



June 15, 2023

# Pension & 401(k) Investment Policy Amendments

Resolution 1480 & 1481



# Investment Policy Overview

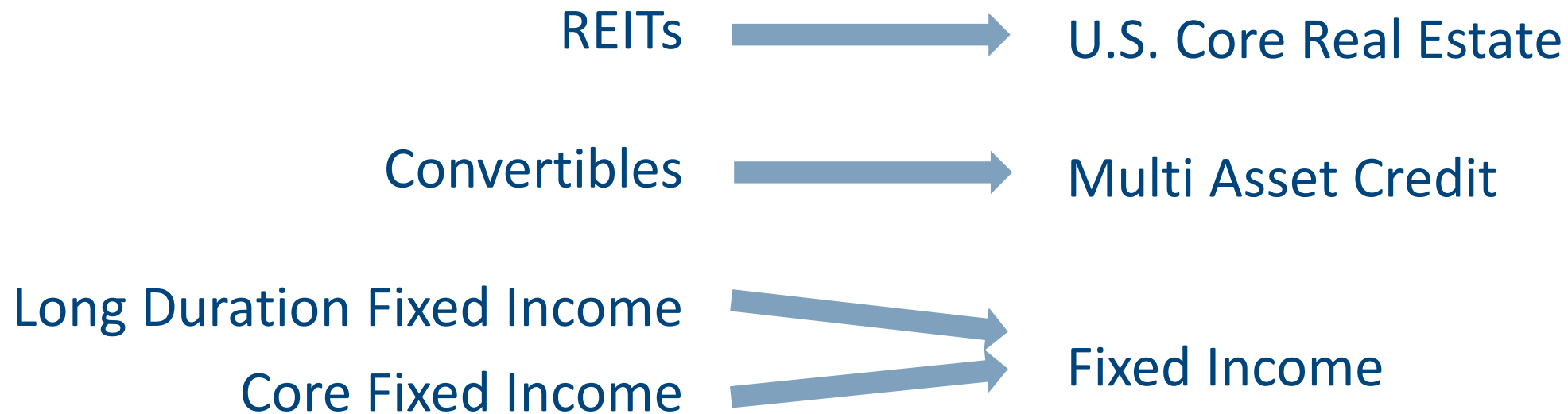
- Investment policies outline delegations of responsibility, set broad guidelines for diversification and asset allocation, and provide for performance standards
- Investment policy changes require Board approval
- Audit and Finance Committee adopted Resolutions AF-92 and AF-93 recommending Board approval
- Pension Investment Policy last amended 2016
- 401(k) Investment Policy last amended 2020

# Investment Policy Amendments

- Reviewed by
  - Retirement system investment advisor
  - Retirement system counsel
- Recommended for approval by
  - Retirement System Investment Committee
  - President and CEO
  - Audit and Finance Committee

# Pension Amendments from Asset Liability Study

- Propose new investments to optimize return/risk



- Allow for derisking of plan to 60% growth assets/40% defensive assets, when the Present Value of Benefits (PVB) funding ratio reaches 95%, after notifying the CEO and Audit and Finance Committee

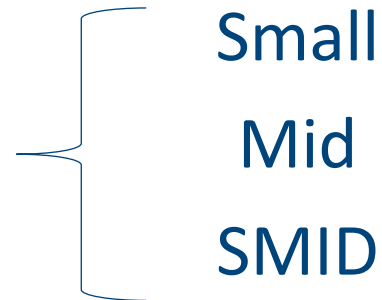
# Pension Amendments Provide Flexibility

- Modernize document structure
  - Simplified investment guidelines by asset class
  - Target allocation schedule defined by growth and defensive assets
- Allow investment consultant to conduct annual review meetings with investment managers without retirement staff in attendance
- Provide options for future investments

Small Cap Domestic Equity



Mid Cap Domestic Equity



Small

Mid

SMID

# 401(k) Amendments

- Modernize investment option structure
  - Conform with peers and Mercer's best practices
  - Add flexibility to provide investment options in all or some of the asset classes included in the investment policy
- Add cash equivalents, ESG (environmental, social, and governance), and inflation sensitive as asset classes for potential future investment
- Allow for active or passive investment in each asset class
- Housekeeping items

