



# Federal Policy to Support Equitable Climate Action – Tax Incentive Reforms

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# The costs of rapid climate action on energy consumers and communities is a significant equity challenge



Consumer risks are most evident in the US regulated utility sector, because costs are passed onto ratepayers

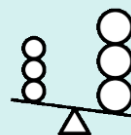


Consumers are already on the hook to pay \$25 billion per year in capital costs for \$160 billion in unabated fossil assets

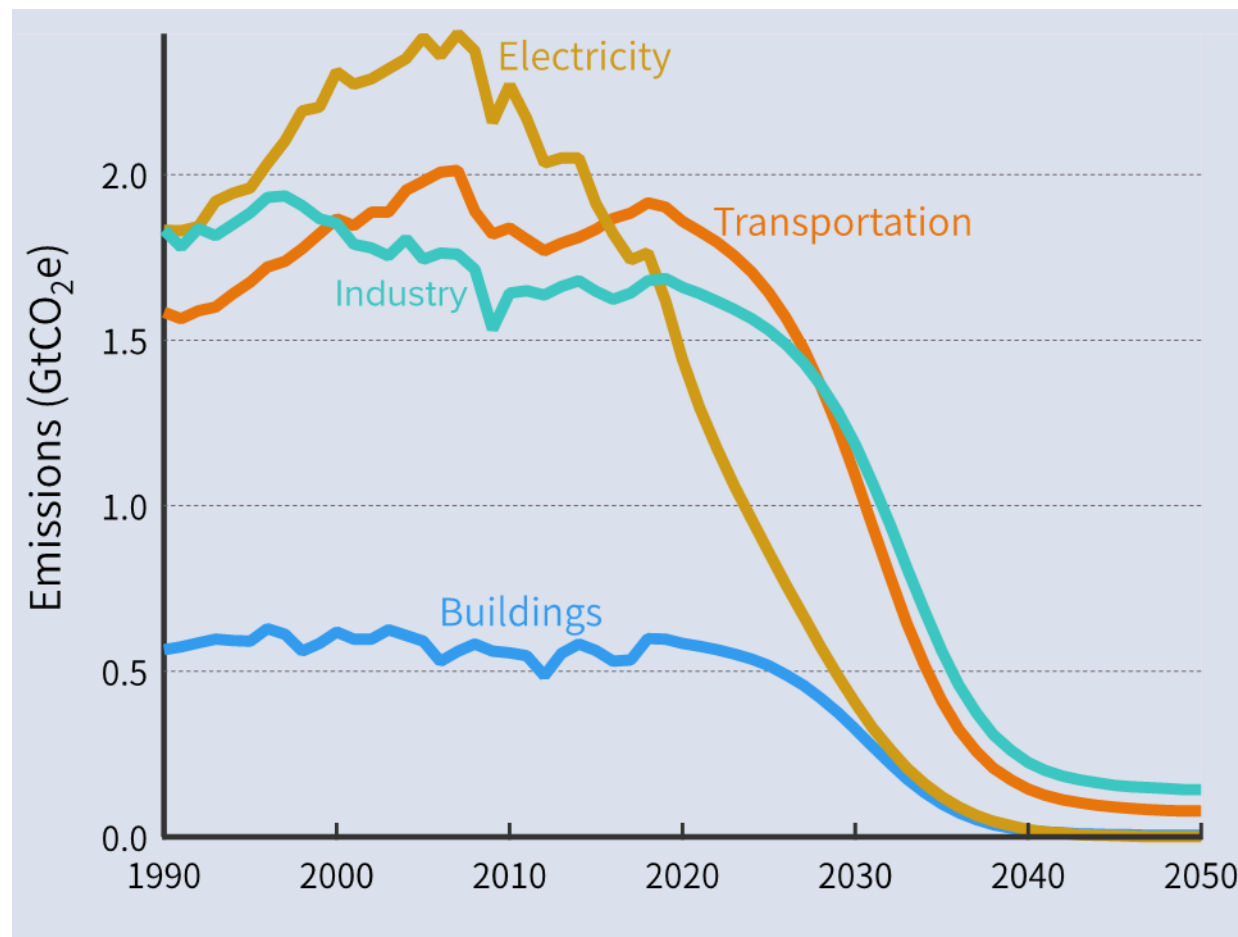


Abatement of those emissions without policy intervention will add to that cost and hurt energy communities

