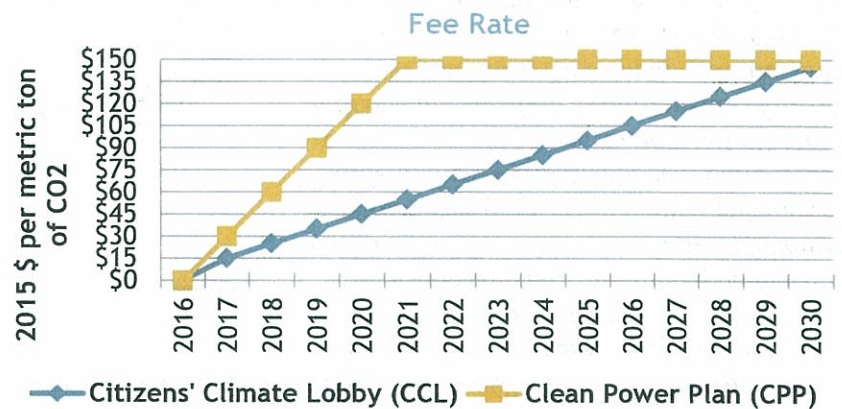


The Economic, Demographic, Fiscal, and Emissions Implications of a Carbon Fee in Arkansas

This study is focused on **how a carbon fee in Arkansas would help it comply with the strictures of the EPA's Clean Power Plan (CPP) to reduce the carbon dioxide emitted from existing power plants.** It examines the potential economic, demographic, fiscal, and emissions impact of a fee on carbon dioxide in Arkansas.

The final rule has explicitly allowed a carbon fee as a means of complying with the Clean Power Plan (p. 899). If states do decide to adopt a carbon fee as their compliance mechanism, they will also need to put forward a back-up option in case their primary plan does not result in the promised emissions reductions... A carbon fee could match or even exceed the EPA's emission reduction targets as supported by data from the Energy Information Agency (pp. ES-5, MT-34).

In order to perform a sensitivity analysis and cap the theoretically unlimited number of rates and scenarios, we have focused on two rate algorithms. The first is the rates favored by CCL in their proposed national legislation. The rate begins at **\$15 per metric ton** of carbon dioxide in the first year followed by a gradual **escalation of \$10 per year** through at least the 2030s. It culminates at \$145 per metric ton in 2030 here (the sunset of this analysis). The second line is for a rapid escalation of the carbon fee, starting at **\$30 per ton and \$30 per year thereafter**, until it plateaus at \$150 per ton in 2021. Its figures derive from internal testing on what rates of consumer carbon fees in the electricity sector **would lead to full compliance with all the CPP interim goals in the state of Arkansas.**

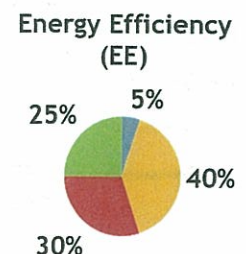
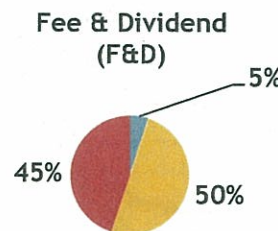


*Clean Power Plan (CPP) signifies fee rate \$30/ton with \$30/escalation rate which complies with all Clean Power Plan interim goals.

The revenues from the carbon fee simulations examined a dividend system to households and employers as well as a second choice to send 25% of the funds to energy efficiency programs in the early years to help with CPP compliance. **All cases increase the total number of jobs and the size of the economy in Arkansas—mostly by reducing imported fossil fuels and through the encouragement of a more labor-intensive industry mixture and added income to households.** The carbon fee also reduces emissions by discouraging the consumption of fossil fuels. All scenarios under examination comply with the goals of the CPP by 2030 and one of them, **lime green**, manages all the intermediate goals.

Revenue Recycling

- **Administration and Overhead** – An assumed 5% cost to the state for the collection of the fee and the redistribution of the funds back into the state economy
- **Rebates to Households** – Monthly checks or direct deposits to individuals and households in Arkansas to rebate revenues back to the public
- **Rebates to Employers** – Similar to the rebate to households though paid to employers in the state (either public sector or private sector, nonprofit and for profit alike) either as a monthly rebate check or through the state tax system
- **Energy Efficiency Programs** – Funds appropriated by the state towards various energy efficiency programs to further reduce energy demand and emissions



The F&D case always follows the distribution on the left. The EE case follows the distribution of the funds on the right from 2017 to 2021 before transitioning into the distribution from the F&D case from 2022 forward—four total of 2x2 (rates, recycling).

		Fee Coverage	
		F&D	EE
CCL	Case (1)	Case (2)	
CPP	Case (3)	Case (4)	

The rates (on the y-axis, the row headers) and the revenue recycling options (on the x-axis, the column headers) combined create four cases. Their numbers are 1, 2, 3, and 4 above, and the colors (from blue to green) stay consistent through the rest of this report.