# Resolution 1480

- Recommendation of the Audit and Finance Committee
- Adopts revised Pension Investment Policy
- Becomes effective July 1, 2023

# Resolution 1481

- Recommendation of the Audit and Finance Committee
- Adopts revised 401(k) Investment Policy
- Becomes effective July 1, 2023



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June 15, 2023

# TVA EnergyRight® Workshops Overview



# Eye Spy Energy Kids' Workshops

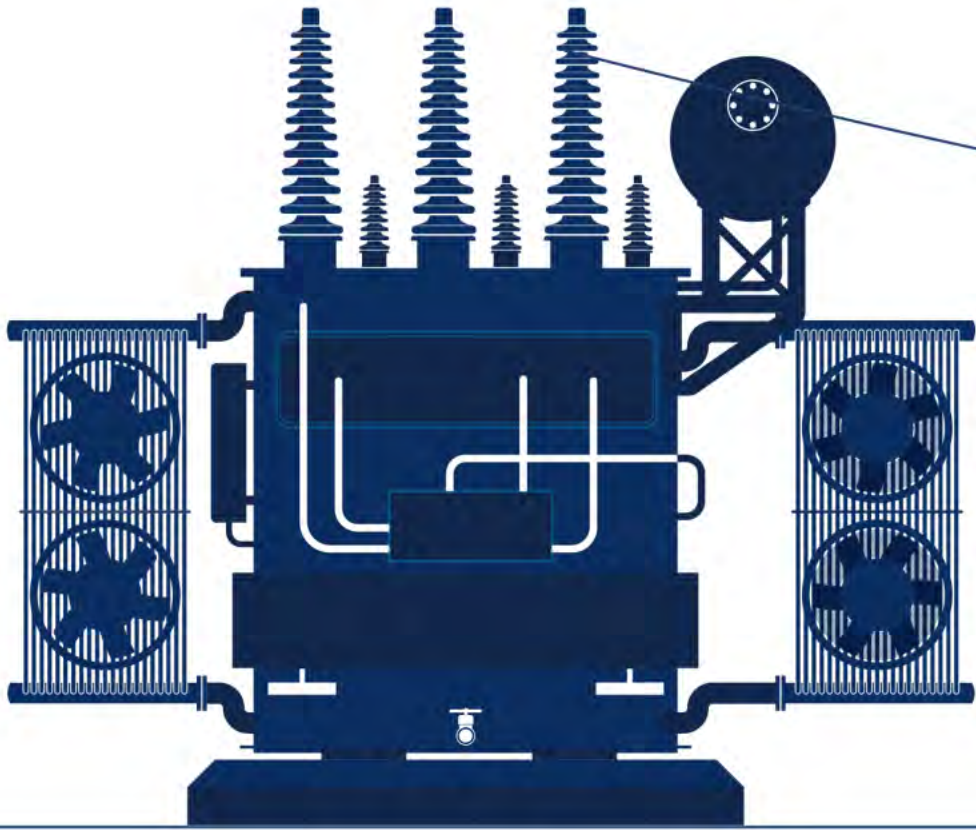
- Offered in partnership with EnergyRight
- Interactive and engagement-based workshop targeted for ages 5-12 (elementary level)
- Topics Covered:
  - Where energy comes from
  - How energy gets to our homes
  - How we use energy
  - Ways to save energy
- Participants take home an Eye Spy Energy Kit with kids activities



