CEO's Report for April 26, 2021
Board of Trustees Meeting

The following information is covered in this document:

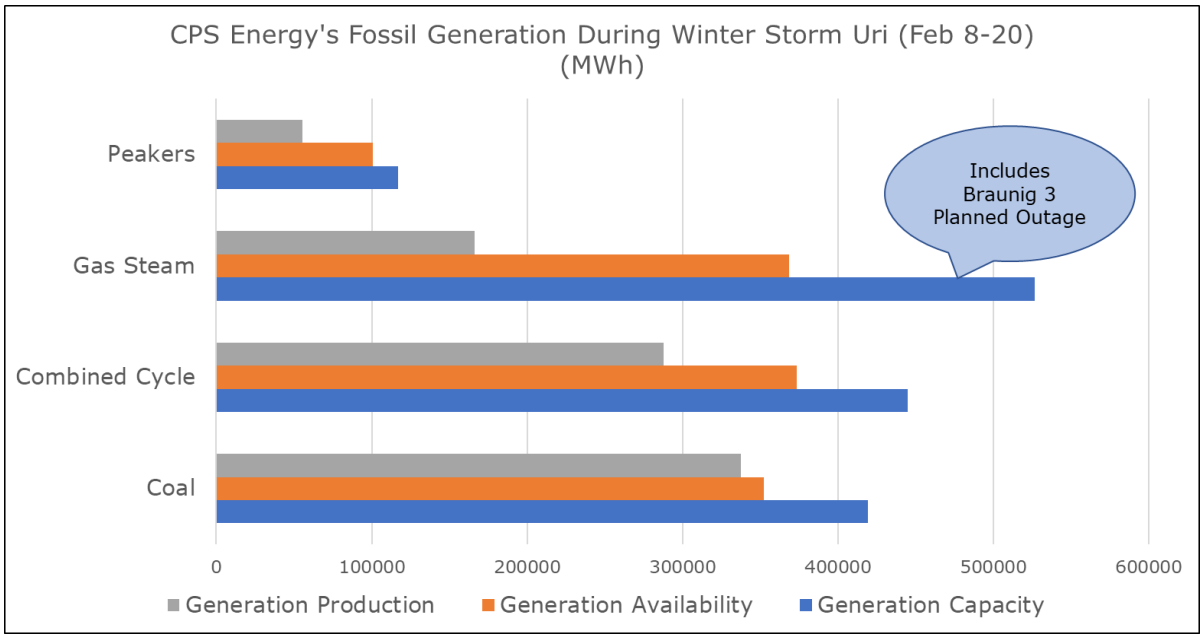
- Generation performance, including renewables;
- Emissions numbers; and
- Weatherization plans.

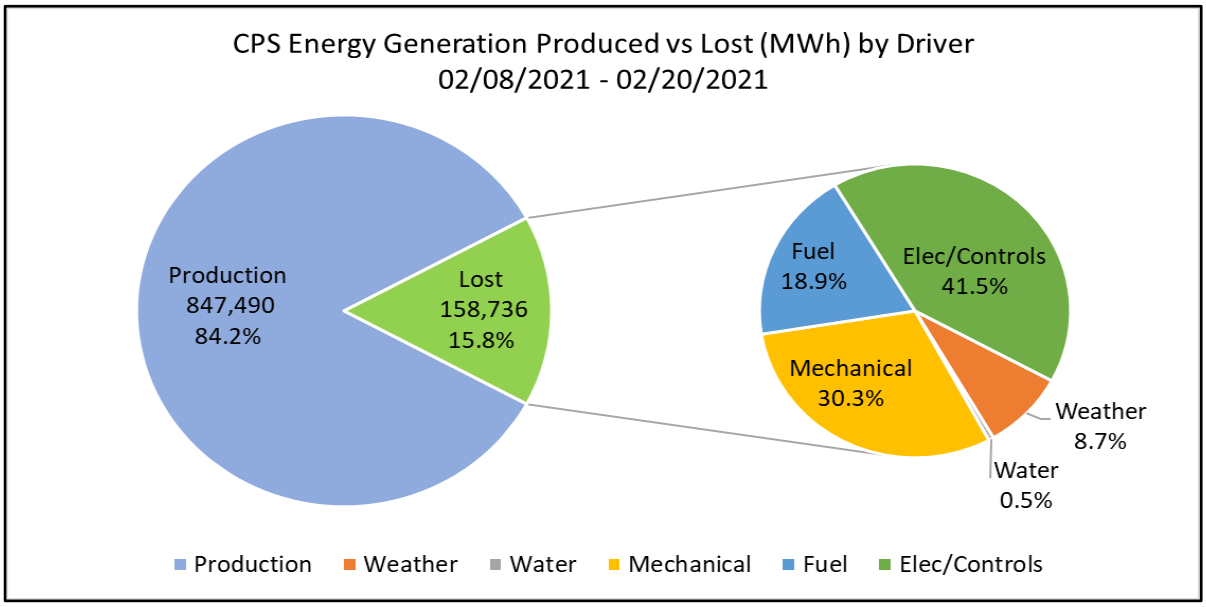
GENERATION PERFORMANCE, INCLUDING RENEWABLES:

For illustrative purposes, all values have been converted to MWh.

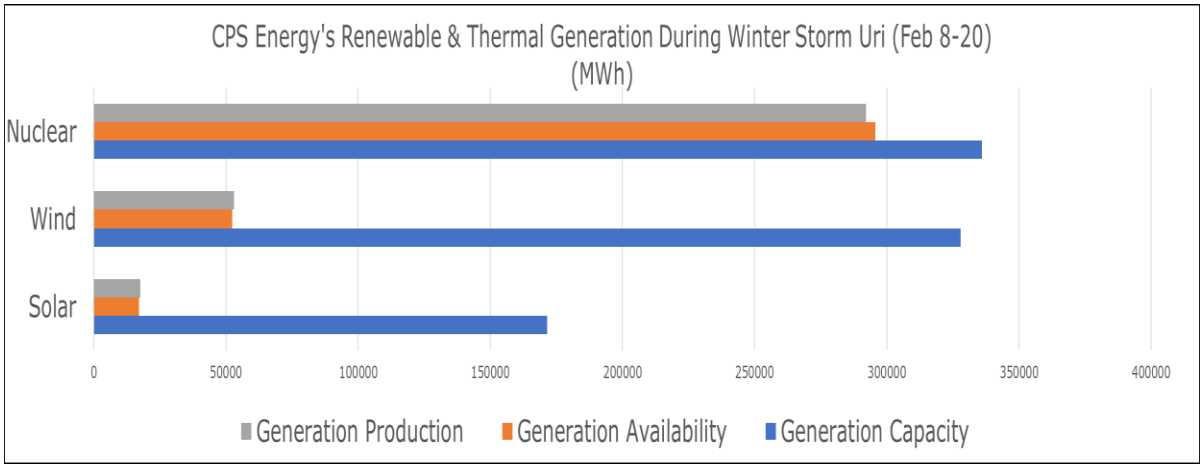
The Federal Energy Regulatory Commission (FERC) has set Winter Storm Uri's measurement period from 02/8/2021 to 02/20/2021. This graph reflects total CPS Energy generation performance and renewable energy power purchase agreements, excluding STP (nuclear) joint ownership, during Winter Storm Uri.

During this period, CPS Energy's managed capacity availability was greater than 85%.





STP and our renewables are managed by other companies.



Notes and Takeaways:

1. Engineering Standard: Generation Capacity is the maximum possible (design) generation by each technology during the 13-day period (MW capacity x 13 days X 24 hours).
2. Generation Availability is the generation that was available for dispatch during the event.

