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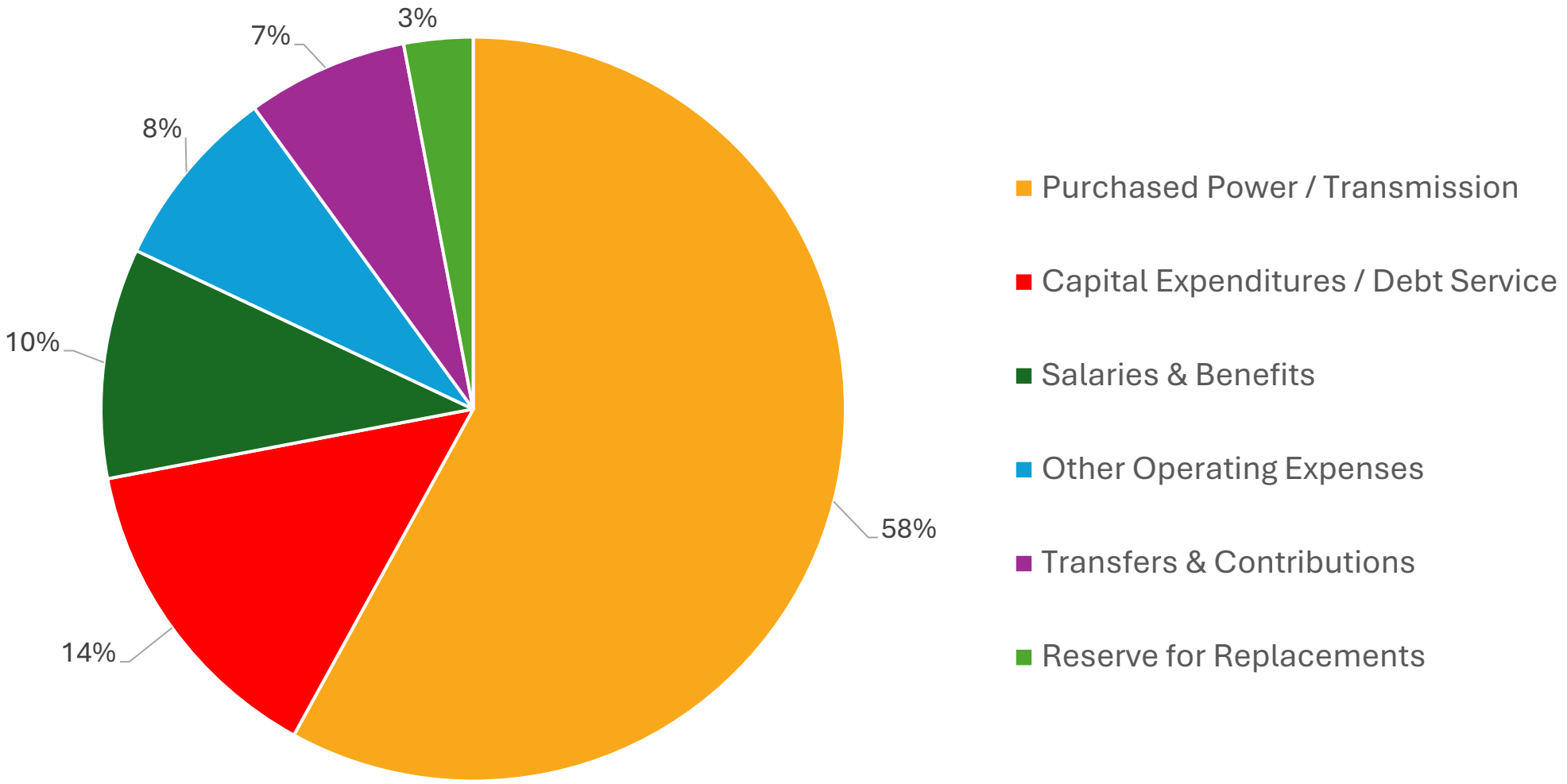
# Exploring Rates and Cost of Service


