

**VISTRA**

**Jim Burke**

**President and CEO**

# Vistra: America's Leading Integrated Energy Company



## Power Plants\*

- Natural Gas
- Coal
- Other

## Vistra Zero

- Nuclear
- Solar / Batteries
- Solar (under development)
- Batteries (under development)

## Operations

- Retail Operations
- Plant Operations
- Retail and Plant Operations
- Regional Office
- ★ Company Headquarters

\*Note: Does not include plants previously announced to be retired.

# Purpose: Lighting Up Lives, Powering A Better Way Forward



**~4 million retail customers**  
across the United States

**~37,000 MW**  
generation capacity:  
enough to power  
**20 million homes**



## Retail Offices

Cincinnati, OH    Irving, TX  
Collinsville, IL    King of Prussia, PA  
Columbus, OH    Oak Brook, IL  
Houston, TX



## Total Employees

-5,000



1. Announced March 6<sup>th</sup> 2023, and contingent upon receiving regulatory approvals and official closing of the Energy Harbor transaction

# Our Three Top Priorities



The priorities of **reliability**, **affordability** and **sustainability** remain at the top. The question is: *how do we accomplish all three?*

- **#1 priority** for electricity was **reliability** (**84%** very important)
- **79%** say **affordability** is very important
- **47%** say **environmental friendliness** as it relates to the energy supply is very important



According to a Morning Consult survey conducted summer 2021 of U.S. Adults

# Focused On Our Customers



Our customers and their priorities vary when it comes to their electric needs and plans.

Large C&I



Small businesses



Residential



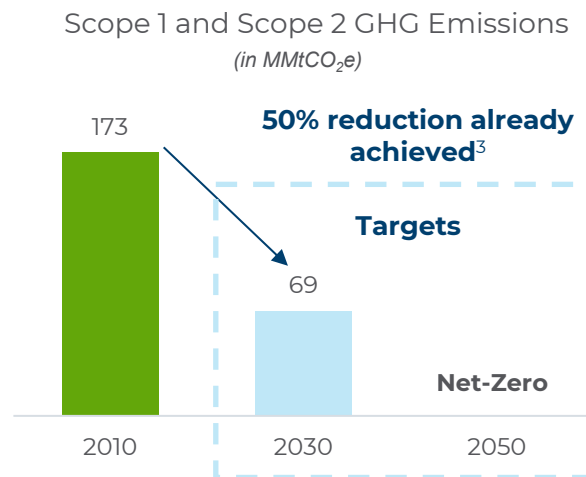
# Sustainability: Environmental Stewardship

Vistra's green-focused targets emphasize its sustainability transition that balances **reliability** and **affordability** of power

## EMISSIONS REDUCTIONS<sup>1</sup>

**60%** by  
**2030**  
Compared to 2010 baseline

**Net-Zero**  
**2050**



## VISTRA'S PORTFOLIO TRANSFORMATION

**~3,400 MW<sup>2</sup>**

of zero-carbon generation currently online

**~15,150 MW**

fossil generation retired since 2010,  
~10,400 MW retired since 2018  
and on track for ~20,000 MW total  
retired by 2027 (from 2010 baseline)



**Disciplined Zero-Carbon**  
generation/storage growth over time

1. Vistra's goal to achieve a 60% reduction in noted emissions by 2030, as compared to the 2010 baseline, and net-zero carbon emissions by 2050, assumes necessary advancements in technology and supportive market constructs and public policy.  
2. Includes Comanche Peak nuclear facility; does not include Energy Harbor nuclear generation.  
3. As of YE 2022, and the full year reduction impact of recently retired coal units

