



The premier provider of energy supply
and risk management services to
North American commercial
and industrial clients



*TIA Technical Conference
October 2021*

Protecting your bottom line Power, Gas and Sustainability

Transforming energy spend into a competitive advantage

Today's Speakers

- Gabriela Melchor
- Alfonso Sanchez



Gabriela Melchor Walker

Text: 619-433-5195

E-mail: gabriela.melchor@calpinesolutions.com



Alfonso Sanchez

Text: 619-840-9574

E-mail: Alfonso.Sanchez@calpinesolutions.com

Agenda

- Welcome to Calpine
- Our Process
- Energy Products
- Energy Components
- Index Market vs Fixed Pricing
- ERCOT Market
- DA
- Gas Core vs Non Core

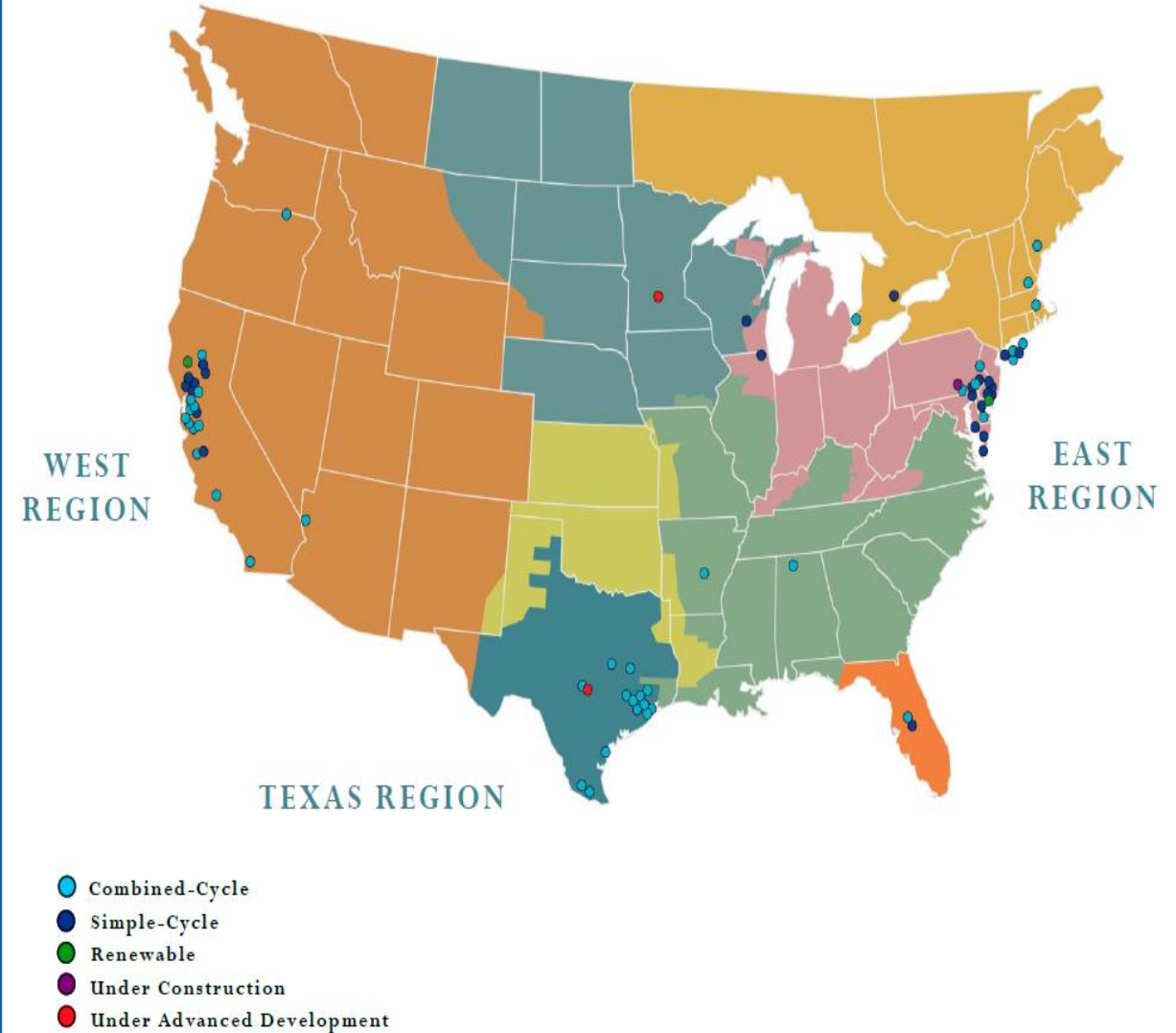
Who We Are – Calpine Energy Solutions

Calpine Corp. Clean, low cost generation

- America's largest and most efficient generator of natural gas and thermal resources
- We ranked amongst the cleanest generation in the nation.
- Fleet of 76 plants producing 25,000MWs
- Geographically Diverse
- Supplier independent – Enabled with more than 60 wholesale suppliers across the US

Calpine Energy Solutions

- Serving 7,500 MW of load over a customer base of 1,300
- Only ISO 9001:2015 – certified energy services provider in the U.S.
- Invoice and enrollment accuracy rates of 99.4% and 99.9% respectively



Our Commitment

What we do best is help businesses transform their energy/ carbon management programs from a traditional, transactional approach to a data- driven, sustainable business process.

- ✓ Data Excellence: ISO 9001 Certified
- ✓ Leader in Sustainability world: Recognized by Carbon Disclosure Project (CDP) for our sensible sustainability process
- ✓ Transparency
- ✓ Efficiency
- ✓ Performance Benchmarking



Our Process



We provide transparency, efficiency, and performance tracking that helps clients achieve targeted cost outcomes while also honoring risk boundaries

All done through a data-driven approach.

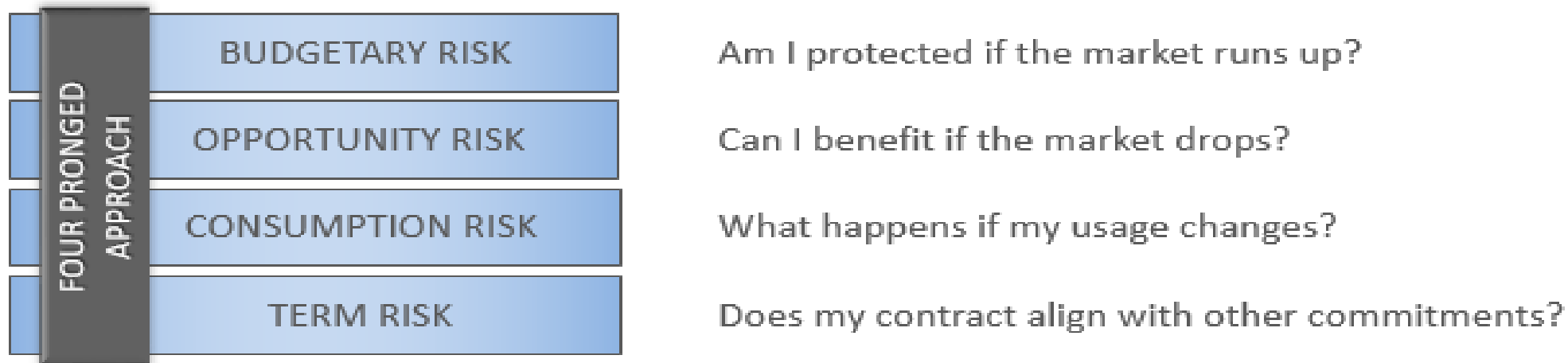
Process first: then product

Energy Risk Management

PERCEPTION: Most think of *risk* for energy spend as volumes priced at the **index**.

“If I fix 100% of my load today, I have eliminated the risk”

REALITY: There are different types of risk (*beneficial & detrimental*) that impact spend



CONCLUSION: *An actively managed program is needed to manage these risks over time*

By contemplating your tolerance for each of the risk types, then prioritizing them, along with other qualitative aspects of your business, we define your risk tolerance.

Energy Products

100% Fixed Forward Price

- For clients with a need for price certainty
- Locks a fixed price per MWh for the term of the contract

Block and Index

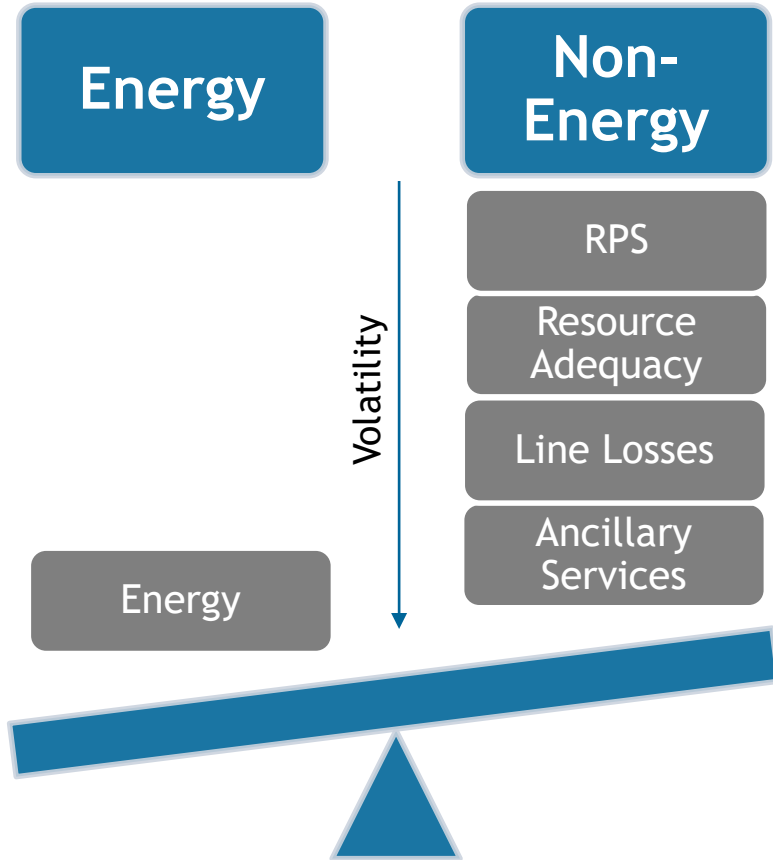
- For clients who want a balance between risk and reward
- Provides some budget stability while still being able to take advantage of market opportunity