**Evan Leebens**

Senior Rate Analyst


MISSOURI RIVER® ENERGY SERVICES

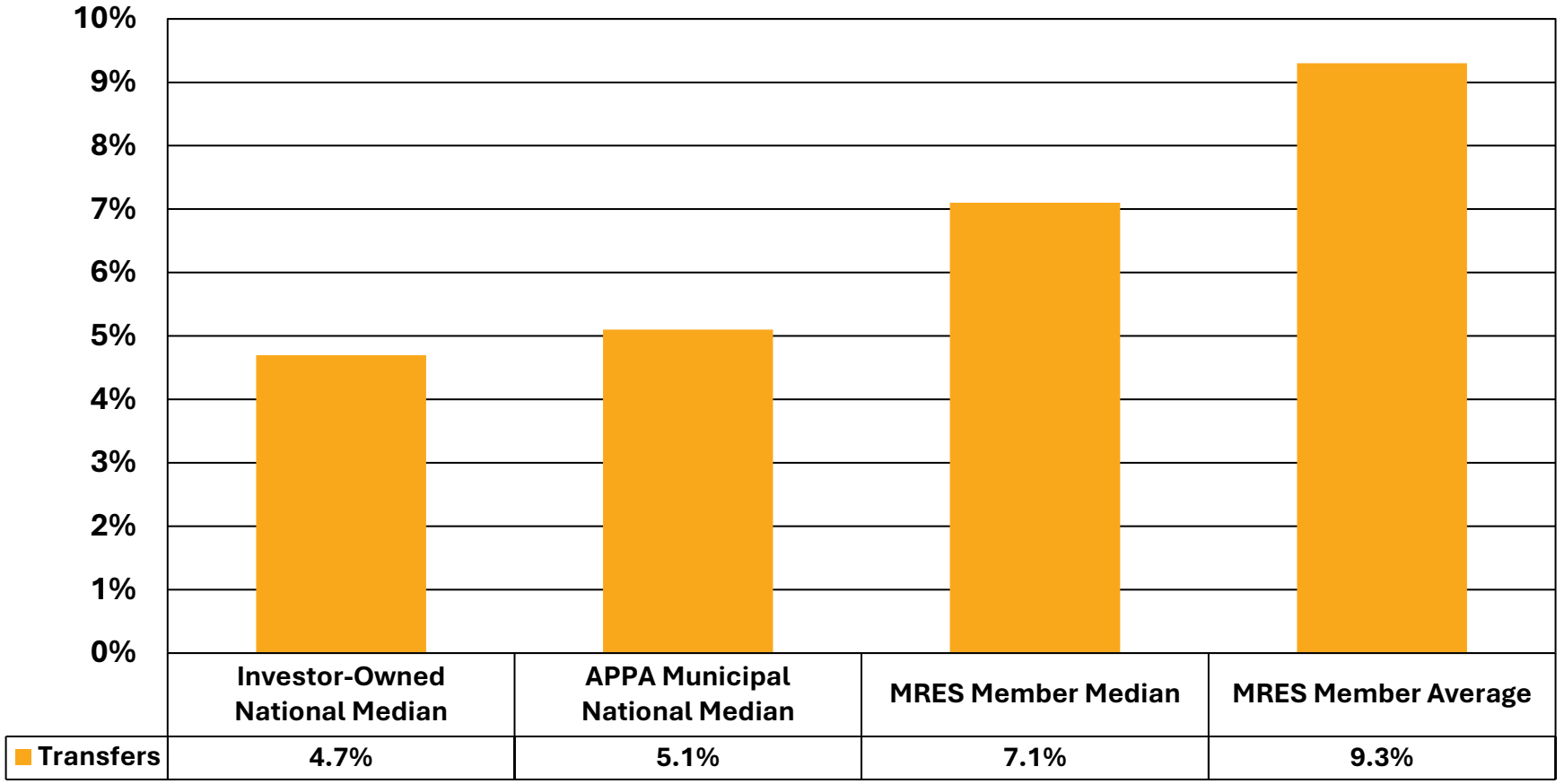
# Typical Member Utility – Cost Breakdown



