New York's Ambitious Climate Law*– How to Make It Work and Save $75 Billion

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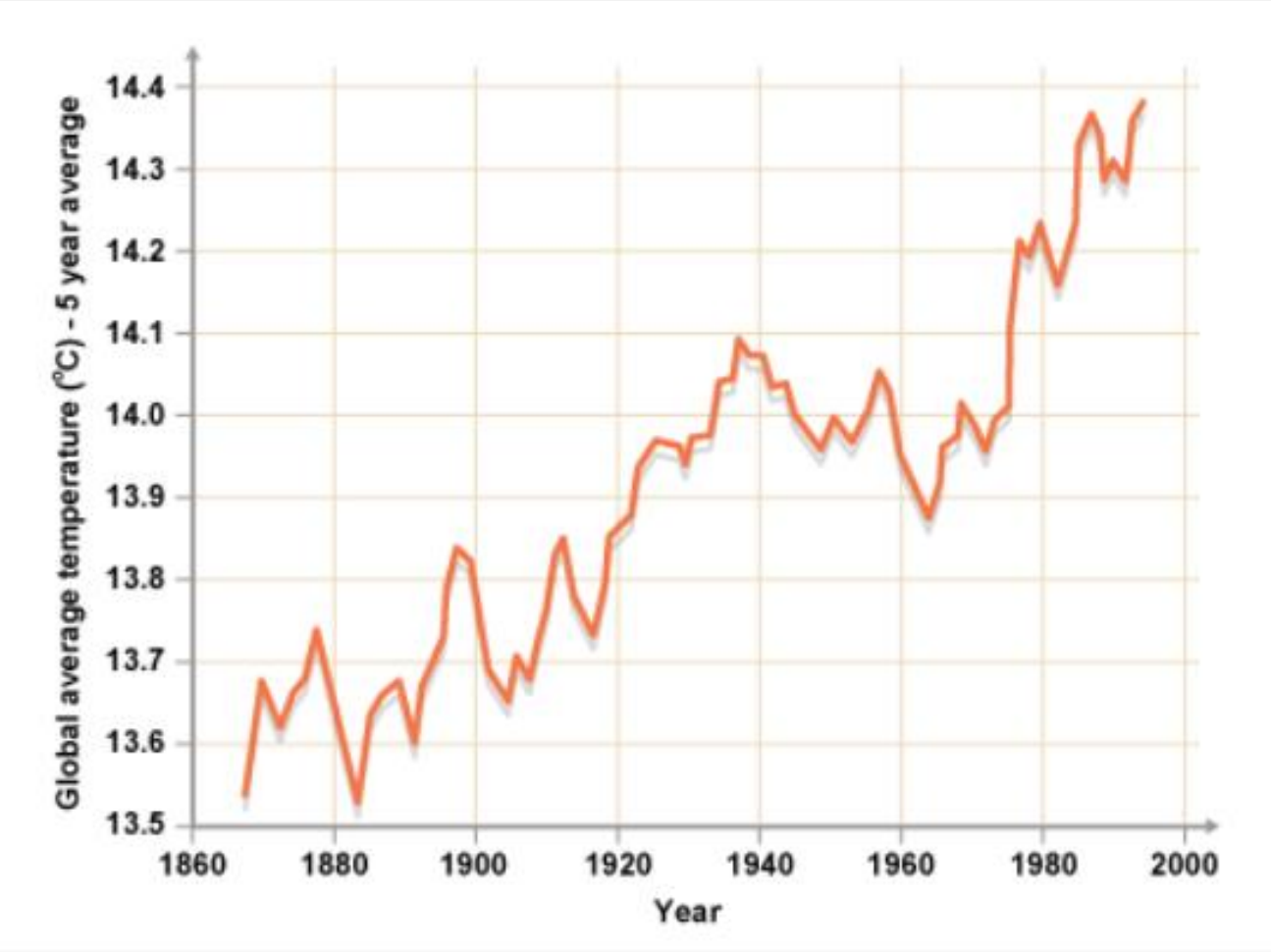
*** The Climate Leadership and Community Protection Act of 2019 (CLCPA)**

It’s Getting Hot Out There!