100% Index Price

- For clients who are not afraid of market price volatility (i.e. have pass through capabilities).
- Allows you to take advantage of future dips in the market but not protected if market runs

Additional Flexibility

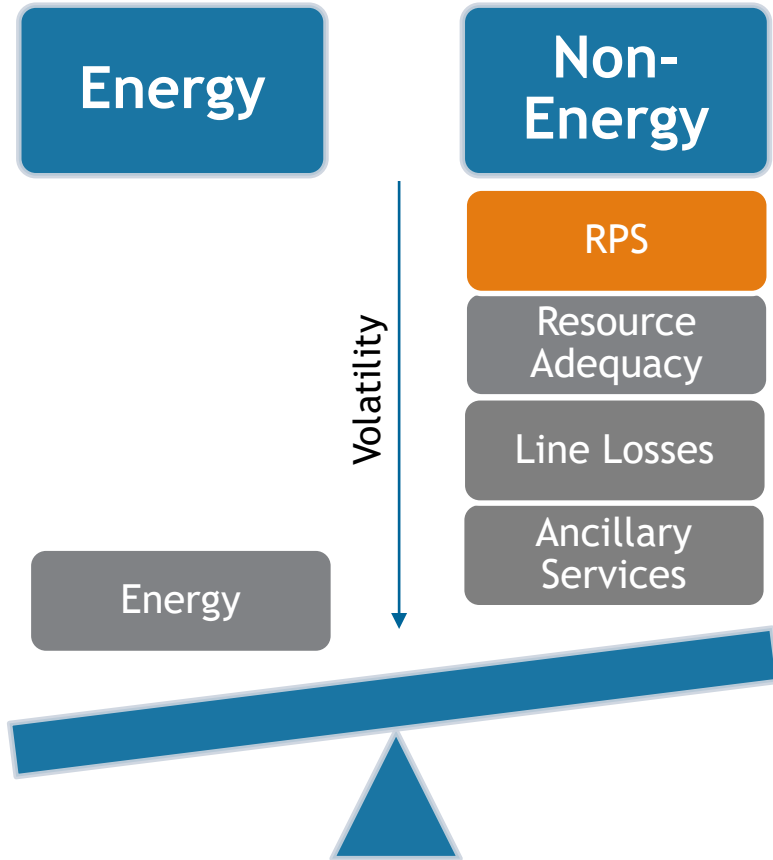
Cost Components



Energy: These costs are the most volatile and represent the lion’s share of your total energy bill (65-70% depending on the region.)

- Risk Management: Index prices vs fixed hedging

Non-Energy: Portions of these costs are less volatile, but due to certain regulatory changes it has increased the volatility of Resource Adequacy and RPS Prices. The non-energy components represent the costs to deliver energy from generators to load while maintaining grid reliability. As a percent of your total bill, these costs range from 30-35%.

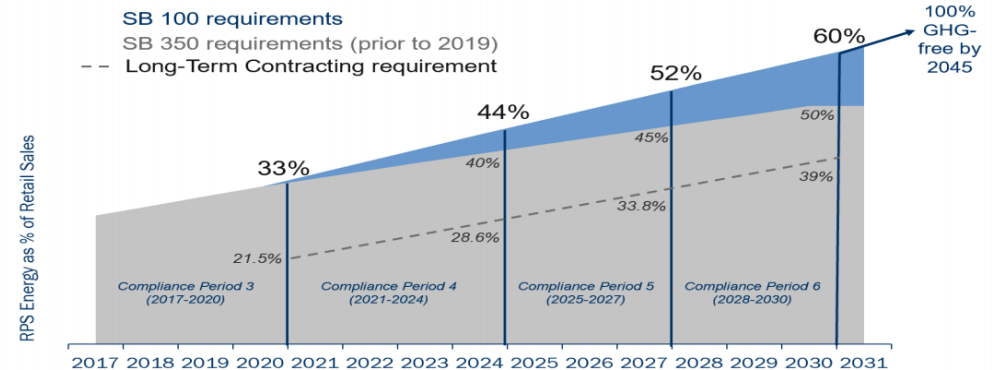


The California **RPS** compliance requires all load serving entities to procure:

- 2021- 65% of RPS requirement.
- 2045 - 100% of RPS requirement.

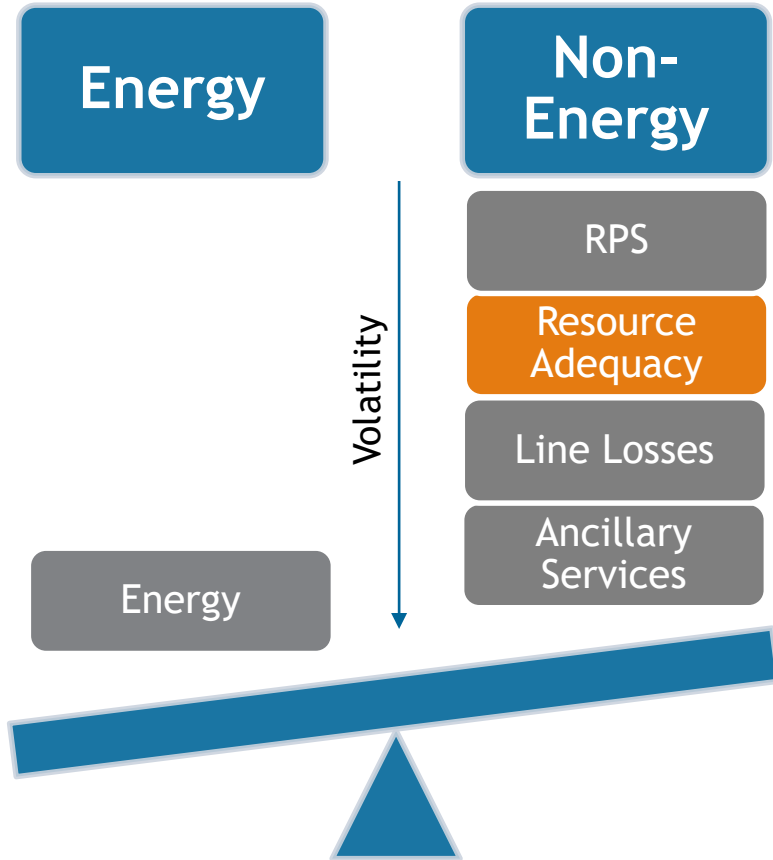
Beginning in 2021, 65% of RPS requirements must be procured from contracts that are greater than 10 years.

State RPS Procurement % Requirements

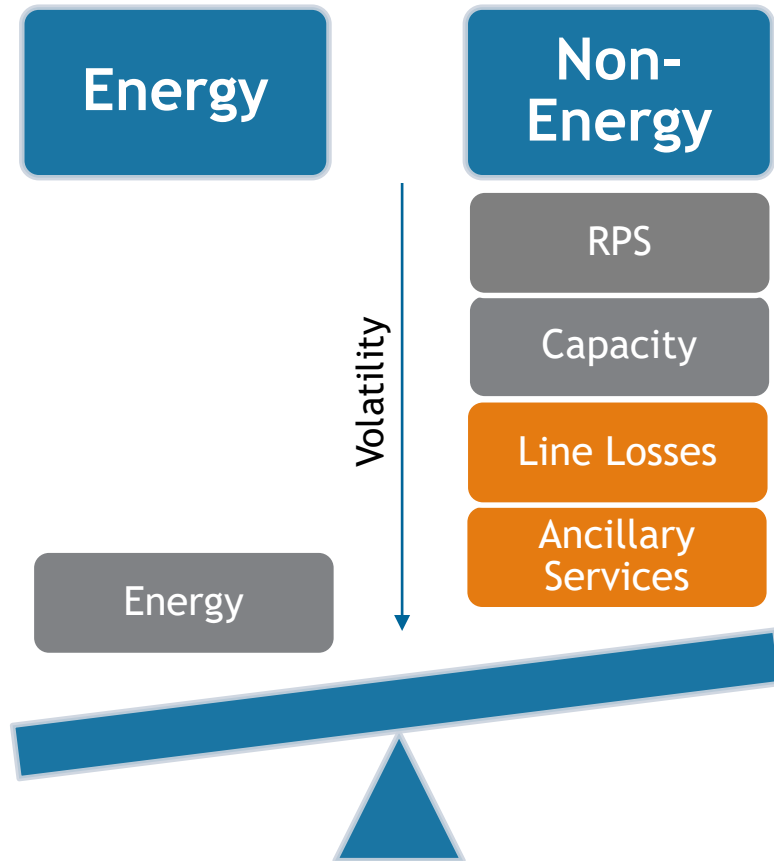


*Beginning in 2021, 65% of RPS requirements must be procured from contracts ≥ 10 years

Resource Adequacy- Capacity



- The **Resource Adequacy** market ensures that adequate resources are available for CAISO to meet the forecasted market and operation needs.
- The Resource Adequacy obligation is based on the highest hourly load for each month of the year.
- CORE notifications