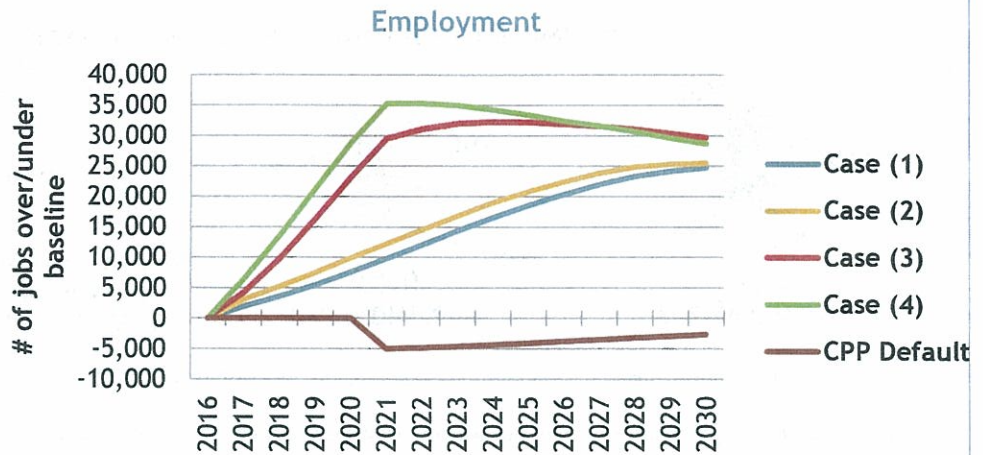
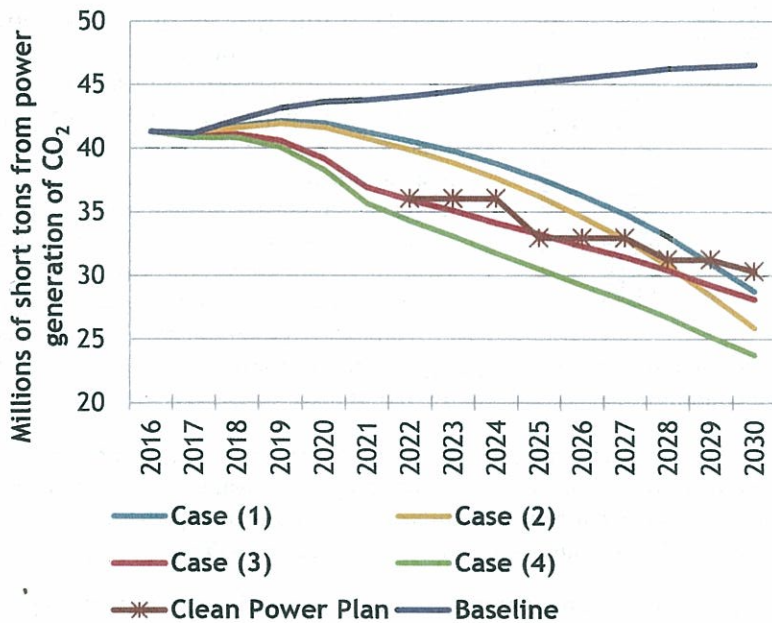


Figure 1.1 – All carbon fee cases (the blue down to green, not including brown) show a net increase in the number of jobs in the state. The default 10% increase in electricity prices has a slightly negative influence on the Arkansas state economy.

Carbon Dioxide Emissions (from electricity demand)

Figure 1.24 – This result looks only at emissions from power generation implied by electricity demand in the state to meet the Clean Power Plan. The cases and baseline are in their usual colors while the CPP limits are in brown with asterisks.



For the mass-based target, the final rule for Arkansas requires the targets graphed on the brown line.¹ Absent any policy on carbon dioxide emissions, Arkansas follows the general curve of the West South Central region again in this sector. All policy designs cause a reduction in emissions, though not all comply with the intermediate requirements of the CPP. Case (1) and case (2) comply with the final goals in 2030, reducing emissions below 30.3 million short tons in the last year. Case (3) comes close to hitting all of the intermediate targets, though it does exceed the goal for 2025 without any ramping of the goals between 2024 and 2027. The green line for case (4), conversely, does meet all the intermediate goals and the final mass-based rule under the CPP for the Natural State. The above presumes that demand for electricity in the Arkansas

region is the best proxy for emissions from the state, that price elasticity is an adequate tool for the prediction of demand from the Annual Energy Outlook (<http://www.eia.gov/forecasts/aeo/>) baseline, and that reducing demand for electricity from Arkansas' households and businesses would reduce stack emissions in this manner. The emissions reductions here would be considerable but could be the topic for future power modeling.