# Community Engagement



# step up TRANSFORMER





**HVAC**

**water  
heater**



**FRIDGE**

**TV**



**COMPUTER  
DEVICES**

**lights**



High energy



Medium energy



Low energy



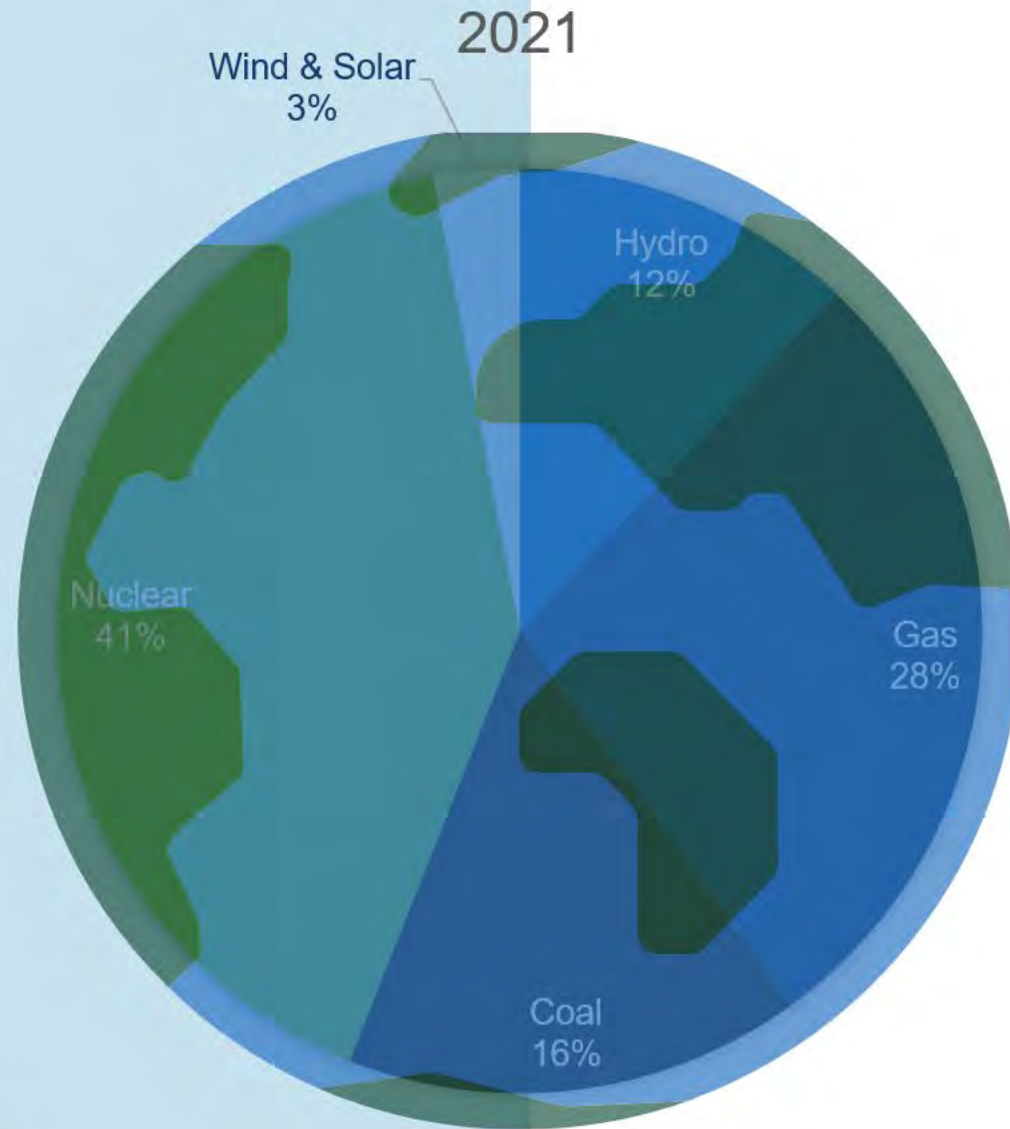
# Energy Evolution Teen Workshops

- New EnergyRight offering targeted for ages 13-18 (middle and high school)
- Introduction to energy, its environmental impact, and economic development
- Topics covered:
  - History of power in the Tennessee Valley
  - Where does energy come from?
  - How does energy consumption impact the region?
- Participants receive a Home Energy and Water Kit after completing a brief survey