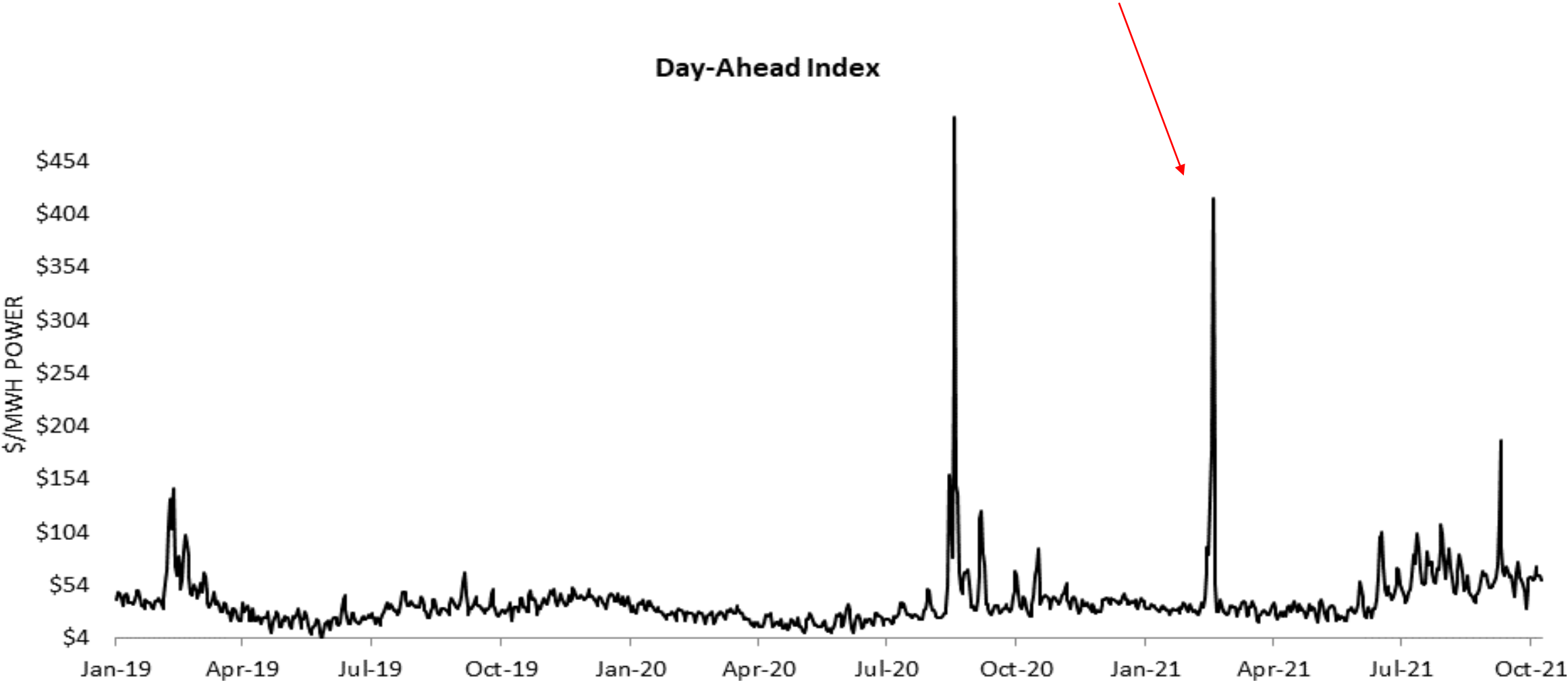


Line Losses which are transmission and distribution losses. Generation coming from the power source pass through large and complex networks in order to reach the end consumer. Every meter has a particular **Loss Factor**, which is the percentage difference between the on-site generated power and finally distributed power.

Ancillary Services charges are determined by the ISO to ensure reliable operation of the power system. These charges vary slightly by utility.

SP 15- Daily Index Prices

Day-Ahead Index



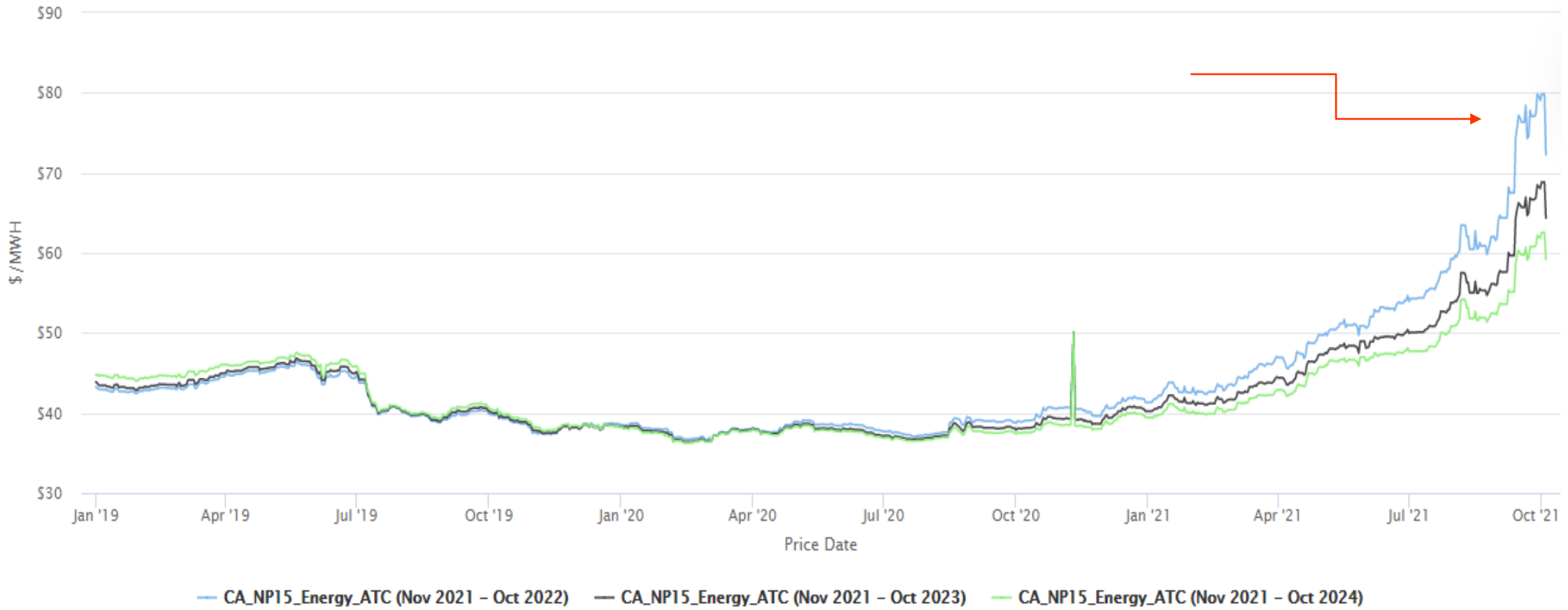
SP-15 ATC Forward Price Trend (How you get a fixed price)