¹ <<http://www3.epa.gov/airquality/cpptoolbox/arkansas.pdf>>

Main Take Aways

Economic

- 20,000 to 30,000 additional jobs over the baseline scenario
- Increased GSP and real disposable personal income (RDPI)

Emissions

- Reduction of 20 to 30 million metric tons per year total
- Power emissions approach or are below CPP regulations

Budgetary

- \$500 million to \$1 billion in the first year, \$4 billion long-term
- Monthly rebate to households and employers over \$200 per month

Demographic

- The long-term population of the state increases with fee
- Attracted by stronger labor market and availability of dividends

- A strong economy and environmental quality are not mutually exclusive functions
 - In fact, when understood as “mundane” fiscal policy, environmental measures might have some positive effects across the economy
 - **Reduced fossil fuel imports**
 - **Encouragement of localized, labor-intensive industries**

The Arkansas chapter of Citizens Climate Lobby (CCL) engaged with Regional Economic Models, Inc. (REMI) in Washington, DC to perform this work.

3 | **Summary of The Economic, Demographic, Fiscal, and Emissions Implications of a Carbon Fee in Arkansas**

Email cclofark@gmail.com for more information



The Economic, Demographic, Fiscal, and Emissions Implications of a Carbon Fee in Arkansas

FREE MARKET SOLUTION

Carbon Fee and Dividend (CF & D) is the best way for Arkansas to address carbon pollution reduction. It's the policy that will reduce CO2 emissions, create jobs, grow the economy and improve the state's health.

The 2015 REMI (Regional Economic Models, Inc.) Report provides the economic validation of the positive impact of CFAD on the economy and the environment in Arkansas.

Citizens' Climate Lobby volunteers pride themselves on being FOR something rather than AGAINST things. So Carbon Fee and Dividend is the policy that we advocate as the compliance pathway for Arkansas to meet the Clean Power Plan.

FAIR

The carbon fee and dividend approach is simple. Electric power plants that burn coal or natural gas are charged a fee for each ton of carbon pollution they emit.

SIMPLE

The fee is collected and deposited in the **Arkansas Carbon Bank** and distributed monthly to every Arkansan (over age 18)

MAIN TAKEAWAYS

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- Budgetary**
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and employer. Employers' dividends are based on the number of employees. The recommended fee for Arkansas is \$15/ton for the first year. The carbon fee will rise annually by a fixed amount, \$10.

MONEY IN YOUR POCKET

As the price of fossil fuels increases, due in part to the annually rising carbon fee, polluters are financially motivated to find cleaner and more efficient ways of energy production. This leads to more investment in clean, renewable energy. The monthly fee distribution, from The **Carbon Bank**, to consumers and employers stimulates the economy, which in turn creates more jobs, etc.

The fee distribution to Arkansas families will assist low income families with energy costs. They will no longer be burdened with signing up for any special energy assistance. Instead, a monthly check will arrive in their mail or bank account. Businesses will have incentive to create more jobs as their dividend hinges on the number of permanent employees.

CLEAN POWER PLAN COMPLIANCE

With the policy of carbon fee and dividend all Arkansans benefit: not only from carbon pollution reduction, but also economically. This option also provides the economic advantage for low income communities. Arkansans receive a monthly check automatically. This eliminates the bureaucracy of incentive programs, income tax credits, etc.

CITIZENS CLIMATE LOBBY OF ARKANSAS -- CREATING THE POLITICAL WILL

We educate about the Carbon Fee and Dividend proposal by friendly relationships with our elected representatives, with respect, appreciation and gratitude for their service. We respect all viewpoints.

We write letters to the editor and op-eds, and meet with editorial boards to gain their editorial endorsement.

We facilitate presentations and table at events to promote CCL and introduce others to our Carbon Fee and Dividend proposal.



CONTACT US:
 info@arkccl.org
 www.arkccl.org

FAIR | SIMPLE | MONEY IN YOUR POCKET



ENDORSE HERE X

Arkansas Resident

For Deposit Only

Account # 123-456-789

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 RESERVED FOR FINANCIAL INSTITUTION USE * MP

REVENUE NEUTRAL CARBON FEE & DIVIDEND
FAIR.
 The fee is assessed the same on those carbon polluters selected.
SIMPLE.
 The collected fee goes to a Carbon Fund.
MONEY IN YOUR POCKET.
 100% of the fees collected are returned monthly to all Arkansas households.

WWW.CITIZENSCIMATELOBBY.ORG

Warning:
 Padlock design is a certification mark of the Check Payment Systems Association

Absence of the following Security Features may indicate alteration

- MP Microprint
- Security Pantograph
- Warning Bands (UP Padlock Logos)
- Security Screen Backler

Warning:

- Tiny type on front and back of document fills in to form solid lines when scanned or photocopied.
- Copy resistant security pantograph on front of document discourages clear duplication.
- Warm receives to be aware of detailed security features.
- Original Document text and weave pattern visible on back of check will not appear if scanned or photocopied.

* FEDERAL RESERVE BOARD OF GOVERNORS REG. C. C.



Arkansas Carbon Bank

Carbon Pollution Reduction Fund

1936

1 January 2022

DATE

PAY TO THE ORDER OF

CITIZEN OF ARKANSAS

\$ ****200/00****

Two-hundred&00/100*****

DOLLARS



Treasury of Arkansas

NOT A REAL CHECK

Little Rock, Arkansas

Monthly Dividend from Carbon Fund

CF&D: Fair Simple Money in Your Pocket

FOR

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