



INTEGRATED RESOURCE PLAN UPDATE

# **Generation Unit Retirements**

Public Forum Meeting

January 29, 2020

[www.cwlp.com/IRP](http://www.cwlp.com/IRP)

# Agenda

- Dallman Unit 33 & Questions
- Review Plant Retirement Considerations
  - Environmental
  - Financial
- Next Steps
- Resolution



# Dallman Unit 33 & Questions

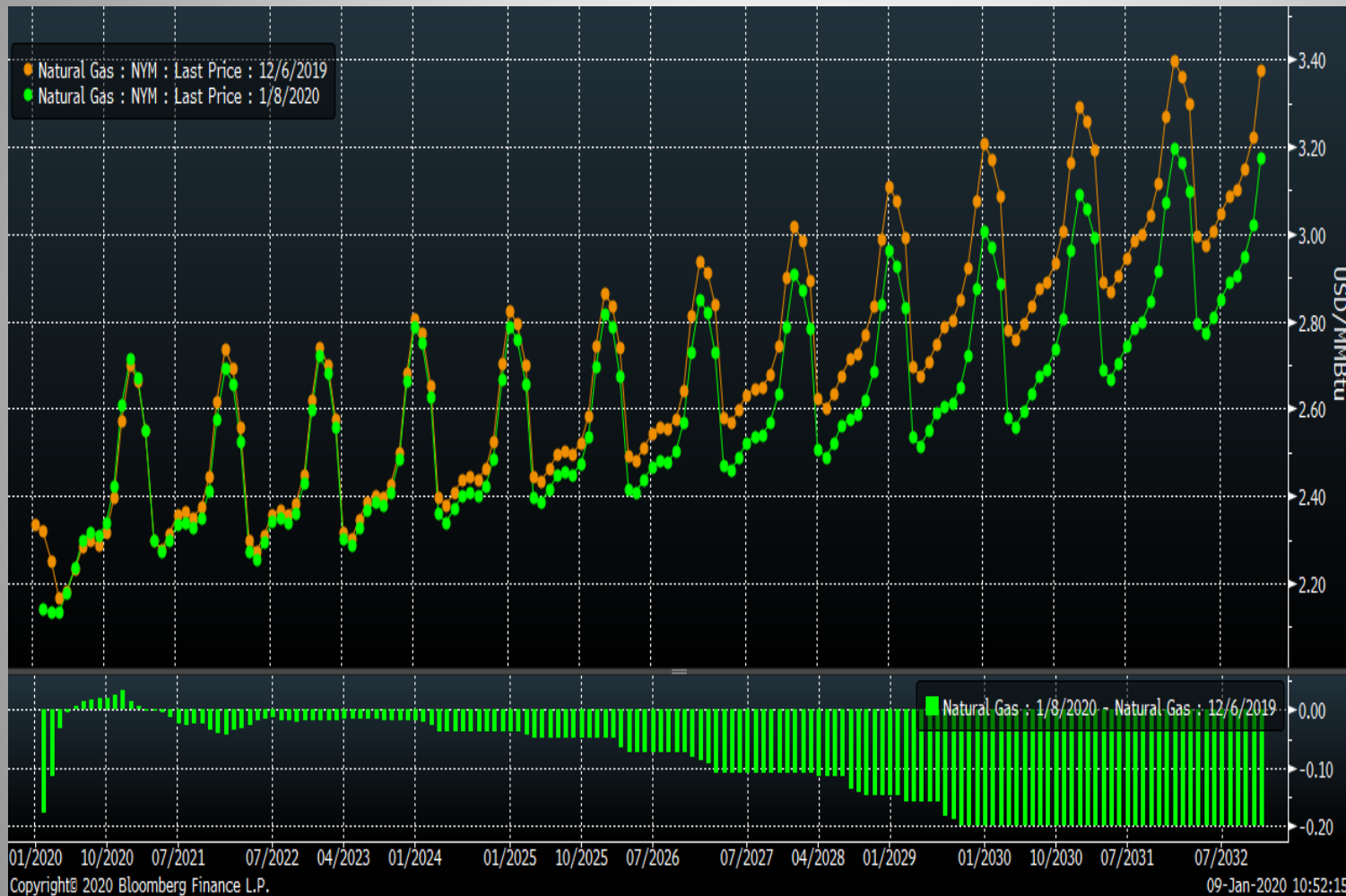
# Dallman 33 Damage Update

- Failed Battery Charger Caused Unit to Trip, Rotor Damage
- Rotor was shipped to Dallas for detailed inspection
- Pending Repair Costs ~\$6.65M (GE quote)
  - \$150,000 (regular wear)
  - \$1M deductible
  - Expected Insurance coverage \$5.5M
- Insurance inspected Rotor yesterday and reviewing claim for additional clarification
- Dallman 33 Back in Service May 2020

# Demolition Considerations

- Lakeside Power Station (retired in 2009) has no current use and would be first priority.
- Dallman complex not recommended for near-term demolition if units retire.
  - ✓ Offices and Inventory
  - ✓ Common Equipment for Unit 4
  - ✓ Land can not be used for economic development
- Demolition costs
  - ✓ Sunk cost so separate from decommissioning costs
  - ✓ Achieved with savings from retiring plants
  - ✓ \$7.5M-\$10M to demo complex for Dallman 31, 32 and 33

# Natural Gas Forward Curves



As of 01/08/20

- Cal 20: \$2.28
- Cal 21: \$2.43
- Cal 22: \$2.43
- Cal 23: \$2.46
- Cal 24: \$2.50
- Cal 25: \$2.54
- Cal 26: \$2.56
- Cal 27: \$2.62
- Cal 28: \$2.66
- Cal 29: \$2.70
- Cal 30: \$2.76
- Cal 31: \$2.86

The 2020-2031 strips hit new all-time lows during the past month

# Do we need to replace Dallman Units 31, 32 & 33?

- Unit 4 and Combustion Turbines cover our load 99.5% of the time throughout the year
  - Load continues to decline
  - No replacement generation needed
- 6 Transmission Tie Connection Points to Grid
- Prudent Industry practice to design for N-2
  - Upgrading transmission system to meet standard
  - Upgrades complete June 2021