3. Generation Production was the MWhs of generation delivered to our customers.
4. All generation technologies experienced problems during Winter Storm Uri.
5. The largest amount of generation (MWh) was produced by Coal, Nuclear and combined cycle units:

% of Generation Production by type during Winter Storm Uri							
Solar	**Wind**	**GT Peakers**	**Gas-Steam**	**Combined Cycle**	**Nuclear**	**Coal**	**Total**
17,666	**53,064**	**55,539**	**166,255**	**287,729**	**292,119**	**337,807**	**1,210,179**
1%	**4%**	**5%**	**14%**	**24%**	**24%**	**28%**	**100%**

6. There was a significant variation in the percentage of time each technology was available:

Nuclear	Solar	Wind
88%	**10%**	**16%**

Gas-Steam	Coal	Combined Cycle	GT Peakers
70%	**84%**	**84%**	**86%**

EMISSIONS NUMBERS:

The February 2021 winter weather disaster event, Winter Storm Uri, clearly demonstrated that natural gas supply shortages can reduce or prevent the availability of generation units in support of customer demand. Some CPS Energy units produced at a lower output or were forced off line during periods of low gas pressure, resulting in the loss of approximately 30,000 MWh of generation during a time when our customers needed energy. These capacity losses represent almost 20% of CPS Energy's total lost generation from 02/8/21 through 02/20/21, or about 3% of the total hours produced and lost.

- *3% ≈ 30,000 total # of hours lost due to fuel constraints / 1,006,226 total hours*
  - *Total hours accounted for = 1,006,226 (as shown in the top graph on Page 2: 847,490 total # of hours produced + 158,736 total # of hours lost)*

Oil, which is used as a backup fuel, has not been needed by the CPS Energy fleet for extended generation operations since the 2011 extreme cold weather event. Its issues related to increased emissions, coupled with substantially higher costs have relegated it to a backup fuel. Currently, only 4 units, MB Lee 5-8, can operate on oil or natural gas (this is an example of the term "fuel switching").

Efforts are currently underway to improve the functionality of these units and evaluate opportunities to burn fuel oil in other units, if needed as a backup.

The challenges with burning oil include:

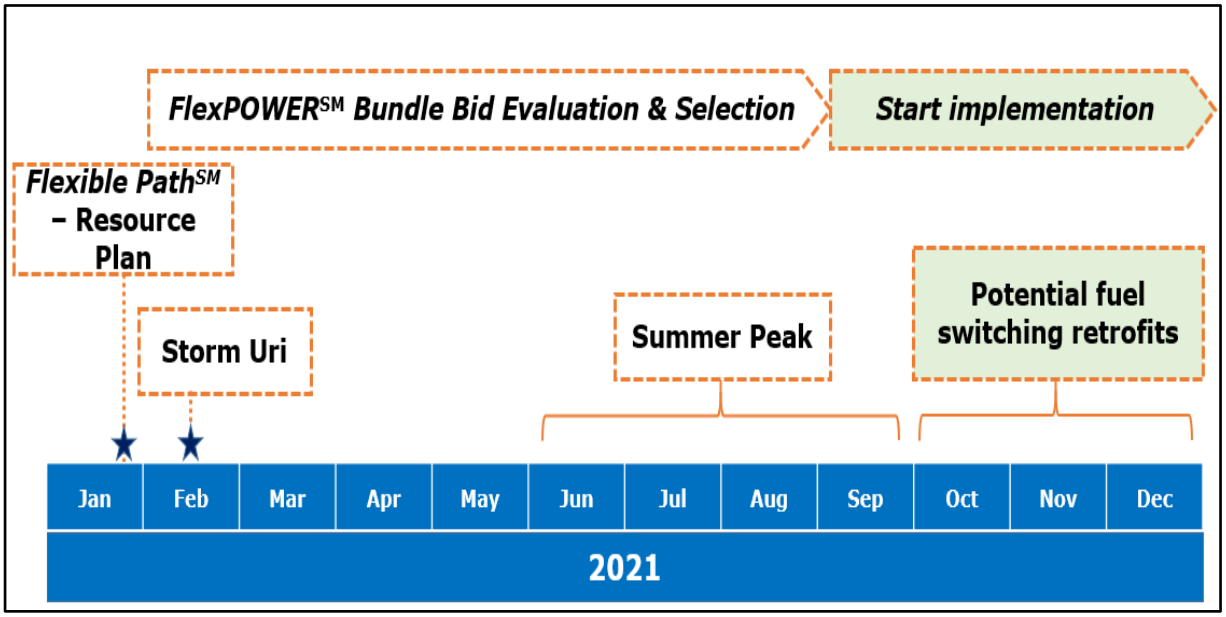
- Oil is usually a more expensive fuel than natural gas (currently ~$16 vs ~$3/MMBtu);
- Switching between oil and natural gas drives increased unit maintenance costs; and
- Oil leads to higher air emissions than natural gas, which could affect our environmental compliance results, and this could also reduce generation production (i.e., a "derate").