Asymmetric Information

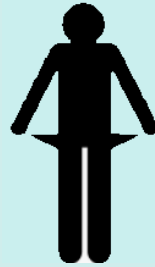
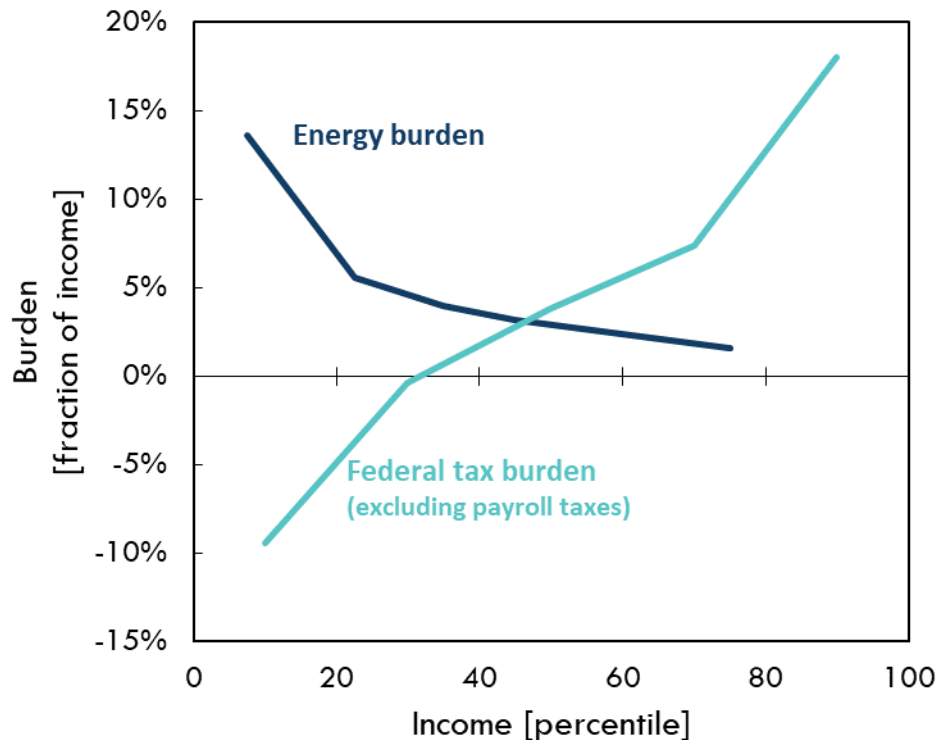


**Imperfect competition** throughout the economy, particularly in sectors with long-lived assets, means **consumers will bear the cost of climate action**





# Rapid climate action requires policy focus on equity, and that means protecting energy customers and communities



Without policy intervention, climate action will be **doubly regressive**:

- **Lower-income states** have far more communities facing employment and economic risk from climate action
- **Low-income households** will further bear a disproportionate burden from decarbonization based on energy usage



Thus, the costs of climate action will fall hardest on communities with undiversified or fossil-dependent economies