We Have to Act Now!

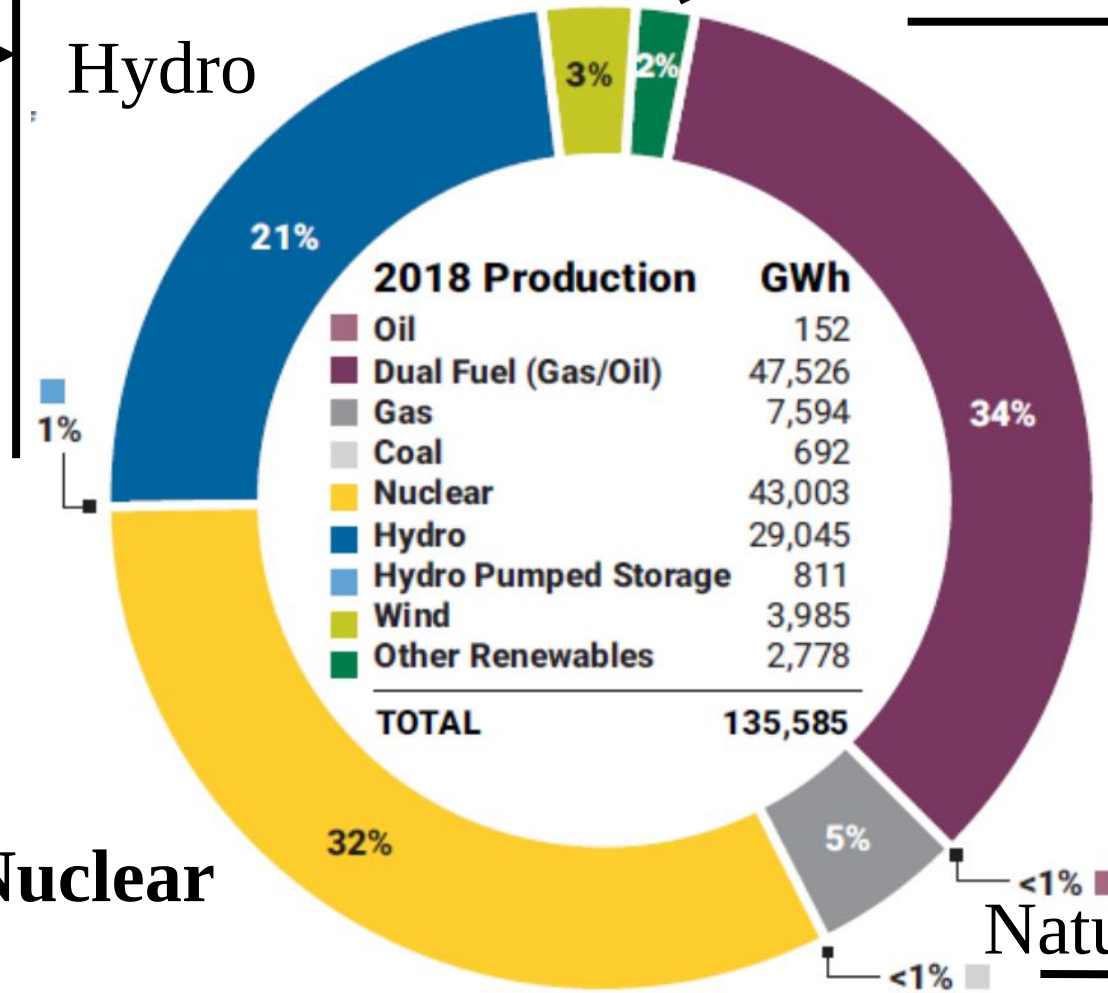
How Should We Respond to the Climate Crisis?

