

# Southeast Energy Exchange Market (SEEM) Overview and Update

August 2022



# Agenda

- SEEM Overview and Core Principles
- Expected SEEM Participants
- SEEM's Benefits
- Timeline and Future Opportunities
- Questions



# Core Principles

*Objective: create the most stable, affordable, reliable, and cleanest region in the U.S.*

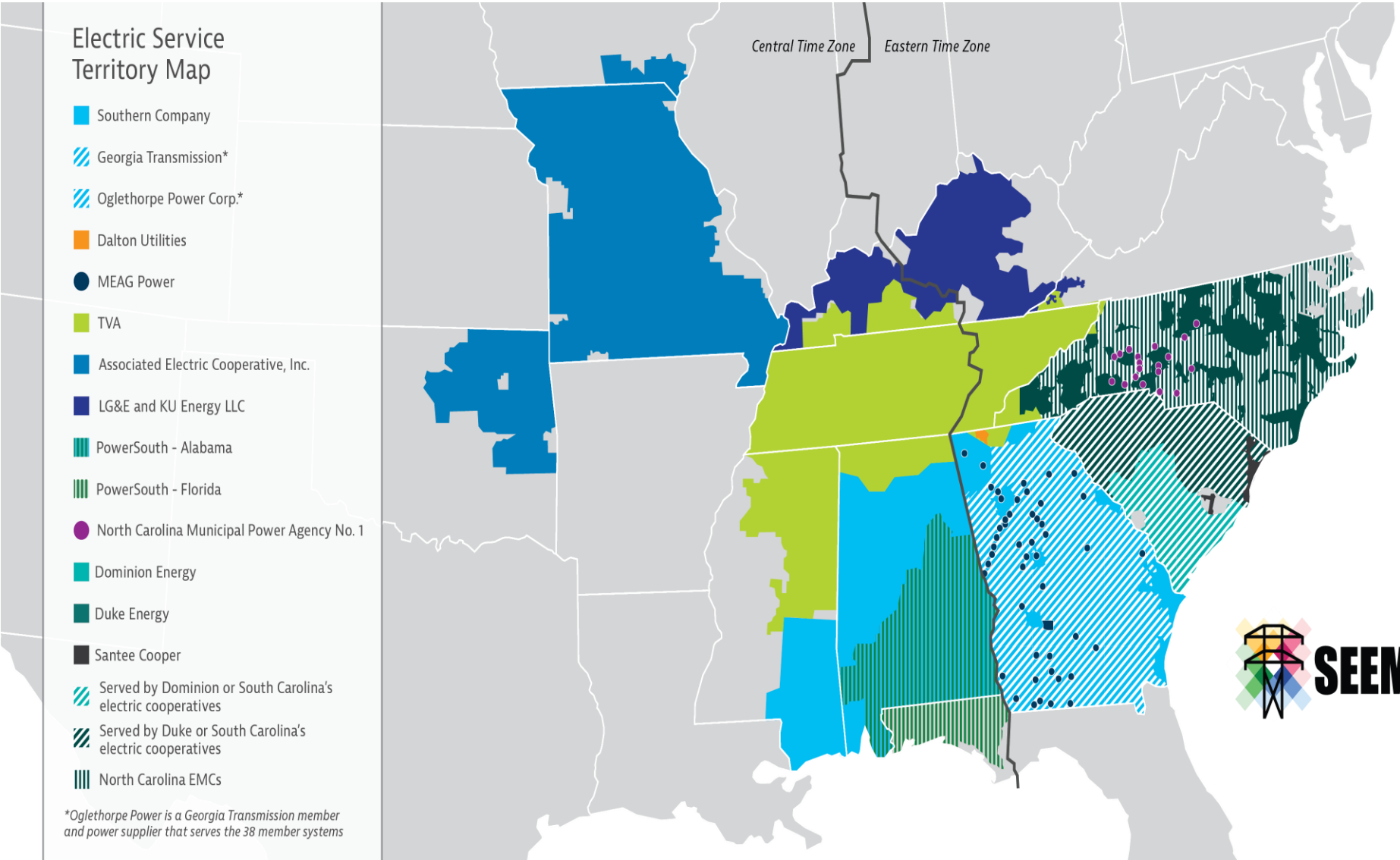
- Each utility/state maintains control of generation and transmission investment decisions
- Each Transmission Provider remains independent with its own transmission tariff
- Each Balancing Authority remains independent
- Minimize bureaucracy while maximizing benefits to customers
- Participation is voluntary
- ***Market benefits to exceed cost, collectively and for each market participant***

# What is SEEM?

*Creates a simple, pure market uninhibited by complex rules and bureaucracy*

- A region-wide, automated, intra-hour platform to match buyers and sellers with the goal of more efficient bilateral trading using unused transmission capacity to achieve cost savings for customers
- **Increases efficiency**--Acts as an overlay to the existing bilateral market
- **Encourages competition**--Anyone that can physically transact in the wholesale market in the region can use the Platform
- **Supports outcomes desired by state regulators and policymakers**--Maintains existing state regulatory constructs
- **Enables economic development**—supports the region's move to a cleaner fleet while maintaining reliability and affordability
- **Mitigate external volatilities**—e.g., supply chain and fuel supply