  - *Upgrades improve import capability before retirement of Dallman 33*

# Why Not Convert Dallman Unit 33 to Natural Gas?

- **~\$20M** to upgrade gas pipeline
- **Additional millions \$\$\$** to upgrade boiler and associated systems
- Electric Rate Increase to issue bonds
- Other environmental compliance costs still apply
  - 316a (possible cooling tower)
  - 316b(possible new fish screens)
- Other regulations could strand all costs
  - Carbon regulations – IL Clean Energy Jobs Act (CEJA) or Federal rules



# Why Not Convert Dallman Unit 33 to Dry Ash and Get Bids?

- **Approx. \$21M** (Based upon 2016 vendor quotes)
- **\$1-\$2M** for Engineering
- Annual Disposal Costs would increase
- Other environmental compliance costs still apply
  - ACE rule (heat rate improvements)
  - 316a (possible cooling tower)
  - 316b(possible new fish screens)
  - ELG rule
- Other regulations could strand all costs
  - Carbon regulations – IL Clean Energy Jobs Act or Federal



# **REVIEW**

# **Environmental**

# **Considerations**

# Acronyms For Rules

<b>ELG</b>	Effluent Limitation Guideline <i>Federal Clean Water Act Technology Based Discharge Limits</i>
<b>CCR</b>	Coal Combustion Residual <i>Federal rules for ash disposal</i>
<b>SB9/845</b>	Senate Bill 9 <i>State implementation CCR rule adopted in 2019</i>
<b>ACE</b>	Affordable Clean Energy <i>Federal replacement to Clean Power Plan. Regulates CO2 through heat rate improvements</i>
<b>PSES</b>	Pretreatment Standards for Existing Sources <i>Applicable to plants that discharge to a Sanitary District</i>

# Environmental Compliance At A Glance For Units Remaining in Operation

March **Dry Fly Ash** Engineering (ordinance)

March **ACE Rule** Initial Assessment due for Heat Rate Improvements

April new **FGD** Waste Stream Treatment Engineering (ordinance)

May deadline to certify retirement of Unit 31, 32 & 33 to obtain final closure extension for **Ash Ponds** to October 2028.

