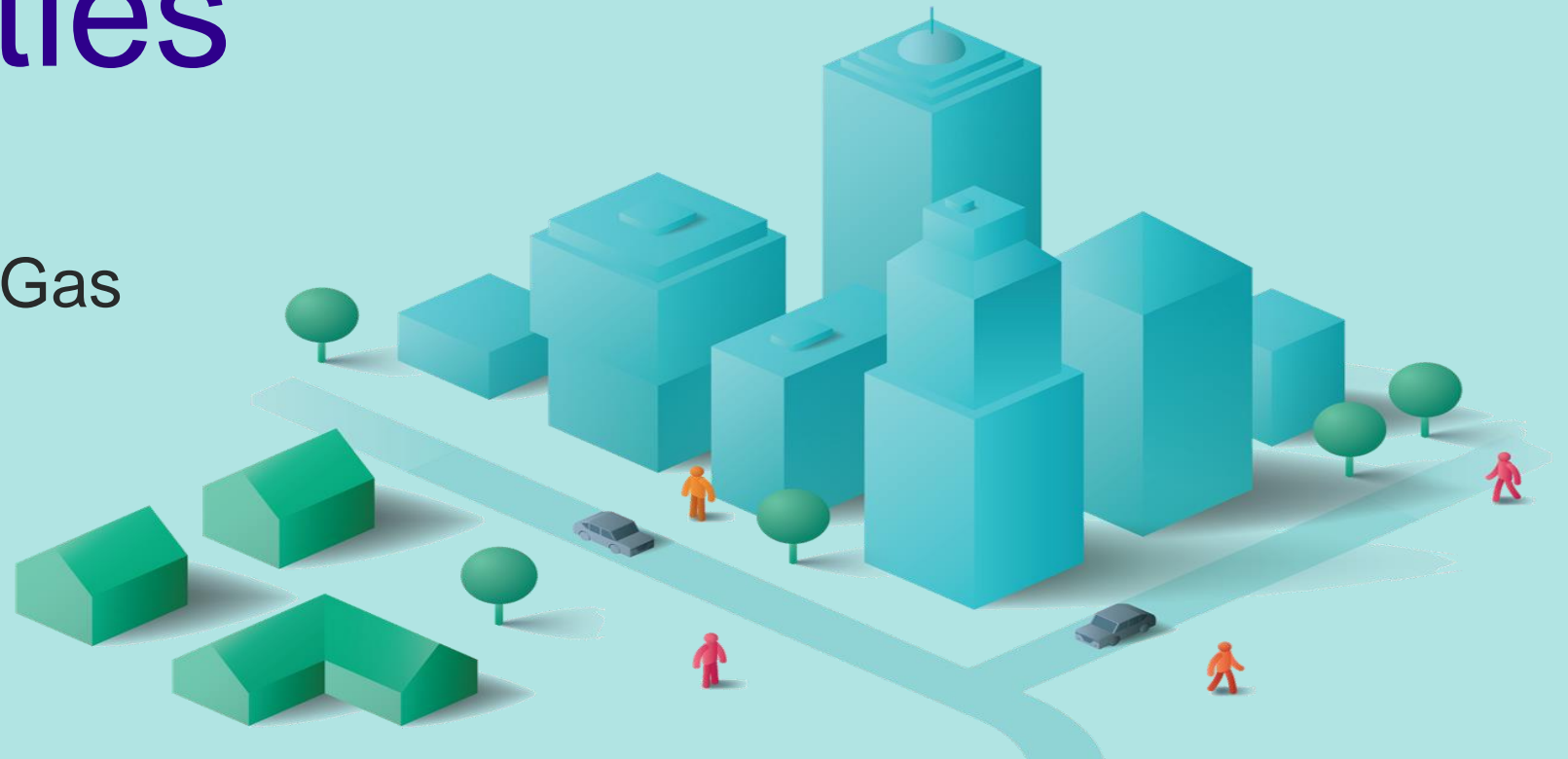


Working for Communities

Electricity and Natural Gas

October 18, 2022



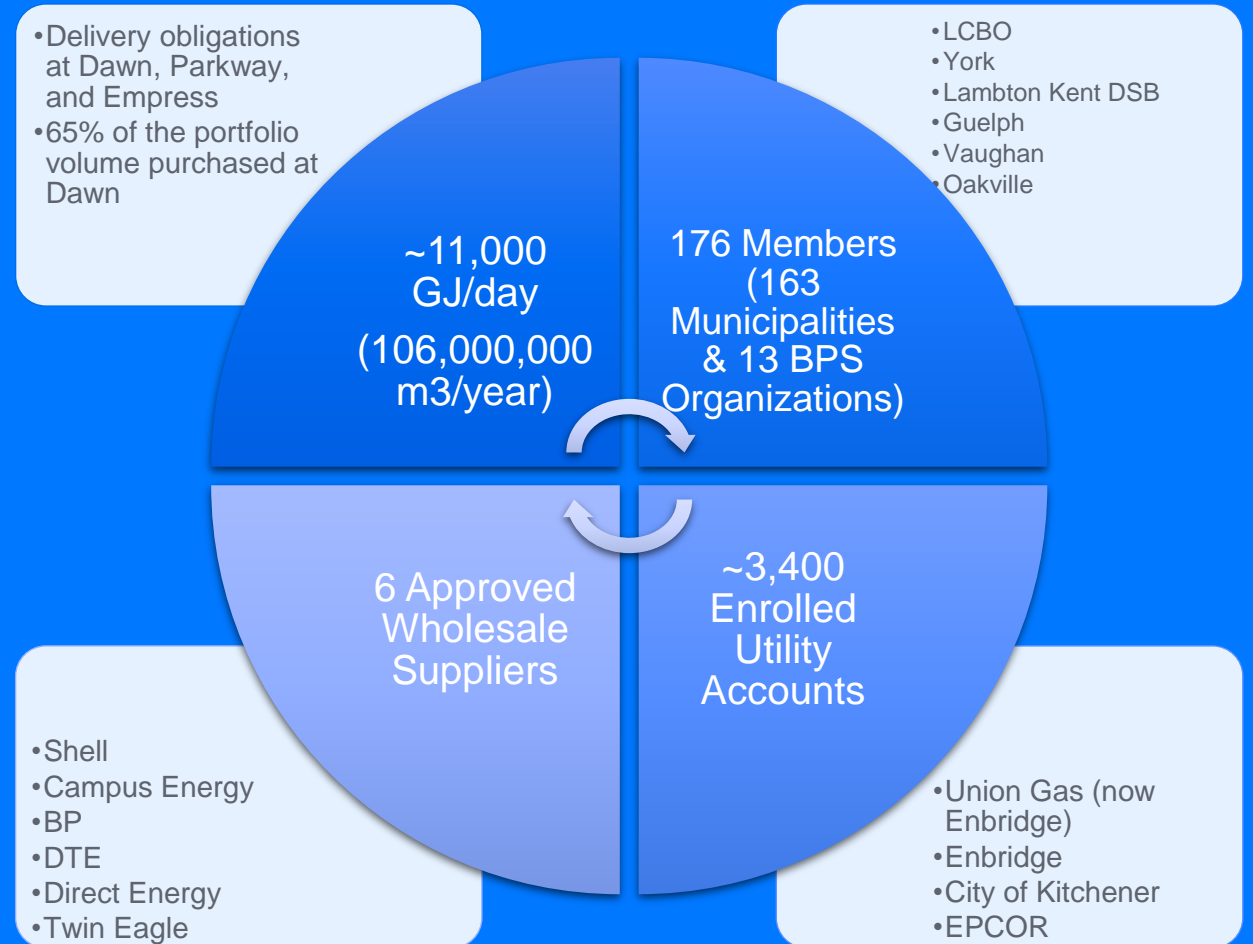
LAS Energy Markets Update

- LAS Natural Gas Program Overview
- Natural Gas Market Update
- LAS Natural Gas Program Performance
- LAS Natural Gas Program - Looking Ahead
- Electricity Market Update