# Competitive Market Is More Efficient Way to Invest



Price signal of competitive market also incentivizes demand side response

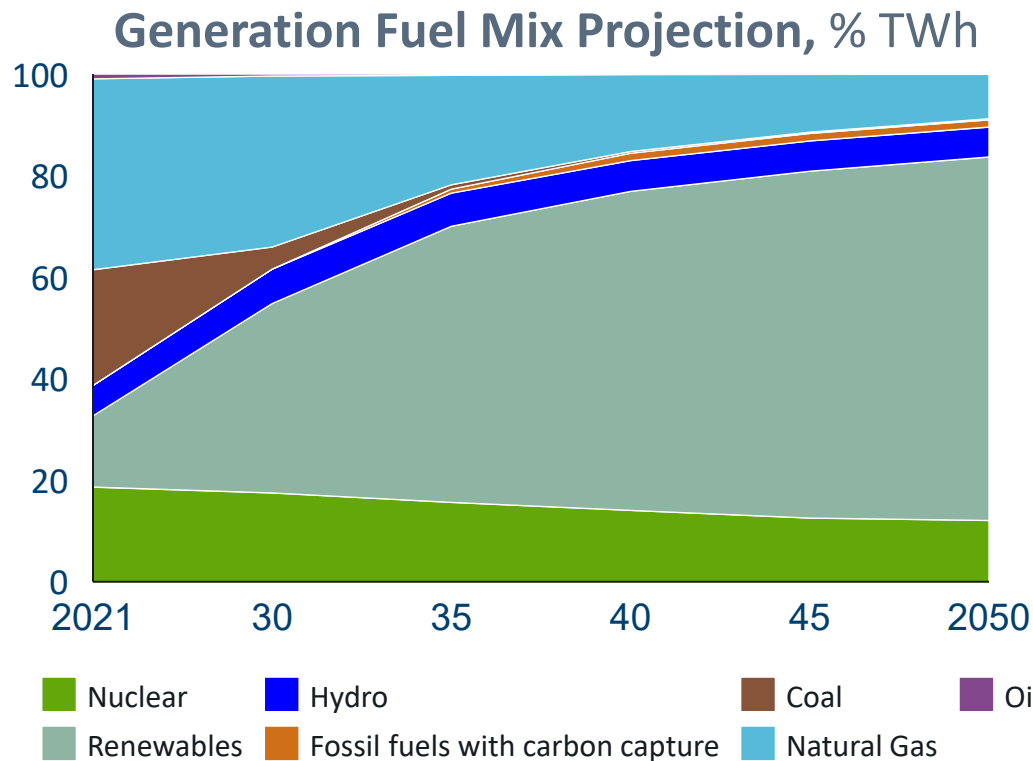
Free Nights &  
Solar Days

First-of-its-kind plan providing **residential customers 100% solar every day** and **free electricity every night**, encouraging a shift of energy use to outside of peak

Opportunistic  
Demand  
Response Tool

Assisting **industrial customers** with **real-time demand response** tool that allows **adjusting their load** during **high price peak demand periods**

# US Path to Net-zero – IEA Projects Energy Demand To Shift From 60% Fossils Today To ~90%+ Clean Energy By 2050



Source: IEA stated policies generation forecast with a more conservative benchmark, assuming not all net-zero goals will be met

**Increased penetration of renewables** drives the shift away from fossil fuels

**Accelerated coal retirement** of coal – Dropping to ~0% by 2035

**Generation from nuclear** stays fairly constant around 10-20%

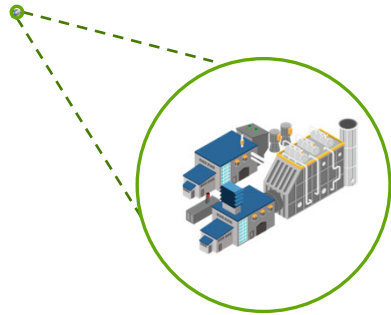
Energy mix is only one part of the story, **capacity also needs to be considered**



# ...But Resource Mix Is An Important Consideration

1MW powers 500 homes. To power 500,000 homes, the grid needs...

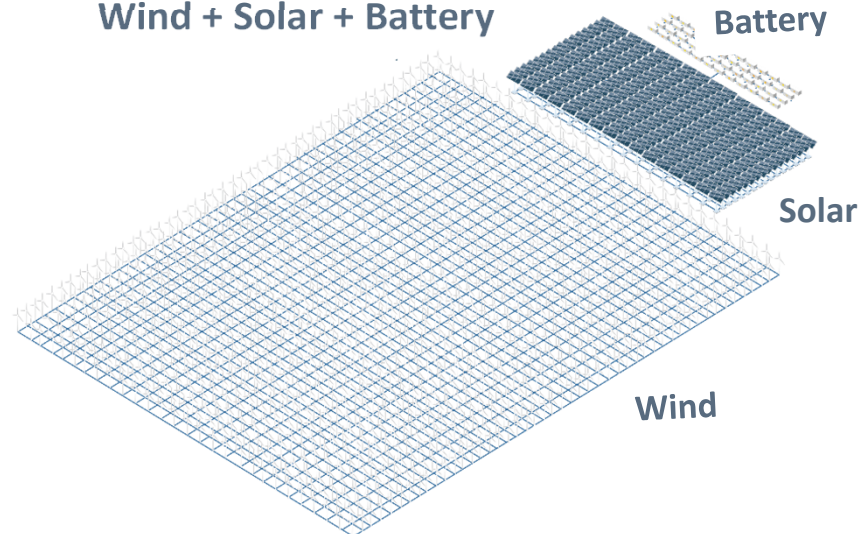
1,000MW of modern efficient gas plant



110 acres

Vs.

