



Plastics Division

# PLASTIC PIPES DELIVER (MORE THAN WATER)

**COST SAVINGS, ENERGY EFFICIENCY, CARBON  
REDUCTIONS, DURABILITY, SERVICE LIFE**

## KEY TAKEAWAYS



### Cost Savings

Installation and use of plastic pipes can significantly reduce upfront, operational and maintenance costs.



### Energy Efficiency

Every 10 miles of pipe replaced with plastic = savings of 2,500 kWh of energy due to reduced friction. (Utah State University)



### Carbon Reductions

Plastic pipes can deliver carbon reductions of up to 35% compared to alternatives (McKinsey).



### Strength

Plastic pipes have break rates 3X lower than ductile iron and 12X lower than cast iron pipes. (Utah State University)



### Service Life

Plastic pipes are designed to resist corrosion/tuberculation and are built to last... some in excess of 100 years.

\$\$

lifetime  
savings

10 miles  
plastic pipes  
=

2500 kWh  
saved energy

up to  
35%  
less CO<sub>2</sub>

3X stronger  
than ductile iron

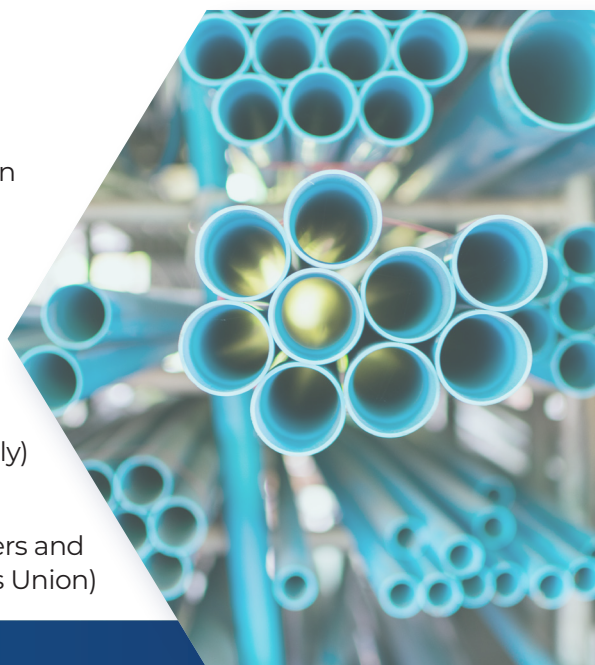
12X stronger  
than cast iron

± 100 years  
lifespan

# U.S. POLICY

## OPEN COMPETITION DELIVERS

- Eliminates outdated restrictions mandating legacy pipe materials in municipal water system construction projects.
- Allows local officials and project managers to choose materials based on cost and performance.
- Increases competitive bidding which saves community and federal tax \$\$.
- Transitioning to open competition could save **\$20.6 billion** (water supply) and **\$22.3 billion** (stormwater) over a ten-year period. (BCC Research)
- Switching from iron to plastic pipe nationally could save water ratepayers and taxpayers **≈\$371 billion** over typical life of materials. (National Taxpayer's Union)



### Policy Ask

- Incorporate common-sense requirement for open competition when using federal \$\$.

## AGRICULTURE WATER EFFICIENCY/FARM BILL

- Open irrigation agricultural canals lose up to **30%** of water to seepage and evaporation (canals provide  $\frac{1}{2}$  of U.S. agricultural water).
- Inefficient irrigation systems waste **52%** of the energy they use... year after year.
- More efficient irrigation systems (pumps and pipes) could save **\$2.8 billion** every year in energy costs.
- Replacing existing U.S. irrigation pipes and canals with plastic pipes = saving **19+ million** metric tons of carbon over the lifetime of the system. Equivalent to annual carbon emissions of **2.4 million** homes.

(All: Cadeo Group)



### Policy Ask

- Enhanced, robust funding for USDA (EQUIP) water and energy efficiency programs.
- Develop a calculator that allows farmers to readily quantify projected savings; plus tools and support to expedite program implementation.



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The American Chemistry Council (ACC) is a key stakeholder in U.S. infrastructure, providing critical solutions and jobs in construction, agriculture and water infrastructure. ACC member companies deliver cost-effective products and materials that improve the energy efficiency of our nation's water systems.

**FOR MORE INFORMATION CONTACT**

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