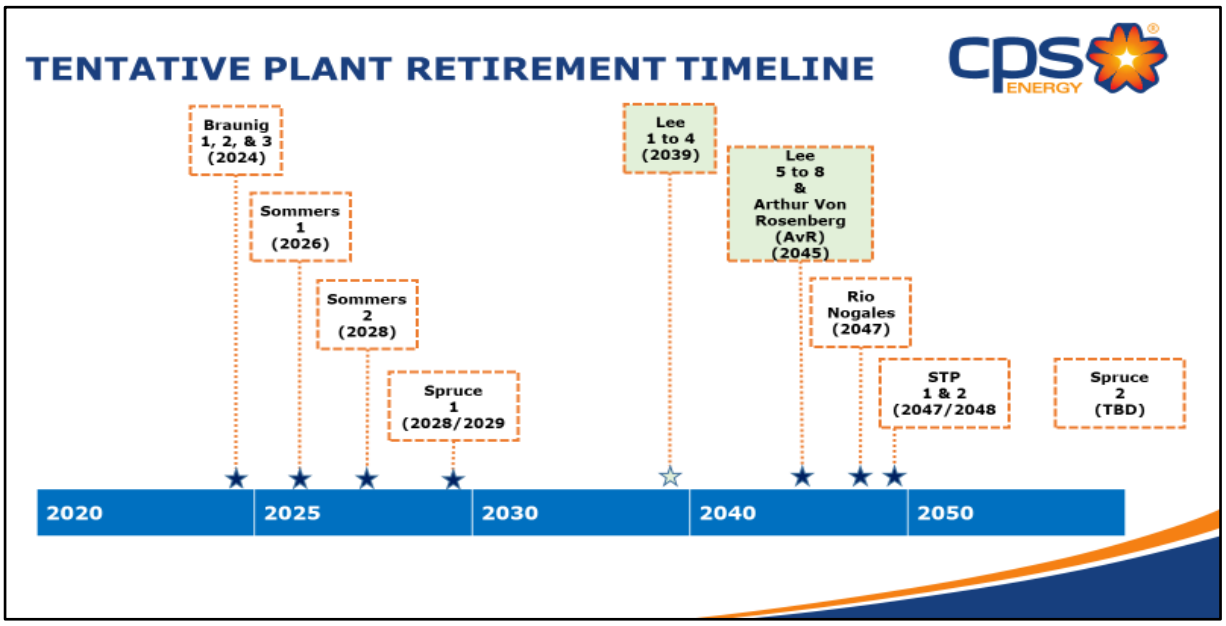
In addition to MB Lee units 5-8, Sommers 1 & 2 and Braunig 1-3 were designed, equipped and permitted for operation with natural gas and oil. Oil was last used for generation at Sommers and Braunig during the 2011 extreme cold weather event.

This sparse need for backup fuel oil was behind the decision to discontinue investments in gas-steam unit fuel oil capability. These dated gas-steam fuel oil systems are, at best, capable of supporting intermittent, minimal unit output.

The Braunig units are tentatively scheduled for retirement at the end of 2024, and the Sommers 1 & 2 units are expected to retire at the end of 2026 and 2028, respectively. These closures are scheduled to occur by 2030. Accordingly, they are not the best options to retrofit. More analysis is forthcoming and once completed, that information will be shared. While we may be able to move some of the work up, the window to potentially begin expanding our fuel switching capabilities is toward the end of this year. Please see the table below:

Timeline
The current calendar year with *Flex*POWER℠ Bundle





MB Lee units 1-4 and AvR CTs 1 & 2 are good candidates for dual fuel conversion. Preliminary cost estimates are provided below. Each project will require up to 30 months for completion, which includes permitting.