# SEEM Footprint



> 160 GW of capacity serving > 640 TWh of energy for load



# Benefits

- ***Proactive market enhancement*** via efficient trading and \$0 transmission cost
- Creates new opportunities ***without disrupting well-functioning regulatory framework***
- Further ***optimization of existing assets***
- Tool to ***integrate renewable and variable resources*** – avoid interruptions
- ***Huge Scale and Scope*** - leverages geographical, loads, and weather diversity
  - Two time zones
  - Over 1000 miles wide
  - Connects wind and solar zones and large metropolitan “sinks”
- Every transaction ***creates value for customers***

# Timeline and Future Opportunities



Anticipated Q4 rollout



Future opportunities

- 5 minutes vs. 15 minutes
- Carbon goals
- Tool to analyze transmission development

# Measuring Success of the SEEM Region





# Key Takeaway: The SEEM region has and will continue to deliver clean, affordable and reliable energy in a balanced way

## The proposed SEEM Region...



Serves its customers by *appropriately balancing* customer satisfaction, reliability, price, and clean energy.



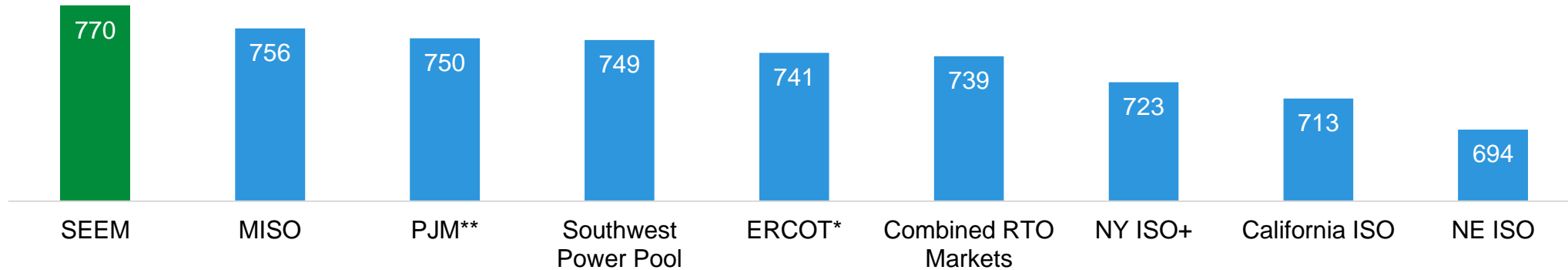
Is *on pace with or outperforming* other markets across most metrics.

# **Metrics 1&2: Customer Satisfaction and Power Quality and Reliability Satisfaction Analysis**

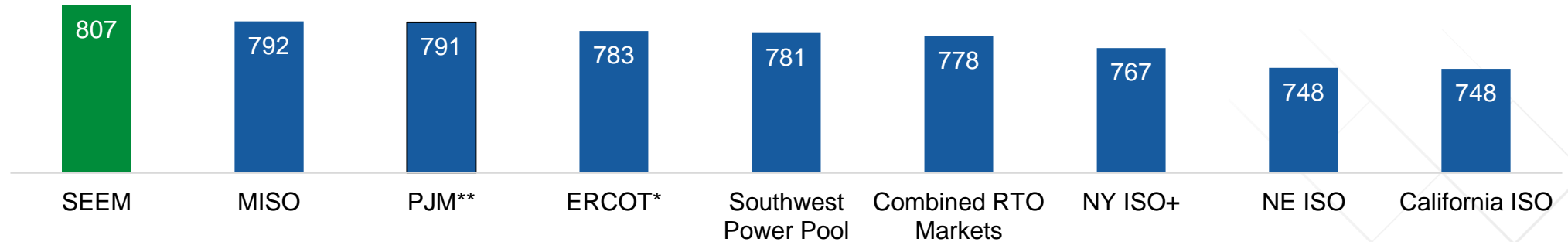


# 2021 Customer Satisfaction Index

## Residential



## Business



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Not all utilities in SEEM are being surveyed. Data analysis is custom based upon J.D. Power data and unrelated to awards or rankings.

\*ERCOT is not fully covered in JD Power studies - approximately 25% of residential meters and 16% of business meters are included in JD Power studies and the rest are part of the retail market in Texas

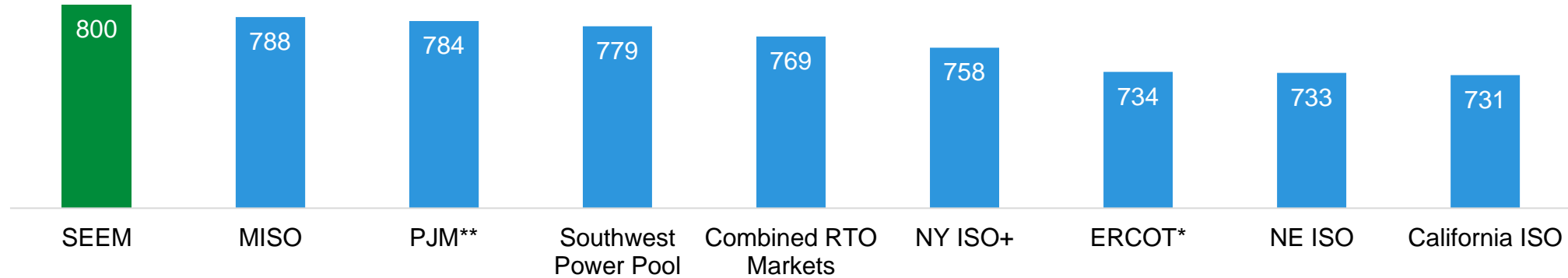
\*\*Dominion Energy is included in the PJM average

