

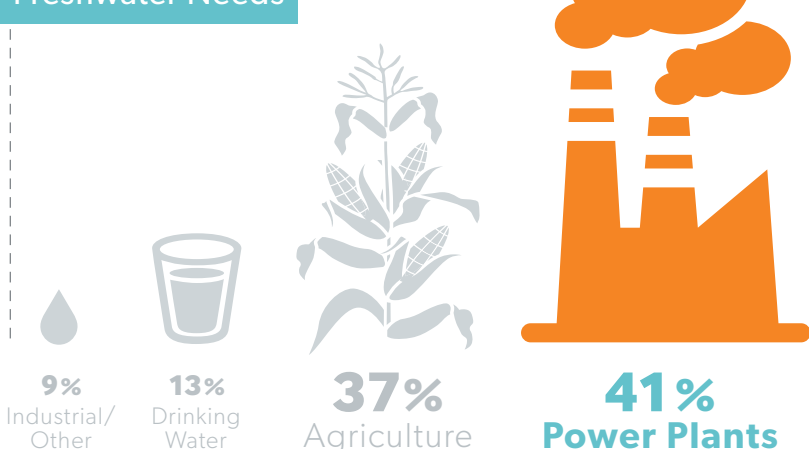
# THE ENERGY WATER COLLISION

## Energy and Water Demands Clash During Hot, Dry Summers

### PROBLEM

Today's power plants depend on **massive** amounts of water for cooling.

#### United States Freshwater Needs



More water is withdrawn for cooling power plants than for any other use.

### COLLISION

Hot, dry summers put electricity and water supplies at risk, with serious consequences for people and wildlife.



#### NOT ENOUGH WATER

Without enough water for cooling, power plants must cut back production or even shut down.



#### INCOMING WATER TOO WARM

Hot weather can make water supplies too warm for cooling, forcing power plants to reduce their electricity production when it's needed most.



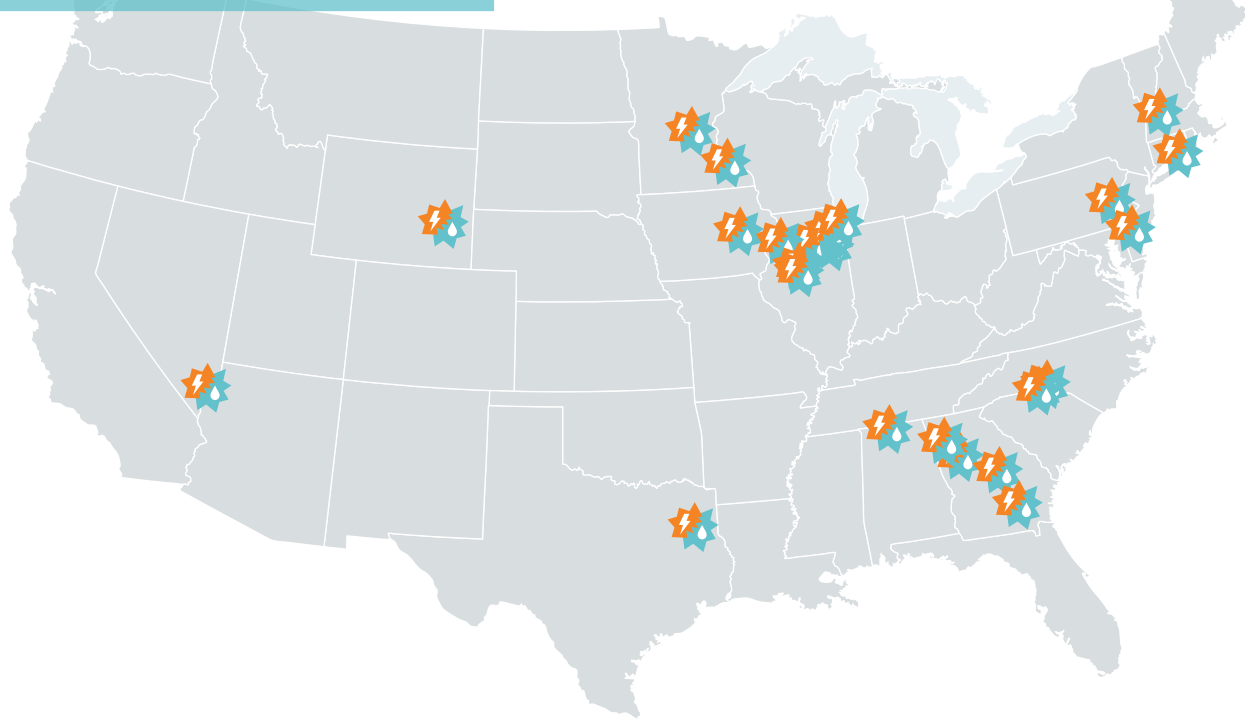
#### OUTGOING WATER TOO WARM

Wildlife can be harmed or killed when power plants discharge hot water back into rivers and other water bodies.

### CASES

Energy-water collisions are happening **now**, and will get worse as temperatures increase and droughts become more frequent.

#### Heat & Drought-Related Collisions Examples, 2006-2012



#### INCOMING WATER TOO WARM

- Prairie Island nuclear plant, MN
- LaSalle County nuclear plant, IL
- Hope Creek nuclear plant, NJ
- Limerick nuclear plant, PA
- Dresden nuclear plant, IL
- Hatch nuclear plant, GA
- Millstone nuclear plant, CT
- Powerton coal plant, IL

#### OUTGOING WATER TOO WARM

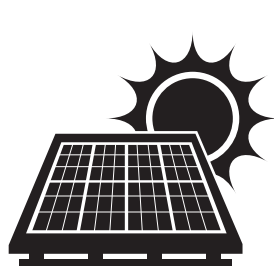
- Quad Cities nuclear plant, IL
- Monticello nuclear plant, MN
- Harllee Branch coal plant, GA
- GG Allen coal plant, NC
- Riverbend coal plant, NC
- Browns Ferry nuclear plant, AL
- LaSalle County nuclear plant, IL
- Braidwood nuclear plant, IL
- ED Edwards coal plant, IL
- Joliet coal plant, IL
- Will County coal plant, IL
- Dresden nuclear plant, IL

#### NOT ENOUGH WATER

- Hammond coal plant, GA
- Laramie River coal plant, WY
- Yates coal plant, GA
- Hoover Dam hydroelectric, NV
- Martin Lake coal plant, TX
- Vermont Yankee nuclear plant, VT
- Duane Arnold nuclear plant, IA

### SOLUTION

**Smart** energy decisions can reduce the risk of energy-water collisions.



No-Water Energy Sources



Big Water Savings

We can minimize the risk of water-related power disruptions by embracing **no-water** options like wind farms, solar photovoltaics, and energy efficiency, or **lower-water** technologies like air cooling for power plants.