# Transfers & Contributions

- **Definition –** uses of electric utility cash reserves or resources not directly related to providing electric service
- **Examples:**
  - Operating transfers
  - Payments in lieu of taxes
  - Franchise fees
  - Free or reduced cost service to city meters
  - Revolving fund or indefinite term loans to other entities
  - Use of electric utility employees, vehicles, and equipment for other projects
  - Over-allocation of costs to electric utility
- **Net of services and contributions received by utility**

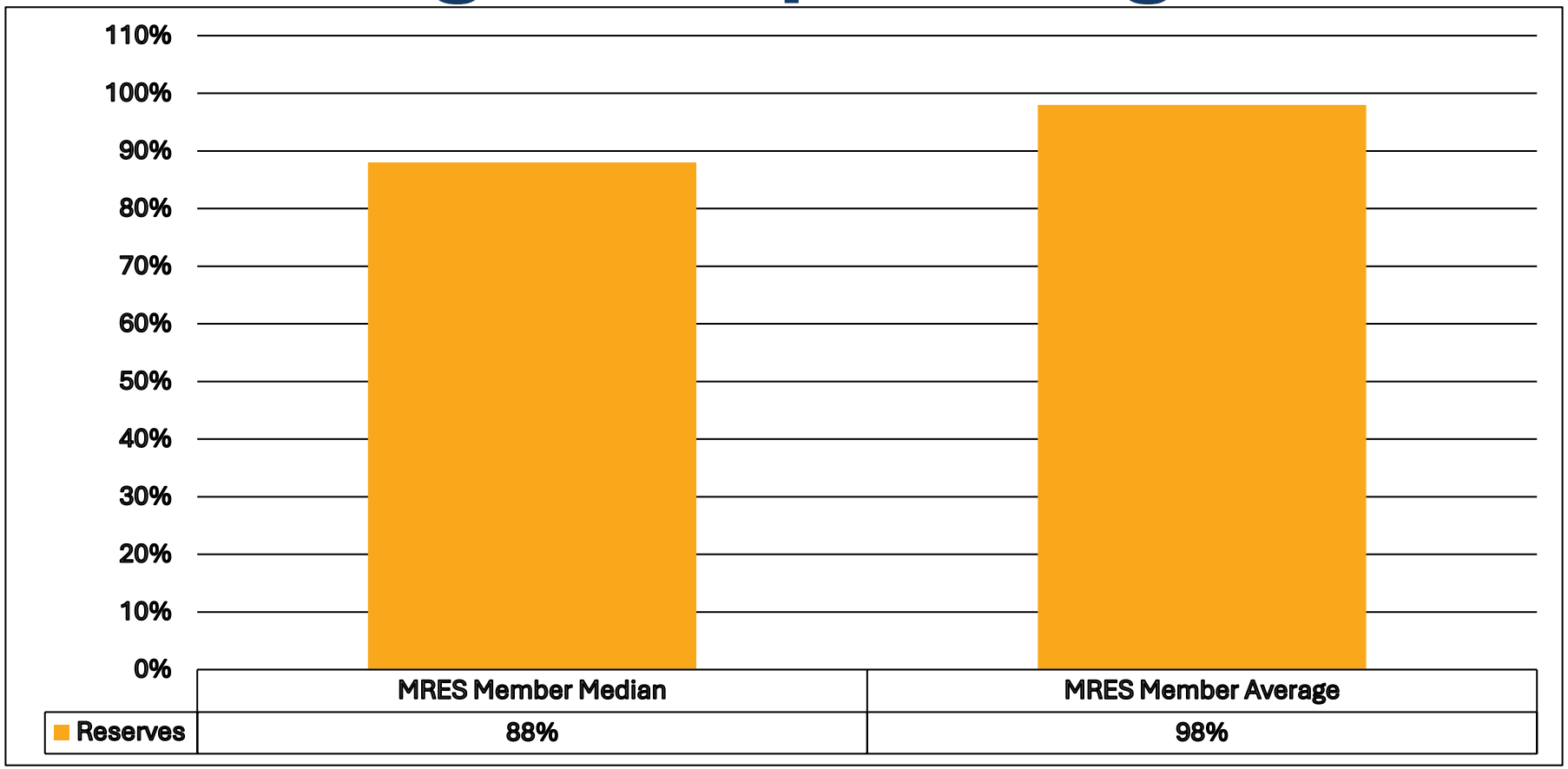
# Transfers & Contributions – Percentage of Operating Revenues