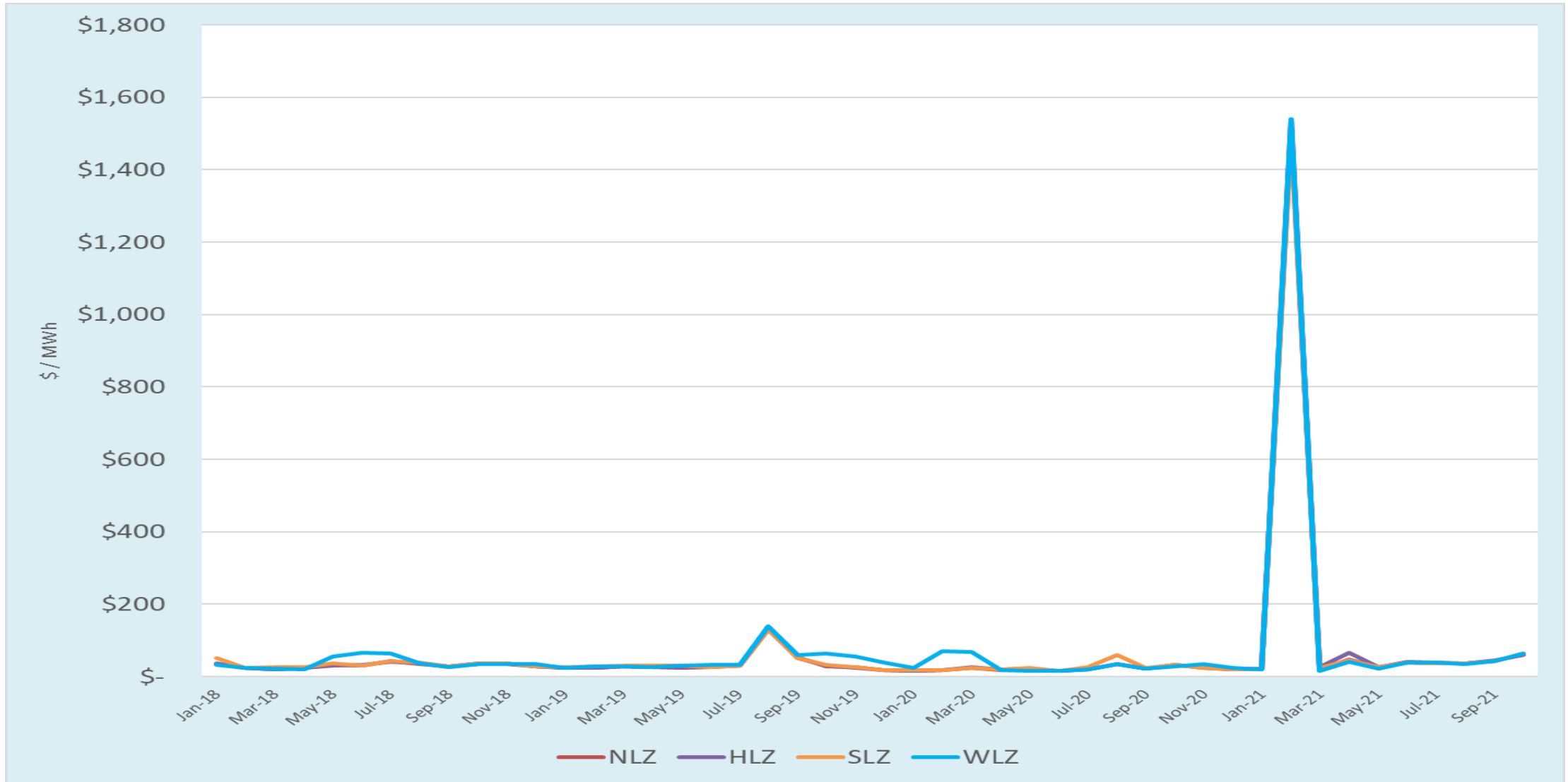


Fixed Forward Strip CA NP 15

- The Market is Backwardated=savings in the outer years

Trend Analysis: Fixed Forward Strip





ERCOT Monthly ATC – February Hourly

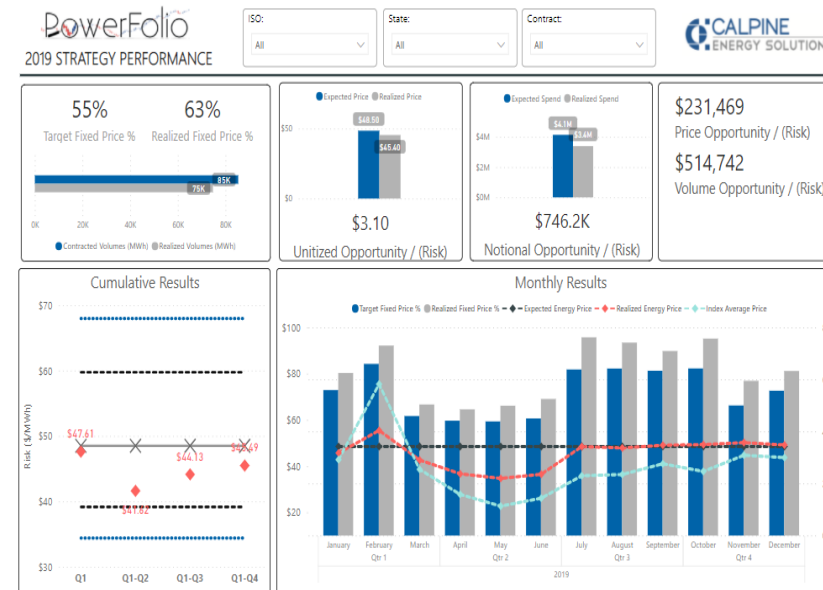
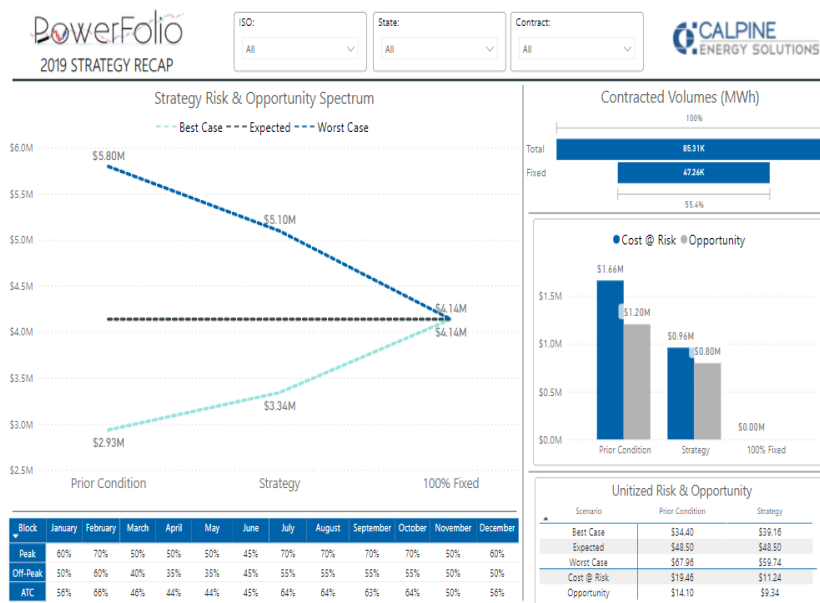
| Date | 100.0 | 200.0 | 300.0 | 400.0 | 500.0 | 600.0 | 700.0 | 800.0 | 900.0 | 1000.0 | 1100.0 | 1200.0 | 1300.0 |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 2/1/2021 | \$ 19.15 | \$ 18.76 | \$ 19.25 | \$ 19.34 | \$ 18.61 | \$ 20.19 | \$ 29.06 | \$ 35.28 | \$ 25.12 | \$ 18.84 | \$ 18.77 | \$ 18.49 | \$ 18.87 |
| 2/2/2021 | \$ 16.40 | \$ 16.67 | \$ 16.04 | \$ 16.02 | \$ 16.43 | \$ 17.38 | \$ 18.96 | \$ 19.09 | \$ 18.20 | \$ 18.12 | \$ 17.35 | \$ 16.33 | \$ 16.38 |
| 2/3/2021 | \$ 30.14 | \$ 27.78 | \$ 22.78 | \$ 23.26 | \$ 21.26 | \$ 24.25 | \$ 26.25 | \$ 26.25 | \$ 30.14 | \$ 27.78 | \$ 22.78 | \$ 23.26 | \$ 21.26 |
| 2/4/2021 | \$ 46.06 | \$ 31.24 | \$ 29.97 | \$ 17.27 | \$ 18.22 | \$ 15.69 | \$ 14.71 | \$ 14.71 | \$ 46.06 | \$ 31.24 | \$ 29.97 | \$ 17.27 | \$ 18.22 |
| 2/5/2021 | \$ 20.47 | \$ 27.04 | \$ 23.72 | \$ 20.85 | \$ 22.94 | \$ 19.07 | \$ 22.34 | \$ 22.34 | \$ 20.47 | \$ 27.04 | \$ 23.72 | \$ 20.85 | \$ 22.94 |
| 2/6/2021 | \$ 21.46 | \$ 24.72 | \$ 23.52 | \$ 77.79 | \$ 20.70 | \$ 18.69 | \$ 16.75 | \$ 16.75 | \$ 21.46 | \$ 24.72 | \$ 23.52 | \$ 77.79 | \$ 20.70 |
| 2/7/2021 | \$ 20.64 | \$ 29.43 | \$ 22.34 | \$ 20.16 | \$ 18.03 | \$ 16.40 | \$ 15.91 | \$ 15.91 | \$ 20.64 | \$ 29.43 | \$ 22.34 | \$ 20.16 | \$ 18.03 |
| 2/8/2021 | \$ 19.72 | \$ 20.89 | \$ 23.73 | \$ 23.35 | \$ 22.23 | \$ 20.93 | \$ 21.17 | \$ 21.17 | \$ 19.72 | \$ 20.89 | \$ 23.73 | \$ 23.35 | \$ 22.23 |
| 2/9/2021 | \$ 587.80 | \$ 107.20 | \$ 61.74 | \$ 83.06 | \$ 43.61 | \$ 72.38 | \$ 39.29 | \$ 39.29 | \$ 587.80 | \$ 107.20 | \$ 61.74 | \$ 83.06 | \$ 43.61 |
| 2/10/2021 | \$ 39.34 | \$ 33.66 | \$ 28.39 | \$ 35.03 | \$ 27.12 | \$ 29.82 | \$ 45.73 | \$ 48.53 | \$ 56.36 | \$ 56.52 | \$ 55.91 | \$ 60.86 | \$ 49.10 |
| 2/11/2021 | \$ 40.55 | \$ 35.09 | \$ 37.69 | \$ 41.26 | \$ 41.80 | \$ 51.50 | \$ 94.57 | \$ 85.95 | \$ 306.48 | \$ 923.91 | \$ 1,253.13 | \$ 119.63 | \$ 909.58 |
| 2/12/2021 | \$ 66.61 | \$ 13.63 | \$ 14.61 | \$ 13.46 | \$ 68.74 | \$ 36.66 | \$ 115.81 | \$ 120.08 | \$ 122.22 | \$ 245.99 | \$ 382.98 | \$ 801.14 | \$ 1,011.44 |
| 2/13/2021 | \$ 1,121.44 | \$ 747.98 | \$ 1,192.66 | \$ 1,217.50 | \$ 1,381.01 | \$ 1,416.11 | \$ 1,178.10 | \$ 1,133.62 | \$ 4,180.90 | \$ 5,231.39 | \$ 5,369.40 | \$ 3,555.24 | \$ 1,990.38 |
| 2/14/2021 | \$ 1,119.12 | \$ 878.85 | \$ 589.72 | \$ 633.17 | \$ 791.67 | \$ 1,002.61 | \$ 1,087.40 | \$ 910.86 | \$ 1,107.71 | \$ 1,448.20 | \$ 1,621.12 | \$ 1,812.14 | \$ 1,910.45 |
| 2/15/2021 | \$ 8,610.36 | \$ 8,238.33 | \$ 5,115.35 | \$ 7,741.54 | \$ 8,537.09 | \$ 8,637.33 | \$ 8,815.66 | \$ 8,802.66 | \$ 8,856.26 | \$ 8,528.50 | \$ 5,481.33 | \$ 2,383.92 | \$ 2,481.35 |
| 2/16/2021 | \$ 8,992.17 | \$ 8,967.42 | \$ 8,973.73 | \$ 8,970.35 | \$ 8,985.47 | \$ 8,974.83 | \$ 8,964.33 | \$ 8,638.67 | \$ 8,733.70 | \$ 8,800.36 | \$ 8,888.01 | \$ 8,895.30 | \$ 8,943.40 |
| 2/17/2021 | \$ 9,000.98 | \$ 9,034.81 | \$ 9,048.99 | \$ 9,053.56 | \$ 9,131.18 | \$ 9,040.23 | \$ 8,996.06 | \$ 9,003.31 | \$ 8,999.56 | \$ 9,000.05 | \$ 8,999.64 | \$ 8,999.76 | \$ 9,002.06 |
| 2/18/2021 | \$ 9,000.21 | \$ 9,001.10 | \$ 9,006.47 | \$ 9,009.55 | \$ 9,008.74 | \$ 9,009.20 | \$ 8,999.75 | \$ 9,000.13 | \$ 8,995.10 | \$ 8,975.94 | \$ 8,985.69 | \$ 8,943.01 | \$ 8,990.88 |
| 2/19/2021 | \$ 8,991.87 | \$ 8,991.75 | \$ 8,991.90 | \$ 8,992.03 | \$ 8,973.96 | \$ 8,965.53 | \$ 8,970.05 | \$ 8,965.47 | \$ 8,988.66 | \$ 828.41 | \$ 26.69 | \$ 23.90 | \$ 17.03 |
| 2/20/2021 | \$ 17.74 | \$ 18.11 | \$ 19.40 | \$ 26.38 | \$ 41.56 | \$ 54.88 | \$ 103.63 | \$ 112.28 | \$ 35.63 | \$ 29.70 | \$ 18.60 | \$ 13.70 | \$ 0.57 |
| 2/21/2021 | \$ (30.99) | \$ (31.35) | \$ (31.35) | \$ (31.34) | \$ (30.70) | \$ (25.67) | \$ (6.28) | \$ (2.08) | \$ (0.05) | \$ (0.07) | \$ (2.17) | \$ (15.00) | \$ (15.00) |
| 2/22/2021 | \$ 18.31 | \$ 18.51 | \$ 18.96 | \$ 18.86 | \$ 18.20 | \$ 20.87 | \$ 25.83 | \$ 22.46 | \$ 16.45 | \$ 16.93 | \$ 5.83 | \$ 0.00 | \$ 0.00 |
| 2/23/2021 | \$ (1.71) | \$ (1.67) | \$ (0.49) | \$ 14.59 | \$ 16.87 | \$ 18.25 | \$ 22.59 | \$ 20.50 | \$ 18.66 | \$ 18.50 | \$ 13.15 | \$ 0.00 | \$ 0.00 |
| 2/24/2021 | \$ (31.65) | \$ (31.65) | \$ (31.65) | \$ (31.65) | \$ (31.46) | \$ (28.52) | \$ (4.54) | \$ (0.15) | \$ (0.14) | \$ (0.80) | \$ (0.09) | \$ 7.00 | \$ 7.00 |
| 2/25/2021 | \$ (29.19) | \$ (24.57) | \$ (20.71) | \$ (6.08) | \$ (1.31) | \$ (0.33) | \$ 13.39 | \$ 16.06 | \$ 17.53 | \$ 18.46 | \$ 18.38 | \$ 18.00 | \$ 18.00 |
| 2/26/2021 | \$ 22.89 | \$ 18.69 | \$ 17.94 | \$ 19.22 | \$ 21.59 | \$ 89.88 | \$ 434.84 | \$ 27.87 | \$ 21.59 | \$ 19.07 | \$ 18.83 | \$ 18.49 | \$ 18.61 |
| 2/27/2021 | \$ 9.11 | \$ 1.54 | \$ 3.26 | \$ 9.36 | \$ 13.19 | \$ 13.62 | \$ 15.41 | \$ 15.86 | \$ 15.92 | \$ 18.52 | \$ 16.04 | \$ 14.12 | \$ 4.95 |
| 2/28/2021 | \$ (30.10) | \$ (30.42) | \$ (30.77) | \$ (30.47) | \$ (24.16) | \$ (27.71) | \$ (26.88) | \$ (17.61) | \$ (1.32) | \$ 1.06 | \$ 2.16 | \$ 0.98 | \$ 5.93 |