November must cease sending water to **Ash Ponds** if no extension (to October 2023) granted

2021

CCR alternatives analysis and permitting expected under State rules

2022-2024 **ACE Rule** for Heat Rate Improvements

Complete construction of new **Lime Ponds**.

Exhaust bank of seasonal **NO<sub>x</sub>** allowances if all Units running, Initiate purchase of additional allowances.

2023

Future **CO<sub>2</sub>** Limits

**CEJA** (if adopted) would require all coal units shuttered by 2030.

Complete closure of **Ash Ponds** by October 2028 if retirements option invoked in 2020

2020

September 2021 **Dry Fly Ash** system constructed and operational for Units 31, 32 and 33

Begin construction of **Filter Press** for WWTP, FGD WWTP sludge handling and landfill leachate collection

**316a, 316b** and Biomonitoring studies once new **NPDES** permit issued

2022

2023 complete construction of **FGD** treatment system for ELG PSES rule as proposed

October (if extension granted) complete **Dry Bottom Ash** system, WWTP sludge handling, FGD WWTP filter press and leachate relocation.

Begin Closure of **Ash Ponds** if extension granted

2024 & Beyond

# Environmental Compliance At A Glance For Units Remaining in Operation

## 2020

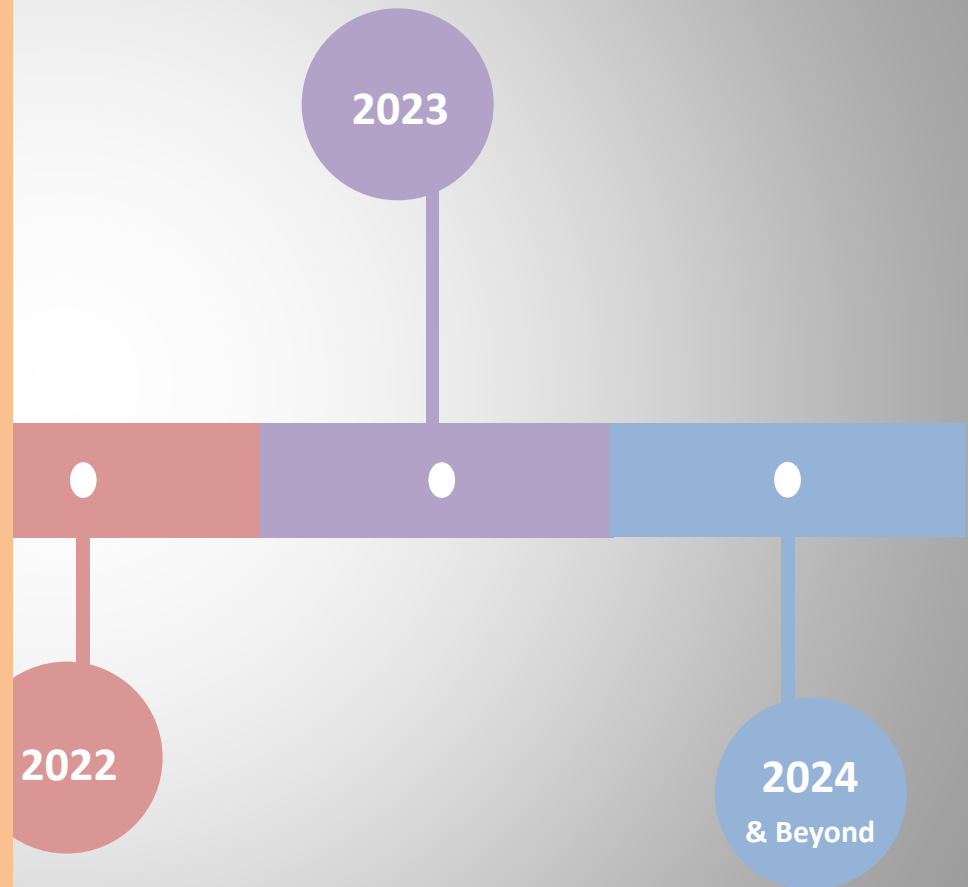
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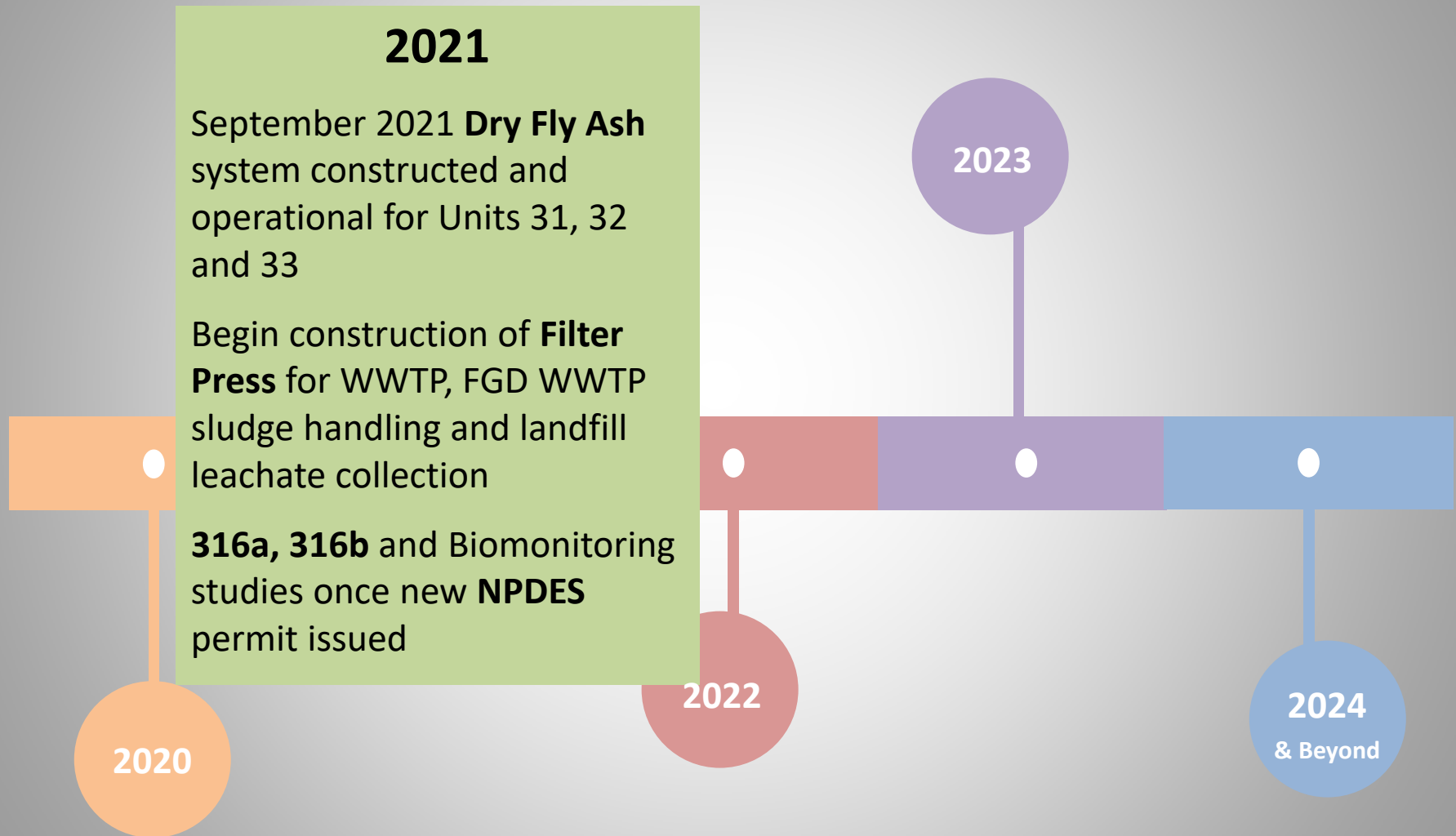
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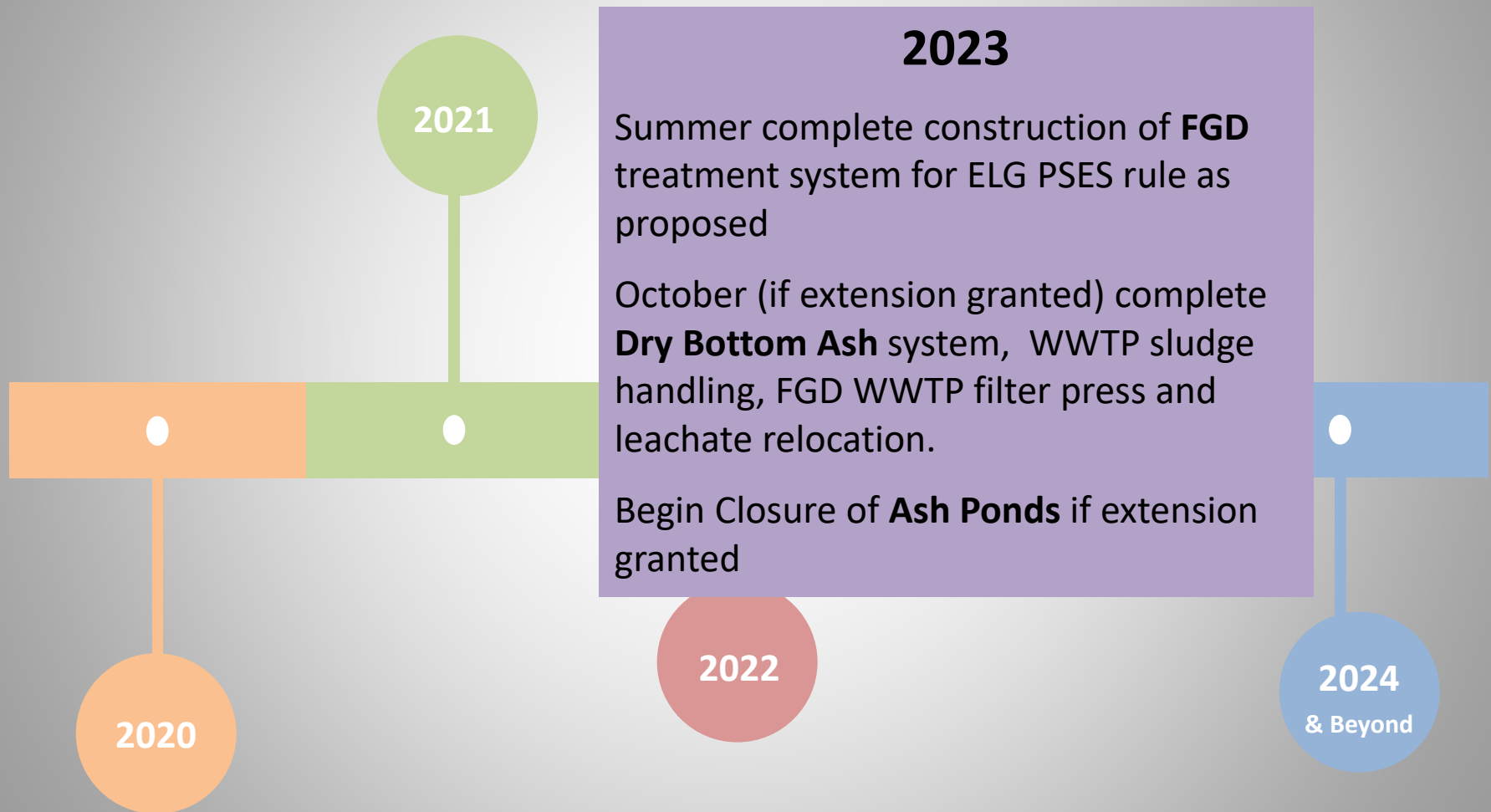
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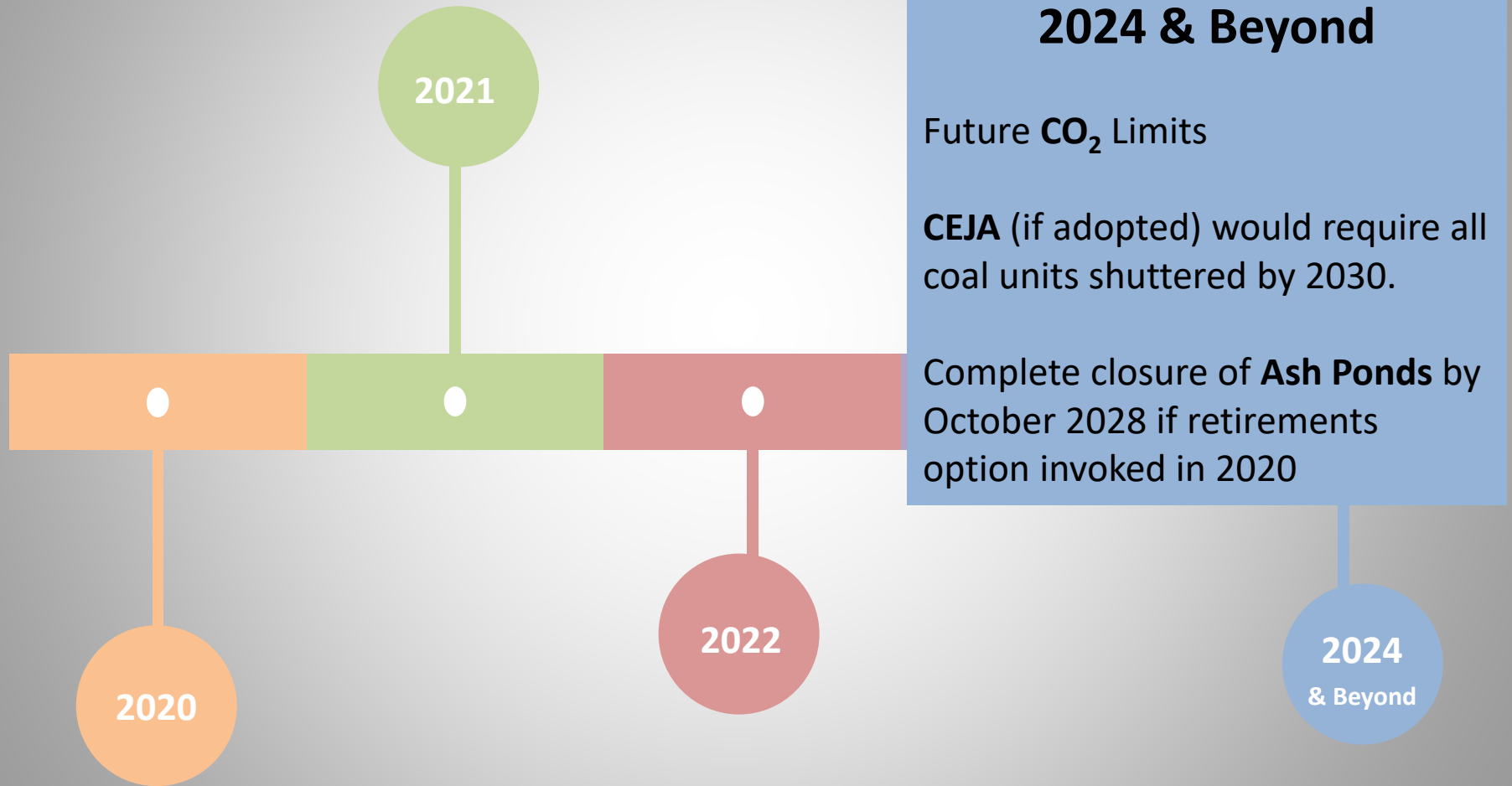
2024  
& Beyond