| | Investor-Owned National Median | APPA Municipal National Median | MRES Member Median | MRES Member Average |
|---|---|---|---|---|
| Transfers | 4.7% | 5.1% | 7.1% | 9.3% |

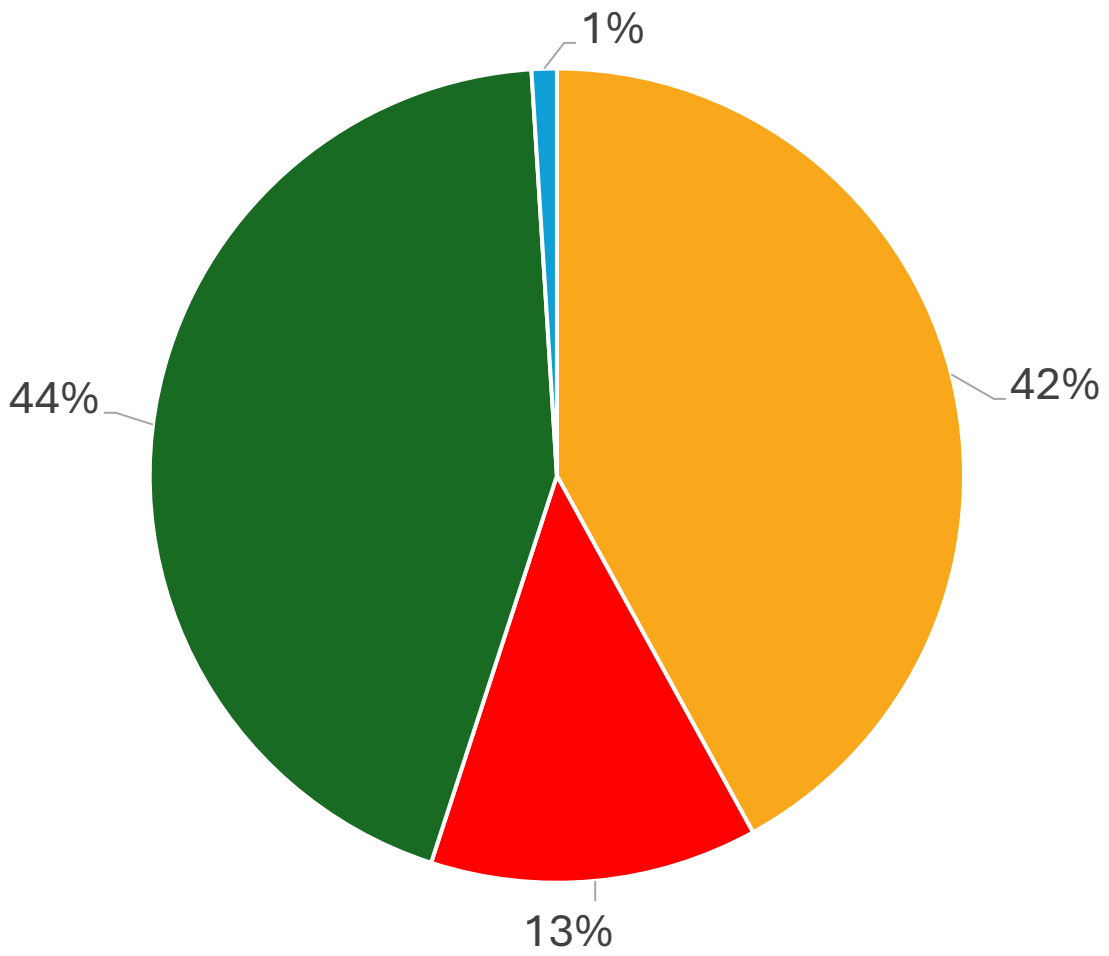
Range of most member transfer percentages – 3% to 13%