Remember this event did not occur in just the peak hours, but the nights as well.

Average ATC RT settle was just over \$1500 / MWh for the month

| 1400.0 | 1500.0 | 1600.0 | 1700.0 | 1800.0 | 1900.0 | 2000.0 | 2100.0 | 2200.0 | 2300.0 | 2400.0 | Daily Ave |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| \$ 18.04 | \$ 17.54 | \$ 17.31 | \$ 17.60 | \$ 22.44 | \$ 36.90 | \$ 22.44 | \$ 19.61 | \$ 19.19 | \$ 17.60 | \$ 16.31 | \$ 21.03 |
| \$ 16.78 | \$ 17.40 | \$ 17.53 | \$ 19.37 | \$ 46.35 | \$ 23.20 | \$ 18.24 | \$ 17.62 | \$ 16.53 | \$ 17.14 | \$ 16.18 | \$ 18.74 |
| \$ 19.08 | \$ 17.67 | \$ 17.97 | \$ 18.79 | \$ 22.51 | \$ 23.17 | \$ 17.39 | \$ 14.83 | \$ 10.45 | \$ 4.03 | \$ (13.36) | \$ 22.21 |
| \$ 20.21 | \$ 20.86 | \$ 20.35 | \$ 34.48 | \$ 142.78 | \$ 40.87 | \$ 23.93 | \$ 20.21 | \$ 18.62 | \$ 17.65 | \$ 16.68 | \$ 18.57 |
| \$ 18.95 | \$ 18.89 | \$ 18.90 | \$ 18.94 | \$ 23.80 | \$ 26.96 | \$ 19.04 | \$ 17.69 | \$ 17.41 | \$ 18.34 | \$ 17.74 | \$ 19.89 |
| \$ 14.61 | \$ 8.07 | \$ 7.63 | \$ 16.67 | \$ 69.22 | \$ 897.61 | \$ 32.61 | \$ 46.64 | \$ 28.32 | \$ 30.33 | \$ 22.14 | \$ 61.88 |
| \$ 16.10 | \$ 16.55 | \$ 16.70 | \$ 16.47 | \$ 17.73 | \$ 17.42 | \$ 16.56 | \$ 15.78 | \$ 14.95 | \$ 9.50 | \$ 3.09 | \$ 17.50 |
| \$ 21.36 | \$ 20.45 | \$ 19.56 | \$ 19.33 | \$ 23.11 | \$ 28.12 | \$ 21.59 | \$ 20.77 | \$ 20.61 | \$ 20.53 | \$ 19.90 | \$ 18.42 |
| \$ 35.12 | \$ 31.20 | \$ 27.46 | \$ 25.61 | \$ 33.45 | \$ 52.39 | \$ 36.19 | \$ 69.93 | \$ 51.80 | \$ 46.44 | \$ 37.66 | \$ 67.36 |
| \$ 45.29 | \$ 38.73 | \$ 51.84 | \$ 59.37 | \$ 61.56 | \$ 102.60 | \$ 65.67 | \$ 46.13 | \$ 41.17 | \$ 34.27 | \$ 31.76 | \$ 47.61 |
| \$ 346.10 | \$ 191.55 | \$ 235.73 | \$ 1,630.99 | \$ 2,059.70 | \$ 1,719.99 | \$ 104.74 | \$ 103.79 | \$ 81.16 | \$ 63.69 | \$ 49.90 | \$ 438.69 |
| \$ 303.33 | \$ 307.06 | \$ 361.44 | \$ 446.85 | \$ 498.07 | \$ 1,244.16 | \$ 712.76 | \$ 777.74 | \$ 441.90 | \$ 335.62 | \$ 166.62 | \$ 371.04 |
| \$ 1,617.22 | \$ 1,394.25 | \$ 1,260.18 | \$ 1,217.36 | \$ 1,504.09 | \$ 1,821.42 | \$ 1,700.19 | \$ 1,489.58 | \$ 1,342.32 | \$ 1,300.84 | \$ 1,190.37 | \$ 1,898.06 |
| \$ 1,697.00 | \$ 1,770.71 | \$ 1,812.33 | \$ 2,245.44 | \$ 3,587.29 | \$ 4,201.04 | \$ 4,108.09 | \$ 3,802.33 | \$ 3,956.28 | \$ 6,406.76 | \$ 7,294.24 | \$ 2,324.77 |
| \$ 1,802.57 | \$ 1,530.35 | \$ 2,900.83 | \$ 6,639.96 | \$ 8,985.60 | \$ 8,992.54 | \$ 6,964.30 | \$ 4,803.10 | \$ 8,166.95 | \$ 8,283.47 | \$ 8,991.02 | \$ 6,678.76 |
| \$ 9,000.60 | \$ 9,000.40 | \$ 8,998.13 | \$ 8,999.75 | \$ 8,864.47 | \$ 8,833.15 | \$ 8,981.77 | \$ 8,999.78 | \$ 9,000.17 | \$ 9,000.02 | \$ 8,999.74 | \$ 8,933.57 |
| \$ 9,003.99 | \$ 9,001.37 | \$ 9,003.23 | \$ 9,006.98 | \$ 9,037.69 | \$ 9,051.49 | \$ 8,949.89 | \$ 9,000.22 | \$ 8,995.88 | \$ 9,001.96 | \$ 9,000.27 | \$ 9,015.13 |
| \$ 8,991.03 | \$ 8,991.62 | \$ 8,991.62 | \$ 8,990.51 | \$ 8,996.12 | \$ 8,964.35 | \$ 8,941.84 | \$ 8,944.59 | \$ 8,959.24 | \$ 8,991.56 | \$ 8,991.89 | \$ 8,986.67 |
| \$ 10.96 | \$ 1.54 | \$ 1.00 | \$ 2.82 | \$ 18.07 | \$ 27.79 | \$ 21.38 | \$ 19.55 | \$ 18.57 | \$ 18.66 | \$ 17.80 | \$ 3,411.89 |
| \$ (16.32) | \$ (31.63) | \$ (31.65) | \$ (31.66) | \$ (31.65) | \$ (28.53) | \$ (10.27) | \$ (3.96) | \$ (20.30) | \$ (29.10) | \$ (30.57) | \$ 9.44 |
| \$ (22.77) | \$ (20.18) | \$ (8.16) | \$ (8.70) | \$ 1.81 | \$ 19.18 | \$ 18.29 | \$ 17.68 | \$ 18.13 | \$ 17.39 | \$ 17.55 | \$ (7.46) |
| \$ (0.50) | \$ (0.21) | \$ 0.37 | \$ 2.86 | \$ 17.13 | \$ 26.61 | \$ 20.27 | \$ 17.21 | \$ 13.28 | \$ (0.44) | \$ (4.34) | \$ 12.27 |
| \$ (3.83) | \$ (10.83) | \$ (10.13) | \$ (17.82) | \$ (13.04) | \$ (0.59) | \$ 1.40 | \$ (2.94) | \$ (22.51) | \$ (30.92) | \$ (31.64) | \$ (0.16) |
| \$ 16.62 | \$ 17.01 | \$ 17.41 | \$ 17.60 | \$ 18.68 | \$ 21.52 | \$ 17.95 | \$ 14.80 | \$ 4.44 | \$ (3.39) | \$ (26.54) | \$ (2.27) |
| \$ 19.03 | \$ 18.88 | \$ 18.92 | \$ 18.87 | \$ 26.13 | \$ 80.91 | \$ 29.21 | \$ 33.57 | \$ 21.56 | \$ 18.68 | \$ 24.22 | \$ 14.54 |
| \$ 18.36 | \$ 17.65 | \$ 17.70 | \$ 19.16 | \$ 30.48 | \$ 125.46 | \$ 21.31 | \$ 19.65 | \$ 18.61 | \$ 18.35 | \$ 15.36 | \$ 44.65 |
| \$ 2.02 | \$ 0.01 | \$ 0.01 | \$ (0.03) | \$ 6.59 | \$ 13.98 | \$ 8.12 | \$ 0.29 | \$ (2.94) | \$ (17.78) | \$ (27.07) | \$ 5.59 |
| \$ 13.95 | \$ 14.95 | \$ 14.81 | \$ 14.87 | \$ 15.59 | \$ 17.48 | \$ 8.59 | \$ 0.25 | \$ (1.10) | \$ (9.14) | \$ (22.90) | \$ (5.92) |

