

Austin Energy & Fayette Coal Plant

Past, Present and Future

Cyrus Reed, Chair, EUC Resource Plan WG

Kaiba White, Vice-Chair, EUC Resource Plan WG

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Just the Facts: Fayette Coal Plant

Year built: 1979 (Unit 1), 1980 (Unit 2), 1988 (Unit 3)

Net maximum capacity:

Unit 1 can produce 601 megawatts.

Unit 2 can produce 601 megawatts.

Unit 3 can produce 440 megawatts.

Fuel: Coal from the Powder River Basin in Wyoming

Location: East of La Grange, Fayette County

Owners: LCRA and Austin Energy



Just the Facts: AE and LCRA Fayette Contract

- AE and LCRA have 50/50 ownership of Fayette Units 1 and 2, the land the plant is on, and the water rights at the reservoir
- Contract between AE and LCRA has no exit clause
- LCRA and Austin Energy each required to run their portions of Fayette units 1 and 2 to account for half of their Low Sustaining Load (LSL). LSL is the lowest level the plant can be on. AE's portion for the two units is 150 MW.
- LCRA is the operator, so all employees are LCRA employees, not AE



Just the Facts: Fayette Governance

- Fayette Management Committee controls annual budgets and capital expenses for units 1 and 2
- Austin Energy & LCRA each have 50% vote on Fayette Management Committee
- Annual budgets are approved by the committee sometime in the May-June time frame.
- Currently, Fayette budgets and expenses, regardless of amount, do not go to the Austin City Council for approval.



Just the Facts: Fayette Current Use

Facility	Maximum Summer Commercial Use Availability	Actual Availability, Summer 2023	AE Actual Use, as % of Full Capacity, Calendar Year 2022	AE Actual Use, as % of Full Capacity, 2023 (Jan-Aug)
Fayette (50% of Unit 1 and Unit 2)	97%	92%	41% Unit One 57% Unit Two	31% FPP 1 32% FPP 2

Facility	AE Fayette Generation as % of All Consumption, 2023, as of end Q3	AE Fayette Generation as % of Consumption, Calendar Year 2022
Fayette (50% of Unit 1 and Unit 2)	10.1% (approximately)	17.1%

Just the Facts - Criteria Air Pollutant Emissions

Fayette (total plant)

Year	CO TPY	NOX TPY	Pb TPY	PM10 TPY	PM2.5 TPY	SO2 TPY	VOC TPY
2021	6969.6856	6490.2801	0.132	912.065	889.1272	1117.1073	31.8222
2020	6029.6393	5677.6821	0.1128	716.075	694.0921	913.9466	30.0466
2019	6549.977	6219.099	0.18	814.5097	793.6105	931.5469	82.2645



Just the Facts - Fayette CO2 Emissions

Facility	2021 CO2 Metric Tons CO ₂ e
Martin Lake	13,502,540
Oak Grove	12,557,659
Parrish	12,840,973
Fayette (total plant)	10,987,388

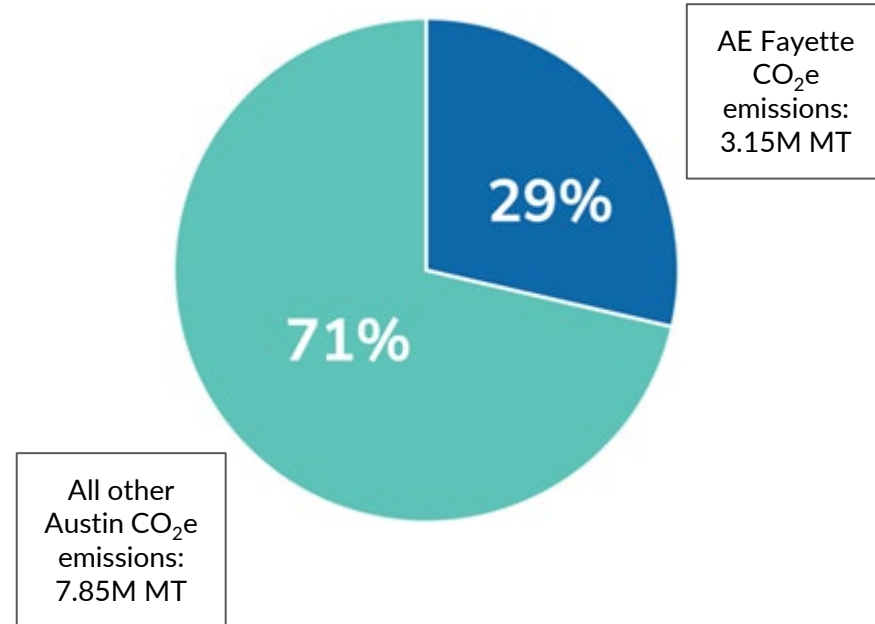
**Sam Seymour
(Fayette) is 4th
largest source
of CO2 in
Texas**