9,000MW of renewable energy –  
Wind + Solar + Battery



147,540 acres (~1,300x)

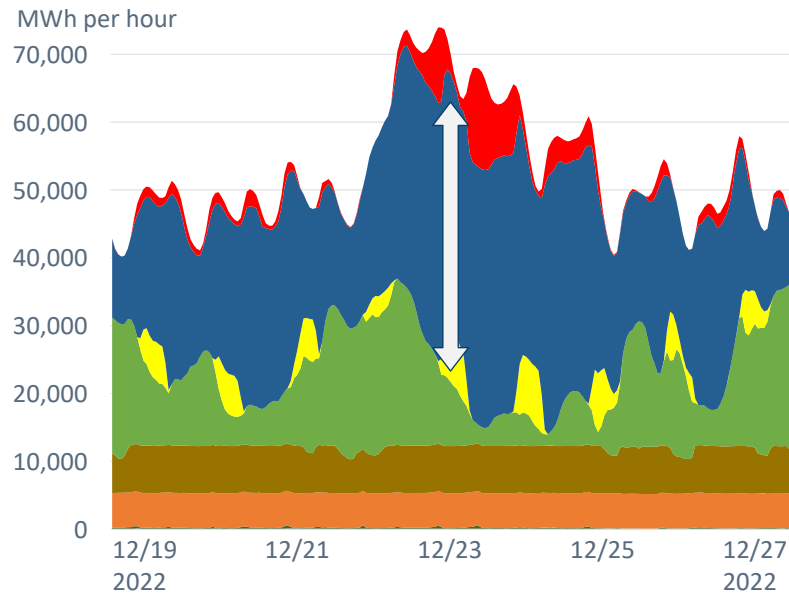
Wind + Solar + Battery requires **~10 times more capital investment<sup>2</sup>** than a modern gas plant to achieve similar reliability outcomes, **before** considering transmission costs

1. 4.5 GW wind, 2.5 GW solar, and 2 GW batteries (1-hour duration) based on the ERCOT grid  
2. 1GW of CCGT @ Capital cost of \$968/kW (\$1.0B); 9GW of Wind + Solar + Battery (\$10.3B); 4.5GW wind @ \$1,307/kW, 2.5GW solar @ \$1,120/kW, 2GW 1-hr batteries @ \$807/kW  
Source: National Renewable Energy Lab (NREL) Annual Technology Baseline (ATB) to calculate cost of both technology scenarios

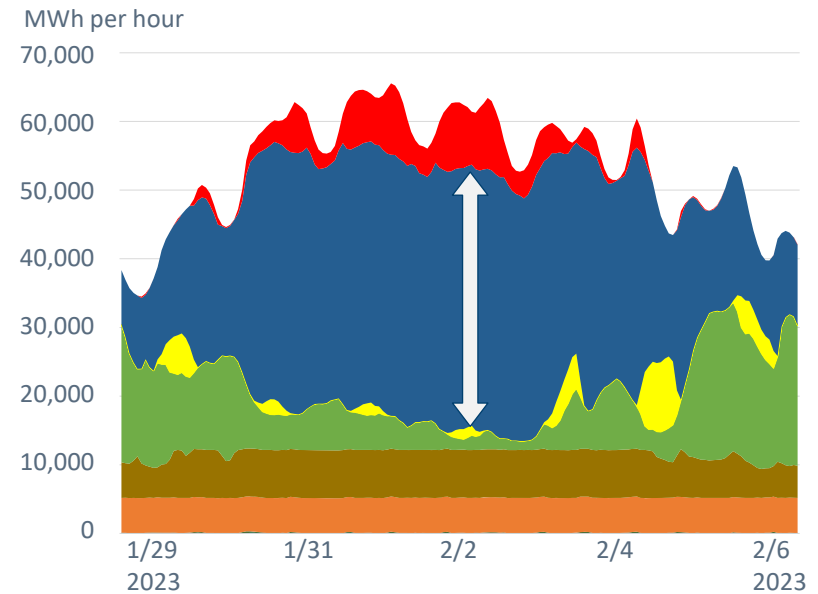
# Grid Needs Firm Resources To Be Reliable

*Gas plants ramp up to support the grid load when wind generation drops*

### ERCOT generation during Winter Storm Elliott



### ERCOT generation during Winter Storm Mara



Hydro Coal (<40 yrs) Natural Gas (<40 yrs) Other Wind Thermal (>40 yrs) Nuclear Solar

# Clean Technologies Have Incentives But Are Still Under Development



## SMR Nuclear Technology

Design flexibility and  
modularity enables scalability,  
many pilots planned



## Hydrogen

Could be a form of energy  
storage and enable deep,  
economy wide  
decarbonization



## Long Duration Energy Storage

Can help shape the  
renewable output, while  
providing grid services

*While many technologies hold promise – **reliability** and **affordability** will remain important criteria in addition to **sustainability***

# Challenges Facing The Transition



Aging  
Dispatchable  
Assets



IRA will  
Incentivize  
More  
Intermittent  
Sources in  
Near-term



Growing  
Population and  
Electrification



Reliability  
Standards to  
Handle  
Extreme  
Weather

## Need to recognize:

- Value of **reliability**
- **Investment signals** (market prices, PTC/ITC)
- **Speed** of transition