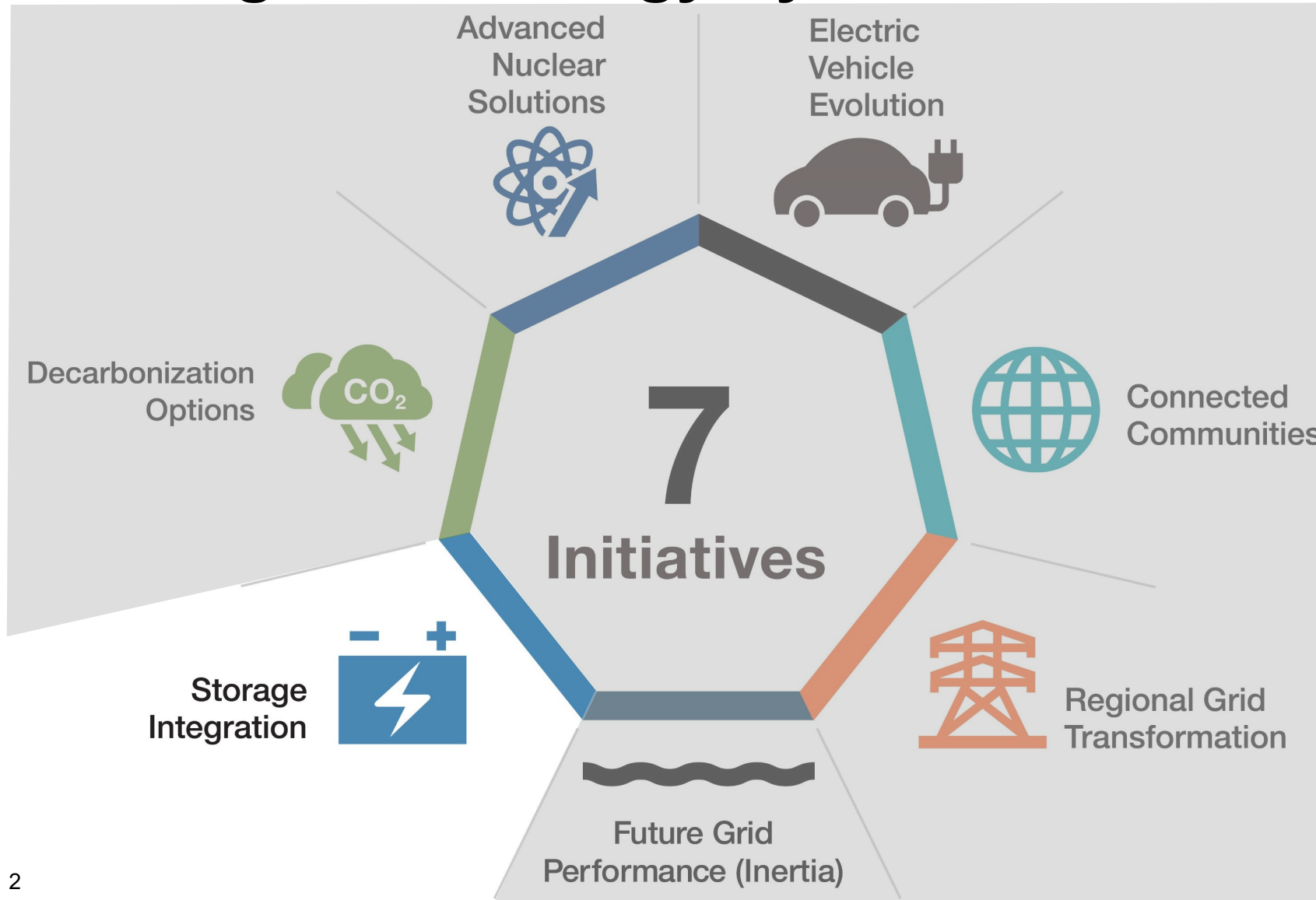


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# What is pumped storage? Why is TVA considering it?