# Cash Reserves – Percentage of Operating Revenues




Range of most member cash percentages – 50% to 130%

# Members – Average Energy Consumption by Class

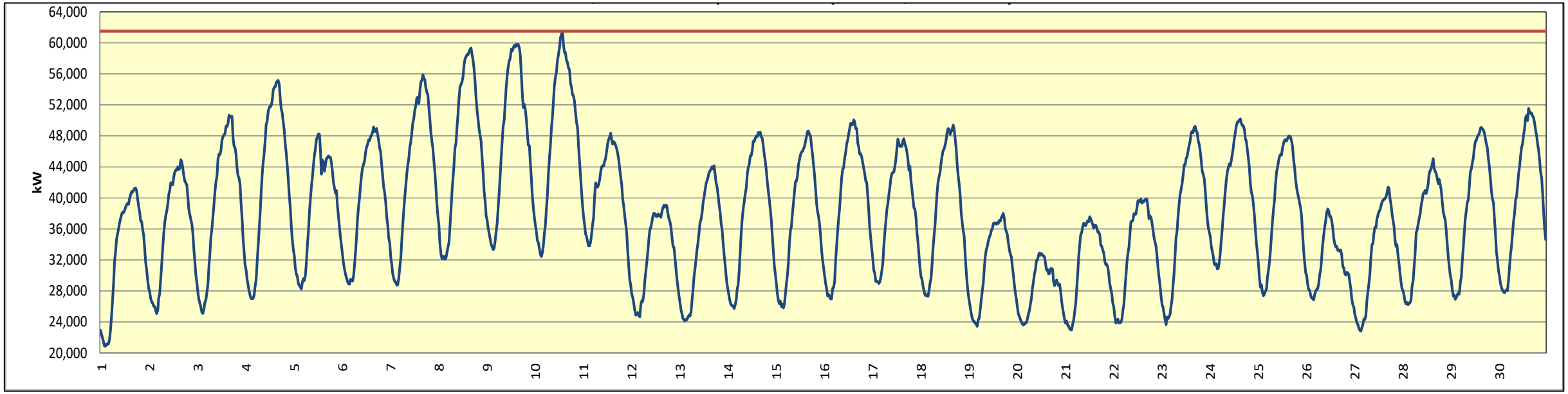



- Residential - 85% of Customers
- Small Commercial - 13% of Customers
- Large Commercial - 2% of Customers
- Street & Security Lighting