+National Grid is included in the NY ISO average

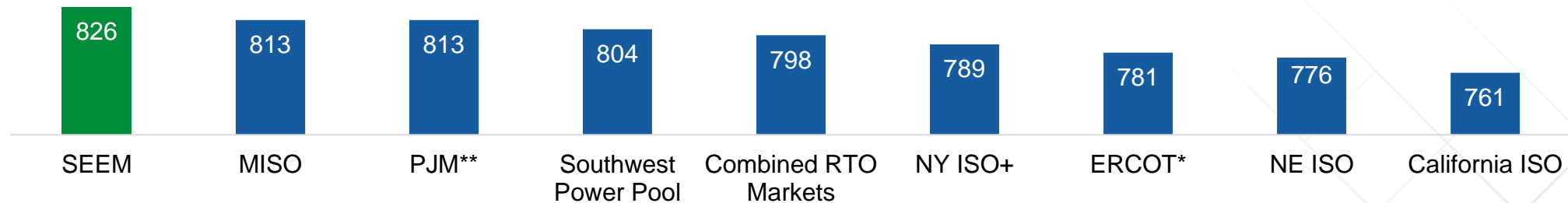


# 2021 Power Quality and Reliability Index

## Residential



## Business



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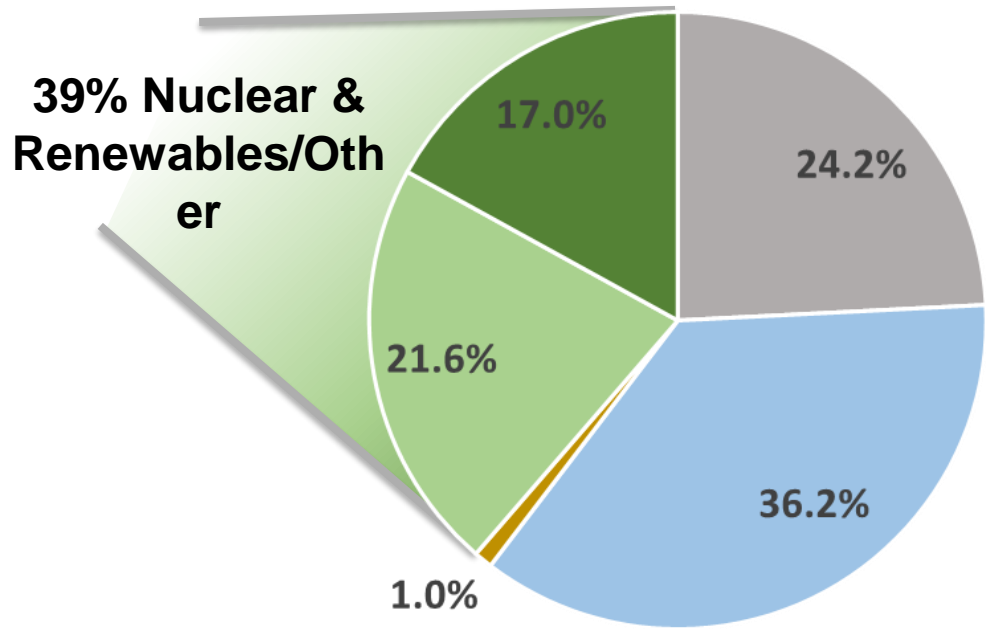