Curt Jawdy, Senior Manager, Research & Development  
2/23/2023

# Building TVA's Energy System of the Future



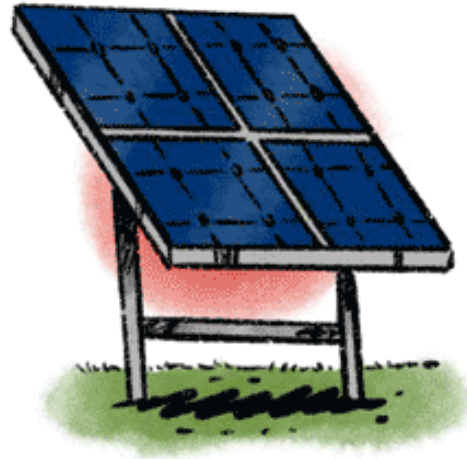
Working to:

- Provide safe, reliable, resilient, cleaner energy at the lowest feasible cost
- Increase energy flexibility

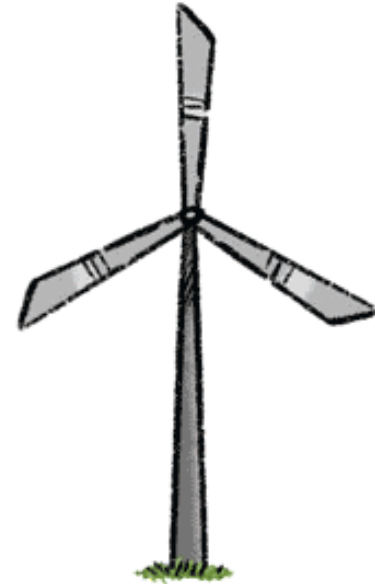
# The Need for Energy Storage

TVA must schedule energy generation to meet demand







Provide energy when zero carbon resources like solar and nuclear can't easily be turned on or off