# Key Definitions

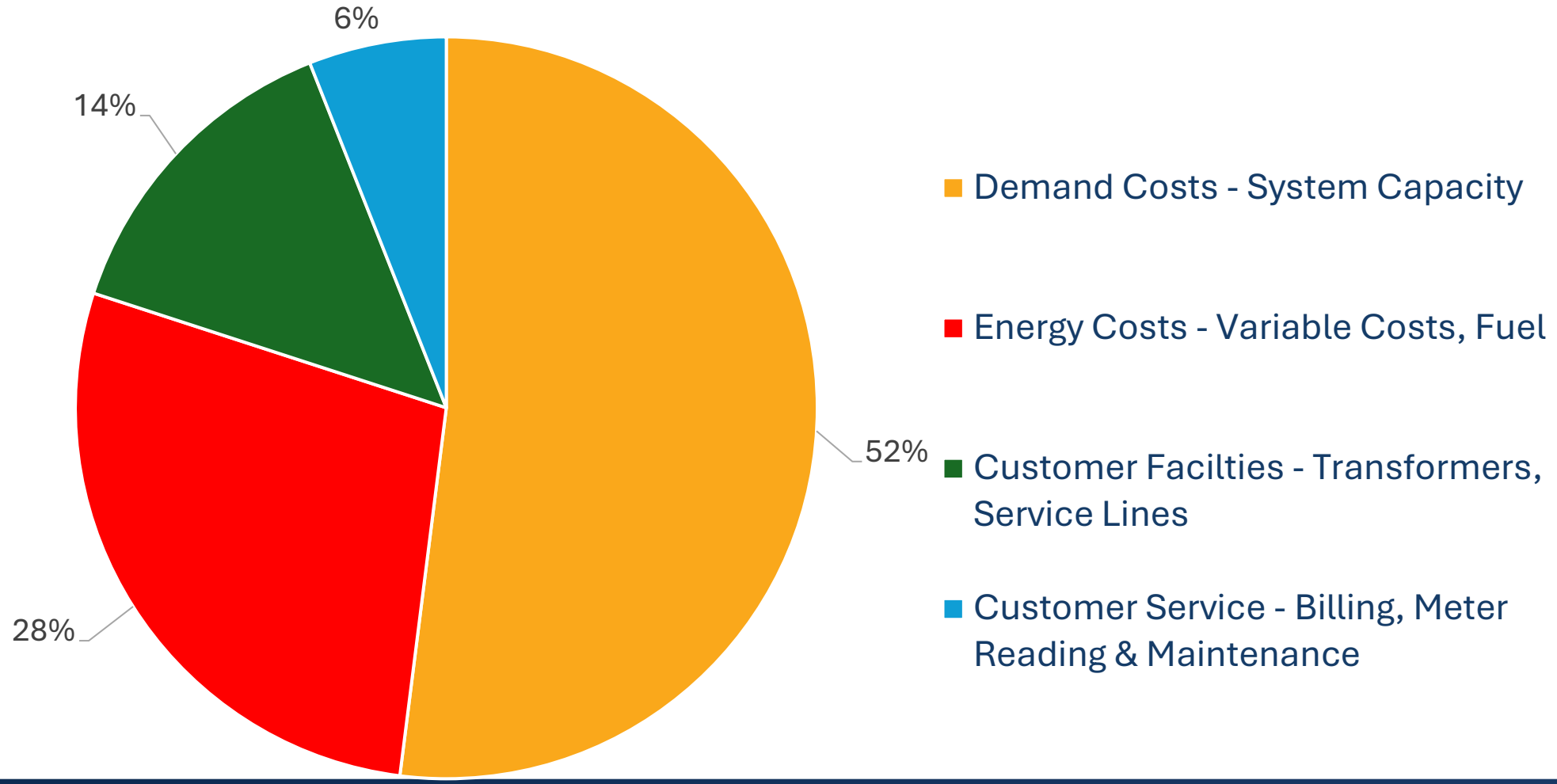
- **Peak Demand (kW)** – maximum rate of power delivery, measured in a defined time such as 30 minutes, expressed in 1,000-watt units. Demand determines size of facilities – customer transformer, substation, transmission lines, generation plants.
- **Energy (kWh)** – power multiplied by time. Usage of ten 100-watt light bulbs for one hour equal 1 kWh. One megawatt-hour (MWh) = 1,000 kWh
- **Car-Driving Analogy** – peak demand is similar to maximum speed; energy is similar to total distance = average speed multiplied by time
- **Load Factor** – average demand divided by peak demand. Higher load factor indicates more consistent use of power and the distribution system, and fixed costs are spread over more energy.
  - Typically Higher Load Factor of 50%-75% - Grocery stores, medical facilities, businesses w/ multiple shifts. (Like interstate driving)
  - Typically Lower Load Factor of 25%-50% - Homes, schools, grain elevators, businesses with one shift or intermittent equipment. (Like a two-lane highway)
- Customers billed for demand and energy – higher load factor results in lower total cost per kWh

# Member Monthly Usage Example




- Peak Demand – approx. 61,500 kW
- Average hourly demand – 38,000 kW (62% load factor)
- Hours over 56,500 kW – approx. 18 out of 720 hours (2.5%)
- Power cost savings for one month if demand held at 56,500 kW=$120,000+