Agenda

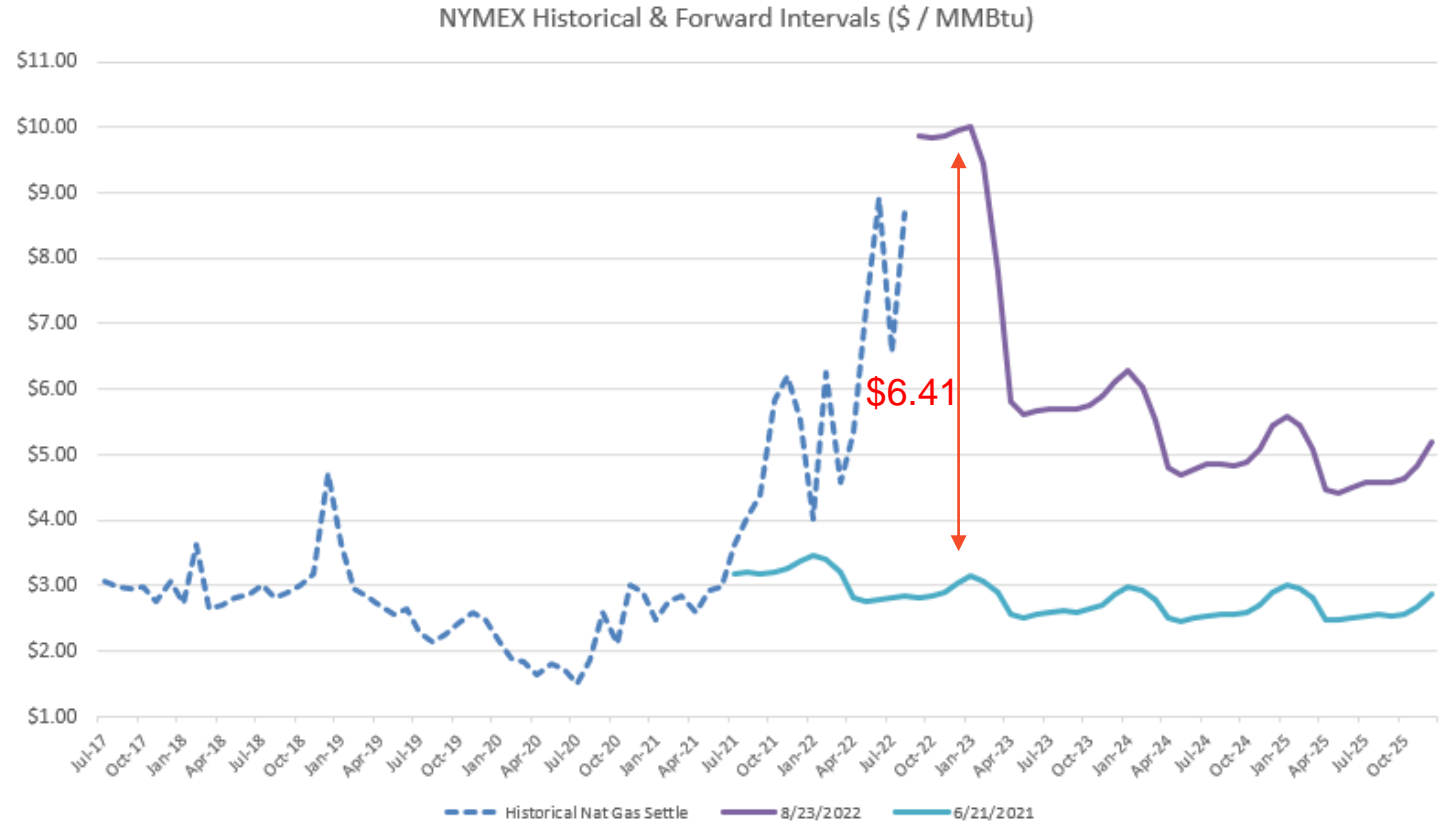
LAS Natural Gas Program Overview

- The program follows a 4-year natural gas hedging strategy that offers budget stability by making use of aggregated program tenders and a combination of fixed and indexed pricing contracts.
 - 80 to 90% of the program volume for the current year (Nov 2022-Oct 2023)
 - 55 to 65% of the program volume for years 2 and 3 (Nov 2023 and Nov 2024)
 - 25% for the 4th year (Nov 2025)
- The LAS program has three fundamental objectives:
 - **Cost Certainty**
 - **Competitive Prices**
 - **Maximize Purchasing Power**
- Through this approach, LAS has achieved:
 - **Stable pricing for its members**
 - **Reduction of disconnect from spot market**
 - **Year over year cost reductions**
 - **Price protection against potential market volatility**



NYMEX History/ Forwards – Interval

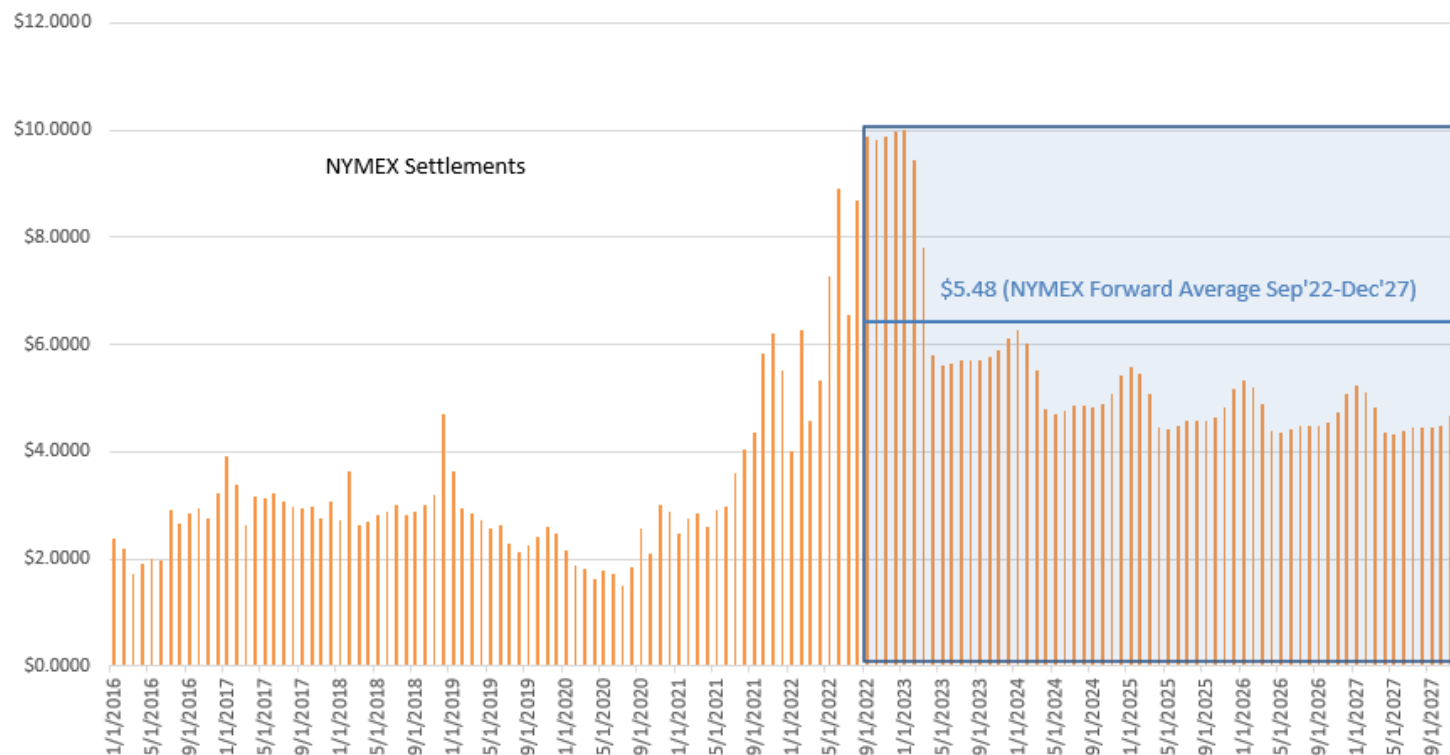
- In 2020 NYMEX LDS averaged \$2.07, the lowest average settlement price in 20 years
- Since, NYMEX LDS averaged \$6.13 over the last 12 months
- Winter of '22-'23 has risen \$6.41/MMBtu
- Forwards are backward dated with the Sep'22-Dec'27 averaging \$5.48/MMBtu



NYMEX History/ Forwards

- The past 12 months, NYMEX has averaged \$6.12 including Aug '22 LDS of \$8.687
- Forwards are backward dated with the Sep'22-Dec'27 ave \$5.48
- Last week, the daily high / low price range traded at a spread of \$0.61 each day for prompt September

NYMEX LD Settles (through August 2022)
and Forward Pricing (as of 8/23/22 intraday)



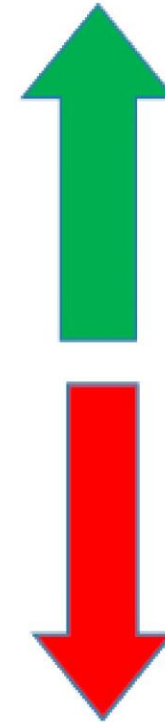
Market Intelligence Summary

▪ Bullish Drivers

- Hottest summer on record
- Storage deficit heading into winter demand
- Producers remain disciplined and focus on debt service