# Environmental Compliance At A Glance For Units Remaining in Operation





# Environmental Compliance At A Glance For Units Remaining in Operation



# Effluent Limitation Guideline (ELG) FGD (Scrubber) Blowdown

- Rule revised in November
- If 31, 32 or 33 are retained, ~ **\$45M** new treatment facility by June 2023
- If only Unit 4 remains:
  - ✓ Closer to meeting water concentration limits
  - ✓ Possible can meet limits with new chemical and avoid building a smaller facility



*Financial Analysis does not include this project cost since rule just revised.*



# **REVIEW**

## **Financial**

### **Considerations**

# Anticipation of Electric PILOT Decline

PILOT  
Payment In Lieu of Taxes  
Electric \$7,995, 863  
Water \$433,381

3.75%

Electric Audited Revenue

2.5%

Water Wholesale Revenue

1.39%

Water Retail Revenue

- Changes 2015-2019
  - 2015 PILOT Formula Changed to remove separate Wholesale Revenue component – Now all revenues
  - 2019 PILOT increased from 3.35% to 3.75%
  - 2019 Shared Services was introduced adding about \$1.5M
- FY21 Electric PILOT transfer down by \$800,000
  - Drop in Retail Sales, Load is declining, and No Wind Revenue -- drop in PILOT of \$341k
  - Wholesale sales has dropped due to lower market prices (units are not economic) -- drop in PILOT of \$459k
  - Added a Public Works Tree Crew - \$310k

- **FY22 Loss to PILOT Transfer ~ \$925k**
  - **PILOT will drop even if Units 31 & 32 are kept as units are running less**

# Retaining Units Results in Lost Savings

- Operating Costs + Low Prices = Not In the \$\$\$
  - ✓ 31/32 – Approx **\$10-\$12M**/year loss vs Market\*
  - ✓ 33 – Approx **\$13-\$16M**/year loss vs Market\*

*\*Excludes additional capital costs for environmental compliance and major repairs.*

*THE OPERATIONS COSTS , LOST MARKET SAVINGS, AND THE CAPITAL COSTS FOR ENVIRONMENTAL COMPLIANCE AND MAJOR REPAIRS TOTAL:*

***\$100M OVER 5 YEARS FOR DALLMAN 31 AND 32\*\****

***\$100M OVER 5 YEARS FOR DALLMAN 33\*\****

*\*\*Excludes additional capital costs for ELG FGD Blowdown Compliance*

# Energy & Capacity Pricing

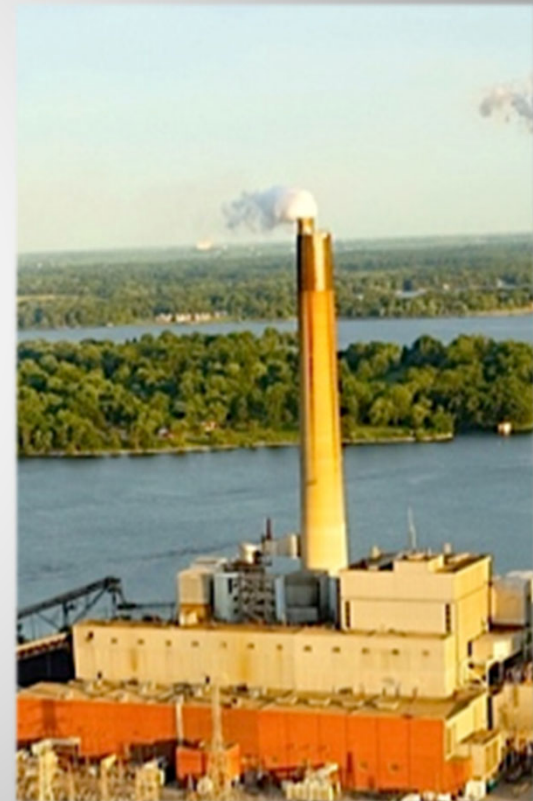
- Units Not projected to return to the \$\$, as revenues highly dependent upon energy and capacity prices
  - ✓ Energy prices would have to double\*
  - ✓ Capacity prices would have to triple\*

*\*Excludes additional capital costs for environmental compliance and major repairs.*