- By beginning the strategy development process with a full analysis of financial risk, we are able to *benchmark that expectation* and compare it to the actual results of the strategy on an annual basis.
- We can see the effects on expected budget from both the *strategic management of the portfolio* as well as the *volumetric deviations*.
- In the event that there have been *changes* to the organization (operations, goals, constraints, etc.) or the market fundamentals and outlook, this annual review serves as the *basis for recalibrations* to the strategy and or execution plan.



Direct Access

- California Process for DA
- Lottery
- No Obligations
- Free
- Saving potential



Natural Gas: Core Vs. Non Core (Rate Class Analysis)

| CORE | NONCORE |
|---|--|
| Highest Priority | Technically “interruptible” but is very rare |
| Under 20,800 therms per month (average) (SoCal) | Over 20,800 therms per month (average) (SoCal) |
| Usually smaller locations | Usually larger plants |
| Eligible to get service from local utility | Not eligible to get service from local utility without penalty |
| Transport cost is higher ↑\$\$\$↑ | Transport cost is lower ↓\$↓ |
| OPEN TO THIRD PARTY SUPPLY (NO “DA” RULES) | |
| AVAILABLE FOR ACTIVE RISK MANAGEMENT PROCUREMENT | |



Natural Gas: Therms or DECA-Therms?

- A Brief note on UNITS:
 - The Utility measures everything in THERMS
 - The wholesale market measures everything in DECATHERMS
 - *(Technically it transacts in MMBtu's but it's effectively 1:1 conversion)*
 - *When we revisit our metric system from grade school we'll remember that going from nothing to "Deca" prefix is a 10x conversion*

VOLUME:

**20,800 THERMS =
2,080 DECATHERMS**

PRICE:

**\$0.550 /THERMS =
\$5.550 /DECATHERMS**

Natural Gas: Therms or DECA-Therms?

- *What wins? What's a "better" deal in the example below?*

PRICE:

Natural Gas Monthly Index
NGI SoCalCG + \$0.10/Therm

PRICE:

Natural Gas Monthly Index NGI
SoCalCG + \$0.15/Decatherm

SPEND:

20,000 Therms
\$2,000

SPEND:

2,000 Decatherms
\$300

**The "Lower" adder was 5.6x
more expensive...watch your
units 😊**

Two Components of your NatGas Bill:

“TRANSPORTATION”

SO CAL GAS CO
Sempra Energy utility

ACCOUNT NUMBER [REDACTED]
SERVICE FOR [REDACTED]
[REDACTED]

This image is a representation of EDI bill data from this utility.

DATE MAILED APR 03, 2015
24 Hour Service
1-800-427-2000 English
1-800-427-6029 Español
www.socalgas.com

Account Summary

| | |
|--|-----------------|
| Previous Balance - Unpaid Amount Due Now | \$1,120.12 |
| Payment Received 03/24/15 THANK YOU | -1,120.12 |
| Current Charges | 970.73 |
| Total Amount Due | \$970.73 |

| | |
|-------------------|---------------------|
| DATE DUE | Apr 23, 2015 |
| AMOUNT DUE | \$970.73 |

0.33244/THIS MONTH'S WACOG / THERM
00000002187/HH/TOTAL INVOICE CCF
00000002272/TD/TOTAL INVOICE THERMS
1/CLIMATE ZONE
00000970.73+/TOTAL AMOUNT DUE

.7% Late Payment Charge if paid after due date

Current Charges

Rate Class

| | |
|------------------|------------|
| Rate: | GT-10 |
| Meter Number: | [REDACTED] |
| Current Reading | 90976 A |
| Previous Reading | 88789 A |
| Difference | 2187 |
| Pressure BTU | 0.000 |
| Total Therms | 2,272.29 |

GAS TRANSPORTATION CHARGES

| | | | | | |
|-----------------|---------|---|-----------|---|-------|
| CUSTOMER CHARGE | 28 Days | x | \$0.49315 | = | 13.81 |
|-----------------|---------|---|-----------|---|-------|

| | | | | | |
|-------------|-----------|--------|------------|--------|--------|
| Therms used | 250 | Tier 1 | 2022 | Tier 2 | |
| Rate/Therm | \$0.53795 | | \$0.28209 | | |
| Charge | \$134.49 | | + \$570.39 | = | 704.88 |

Total Gas Transportation Charges \$718.69

TAXES & FEES ON GAS TRANSPORTATION CHARGES

| | | | | | |
|---|-------------|---|-----------|---|-----------------|
| MUNICIPAL TRANS SURCHARGE | | | \$0.32734 | = | 10.85 |
| STATE REGULATORY FEE | 2272 Therms | x | \$0.00068 | = | 1.54 |
| PUBLIC PURPOSE SURCHARGE | 2272 Therms | x | \$0.07784 | = | 176.85 |
| City Users Tax | | | 7% | = | 62.80 |
| Total Taxes and Fees on Gas Transportation Charges | | | | | \$252.04 |

Total Current Charges \$970.73

Historical Data

| | |
|----------|----------|
| UnitType | Quantity |
| ccf | 2187 |
| therms | 2272 |

Self Service Options

available 24 hours a day,
7 days a week 1-800-772-5050
For information regarding payment
arrangements, office locations, account
balance, billing recap, duplicate bill and
CARE applications for income qualified
customers.
locate underground cables &
gas pipes, please call DigAlert,
Monday-Friday, 6am-7pm . . . 8-1-1

Payment Options \$

Online: It's fast, easy and free. Just register or sign into My Account at <https://myaccount.socalgas.com>

Home banking: If you pay bills online through your bank, check with them, to see if you can receive your bill online.

Direct Debit: Have your payment automatically deducted from your account. For more information, call 1-800-427-2200 or visit www.socalgas.com

Pay by Phone: Call our toll-free number any day up to and including the bill due date to

“COMMODITY”



A Sempra Energy utility*

ACCOUNT NUMBER [REDACTED]
SERVICE FOR [REDACTED]
[REDACTED]

DATE MAILED Jul 31, 2014
24 Hour Service
1-800-427-2000 English
1-800-427-6029 Español

www.socalgas.com

H H

Account Summary

| | | |
|-------------------------|--------------|---------------|
| Amount of Last Bill | AUG - 4 2014 | .00 |
| Payment Received | | - .00 |
| Current Charges | | - .00 |
| Total Amount Due | | \$0.00 |

.7% Late Payment Charge Due if Paid After AUG 22, 2014

Current Charges

Rate: GN-10 - Non-Residential Heat

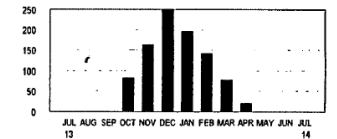
Meter Number: [REDACTED] (Next scheduled read date Aug 27 2014) Cycle: 19

| | | | | | | |
|---------------------|------|-----------------|------------------|--------------|------------------|----------------|
| Billing Period | Days | Current Reading | Previous Reading | = Difference | x Billing Factor | = Total Therms |
| 06/27/14 - 07/29/14 | 32 | 8928 | 8928 | 0 | 0.965 | 0 |

Total Current Charges \$0.00

No payment is due.
Your account has a balance of \$0.00.

Gas Usage History (Total Therms used)



| | | | |
|-----------------------|--------|--------|--------|
| Total Therms used | Jul 13 | Jun 14 | Jul 14 |
| Daily average Therms | .0 | .0 | .0 |
| Days in billing cycle | 32 | 29 | 32 |

CARE ***Special Discount*** You may be eligible for the California Alternate Rates for Energy (CARE) program. For more information or to apply online, go to socalgas.com (search "CARE"). Or call 1-800-427-2200 to request an application.

CARE ***Descuento Especial*** Usted podría ser elegible para el programa de Tarifas Alternativas para Energía en California (CARE). Para más información o para aplicar, visite socalgas.com/español (busque la palabra clave "CARE") o llame al 1-800-427-2200.