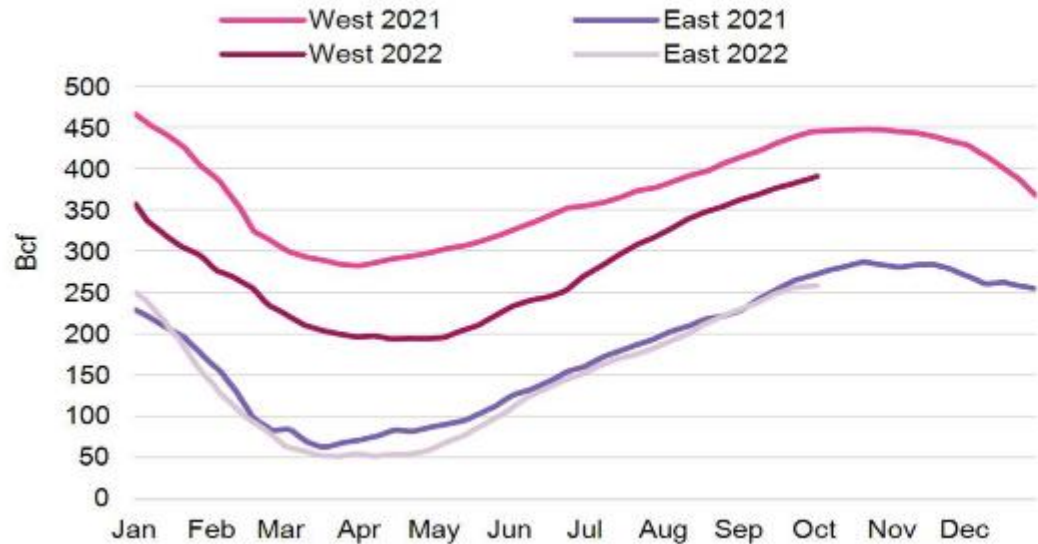
▪ Bearish Drivers

- Freeport LNG explosion forcing supply to remain domestic
- Possible economic slowdown or recession?