By 2050, eliminate fossil fuels.

Replace them with carbon-free renewables

What is the role of nuclear power? It's carbon-free, too.

How New York Produces Electricity Today



Renewables
26%

Oil and Natural Gas

Fossil Fuels
41%

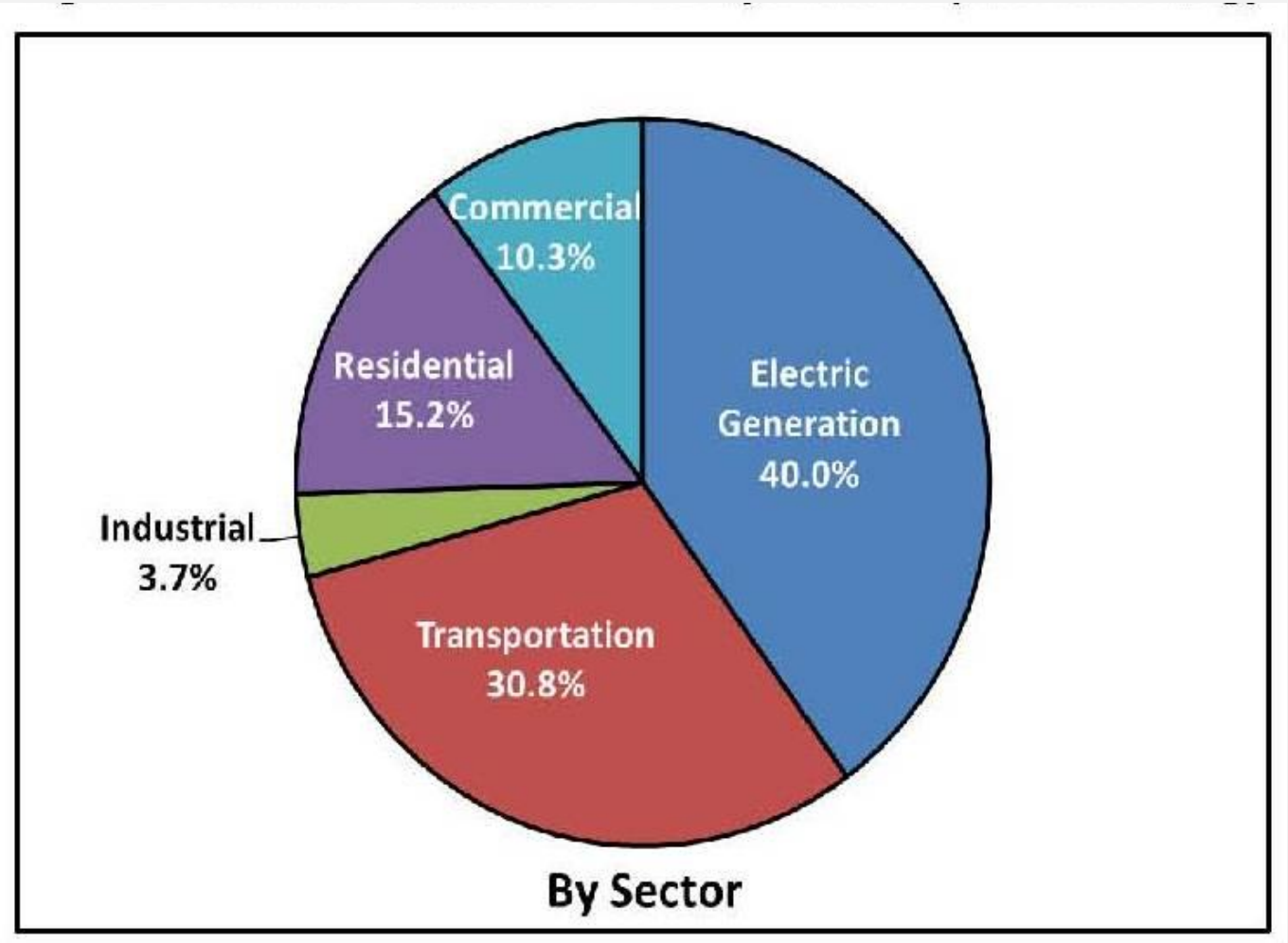
Nuclear

Natural Gas

Note: 1 GWh = 1 million kwh

Source: 2019 Power Trends – NYISO. http://www.nyiso.com/power-trends

NY Energy Consumption 2016



New York's Energy Policy: All Renewable

50% Generation
of electricity must come from renewable energy sources

Renewable energy sources, including solar, wind, hydropower, and biomass, will play a vital role in reducing electricity price volatility and curbing carbon emissions.

EXAMPLES OF THE PLAN'S INITIATIVES TO ACHIEVE GOALS

Renewable Energy

Large-Scale Renewables Strategy

NY-Sun

K-Solar

Renewable Heat NY

Building and Energy Efficiency

BuildSmart NY

What about nuclear? There is <u>no mention of it</u> in either the 2015 Energy Plan or the new climate law.

The 1st Major Goal of New York's Climate Law

- **We should obtain 70% of our electricity from renewables by 2030**
- **In 2018, renewable sources supplied 26% of our electricity**

  Water power and biomass: 21.4%
  Wind and solar: 4.6%

- **Waterpower and biomass can't grow very much, so wind and solar must provide 48% of our electricity — a 1000% increase — by 2030.**

- **This requires installing**
  - **-- 8 million 5-kw rooftop solar units (currently, there are 120,000), or**
  - **-- 2,500 15-MW solar farms (currently, less than 50), or**
  - **-- 2,500 6-MW offshore wind turbines (currently, none – Rhode Island has 5)**

- **At a total cost of nearly $100 Billion*, far beyond any sums being considered by the State!**
- **And we still won't have power when the sun isn't shining and the wind isn't blowing.**

Is this realistic?

*http://www.Infoshare.org/main/What_Will_It_Cost_to_Reach_the_2030_CLCPA_Goal.pdf

The Citizens Budget Commission doesn't think this is realistic:

"to meet CLCPA goals…immense scaling up of renewable generation capacity is necessary and is likely infeasible by 2030."

-- Citizens Budget Commission

Getting Greener:

Cost-Effective Options for Achieving New York State's Greenhouse Gas Goals

CITIZENS BUDGET COMMISSION

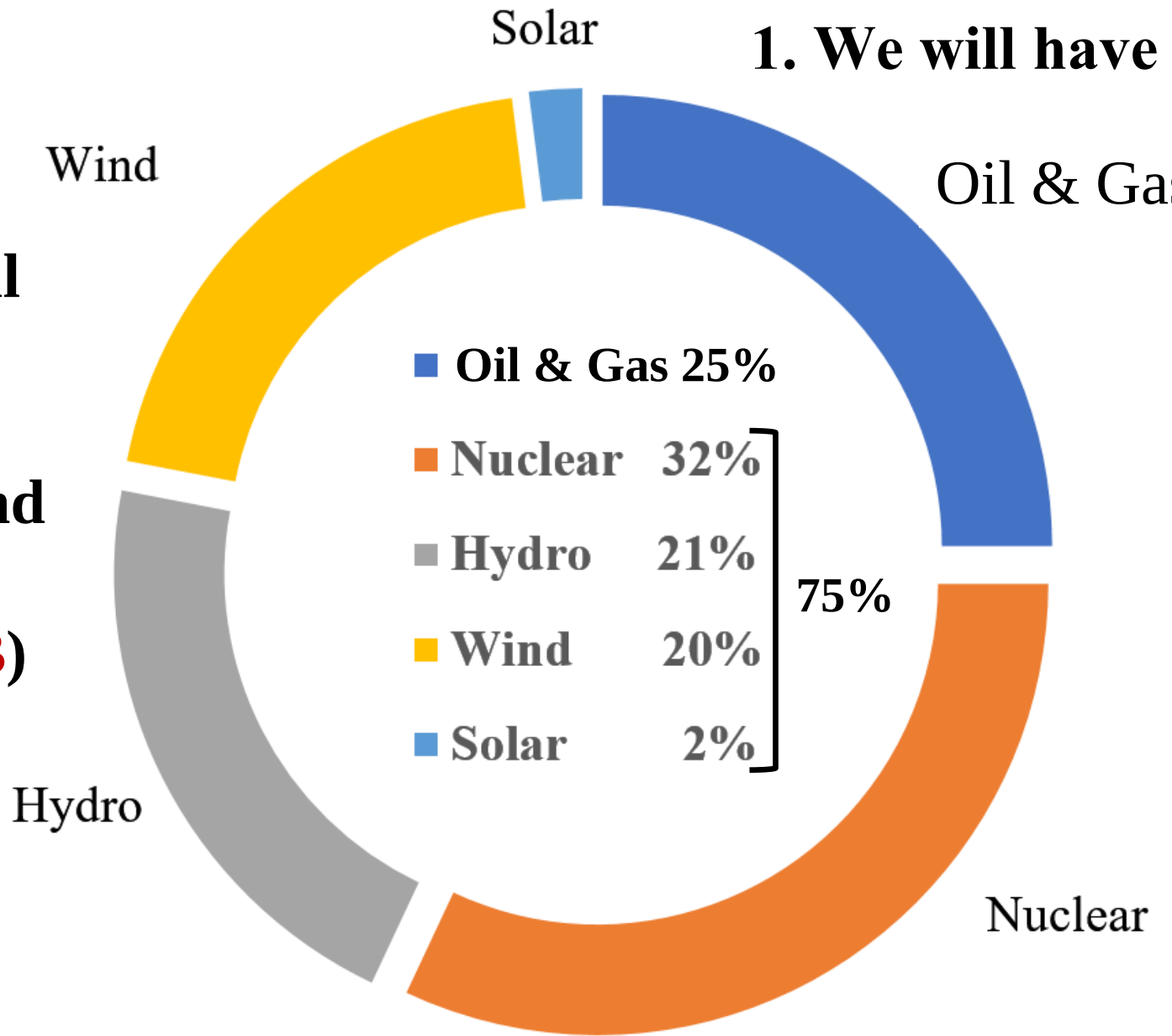
December 2019

STRATEGIC ENERGY ADVISORY SERVICES, LLC

Here's a Better 2030 Electricity Plan: Count Nuclear Power as a Carbon-free Source