# Retire Dallman 31 & 32

Save \$100M  
over 5 years

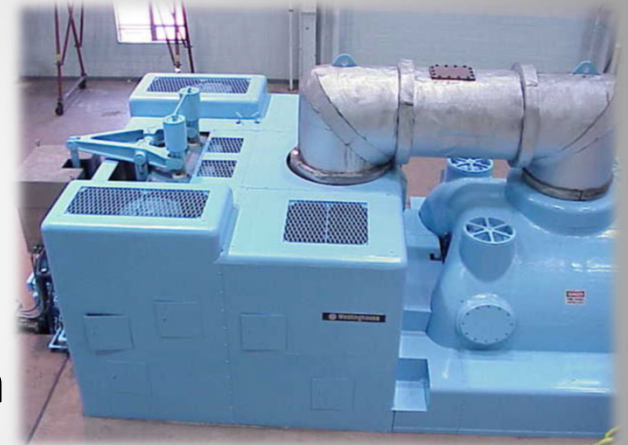
- Avoid \$40M in Costs in next 5 years
  - ✓ Dry Ash Conversion
  - ✓ Boiler Repairs
  - ✓ Turbine Overhauls
  - ✓ Major Maintenance
  - ✓ Excludes \$45M for ELG FGD Blowdown
- Avoid **\$10-12M**/year loss vs Market
- Decommissioning cost \$700k
  - Lube Oil, Cleaning, and Building Heat
- 25 positions eliminated, but 15 employees need transitioned



# Retain Dallman 33

Spend \$100M  
over 5 years

- Provides backup to Unit 4 at a **very high cost**
- Incur **\$29M** in Costs over next 5 years
  - ✓ Coal Ash Regulations
  - ✓ Boiler Repairs
  - ✓ Major Maintenance
  - ✓ Excludes \$45M for ELG FGD Blowdown
- **\$13-16M**/year loss vs Market
- Retain Jobs
- Start Dry Fly Ash Engineering
- Start New ELG /FGD Blowdown Treatment Facility Engineering





# Retire Dallman 33

Save \$100M  
over 5 years

- Avoid **\$29M** in Costs in next 5 years
  - ✓ Dry Ash Conversion
  - ✓ Boiler Repairs
  - ✓ Major Maintenance
  - ✓ Excludes \$45M for ELG FGD Blowdown
- Avoid **\$13-16M/year** loss vs Market
- Decommissioning cost \$2M
  - ✓ Transmission Upgrades, Lube Oil, Cleaning
- 50 employees currently in positions that would be transitioned – Now 48



# Rating Agency View

- On December 18, 2019 Moody's said.....
  - move to close older units
  - avoid carbon risks
  - be financially prudent

.....to avoid downgrade



# Next Steps

# Next Steps

- Set Retirement Dates First
  - Unit 33 Retirement no sooner than October 1, 2021 and no later than October 1, 2023
- Finalize employee transition plan with HR.
  - Upon generation operations ceasing, employees working in impacted areas will have options to remain in positions to assist in decommissioning.
  - Employees need ample time to consider options for job transitions, retirements and severance.

# Next Steps

- Conduct RFP for Lowest Cost Energy & Capacity
  - **After Dates Set for Retirement**
  - Hire Firm to run RFP with expertise in Market
  - Expecting well over 50 bid responses to the RFP
- Follow Decommissioning Plan
  - Continue with Transmission Upgrades
    - Complete by June 2021
  - HVAC Upgrades
    - Complete by November 2020

# Next Steps

- Update 5 Year Capital Plan & Prioritize Projects Based Upon Retirement Decisions
- Start Cost of Service Study in 2021
  - Determine Cost to Serve Each Class of Customer to set Revenue Requirements
  - Provide Rate Options to City Council for Discussion
  - Lower Rates for Commercial Customers

# Resolution

- **Retire Units 31, 32 and 33**
  - Retire Dallman 31/32 by December 31, 2020
  - Retire Dallman 33 no later than February 28, 2022
    - Date chosen to start discussion with it being end of fiscal
    - Environmental Compliance could move up retirement date
- **Benefits of Retirement**
  - Must Certify closure of 31, 32 & 33 by May 2020 to obtain extension of ash pond closure date to 2028
  - Save \$200M over 5 years if Units are retired
    - Does not include \$45M for ELG Compliance
  - After required capital projects, pass savings to customers



# Questions

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