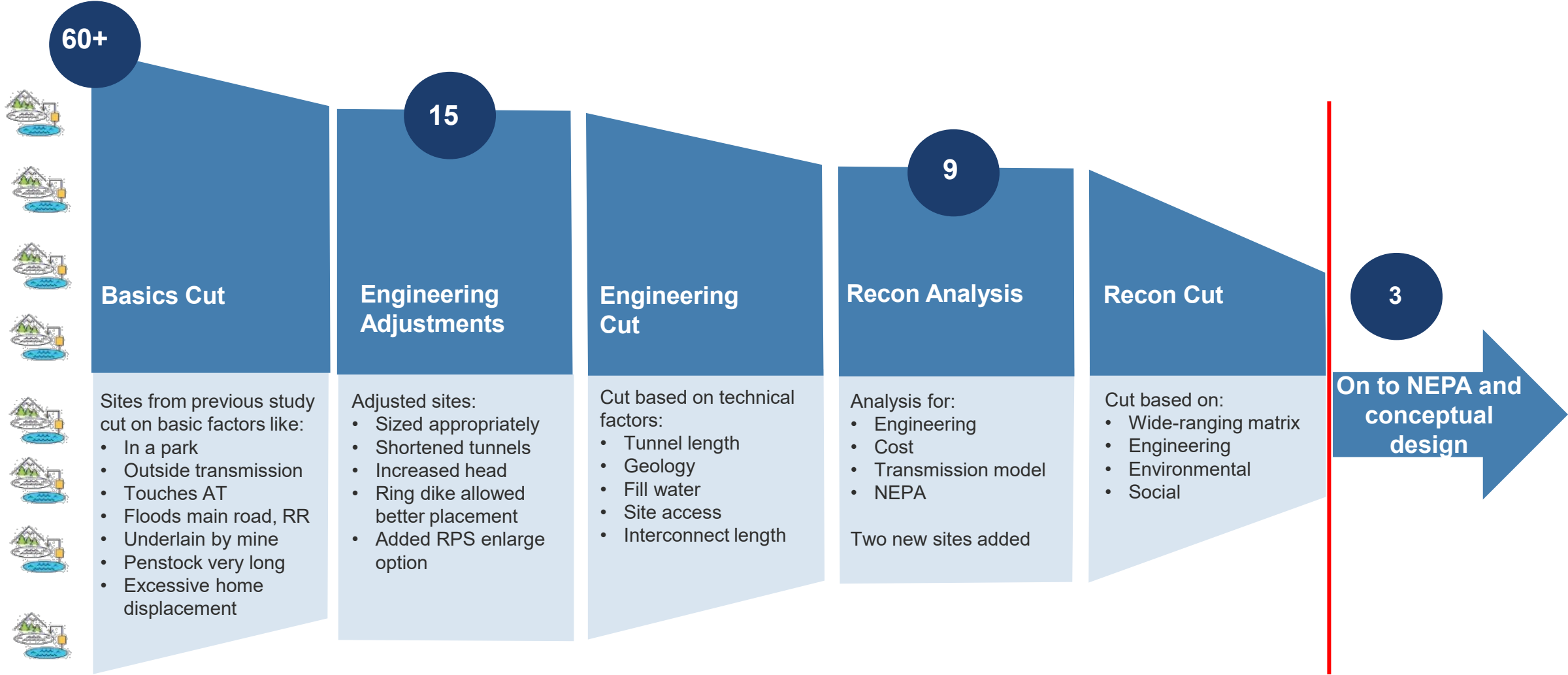
Peak production



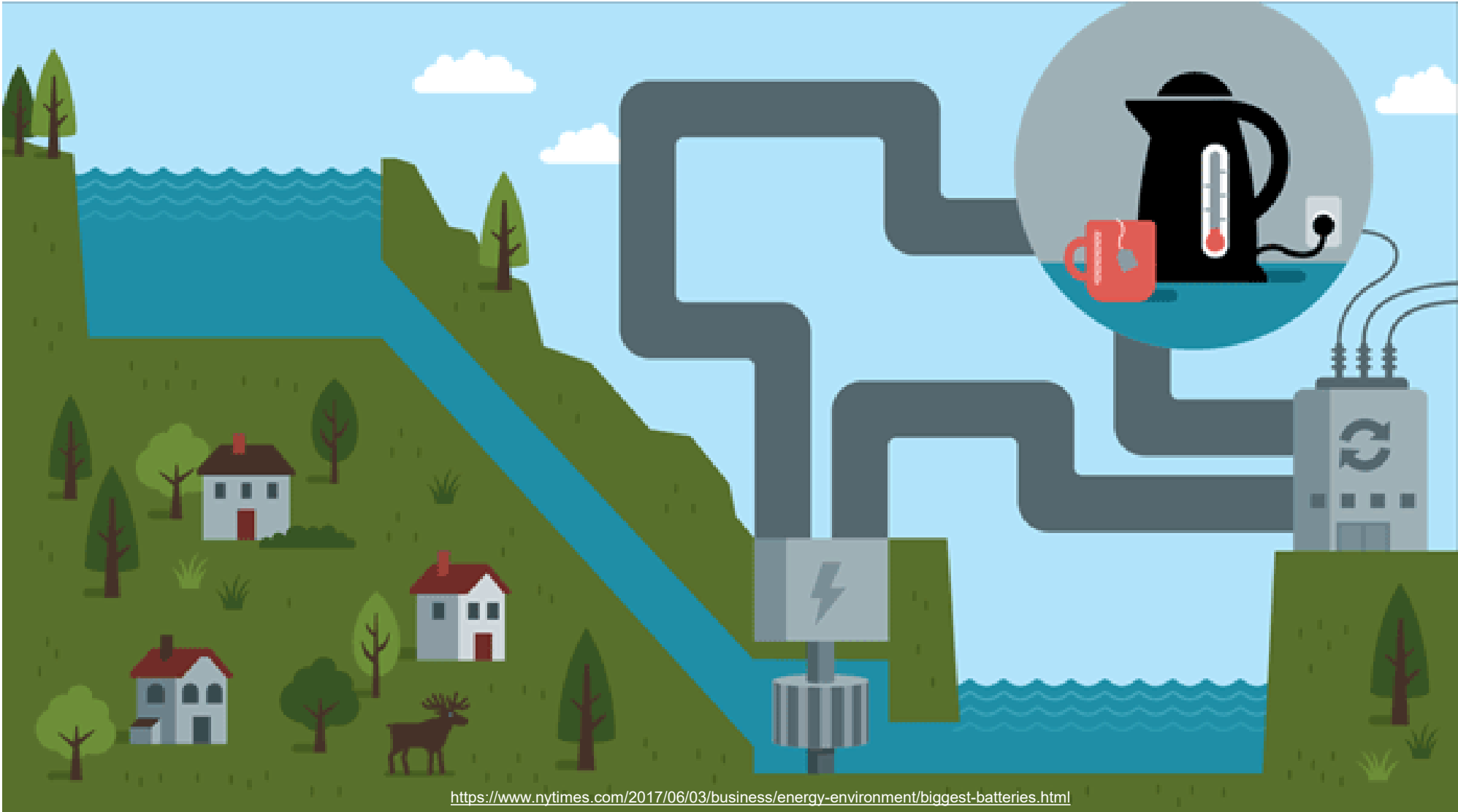
# Pumped Storage and TVA Principles

Low Cost 	Lowest cost mature option for long duration storage
Risk Informed 	Hedges against regulatory, supply chain and technological risks
Environmentally Responsible 	Enables decarbonization through solar, nuclear and carbon capture technologies
Flexible 	Variable speed units provide maximum flexibility to maintain stability
Reliable and Resilient 	Improves reliability and ability to withstand extreme events
Diverse 	Enables a diverse fleet as TVA builds the energy system of the future

# How We Screened Sites



# How it Works



# We Know Pumped Storage, and It Works