1. We will have met the 70% goal

2. The only new cost will be for the state's offshore wind program (about $25B)



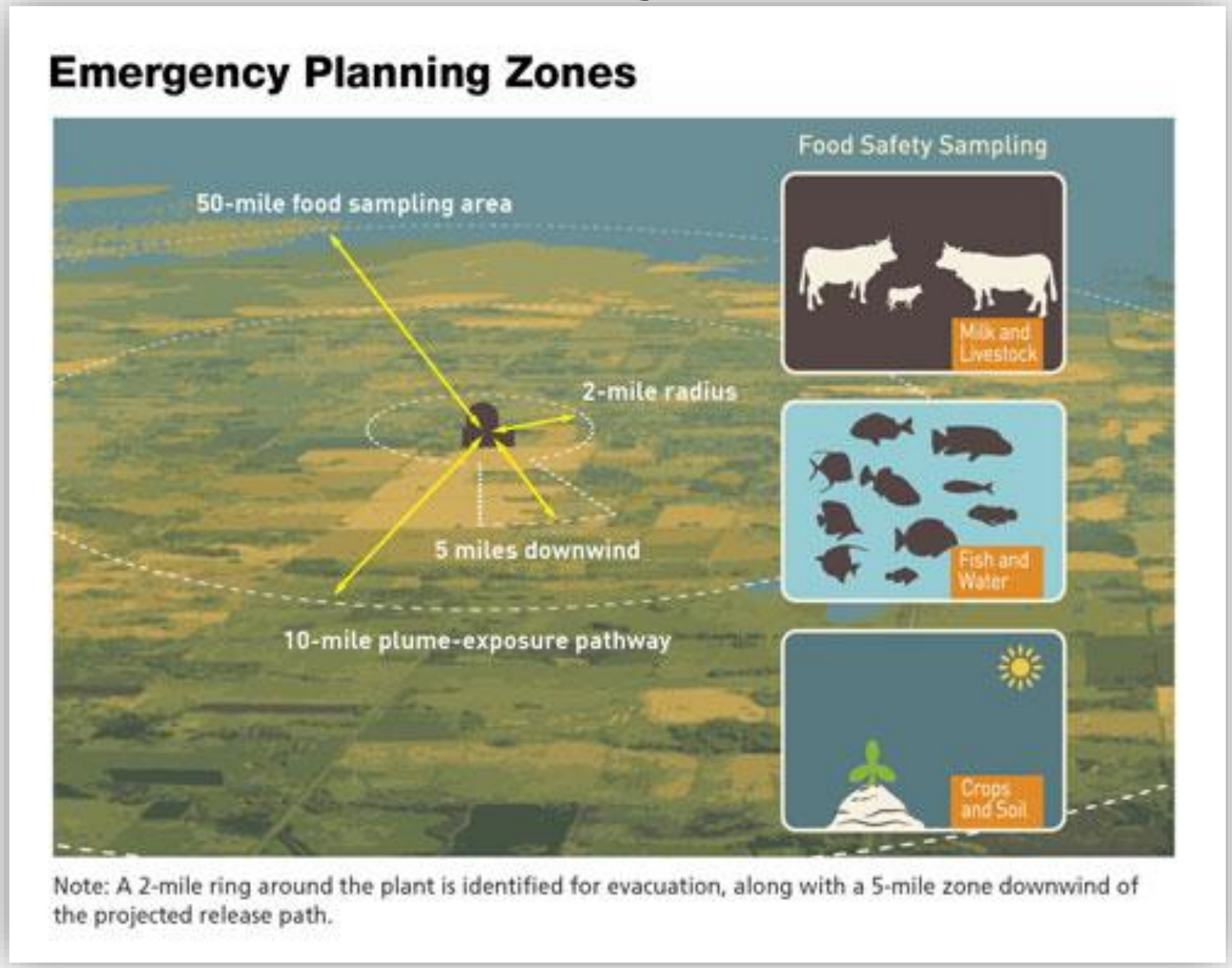
3. However, the nuclear part of this plan is in danger…

Indian Point Nuclear Plant

- Provides over 25% of downstate electricity and 80% of its carbon-free power
- Has supplied power 24/7 safely and reliably for over 46 years
- To be **shut down** by 2021 just because of **unnecessary fear**
- To replace the output of this one nuclear plant with renewables, New York would have to **quadruple** its current wind and solar capacity.
- Will be replaced be **three or more gas-burning plants** and the emission of 12-15 million tons of CO_2-equivalent greenhouse gases each year

