind and solar tax credits, new and expanded investment and production tax credits, and rural & transmission infrastructure investments
- ✓ CLEAN TRANSPORTATION Clean vehicle/EV tax credits, biofuel & biodiesel incentives
- ✓ CLEAN ELECTRIC EFFICIENT BUILDINGS Tax credits and rebates for electrification and efficiency upgrades for homes and buildings

IRA Savings Calculator <a href="www.rewiringamerica.org/app/ira-calculator">www.rewiringamerica.org/app/ira-calculator</a>

#### INFLATION REDUCTION ACT

#### Other highlights

- ✓ Regulations and fee for methane leaks: 14% of emissions reductions
- ✓ Climate-smart lands and waters: funding for sustainable farming, forest, and water management
- ✓ Expanded tax credits and incentives for domestic manufacturing of clean energy technologies and industrial decarbonization
- ✓ Environmental justice, green bank, Postal Service EVs, and more

#### Inflation Reduction Act: Multiple goals and conflicts

#### **Electric Vehicle Incentives**

- Purchases slowed by:
  - Income and cost caps
  - N.A. assembly and battery requirements
  - Used EV restrictions

BUT: EV & battery factories AZ, OH, TN, MI, GA



#### **Inflation Reduction Act**

Jesse Jenkins' one sentence summary:

"We're going to tax billionaire corporations and tax cheats, and use that money to make energy cheaper and cleaner for all Americans, and also to build more of those technologies here in the United States"

#### What about New York?

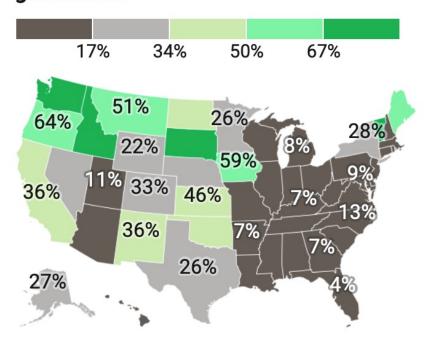
- New York is a leader has a long way to go in the clean energy transition
- Climate Leadership & Community
   Protection Act (2019): Requires net zero
   by 2050, 35% of benefits to
   disadvantaged communities
- Currently only 28% of electricity generated from renewables\*
- IRA provisions & incentives should boost and complement progress in NY

Image from Karin Kirk "Which state is winning at renewable energy production?" Yale Climate Connections, 2/23/2023, Source: Energy Information Administration

#### Of the electricity generated in each state, how much is from renewable sources?

f in

Hover over each state to show the energy sources used for electricity generation.



Annual data from 2021.
Renewable sources are hydro, wind, and solar.
Map does not account for electricity imported or exported between states.

<sup>\*</sup>not including nuclear

#### Inflation Reduction Act: Some uncertainties

- Uncertain impacts: models are based on current guesses
  - No way to know which provisions will work as expected, which won't
- State and local implementation issue
- PERMITTING REFORM QUESTION
- As climate chaos intensifies, how will this impact climate action?
- Most consequential U.S. climate action ever taken, but likely not enough to meet Paris Commitment. Will we do more?

# How you can help speed the clean energy transition:

- 1. Use Rewiring America's IRA Savings Calculator
- 2. Electrify what you buy
- 3. Share IRA information with your community
- 4. Join a climate group/connect with others



# **Questions?**