# Typical Electric Cost of Service Breakdown



# Major Cost Types and Rate Designs

| | Residential | Small Commercial (Non-Demand) | Large Commercial (Demand-Billed) |
|---|---|---|---|
| Customer Costs | Customer Charge | Customer Charge | Customer Charge |
| Demand Costs | Energy Rate | Energy Rate | Demand Rate |
| Energy Costs | Energy Rate | Energy Rate | Energy Rate |

Rate Classes – based on differences in usage characteristics & service requirements

Customer Costs – Billing, meter reading and maintenance, portion of facilities costs

Demand Costs – Costs related to serving customer peak loads; fixed costs

Energy Costs – Variable costs such as fuel

Bills from MRES & WAPA – Demand & energy rates

# Typical Member Rate Levels

| | Residential | Small Commercial (Non-Demand) | Large Commercial (Demand-Billed) |
|---|---|---|---|
| Customer Charge - per month | $17.25 | $29.50 | $62 |
| Demand Rate - per kW | N/A | N/A | $18.40-Summer<br>$15.25-Other 9 |
| Energy Rate – cents per kWh | 10.8 – June-Aug.<br>9.7– Sep.-May | 11.0 – June-Aug.<br>10.1 – Sep.-May | 4.8 |

<u>Typical Rate Study Recommendations:</u>

- Increase customer charges (residential to $17-$23)
- Increased demand rates
- Monitor seasonal differences

# 2026 Retail Rate Comparisons

| Customer Class | Investor-Owned Utility Average (cents) | Member Utility Average (cents) | Difference – IOU Less Member (cents) | Members-% Lower than IOU's |
|---|---|---|---|---|
| Residential | 14.2 | 11.8 | (2.4) | (17%) |
| Small Commercial | 12.7 | 11.2 | (1.5) | (12%) |
| Large Commercial / Industrial | 9.8 | 8.4 | (1.4) | (14%) |

# Rate Setting Guidelines

- Use cost-of-service study as guideline; modify for local policy objectives
- Maintain stable transfers if possible, or plan ahead for larger than normal amounts
- Use capital improvement plans to determine needs
- Plan ahead – divide rate changes into smaller steps
- Implement a cash reserve policy
- Gain Board / Council approval – present facts and a plan, not an open-ended question

# Communicating Rate Changes

- Emphasize competitive rates and common industry cost pressures
- Don’t apologize – explain the reasons
- Highlight reliability and benefits of system improvements
- Give early notice to customers
- For residential customers – show the cost impact in dollars and cents per month
- Discuss the benefits of a municipally owned utility
- Promote efficiency incentives to reduce bills

# Dealing with the Impacts of Load Growth or Reductions

- **Unique power cost structure for Members**
  - Fixed allocation of WAPA power – 3.2 cents in 2026
  - Additional needs served by MRES – 6.2 cents in 2026
  - Average power around 5.0 cents (excluding transmission of 1-2 cents)
  - These are all blended costs based on demand and energy rates
- **Impact of load changes depends on coincidence with system peak demands**
  - Load growth may or may not increase utility income, and may result in incremental losses - off peak growth is best for utility
  - Load reductions may or may not reduce utility income; on-peak reductions are best for utility
- **Load growth may also require additional distribution facilities**
- **Member actions:**
  - Increase customer & demand charges and align with wholesale rates
  - Review and update line extension and cash-reserve policies