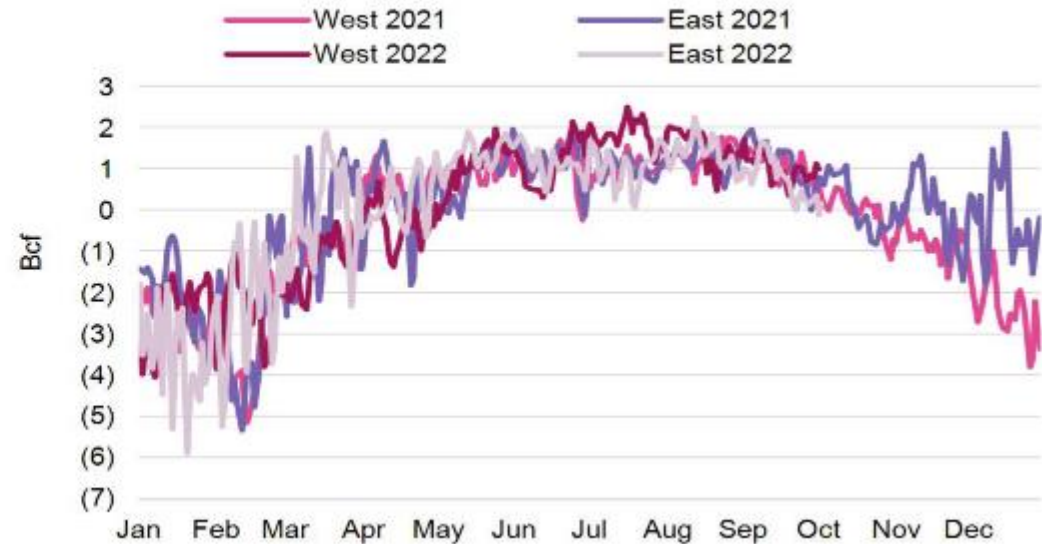


Canadian Natural Gas Inventories

CANADIAN INVENTORY

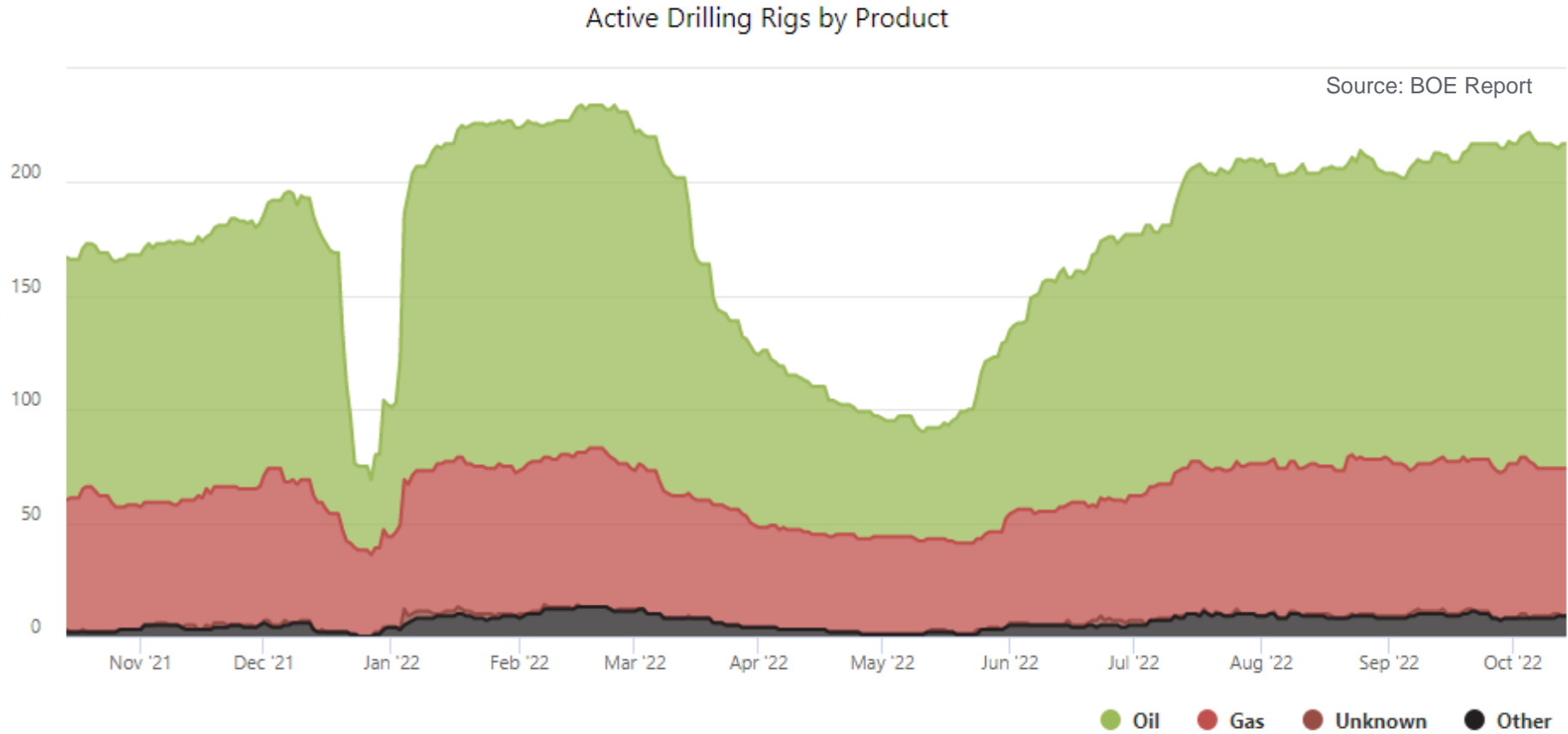


CANADIAN STORAGE ACTIVITY



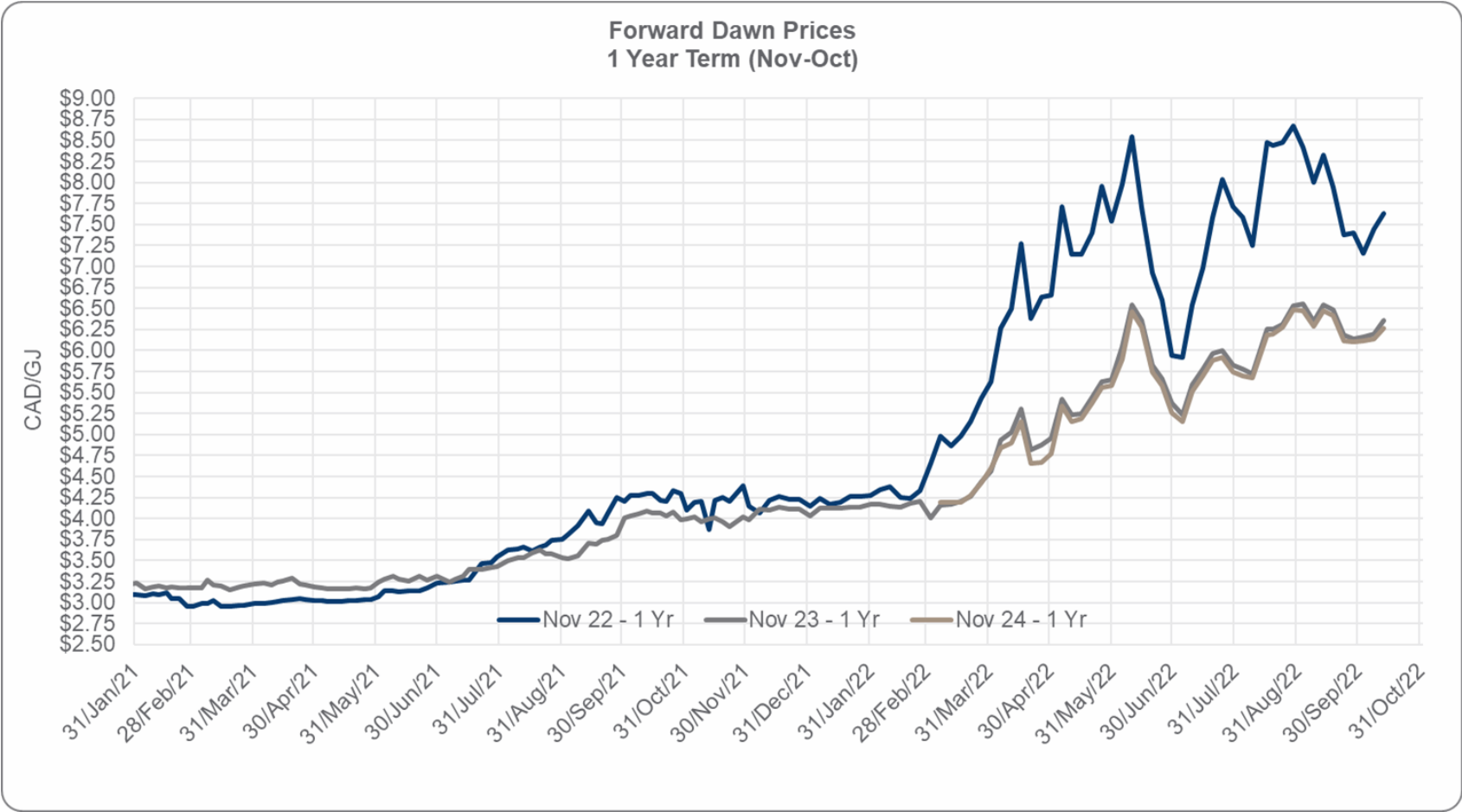
Source: S&P Global Platts Analytics

Canada Oil/Gas Rigs



Canada's overall active rig count is currently 217 (152 oil, 65 gas). This represents a year over year increase of 50 compared to the same time last year. The increase can primarily be attributed to production coming back online in response to recovering oil and natural gas prices.