Fayette Greenhouse Gas Emissions	2021 CO2 Metric Tons CO ₂ e
Carbon Dioxide (CO ₂)	10,901,252
Methane (CH ₄)	31,508
Nitrous Oxide (N ₂ O)	54,628

Just the Facts - Fayette & Austin Climate Goals

- Austin Climate Equity Plan set goal for net-zero community-wide greenhouse gas (GHG) emissions by 2040, with majority of reduction by 2030 and limited use of offsets
- Assumption for plan was AE shutting down Fayette in 2022 and getting to zero GHG emissions by 2035
- Fayette is, by far, the single largest source of GHG emissions from the Austin community (29% in 2021)

Austin Community-Wide
2021 Greenhouse Gas Emissions



Just the Facts - Environmental Regulations

Fayette is potentially subject to five new regulations being implemented which could increase costs of generation

- Good Neighbor Rule (could impact how Fayette has to use and operate pollution control equipment lowering operating hours and increasing costs);
- GHG Rule (could require CCS or green hydrogen in future and potentially retirement if not)
- Regional Haze (relatively minor impact)
- CCR (increases cleanup costs of combustion waste)
- MACT (mercury and toxics) - relatively minor impact

Other future changes:

- PM 2.5: new standard could lead to some further limits on PM 2.5

Just the fact: Fayette Revenues

- Currently, Fayette revenue contributes to lowering the Power Supply Adjustment (PSA), but how those revenues compare to the costs of running the plant isn't clear because expenses are all hidden.
- Fayette can also be used to provide ancillary services
- Important note - just because it makes money today, does not mean another option could not make more money and does not mean current and/or future costs might not increase base rates.
- Important note - AE was planning to have no revenue from this plant starting Jan 1, 2023.

Just the Facts: Reliability and ERCOT Role

- ERCOT responsible for reliability
- [ERCOT Reliability-Must-Run process](#)
 - Generator owner must notify ERCOT at least 90 days before discontinuing operations
 - ERCOT has 60 days to complete evaluation of impact on transmission reliability in the region
 - ERCOT then has 30 days to enter into a Reliability-Must-Run (RMR) agreement with generation owner
 - AE would be paid by ERCOT to run plant while system upgrades are made to facilitate shut down
 - RMRs are short term. ERCOT has incentive to upgrade system to limit duration of RMR agreements because they are costly to the system
- If only one unit (AE's portion) at Fayette were shutting down at first, and RMR may be less likely
- New ERCOT reliability standard could establish dispatchable resource requirements on load serving entities (such as AE)

Fayette Current/Past Policy

Commitment to Shut Down AE Fayette

- Commitment to shut down Austin Energy's portion of Fayette by 2022 in 2014 Austin Energy Resource, Generation and Climate Protection Plan
- 2017 and 2020 AE Resource Plan updates reiterated commitment to shut down AE's portion by the end of 2022
- Selling AE's portion has been opposed by environmentalist and city council because plant would keep polluting

“Austin Energy will maintain its current target to cease operation of Austin Energy's portion of the Fayette Power Project (FPP) coal plant by year-end 2022. Austin Energy will continue to recommend to the City Council the establishment of any cash reserves necessary to provide for that schedule.”

AE Fayette Shut Down Not Achieved

- Nov 2021, AE announced that it couldn't come to an agreement with the LCRA on shutting down AE's portion of Fayette
- LCRA offer not made public due to non-disclosure agreement AE signed with LCRA
- AE said LCRA offer was "not affordable", but didn't say how much rates would have to increase, or over what time period
- AE said they would continue negotiating

"Austin Energy will continue to run its portion of FPP but will minimize the scheduled output through use of the successful Reduce Emissions Affordably for Climate Health (REACH) Plan. This strategy considers the cost of carbon in Austin Energy's offers to sell generation from FPP. Use of the REACH strategy will significantly lower carbon emissions from Austin Energy's share of FPP and takes a substantial step toward meeting the carbon reduction goals outlined in the 2030 Plan. Austin Energy will continue to negotiate with LCRA to retire its share of FPP while maintaining reliability and affordability for its customers."