# Metric 3: Generation Mix Analysis

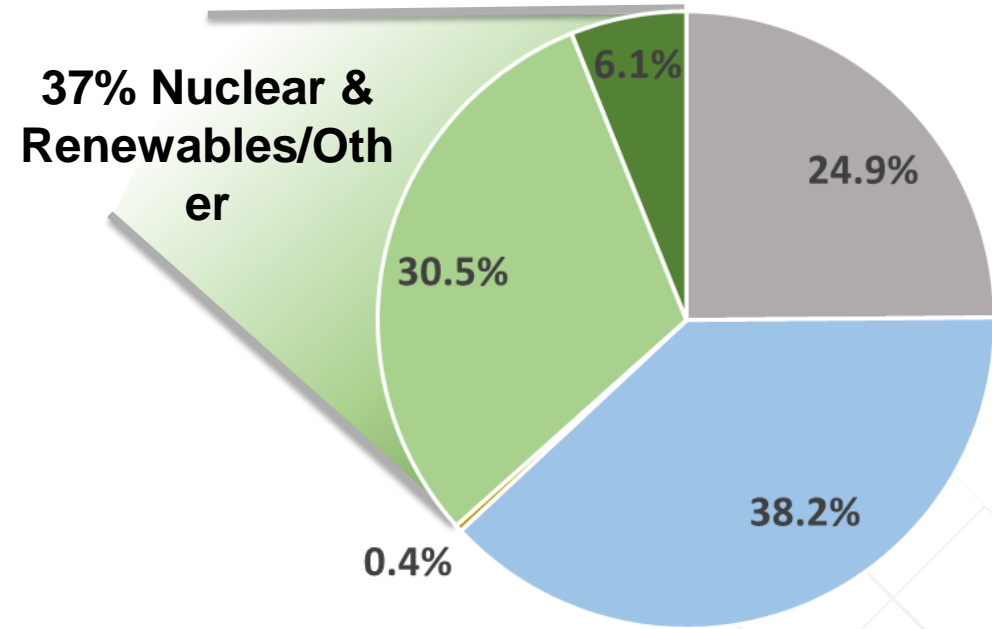


# 2019 Generation Mix

All RTOs



SEEM



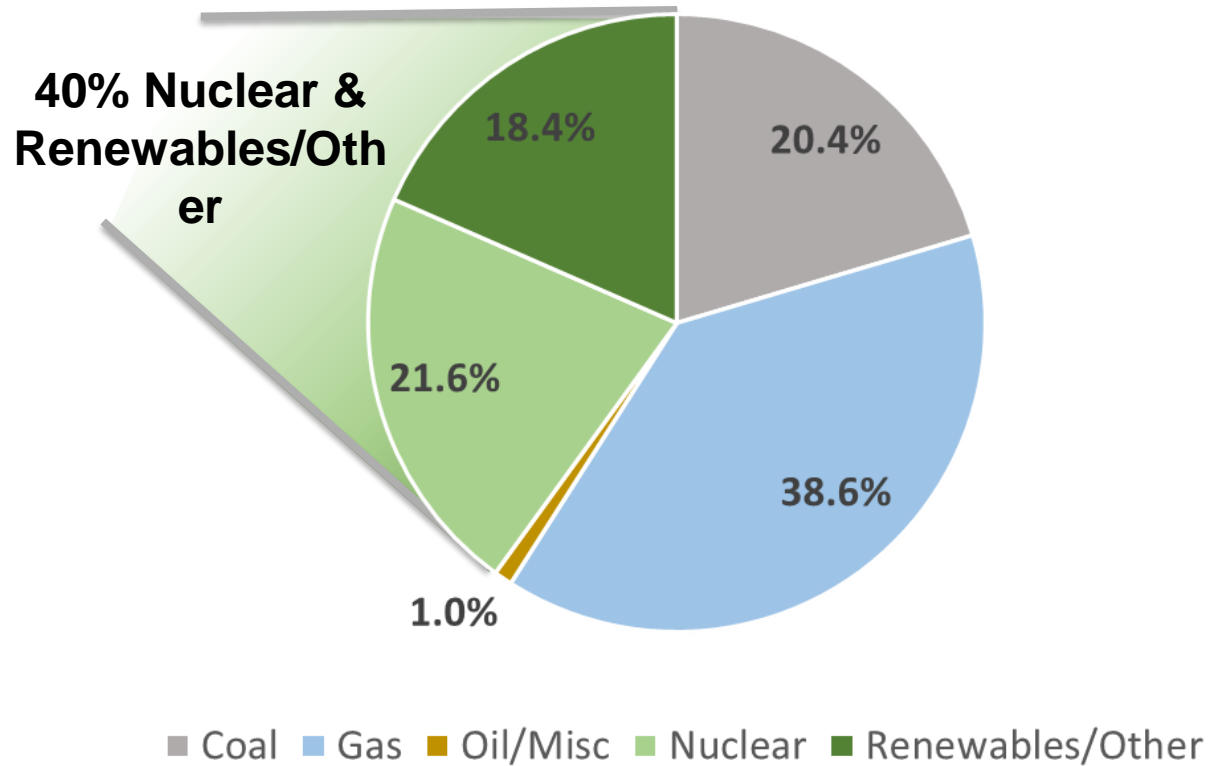
■ Coal ■ Gas ■ Oil/Misc ■ Nuclear ■ Renewables/Other

