

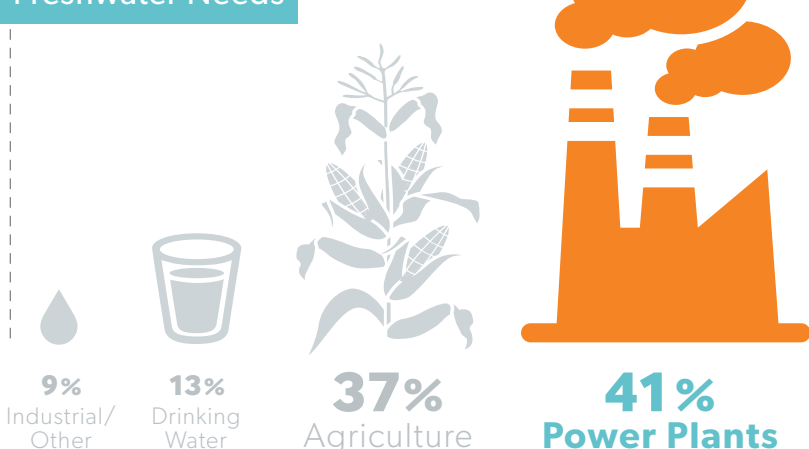
THE ENERGY WATER COLLISION

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More water is withdrawn for cooling power plants than for any other use.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



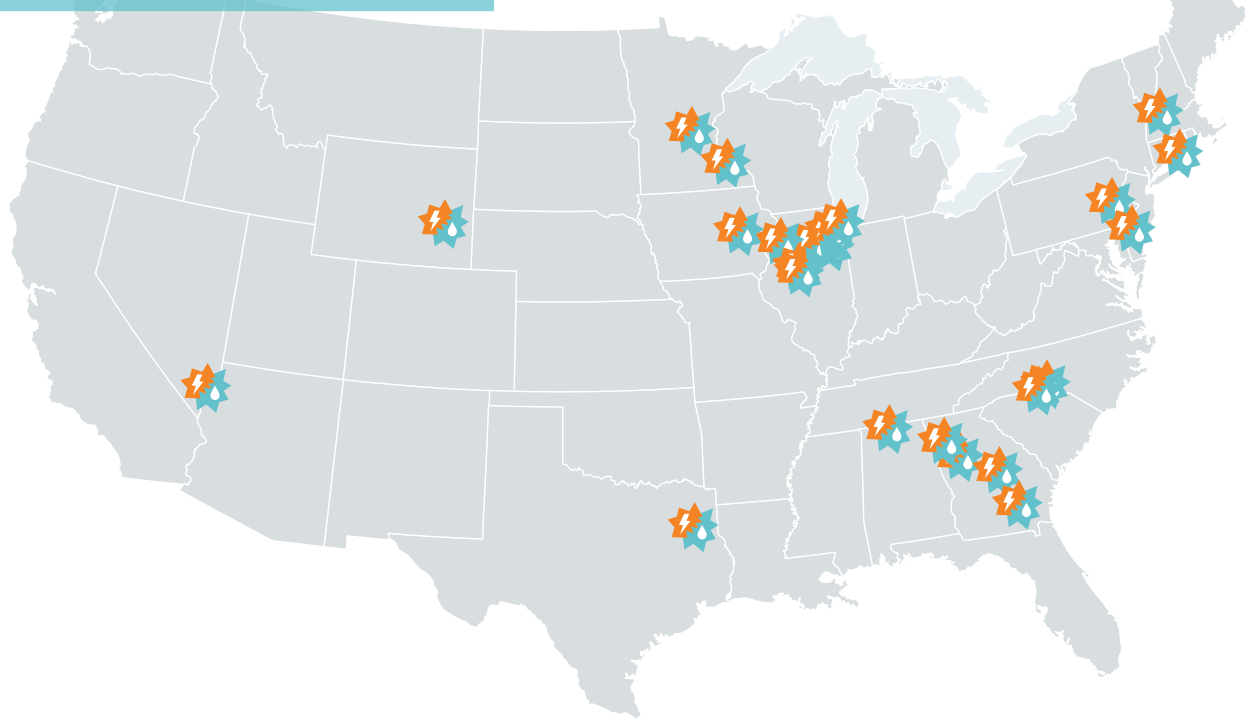
OUTGOING WATER TOO WARM

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

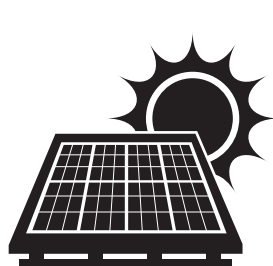
- Quad Cities nuclear plant, IL
- Monticello nuclear plant, MN
- Harllee Branch coal plant, GA
- GG Allen coal plant, NC
- Riverbend coal plant, NC
- Browns Ferry nuclear plant, AL
- LaSalle County nuclear plant, IL
- Braidwood nuclear plant, IL
- ED Edwards coal plant, IL
- Joliet coal plant, IL
- Will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

NOT ENOUGH WATER

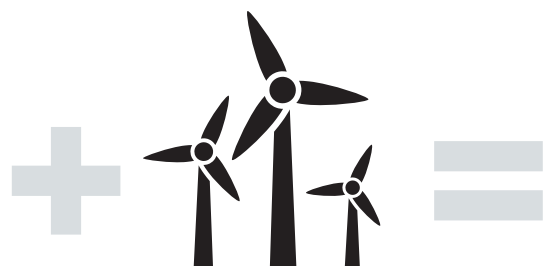
- Hammond coal plant, GA
- Laramie River coal plant, WY
- Yates coal plant, GA
- Hoover Dam hydroelectric, NV
- Martin Lake coal plant, TX
- Vermont Yankee nuclear plant, VT
- Duane Arnold nuclear plant, IA

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.