Potential expansion/retrofits to increase fuel switching expansion:

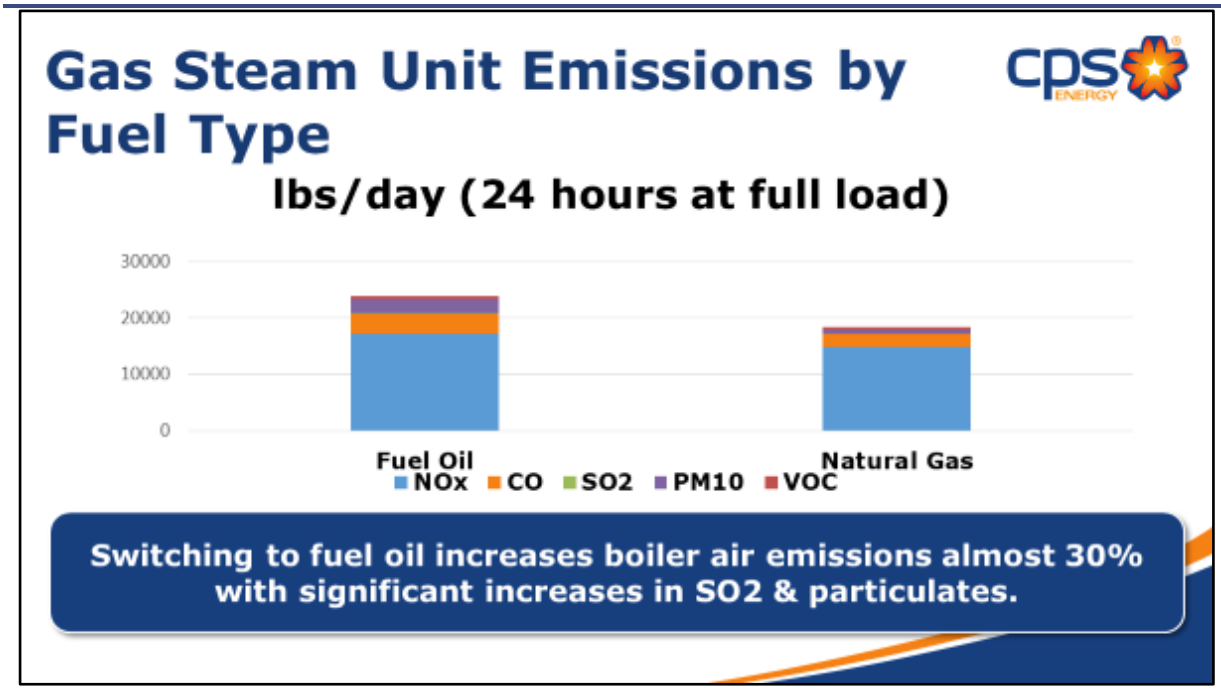
Unit	Description of expansion/retrofits	Costs
MB Lee 1-4	Unit conversions, fuel handling system & 10-days of oil storage capacity	$17.2M
MB Lee 1-4	10-day oil supply	$7.3M
	Total Costs for MB Lee 1-4	**$24.5M**