# TVA's power portfolio



2021

63%  
reduction in  
carbon  
emissions

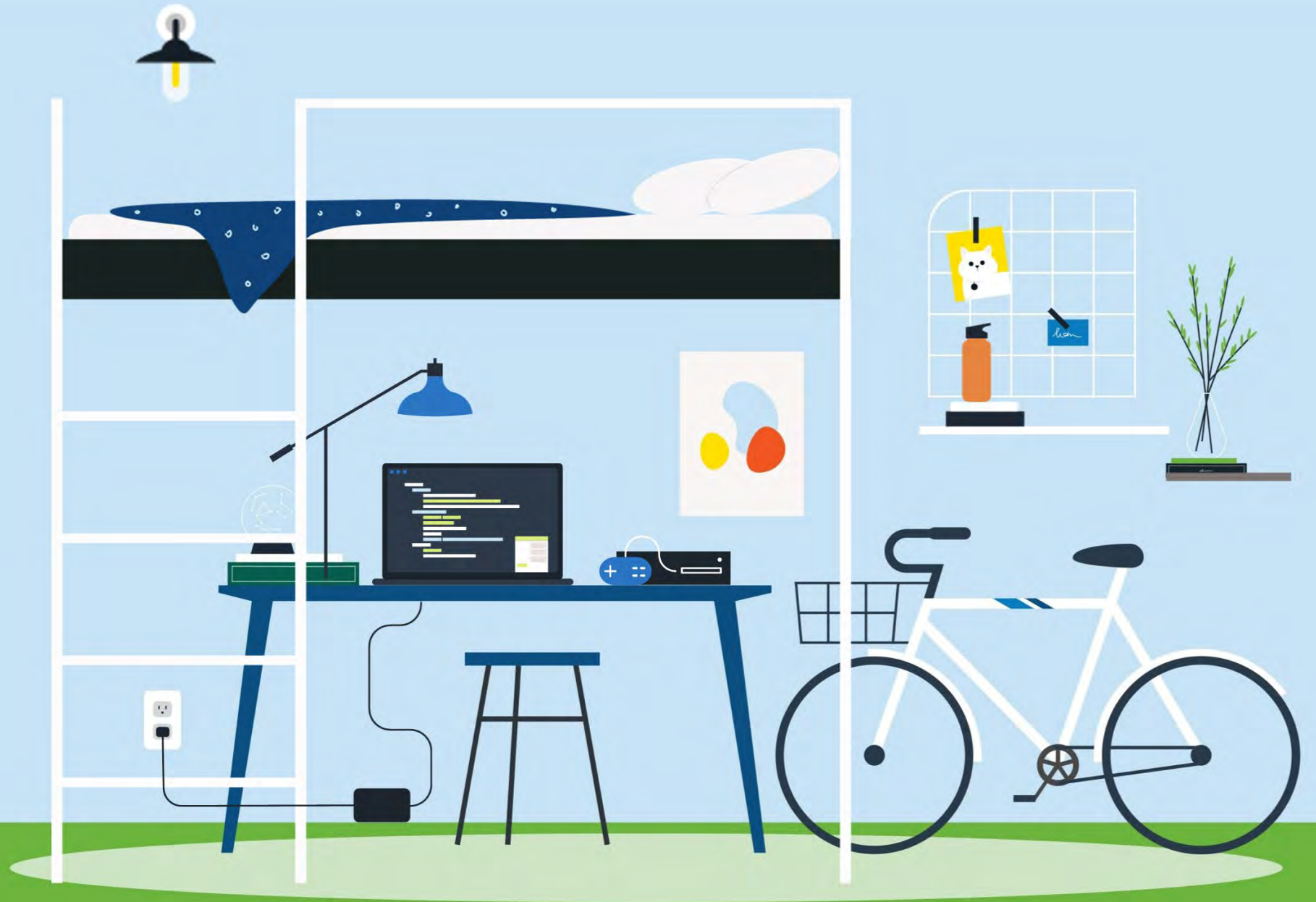
2035

80%  
reduction in  
carbon  
emissions

TVA offers energy efficiency programs that effectively reduced 2021 energy needs by about 2,300 GWh or 1.4%

# Let's talk energy.

Q: How do you use energy day to day?