Natural Gas Forward Prices - Canada



Key Takeaways

- Natural gas pricing around the world is incredibly volatile and the possibility of record high prices this winter still exists. Storage deficits, record consumption and appetite for Liquefied Natural Gas have overpowered record high gas production and means that even “normal” winter weather could trigger significant upward movement in prices, even from these current high levels.
- LAS members continue to be well protected from volatility this winter and into 2023, with potential for very significant savings against the spot market and utility system supply prices.
- **For the Nov 22-Oct 23 contract year, given the upward movement experienced in the market this year, members can expect a small increase in the program commodity price for November 1st. However, even with the year over year increase in the program price, given the previously established hedge layers, this has kept the program price significantly lower than both the forward market price and the current, and anticipated, utility default supply prices.**
- LAS members remain well positioned over the next few years to see continued stability against uncertain forward market conditions, as well as maintain the flexibility to continue to participate in lower commodity prices expected in the future.

Ontario Electricity Market Update

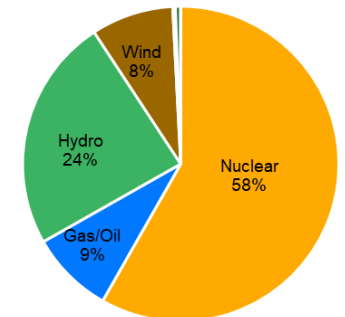
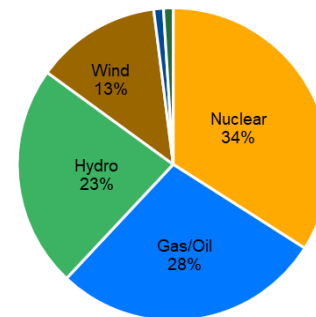


Ontario Electricity Market Update - Overview

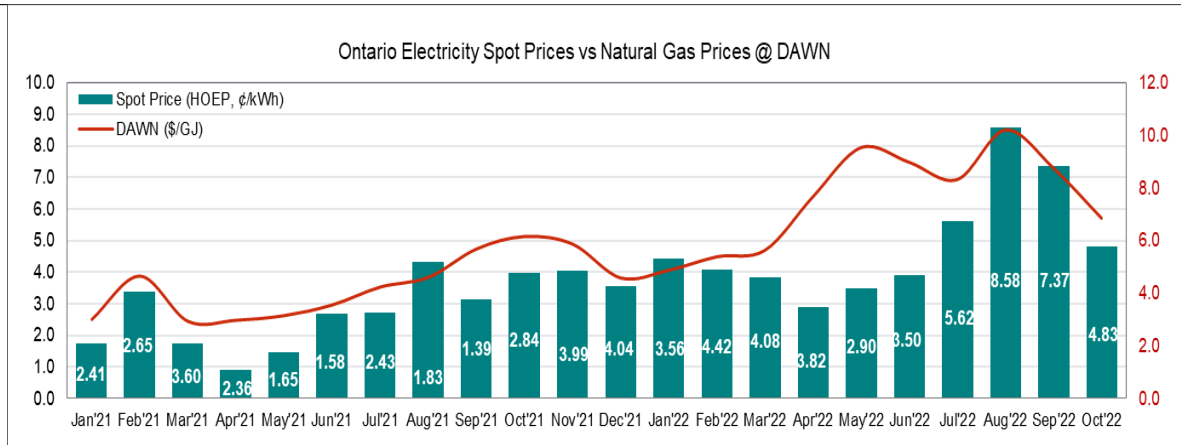
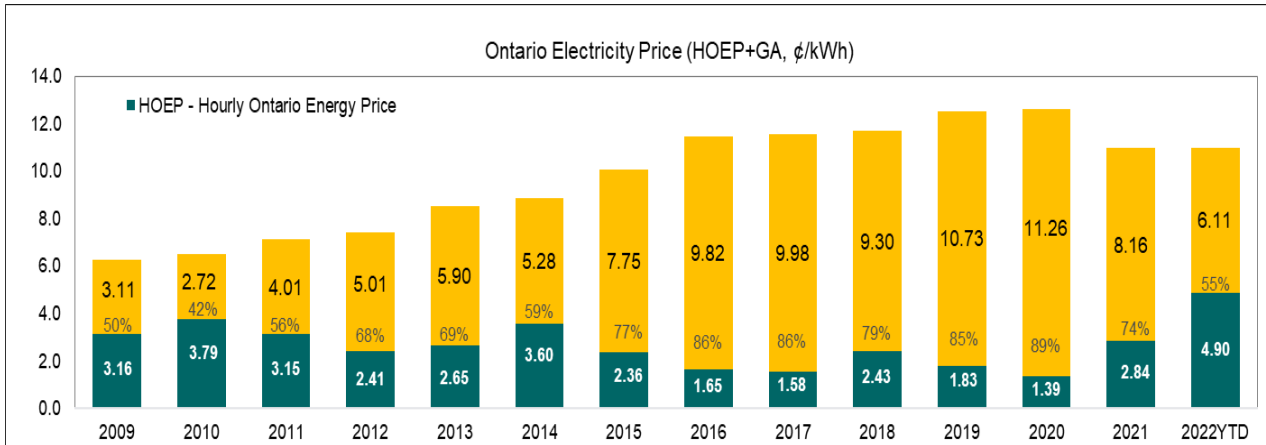
- Hybrid market:
 - Majority with fixed/capped price contracts, 20-yr FIT contracts expire early/mid 2030
 - 90+% supply from non-emitting resources
 - Interconnection: QC, MB, MI, MN, NY
 - Supply: from surplus baseload supply, negative spot pricing to capacity need
 - Demand: remained relatively flat over past decade, recovery in 2021, average 3.4% YOY for 2022 YTD
- Two pricing mechanisms to recover supply cost from end users:
 - Commercial/Industrial: Spot (HOEP) + Global Adjustment (GA)
 - Small commercial: RPP – TOU/2-Tier