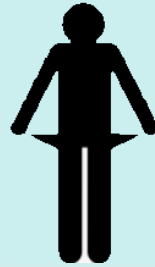
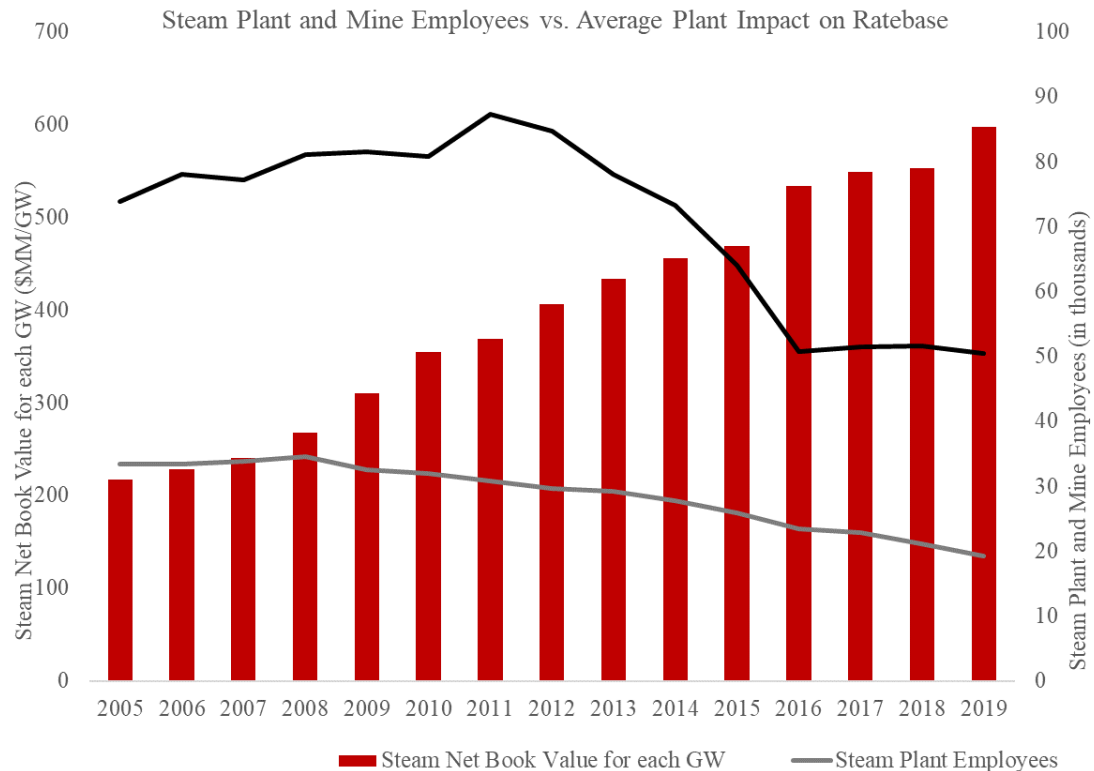


**Public policy must ensure that climate action protects the consumers, workers and communities that will bear the greatest risk from that action**