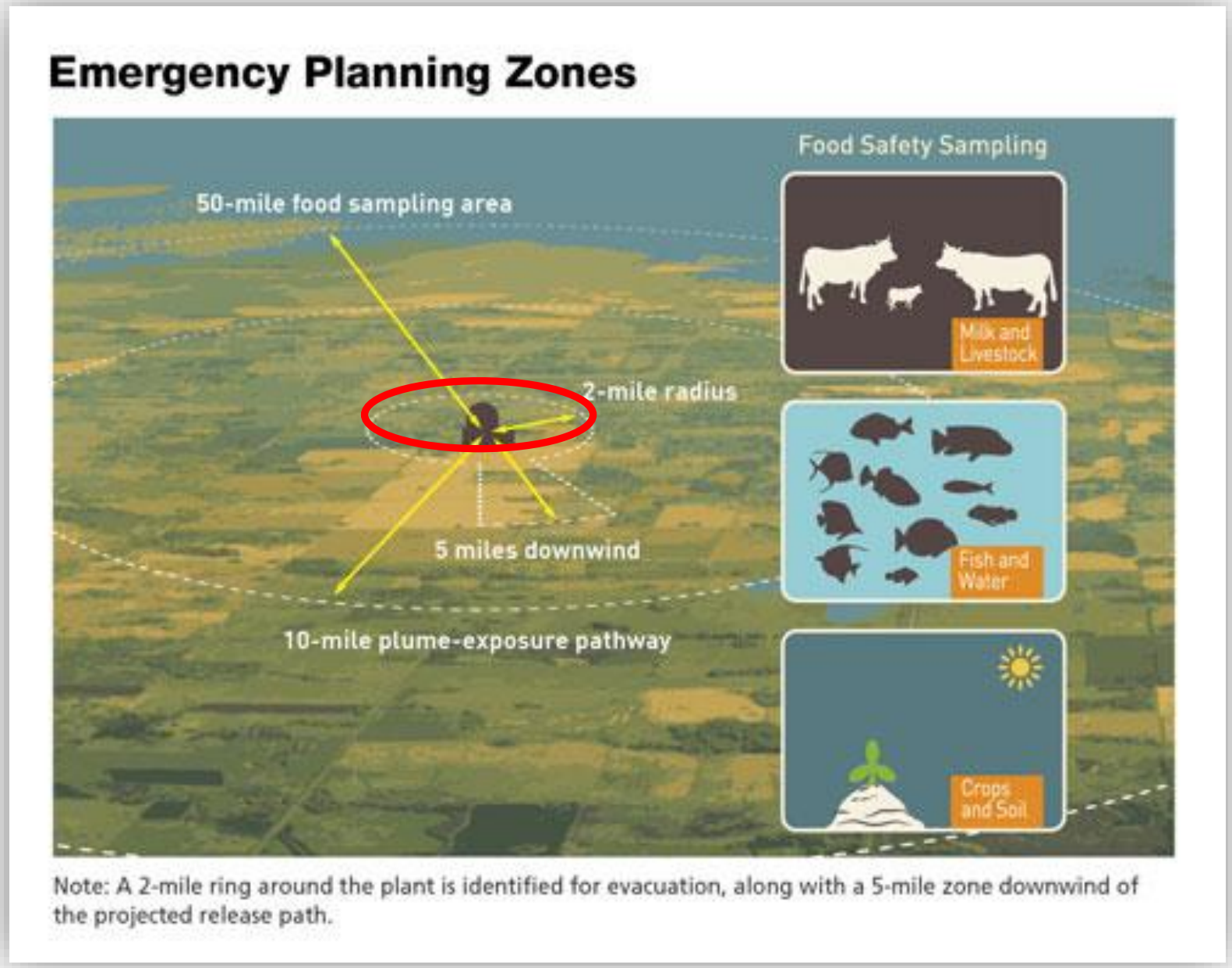
The Evacuation Myth

- There is no rational or scientific reason for a large-scale evacuation.
- Japan's panicked evacuation at Fukushima killed 1,000+ people, and there were no radiation-related deaths or even documented illnesses.



The Reality of Nuclear Accidents

- The only real evacuation need is within a 1-2 mile distance from the site.
- And people living in areas downwind from the site might be asked to shelter in place for a short while, not evacuate at all.
- In sixty years, no one in the US has ever been killed or injured by nuclear power.



Conclusions

1. We need to take climate change seriously and have an energy plan for New York that will work.

2. A workable plan for New York has to include all its carbon-free sources, including nuclear power.

3. Indian Point should remain open and operating.

4. Without Indian Point and the state's other nuclear plants – some of which are due to be shut down in the next several decades – we'll be depending on wind and solar and will not be able to meet our state's emission reduction goals.