Transport Charge

The Gas Company's gas commodity cost per therm for your billing period:
Jul \$.54641 Jun \$.51185

The commodity component:

Henry Hub Fixed Price + Locational Basis = Locational Fixed Price

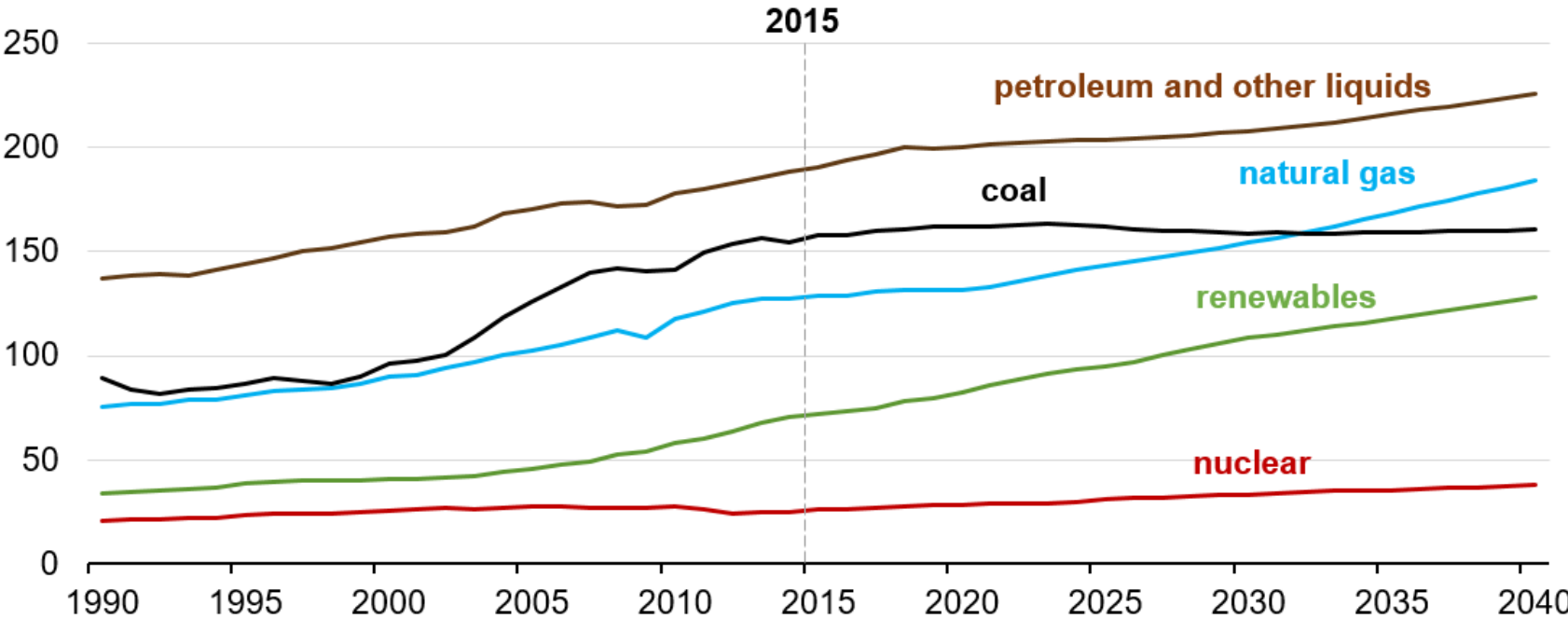


“NYMEX HH + BASIS = Fixed Price”

What makes gas prices?

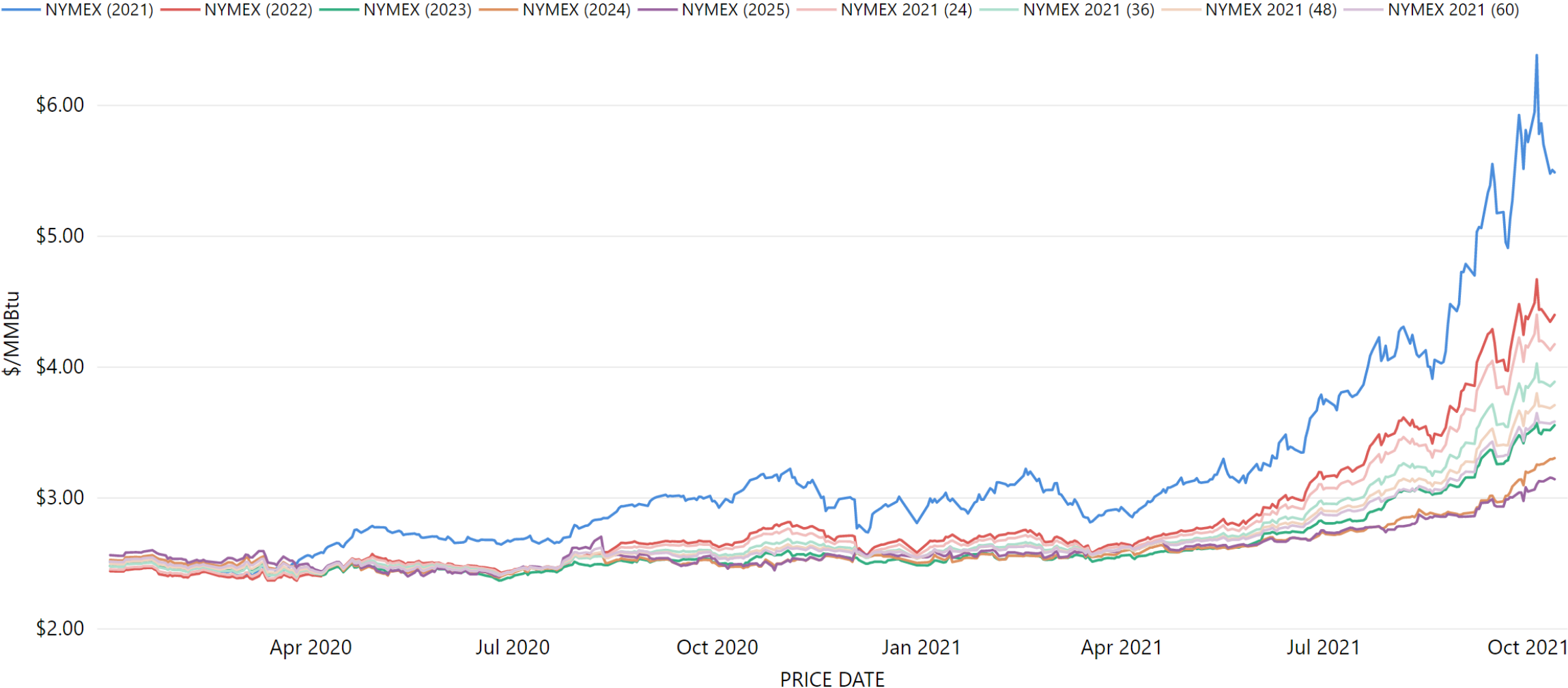
Energy consumption increases over the projection for all fuels other than coal in the Reference case—