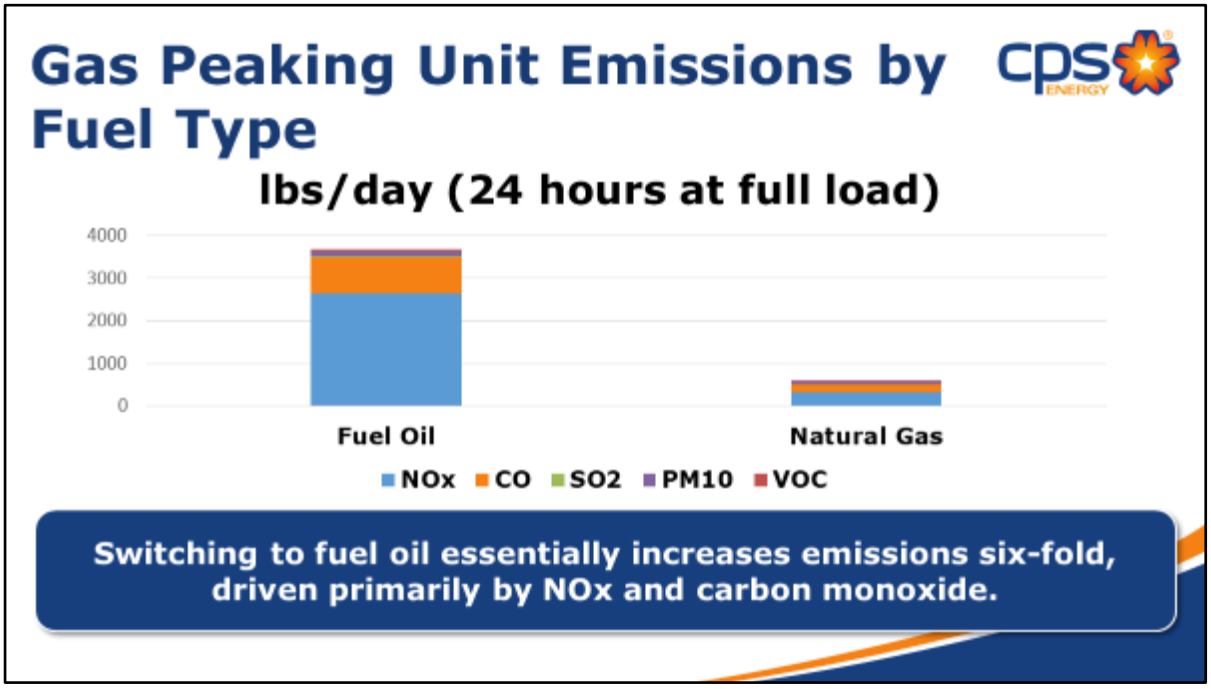
Unit	Description of expansion/retrofits	Costs
AvR CT 1 & 2	Unit conversions, fuel handling system & upgrade of site oil storage	$21.0M
AvR CT 1 & 2	10-day oil supply	$14.6M
	Total Costs for AvR CT 1 & 2	**$35.6M**

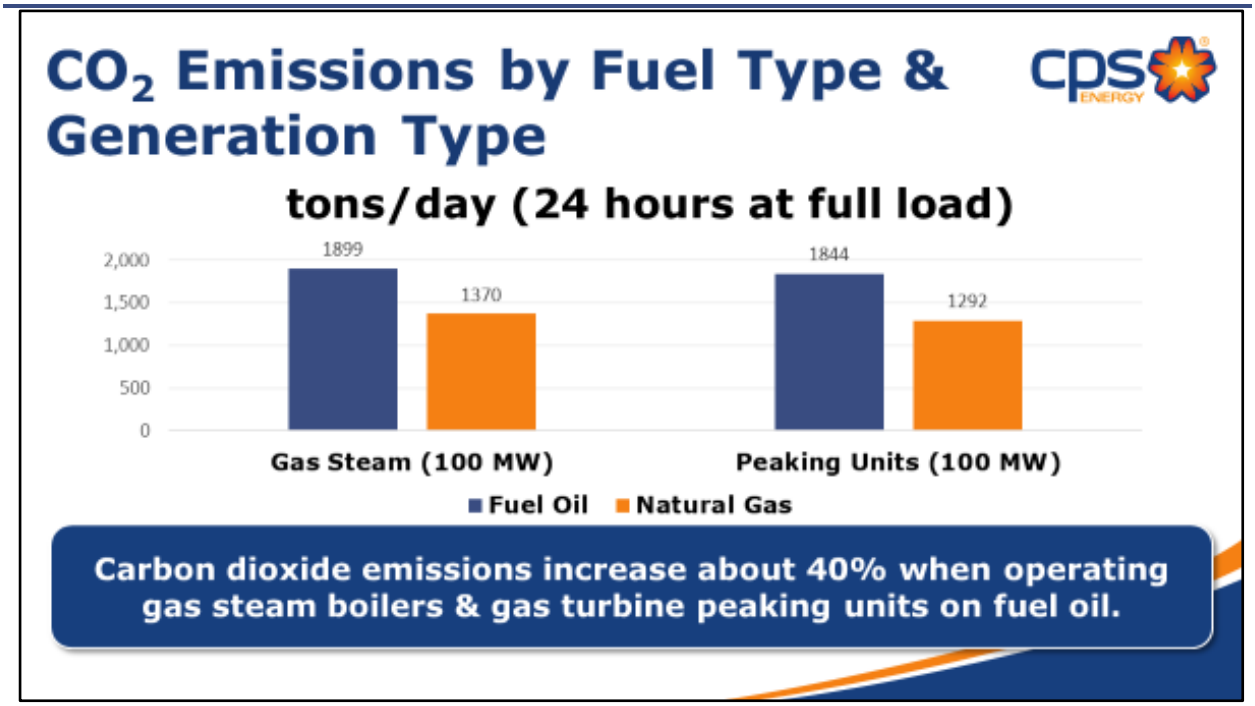
As noted above, oil air emissions are higher than natural gas. The current Air Permit limits MB Lee units 5-8 to 720 hours each of fuel oil operation per year. It may be possible to increase this limit, but a formal assessment will be required. (Air Permits for the Sommers and Braunig units do not include any annual oil operating time limits.) New Air Permits required for dual fuel conversion of MB Lee units 1-4 and AvR CTs 1 & 2 are expected to require 1 – 2 years to obtain. Site construction will require an additional 6 to 12 months for project completion and start-up.