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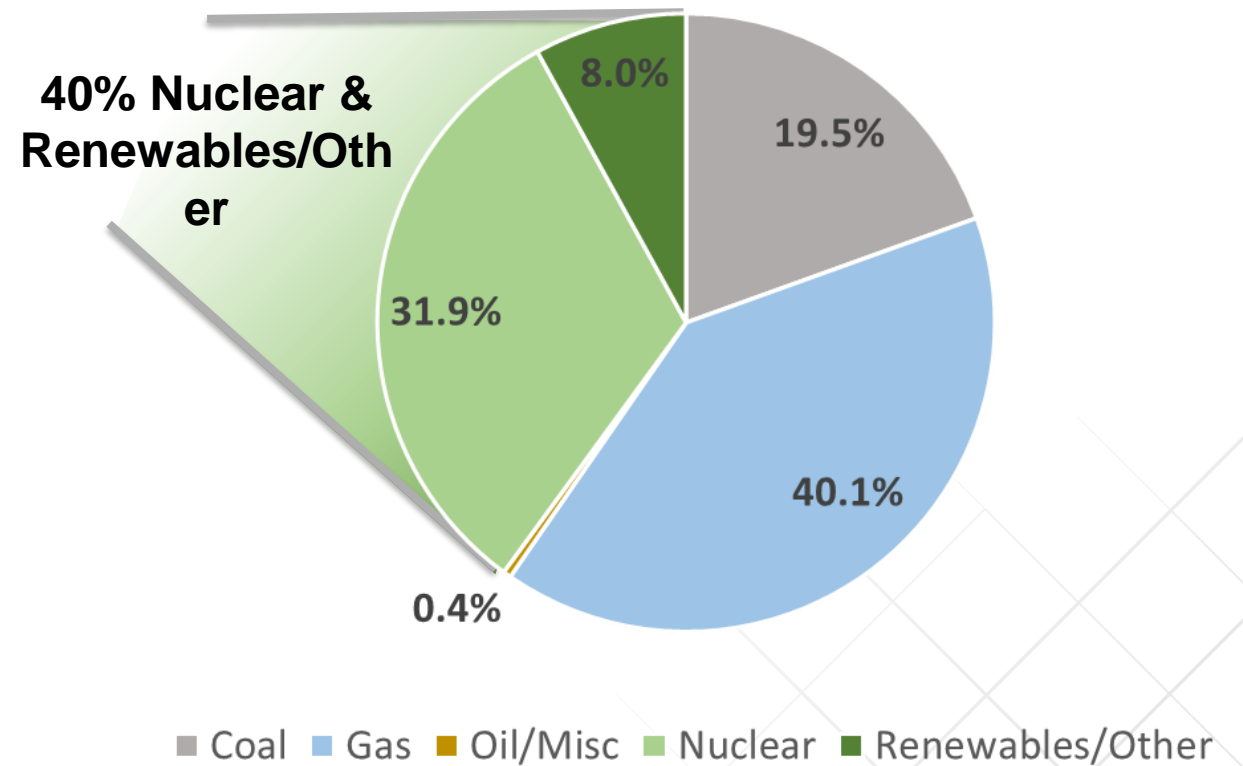
Source: EIA Forms 860, 923