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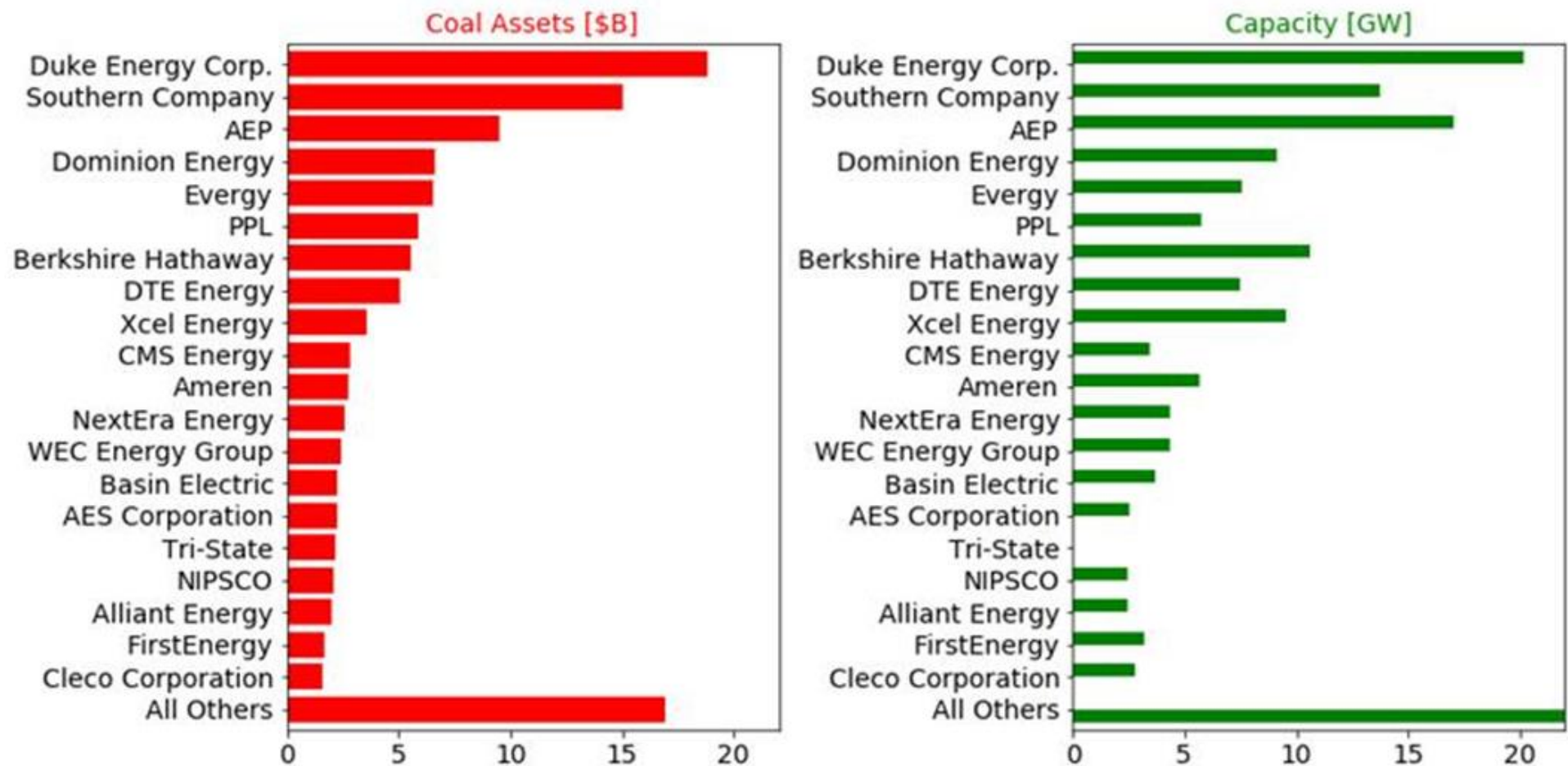


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These customer and community risks and costs are concentrated in the service territories of coal-heavy Southeastern and Midwestern utilities