# Energy & Water Savings Workshops

- Began using TVA-developed presentation and displays in 2018
- Topics covered:
  - Breakdown of where energy is used in the home and tips for conservation
  - Water savings recommendations and billing tips
  - Explanation of utility bill and online portal
- Participants receive a Home Energy and Water Kit after completing a brief survey and receive home energy audit information



## TAKE CONTROL OF YOUR ENERGY USAGE

Typical monthly costs based on a \$100 utility bill



**\$55**

Heating /  
Cooling



**\$20**

Water  
Heating



**\$8**

Lighting /  
Misc.



**\$7**

Laundry /  
Dishwashing



**\$5**

Fridge /  
Freezer



**\$5**

Cooking



WHERE IS YOUR MONEY GOING?



## You can influence your monthly energy use

Heating & air conditioning systems and water heaters have thermostats – these two systems typically make up 75% of monthly energy use

You have a choice of what temperature to set for comfort and savings

Think about your grocery bill—ground beef or steak?



# TEMPERATURE CHART

Cost of keeping temperatures above/below recommended setting

WINTER



|     |              |     |
|-----|--------------|-----|
| 69° | 3% increase  | 77° |
| 70° | 6% increase  | 76° |
| 71° | 9% increase  | 75° |
| 72° | 12% increase | 74° |
| 73° | 15% increase | 73° |
| 74° | 18% increase | 72° |

SUMMER



SEAL IT UP



## Home Insulation

Get an insulation check

Make sure gaps are sealed under insulation

Check attics and crawl spaces

## Air Sealing

Eliminate drafts by caulking all **interior holes**

Use **foam sealant**

Target areas:

- Holes and cracks
- Doors, windows, baseboards
- AC vents
- Attic access
- Floor penetrations & other large openings



## Weather stripping

Around doors, windows, AC units

Apply window film over drafty/old windows

Significantly reduces air leakage





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# Boyd's Bridge Water Line & Force Main Event Review



# May 12 Main Break

- Plant staff became aware of unusual conditions in early morning hours of May 12
- 911 call provided additional information regarding location
- Learned later in morning that force main had also failed





# KUB Response

- Underground Construction response
- Immediately established ICS team
- Operational plan implementation
- Communications with wholesale customers and key accounts
- Pump and haul operation at FOTR Pump Station
- Contractor and consultant



# Repair Alternatives

- Project team
  - Contractor – Garney Construction
  - Design consultant – Hazen Sawyer
  - KUB staff
- Concept: Restore service to water and sewer system as soon as possible
- Alternatives
  - Use existing waterline as casing for new waterline
  - Installation of one or both pipes on river bottom
  - Install temporary waterline on Boyd's Bridge

# Waterline Installation

- Pulled new 18-inch HDPE through existing of existing 30-inch HDPE
- Testing
- Connection of new pipe to existing pipe
- Installation complete May 22
- Return to normal May 25









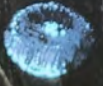


# Force Main Installation

- Placement along river bottom
- Acquisition of pipe, fittings, and anchor blocks
- Fuse HDPE pipe
- Float pipe across Holston River and sink
- Testing and tie-ins to existing force main



== DIPS 1 8 DR 11 WL Plastics SD AKWA 0016















# Project Timeline

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**Water line and force main failure occurs – May 12**

Contractors mobilized to Boyd's Bridge – May 15

Water line installation complete – May 22

**Water distribution system return to normal – May 25**

FOTR force main installation complete – June 3

**FOTR force main return to normal – June 6**

# Success Factors

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- In-house hydraulic modeling capability
- Operational plan for distribution system management
- Project team – Contractor, consultant, and KUB staff
- Communication plans
- Regulatory agencies
- Availability of contractors and materials
- Successful pipe installation
- Collaboration of multiple KUB departments throughout

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