# 2020 Generation Mix

## All RTOs



## SEEM



Source: EIA Forms 860, 923

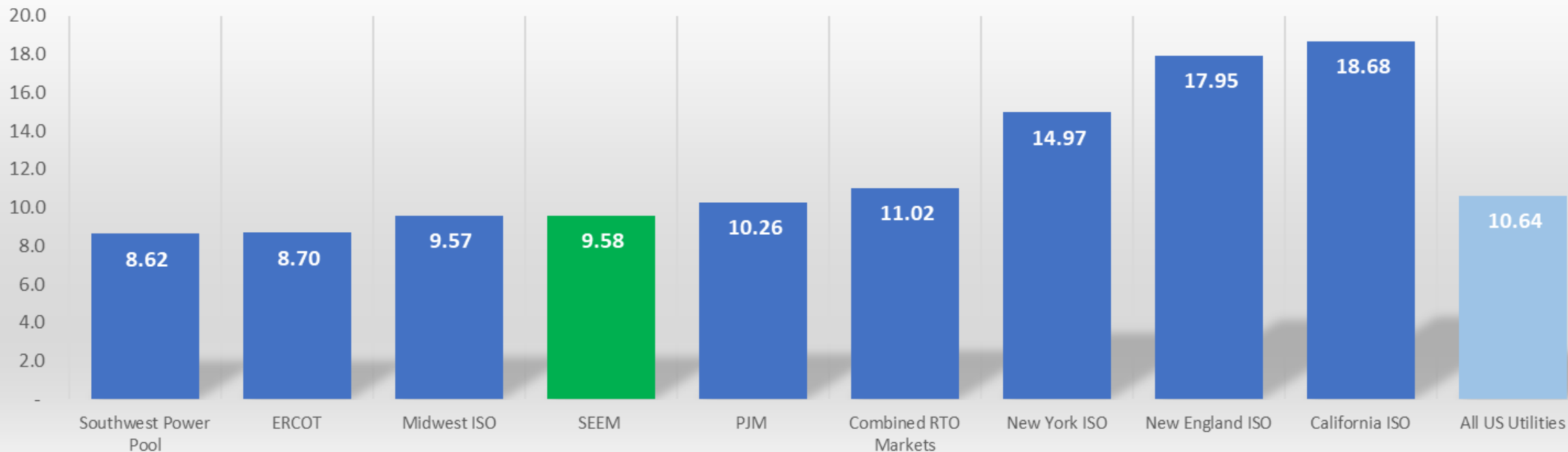
## Metric 4: Price Analysis





# 2020 Average Retail Prices

## 2020 Customer Prices Total Retail Cents/kWh

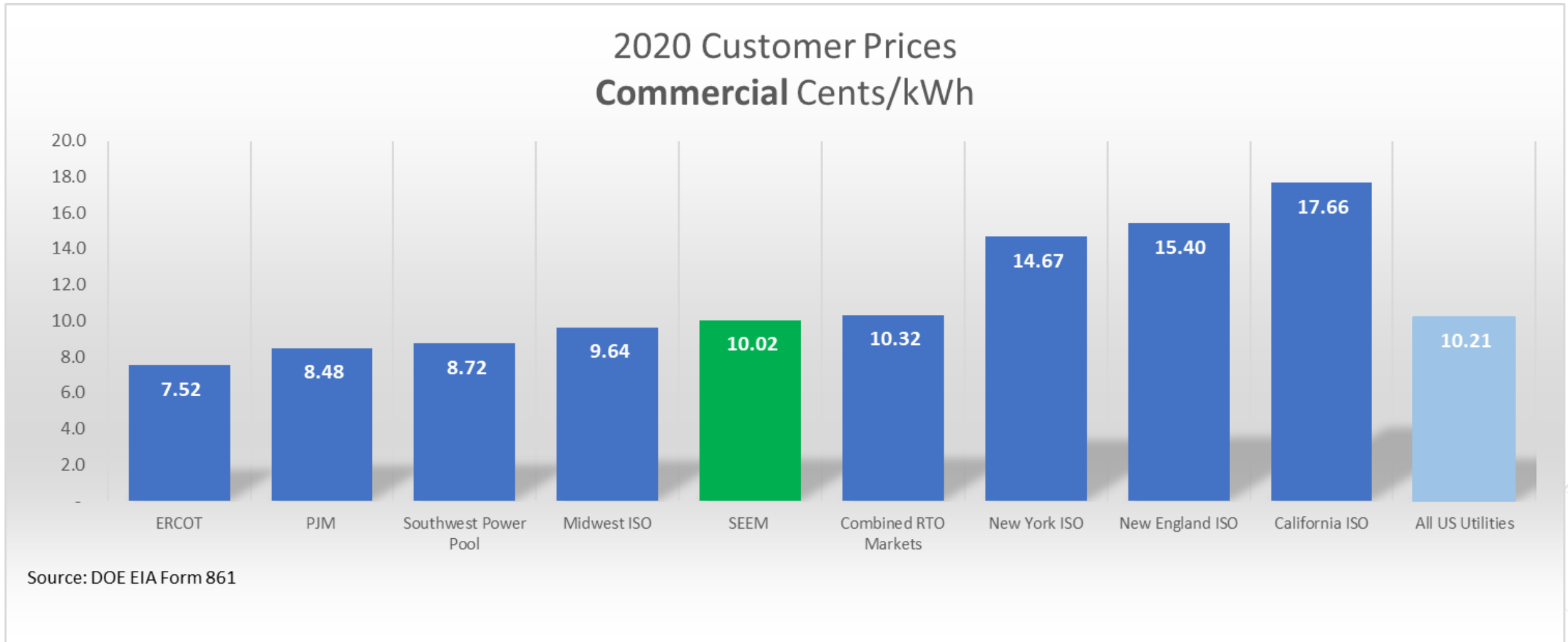


Source: DOE EIA Form 861 and 861S

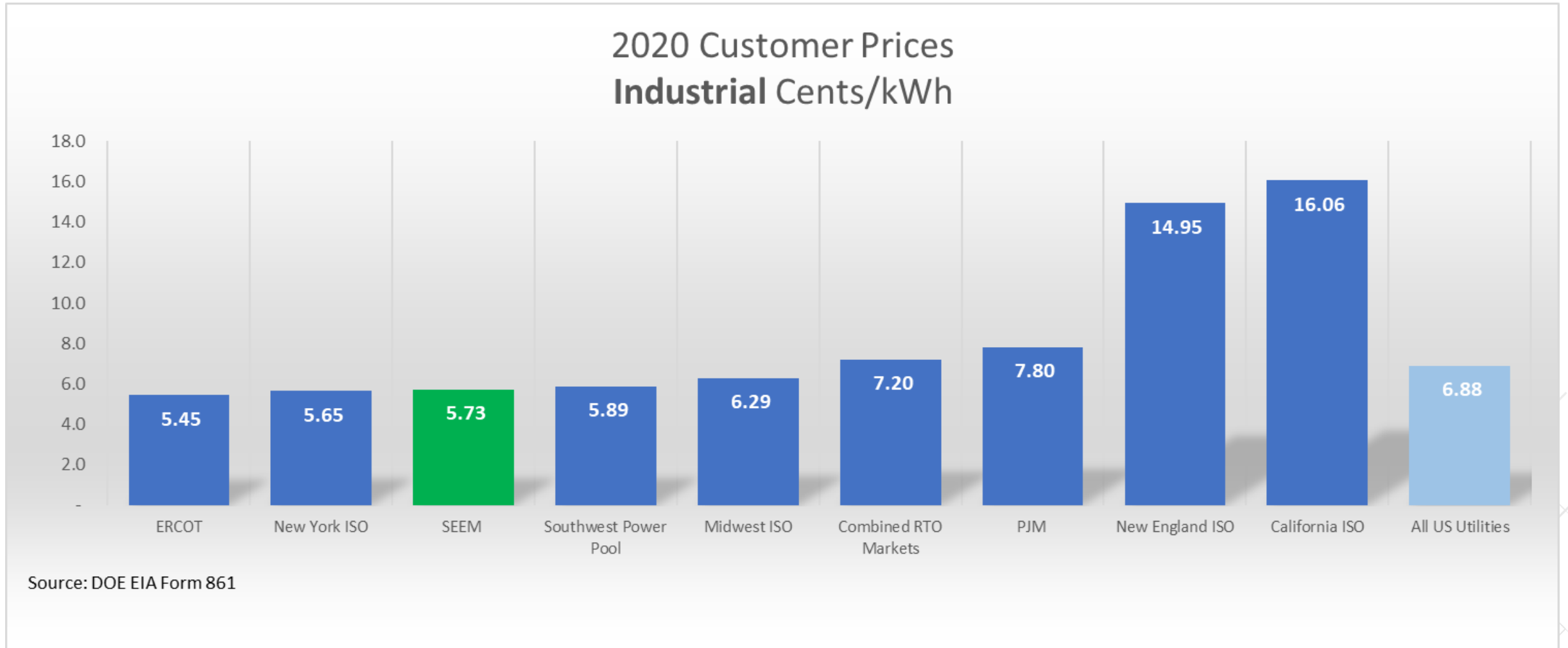
# 2020 Average Residential Prices



# 2020 Average Commercial Prices



# 2020 Average Industrial Prices



## 2022 Price Pressures in South Carolina vs. RTO Markets

*Marginal and wholesale costs of generation in RTOs are skyrocketing*

- **PJM** -Prices are up **120%** [[prnewswire.com](https://www.prnewswire.com)] over the same period last year.
- **NE-ISO** – Prices are up nearly **150%** [[spglobal.com](https://www.spglobal.com)].
- **ERCOT** – Wholesale prices are up **550%** [[thetexan.news](https://www.thetexan.news)]

*SEEM and the market structure in the Southeast are designed to help mitigate price impacts in volatile times*

# Appendix



# Key Takeaways: Summary of the Four Metrics

## Customer Satisfaction



Compared to other markets, in 2021 the average score of utilities in the proposed SEEM region ranked **first in the residential segment and first in the business segment for overall customer satisfaction** as measured by the J.D. Power 2021 Electric Utility Residential Satisfaction Study<sup>SM</sup> and J.D. Power 2021 Electric Utility Business Satisfaction Study<sup>SM</sup>

## Reliability



Compared to other markets, in 2021 the average Power Quality and Reliability satisfaction score of utilities in the proposed SEEM region ranked **first in the residential and first in the business segment** as measured by the J.D. Power 2021 Electric Utility Residential Satisfaction Study<sup>SM</sup> and J.D. Power 2021 Electric Utility Business Satisfaction Study<sup>SM</sup>

# Key Takeaways: Summary of the Four Metrics

## Price



In 2020, the proposed SEEM region had prices that were competitive across all customer classes with the lowest priced RTO regions, and **below the U.S. average prices and RTO average.**

## Generation Mix



In 2020 the share of clean energy generation in the proposed SEEM region was **nearly the same** as the share of clean energy generation combined across the RTO markets, according to EIA data.

In 2020, the share of coal generation in the proposed SEEM region was **nearly the same** as the share of coal generation combined across the RTO markets, according to EIA data.