Installed Capacity	
Nuclear	13,089 MW or 34%
Gas/Oil	10,482 MW or 28%
Hydro	8,868 MW or 23%
Wind	4,883 MW or 13%
Solar	478 MW or <1%
Bioufuel	296 MW or <1%

Energy Output	
Nuclear	83 TWh or 58%
Gas/Oil	12.2 TWh or 8.6%
Hydro	34.2 TWh or 24%
Wind	12 TWh or 8.4%
Solar	0.75 TWh or <1%
Bioufuel	0.4 TWh or <1%



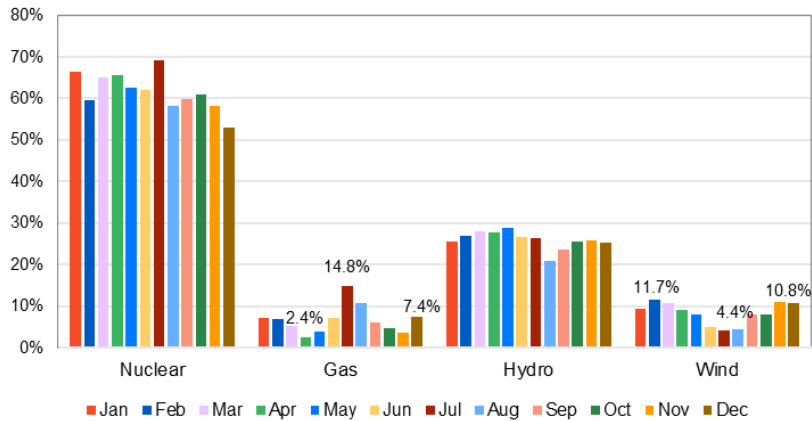
Ontario Electricity Market Update – Spot Market



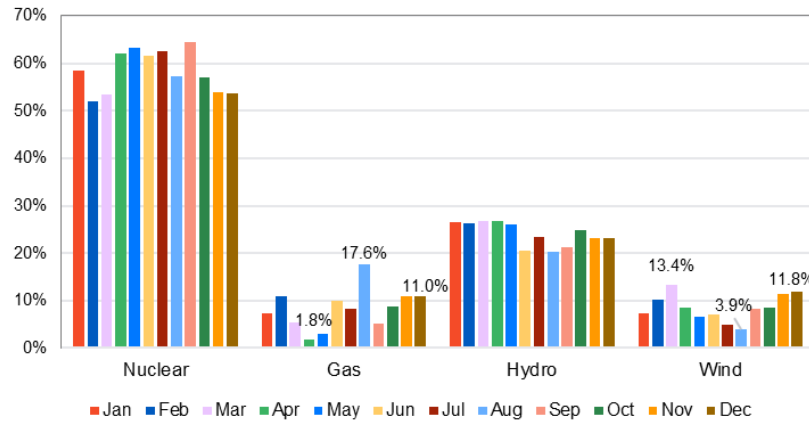
- Commodity cost increased substantially: from 6.27¢/kWh in 2009 to 12.56¢/kWh for 2019, price advanced further in 2020 due to pandemic, averaging 10.25 ¢/kWh YTD with record setting prices in Q3
- **GA used to be the main contributor to the increasing cost**
- Regulatory changes: GA deferral in summer 2020, 85% of non-hydro renewable costs shifted from rate base to tax base starting from Jan 1, 2021
- Strong pricing and volatility drivers: extreme weather – peak load, high utilization rate of gas generation, low wind, planned & unexpected generation and grid outages, elevated fuel (gas) prices, inflationary environment

Ontario Electricity Market Update – Spot Market

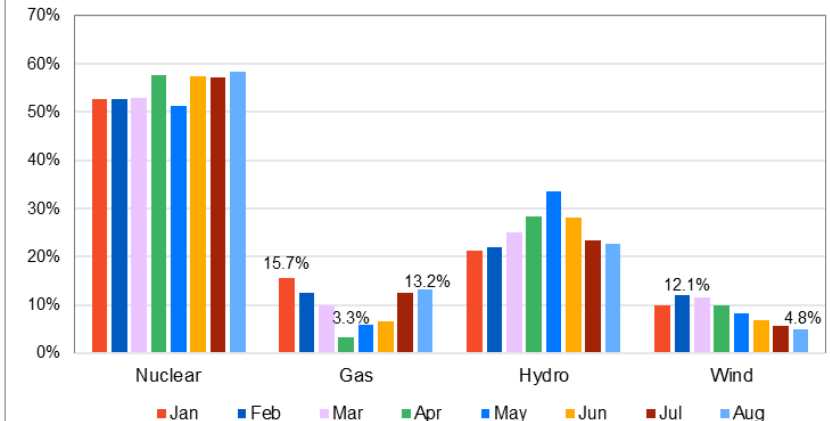
Ontario Generation Output by Fuel - 2019



Ontario Generation Output by Fuel - 2021



Ontario Generation Output by Fuel - 2022



Reliable, Affordable, Sustainable

- Nuclear: primary supplier of long-term, emissions-free, baseload generation
- Natural gas: a very flexible form of generation, can meet sudden/unexpected supply and demand changes within minutes
- Wind: weather dependency, tend to produce most during cold months in the winter, output varies based on geography in other seasons