World energy consumption by energy source
quadrillion Btu



Gas Market- NYMEX HENRY HUB

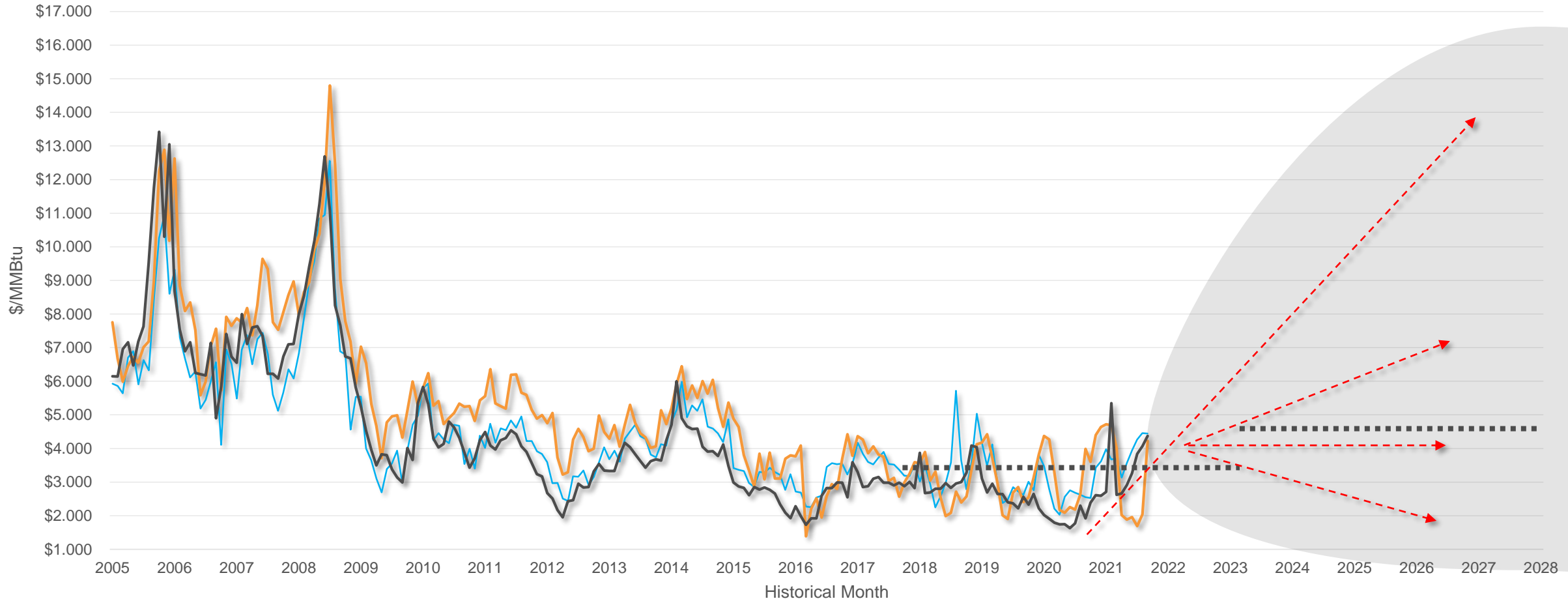
NYMEX FORWARD TRENDS



Gas Market- Utility Rate Analysis

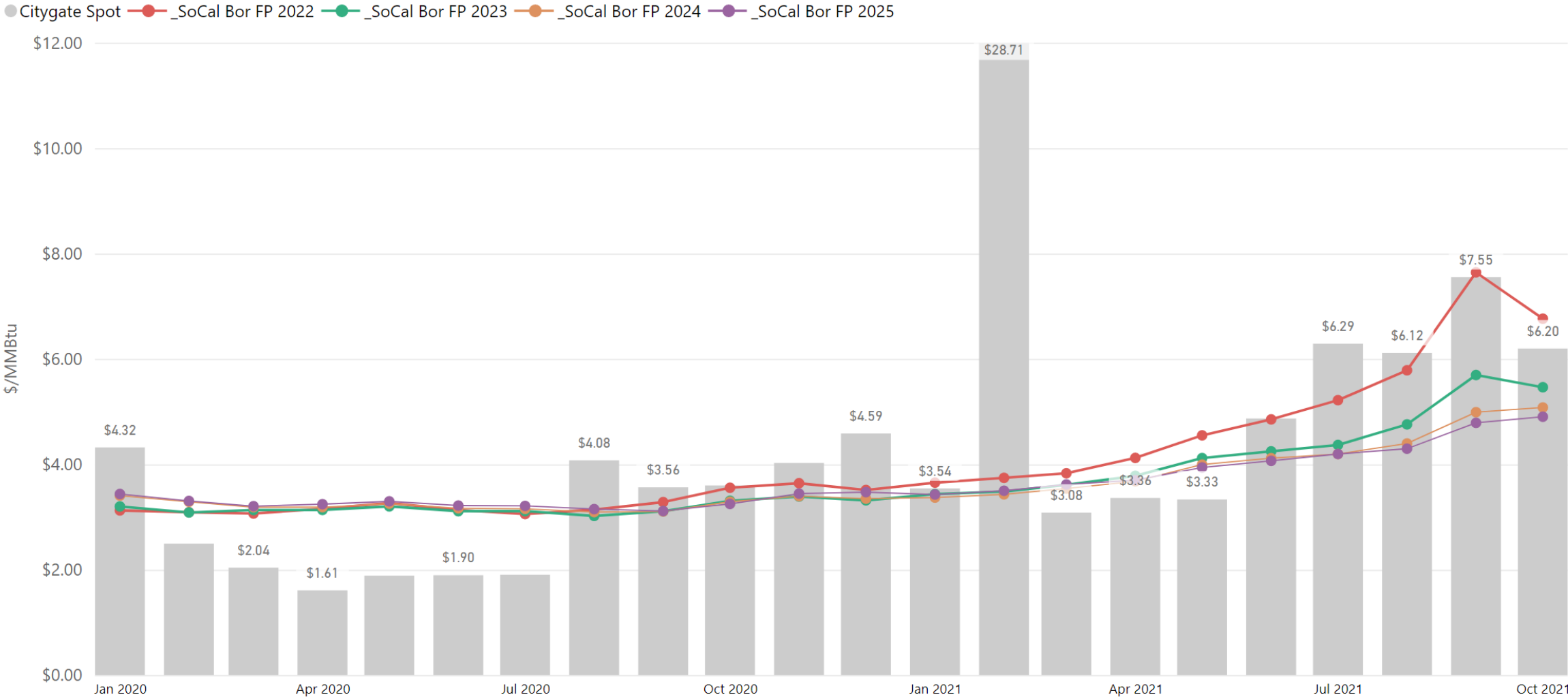
NATURAL GAS HISTORICAL PRICES
Utility Bundled Rates & NYMEX Spot Prices

— SOCAL CORE GPC RATE — PG&E CORE GNR1 RATE — NYMEX

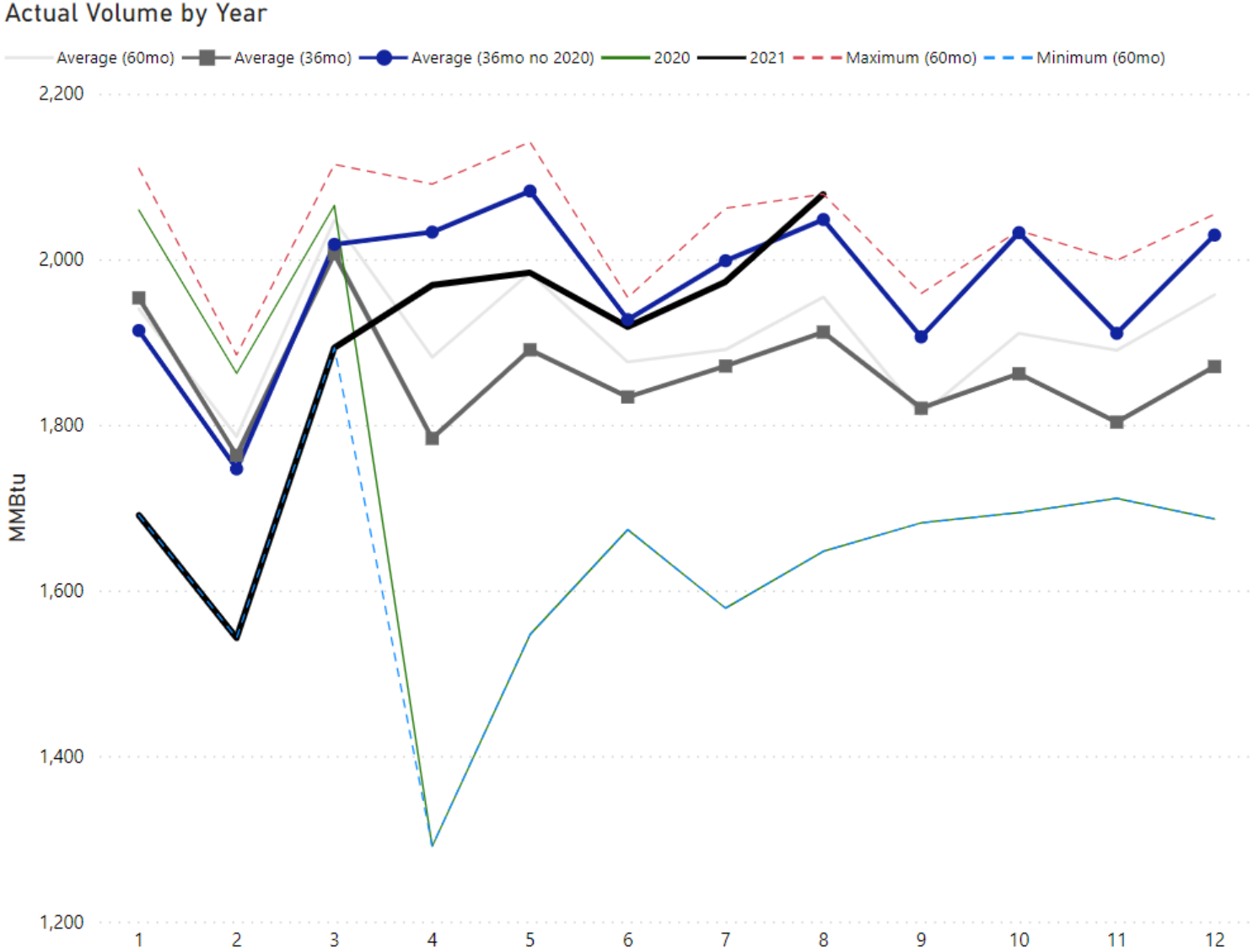


Gas Market- Wholesale Futures Contracts (3rd party)

NATURAL GAS Cash and Forward Price Correlation Chart



Sample: Customer Usage “Burn” profile





Key Legal Information

The information, opinions, estimates, projections and other materials contained herein are provided to intended recipient for its own personal or internal company use as of the date hereof and are subject to change without notice. Some of the information, opinions, estimates, projections and other materials contained herein have been obtained from numerous sources (e.g. publically available information, internally developed data and other third party sources, including, without limitation, exchanges, news providers, market data providers and other content providers) and Calpine Energy Solutions LLC has made reasonable efforts to ensure that the contents hereof have been compiled or derived from sources believed to be reliable and to contain information and opinions which are believed to be accurate and complete. However, Calpine Energy Solutions LLC has not independently verified and makes no representation or warranty, express or implied, in respect thereof, takes no responsibility for any errors and omissions which may be contained herein and accepts no liability whatsoever for any loss arising from any use of or reliance on the information, opinions, estimates, projections and other materials contained herein whether relied upon by the intended recipient or any other third party. Information may be available to Calpine Energy Solutions LLC which is not reflected herein. The information, opinions, estimates, projections and other materials contained herein are not to be construed as an offer to sell, a solicitation for or an offer to buy, any products or services referenced herein, nor shall such information, opinions, estimates, projections and other materials be considered as investment advice or as a recommendation to enter into any transaction. Materials herein containing charts, tables and graphs are for informational and illustrative purposes only and are not intended to be used to assist the intended recipient in determining whether or not to buy or sell any product or service. Any benchmarks are used solely for purposes of comparison and the comparison does not mean that there will necessarily be a correlation between the outcomes described herein and the benchmarks. To the extent any materials contain statements about the future, such statements are forward looking and subject to a various risks and uncertainties. Past performance does not guarantee or indicate future results. Calpine Energy Solutions LLC and/or its affiliates may deal as principal in certain products referenced herein (e.g. commodities or related financial instruments). Except as permitted herein, the information, opinions, estimates, projections and other materials contained herein may not be reproduced, disseminated, sold, distributed, published or circulated in any manner or for any purposes without the prior express written consent of Calpine Energy Solutions LLC and/or any relevant source, as may be required. Calpine Energy Solutions LLC reserves all rights to the intellectual property presented herein, including, without limitation, any copyrights, trademarks and corporate logos of Calpine Energy Solutions LLC and/or of its affiliates.