As mentioned above, oil costs are approximately $16.00 / MMBtu, while natural gas is typically slightly under $3.00 / MMBtu. For context, 24-hours of operation for one of the MB Lee peaking units would cost approximately $28,000 on natural gas vs an almost 7-fold increase to $186,000 for fuel oil. In addition, maintenance costs will increase as fuel oil operation requires more equipment and places additional stress on the combustion systems requiring increased inspections and part replacement due to wear.

Air emissions comparisons between fuel oil and natural gas combustion in traditional gas-steam boilers and gas turbine peaking units are provided below.


Gas Steam Unit Emissions by Fuel Type
lbs/day (24 hours at full load)
30000
20000
10000
0
Fuel Oil
Natural Gas
NOx CO SO2 PM10 VOC
Switching to fuel oil increases boiler air emissions almost 30% with significant increases in SO2 & particulates.


Gas Peaking Unit Emissions by Fuel Type
lbs/day (24 hours at full load)
4000
3000
2000
1000
0
Fuel Oil
Natural Gas
NOx CO SO2 PM10 VOC
Switching to fuel oil essentially increases emissions six-fold, driven primarily by NOx and carbon monoxide.



WEATHERIZATION PLANS:

The February 2021 winter weather event, Winter Storm Uri, clearly demonstrated opportunities to effectively recognize and mitigate the risks brought about by:

- Changes in ERCOT market generation supply composition;
- Climate extremes;
- Weather forecasting limitations; and
- Increased reliance on natural gas after coal units were shutdown.

Event reviews are underway by many, including regulatory authorities and legislative groups that will likely result in mandatory weatherization requirements and possibly include planned outage scheduling restrictions. As we await and weigh into that guidance, CPS Energy is focusing initial efforts this spring on no-regrets weatherization upgrades to allow time for legislative and regulatory processes. Initial weatherization upgrades include:

- Installation of additional electrical outlets for temporary enclosures to begin the phase-out of liquid fuel supplemental heating and transition to electrical heating. Liquid fuel supplemental heating will remain available in the event of localized outages to protect systems while power is being restored.

- Re-assessment of our critical equipment lists, and spare parts inventories will also be reassessed based on requirements to manage a 2-week event without external support.
- Evaluation of temporary enclosure plans to identify any sizing and composition changes that can improve performance and efficiency.
- Acquisition of additional electric portable heaters to reduce liquid fuel handling.
- Re-assessment of our chemical storage facilities and evaluating requirements to increase temporary on-site storage capacity.
- Evaluation of existing supplemental staffing plans – site assignments, temporary housing, etc.