Ontario Electricity Market Update - RPP

- Paying the actual supply cost, but get a 17% before tax discount
- Regulatory changes:
 - Flat rates during pandemic
 - Allowed to switch between TOU and 2-Tier rates from Nov 1, 2020
- No impact to the before-tax discount if supplied by competitive retailer
- Average price for a 22.5% on-peak, 22.5% mid-peak, 55% off-peak load profile is 10.88¢/kWh
- Average price for a 20%/80% 2-Tier profile is 11.16¢/kWh

Off-Peak (7 p.m. to 7 a.m.) Weekdays, all day weekends and holidays	8.2 ¢/kWh
Mid-Peak (7 a.m. to 11 a.m. and 5 p.m. to 7 p.m.) Weekdays	11.3 ¢/kWh
On-Peak (11 a.m. to 5 p.m.) Weekdays	17.0 ¢/kWh
Tier 1 - Small Business – first 750 kWh/month	9.8 ¢/kWh
Tier 2 - Small business – above 750 kWh/month	11.5 ¢/kWh

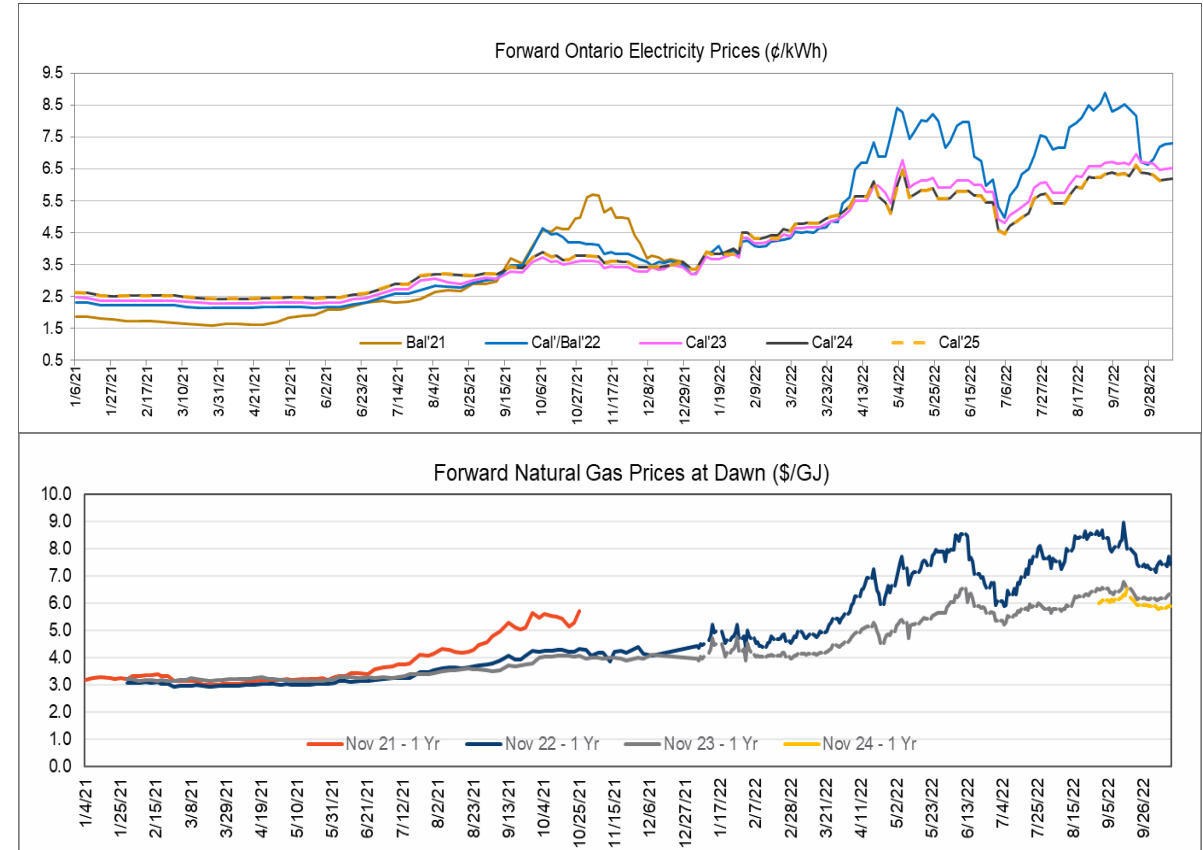
Ontario Electricity Market Update – Outlook

- Demand:

- Short-term capacity/energy needs (2025-2027), electronification, decarbonization
- energy demand growth @ 1.7%/yr, summer peak demand @ 1.3%/yr

- Supply:

- IESO various procurement programs: ~2,500 MW of storage, up to 1,500 MW of additional natural gas generation, plus other non-emitting resources such as hybrids and biofuel
- Nuclear refurbishment: ongoing till 1HF of 2033 (Darlington and Bruce)
- Pickering: unit 1&4 retired by 2024, operation of unit 5-8 extended to 2026 with possibility of refurbishment
- Higher generation cost: natural gas/LNG prices, carbon tax, interest rate and inflationary business environment
- Imports will be expensive as neighbor jurisdictions going through the same process
- Avoid risk and build cost certainty: tight supply, increasing costs will cause volatility and elevated pricing on spot market



Questions

Contact us to discuss how LAS/Edison Energy can help address the key challenges and increasingly complex choices in energy today:

Eleonore Schneider - LAS Program Manager
eschneider@amo.on.ca or 416.971.9856 x 320

Mike Parkes – VP, Energy Services-Canada (Edison Energy)
Mike.Parkes@EdisonEnergy.com or 905.464.0277

Cynthia Wang – Sr. Manager (Edison Energy)
Cynthia.Wang@edisonenergy.com or 289.351.2258

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