Commitment to Run AE Fayette Less

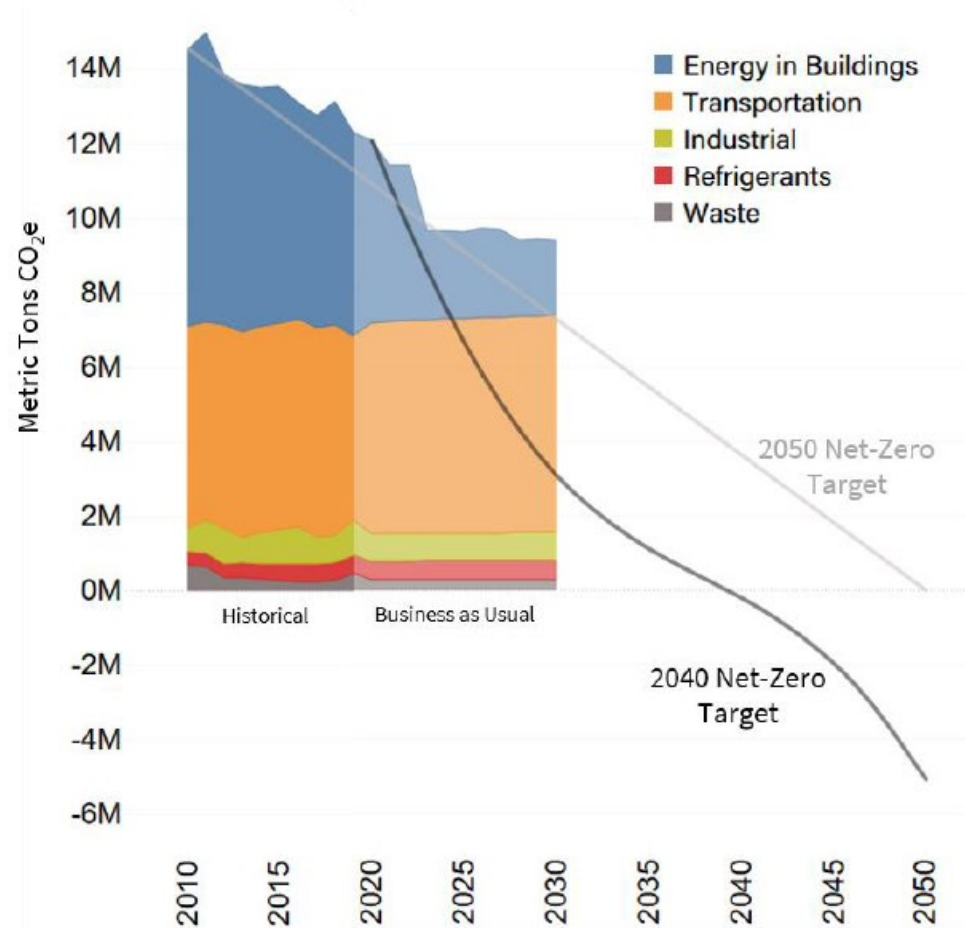
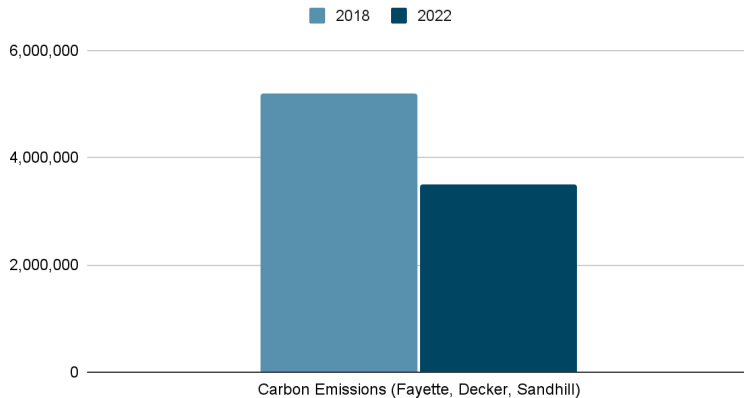
- New commitment to run Austin Energy's portion of Fayette less in 2020 Austin Energy Resource, Generation and Climate Protection Plan
- Reduce Emissions Affordably for Climate Health ("REACH") would be applied to Fayette until shut down at end of 2022 and then to AE's gas generators

"Reduce Emissions Affordably for Climate Health ("REACH"), will incorporate a cost of carbon in the generation dispatch price, allowing Austin Energy to reduce generation output during low-margin periods but keep the resources available for high-margin periods. Austin Energy will apply an annual amount of approximately 2% of the prior year's PSA to implement REACH. Austin Energy will continue to adhere to the City Council affordability metrics through active portfolio management. The REACH plan is expected to reduce the utility's carbon emissions by 30% or approximately 4 million metric tons between approval of this 2030 Plan and Austin Energy's exit from FPP."