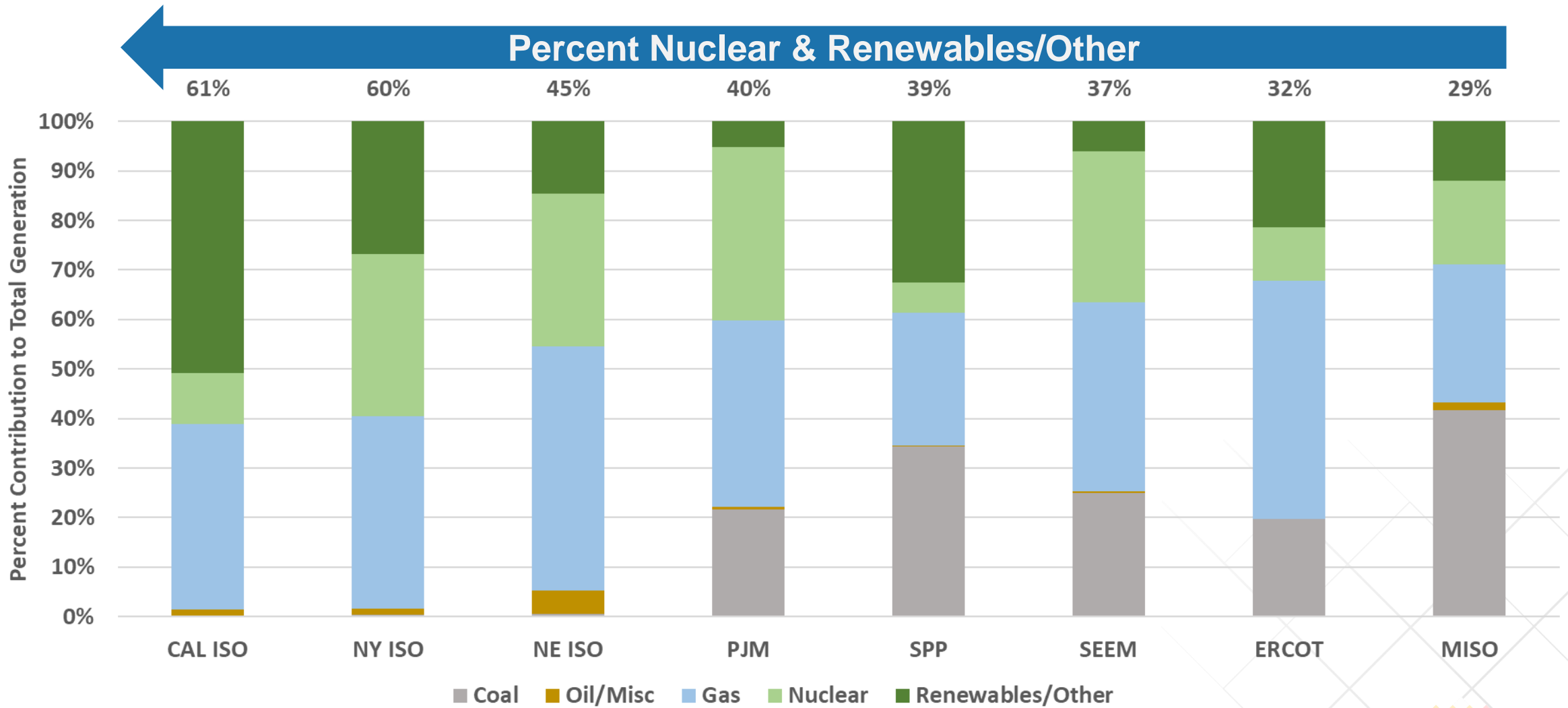
## Customer Satisfaction Index

A measure of critical components driving overall customer satisfaction among electric utility customers, which allows companies to identify and prioritize improvements and benchmark their performance among other large and midsize electric utilities throughout the United States.

## Power Quality & Reliability

A measure of providing quality electric power (in terms of spikes, drops, or surges), supplying electricity during extreme temperatures, avoiding brief and lengthy outages and, when an outage occurs, promptly restoring power all while keeping customers informed about the outage.

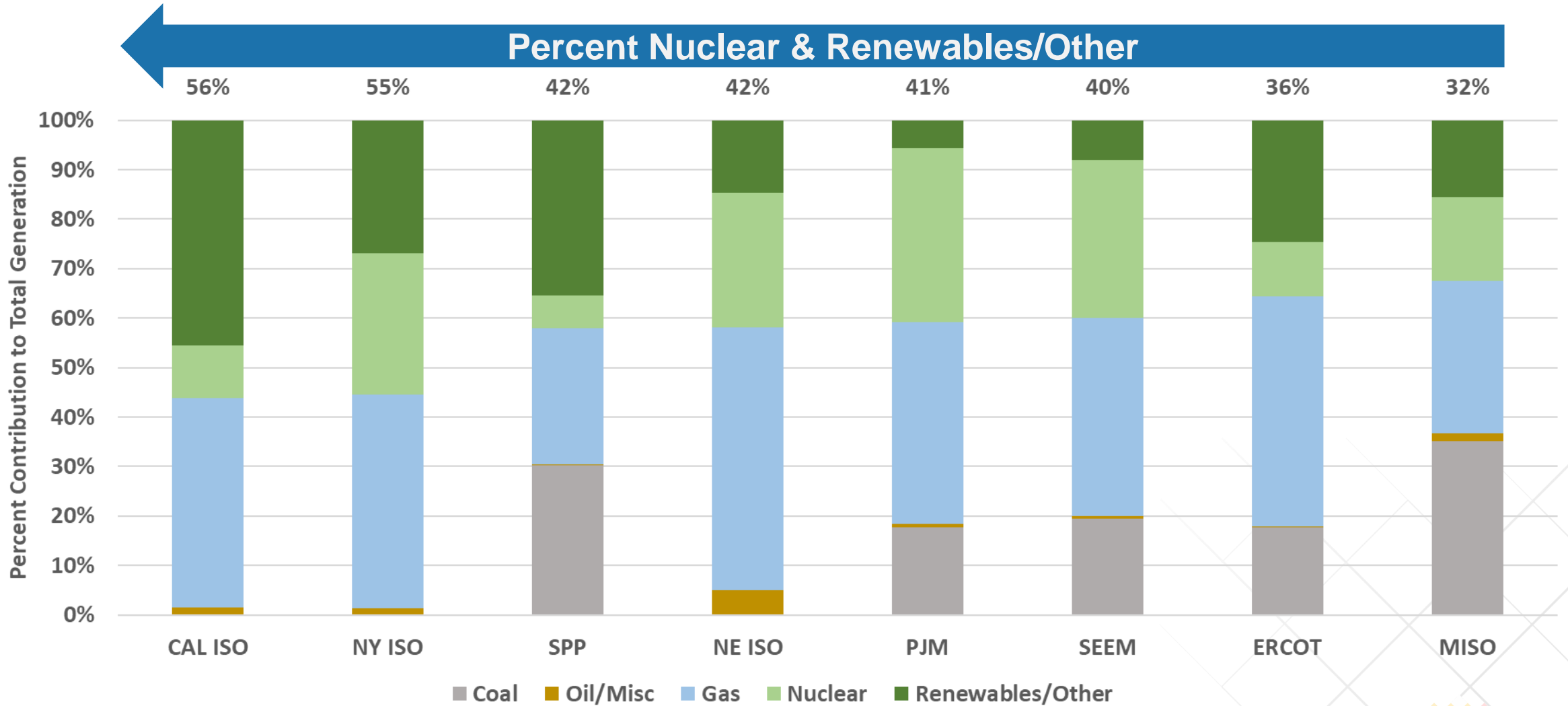
# 2019 Generation Mix by Region



Source: EIA Forms 860, 923



# 2020 Generation Mix by Region



Source: EIA Forms 860, 923