# Future Rate Topics and Challenges

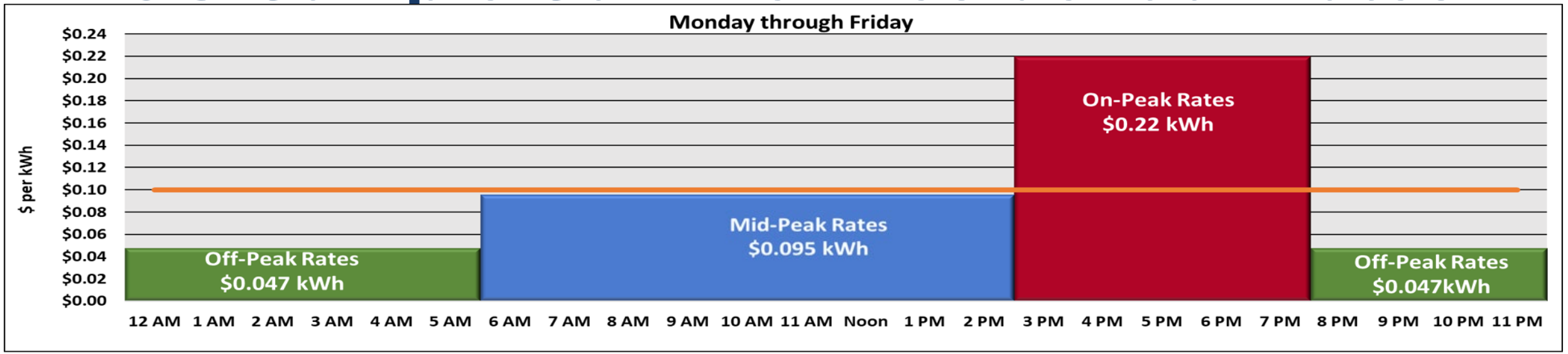
- **Load growth – Electric vehicles**
  - Usage during on-peak times could increase power costs
  - Three cars = one home, based on typical annual kWh
  - MRES EV Program assists Members with promoting smart growth

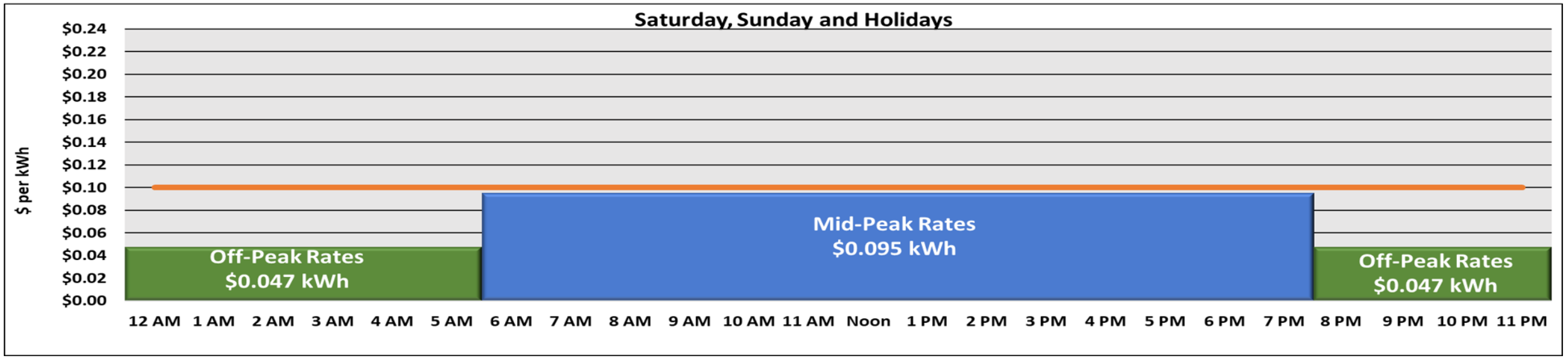
- **Load reductions – Distributed generation (solar, wind)**
  - Current cost of residential solar – around 10 - 12 cents / kWh
  - Customers reduce purchases, lower utility revenues & power costs
  - Under recovery of fixed costs and cost shifting between customers

# Time of Use (TOU) Energy Rates

- **MRES implemented wholesale TOU rates in 2023**
  - Reflects periods when market prices and customer demands are highest
  - Higher energy rates at certain times, such as summer afternoons
  - Goal is to reduce costs through increased usage of lower cost, off-peak energy
- **Members have the option to implement retail TOU rates for some, all, or none of their customers**
- **Requirements for Members to implement retail TOU rates**
  - Advanced Metering Infrastructure (AMI)
  - Meter Data Management (MDM) systems
  - Upgrade billing systems if necessary
  - Contact MRES for information and assistance

# TOU Sample Summer Residential Rates



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# Questions?


**Evan Leebens**

Senior Rate Analyst

Evan.leebens@mrenergy.com

605-330-6981


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