REACH Performance

- 4.12M tons CO2 emissions reduced in 2022
- \$12.45 cost per ton, much less than [EPA social cost of carbon](#) (\$46/per ton) and less than California and REGI carbon markets
- Fayette still running more than required
- Austin not meeting climate goal

Carbon Dioxide Emissions



Fayette Next Steps

Can we still get out of coal?

Fayette Issues to Address in Resource Plan

- New target date for closure of AE's portion
- Recommended strategies to achieve closure
- How to operate plant until closure
- How to replace Fayette

Potential Solutions

1. Stop approving Fayette annual budgets and capital expenses (AE vote “no” on Fayette Management Committee)*
2. Run plant at the lowest level allowable by contract with LCRA (150 MW)*
3. Spread cost of Fayette closure over 25 years
4. Pursue federal funding for replacement power (perhaps near Fayette to create market pressure for plant to shut down)

*Included in [2022 Fayette recommendations from Resource Management Commission.](#)

Stop Funding Fayette

- Stop approving Fayette annual budgets and capital expenses (AE vote “no” on Fayette Management Committee)*
 - Stop treating arrangement with LCRA as a willing partnership.
 - Pressure LCRA to be more reasonable in negotiations.
 - Don’t participate in extending the life of the plant
- Lack of transparency and oversight by AE governing body (Austin City Council) results in lack of accountability and should be fixed
 - Even if public can’t see Fayette budgets for competitive reasons, City Council should see them and decide on the merits of of funding those expenses.
 - At minimum, require Council approval of Fayette budgets and expenses, just as for other city expenses (any cost totalling over \$72,000 in a year)*

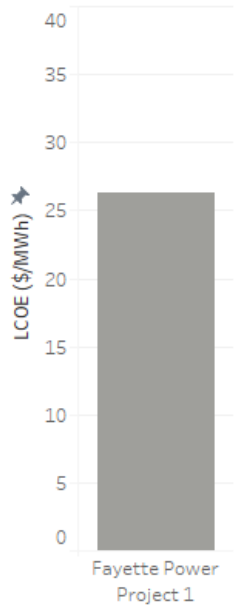
Federal Funding Opportunities

- Inflation Reduction Act and the Bipartisan Infrastructure Bill both offer funding opportunities that could be used to shut down and replace Fayette
- Energy Infrastructure Reinvestment Financing - LCRA and /or Austin Energy could seek federal grants & loans for direct replacement or conversion of Fayette at the plant location - solar/storage/geothermal/hydrogen fuel cells, etc.
- LCRA could utilize Empowering Rural America funds (for cooperatives)
- Energy Zone incentives through IRA are applicable to Fayette property and surrounding counties
- Austin Energy and LCRA can now directly access federal incentives for renewable energy and storage resources as grants

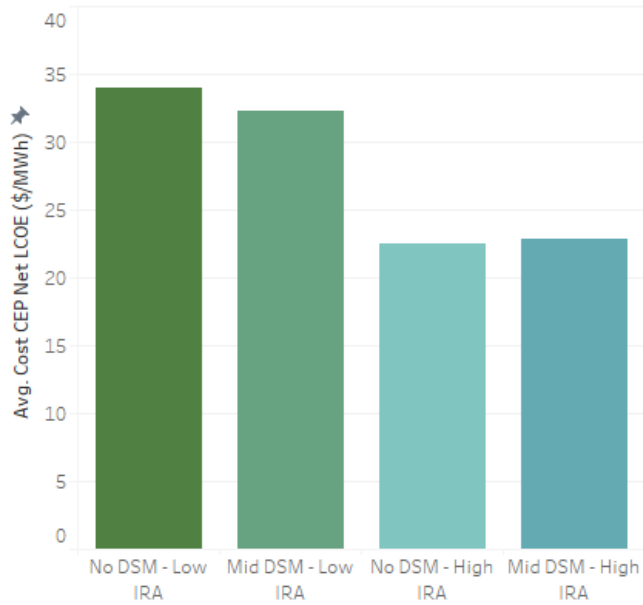
RFP to Procure Replacement Resources

- Replacing 600 MW of dispatchable resource that also provides ancillary services can be done, and should be done
- Analysis by the Rocky Mountain Institute (RMI) already shows a combination of wind, solar and storage would be cost competitive with Fayette
 - If the replacement wind or solar meets the domestic content requirement and is sited in an energy community (receiving the two additional bonuses provided by the IRA), the replacement resource is cheaper than the existing unit *today*.
 - Even without those bonuses, the Fayette plant strands (is more expensive than a portfolio of new wind, solar, and storage) between 2026 and 2028.
- New technologies like geothermal and hydrogen fuel cells are other potential solutions.
- AE should issue a request for proposals (RFP) for dispatchable, emissions-free, renewable energy

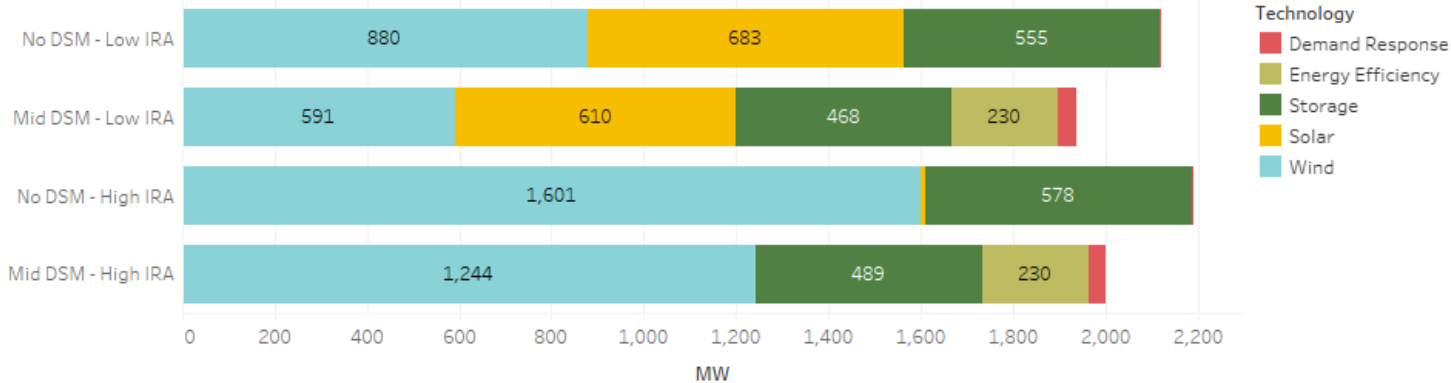
Coal Plant Cost



Replacement Portfolio Cost



These results are based on the Clean Energy Portfolios (CEP) model built by RMI. The CEP Model constructs least-cost portfolios of clean energy resources to compare against existing coal and proposed gas power plants. The tool ensures that each portfolio provides the key services that the existing plant provides: at least the same monthly energy output and the plant's rated capacity during the 50 peak net load hours in the region. The CEP Model uses a net present value approach (including capital costs and operating costs) to minimize lifetime cost.



Run Fayette as Little as Possible

- AE could keep its portion of Fayette at the LSL (150 MW total) at all times*
- AE currently running the plant more for financial benefits
- Need to minimize emissions to meet climate goals
- Could pair with using Fayette for new ancillary services that are very infrequently called on when certain grid operating conditions emerge, like the new ERCOT Contingency Reserve Service ([ECRS](#)) and upcoming Dispatchable Reliability Reserve Service ([DRRS](#))
- AE could operate the plant at LSL and only run it more when called on by ERCOT, until closure can be achieved

*Included in [2022 Fayette recommendations from Resource Management Commission](#).

Texas Coal Plant Closure Dates

Past Texas Coal Plant Closures:

- CPS Energy - J. T. Deely Power Plant: 2018
- Luminant - Big Brown: 2018
- Luminant - Monticello: 2018
- Luminant - Sandow: 2018
- Texas Municipal Power Agency - Gibbons Creek: 2019

Planned Texas Coal Plant Closures:

- SWEPCO - Pirkey: 2023
- SPS/Excel - Harrington: 2025 (conversion),
- CPS Energy - Spruce: 2028 (convert one unit and retire one unit)
- SPS/Excel - Tolk: 2028
- SWEPCO - Welsh: 2028

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”

~Margaret Mead