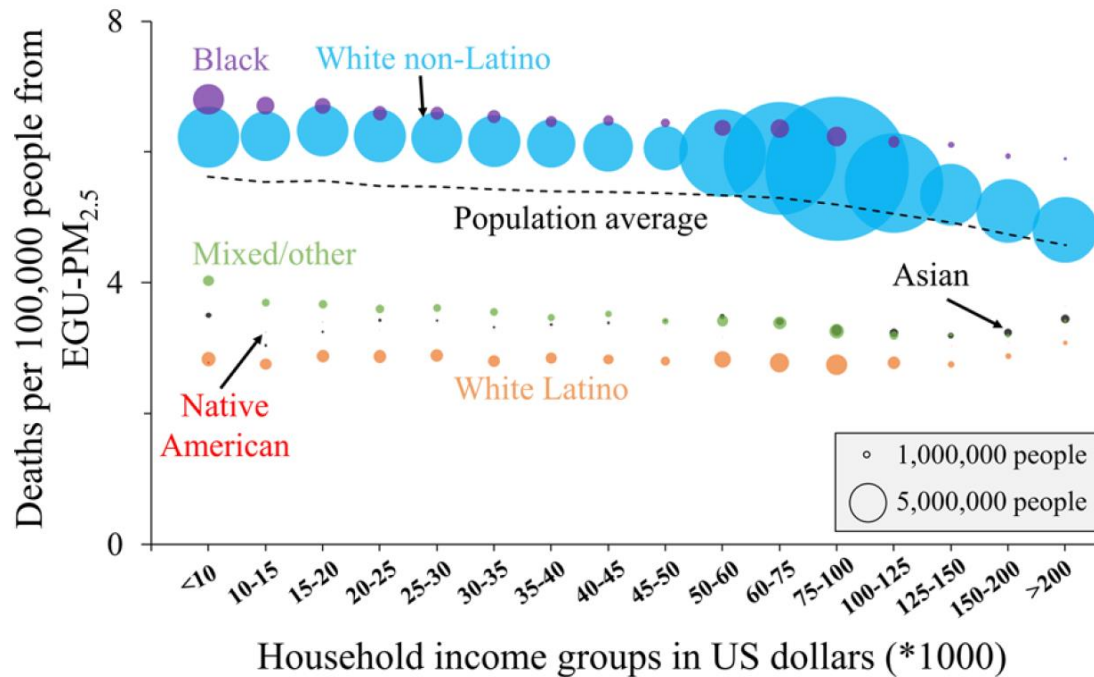


\*Charts assess FERC Form 1 reporting utilities, which are mostly regulated IOUs.



# The ongoing health burden of fossil plant emissions falls disproportionately on vulnerable communities

## Black and low-income communities bear disproportionate PM2.5 mortality risks



Thind et al. (2019) Fine particulate air pollution from electricity generation in the US: Health impacts by race, income, and geography. *Environmental Science and Technology*, 53, 14010-14019. DOI: 10.1021/acs.est.9b02527

- Fossil fuels have direct morbidity and mortality impacts resulting in 10.2 million premature deaths per year globally ([Voha et. al. 2021](#)).
- Pollution burdens are borne disproportionately by vulnerable communities – BIPOC, low-income communities, newborns and the elderly.
- Many of these same communities also shoulder the financial cost of retiring polluting power plants as ratepayers, with impacts magnified through regressive electric rate structures.



# The long-run economics of reducing fossil emissions in the US electricity sector dramatically improved over the last 15 years – at least when current solar and wind federal tax credits are included

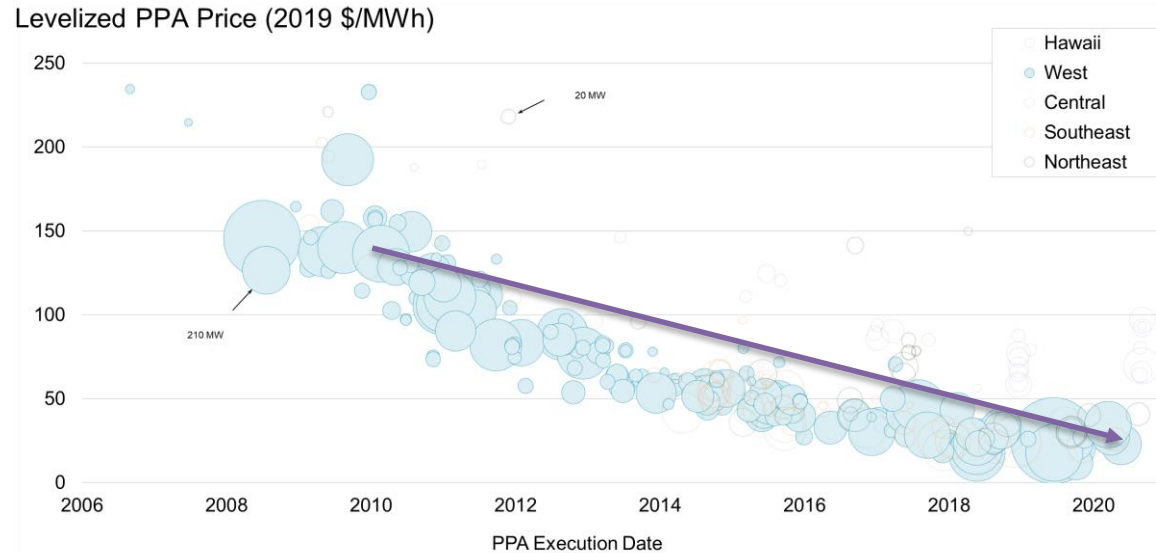
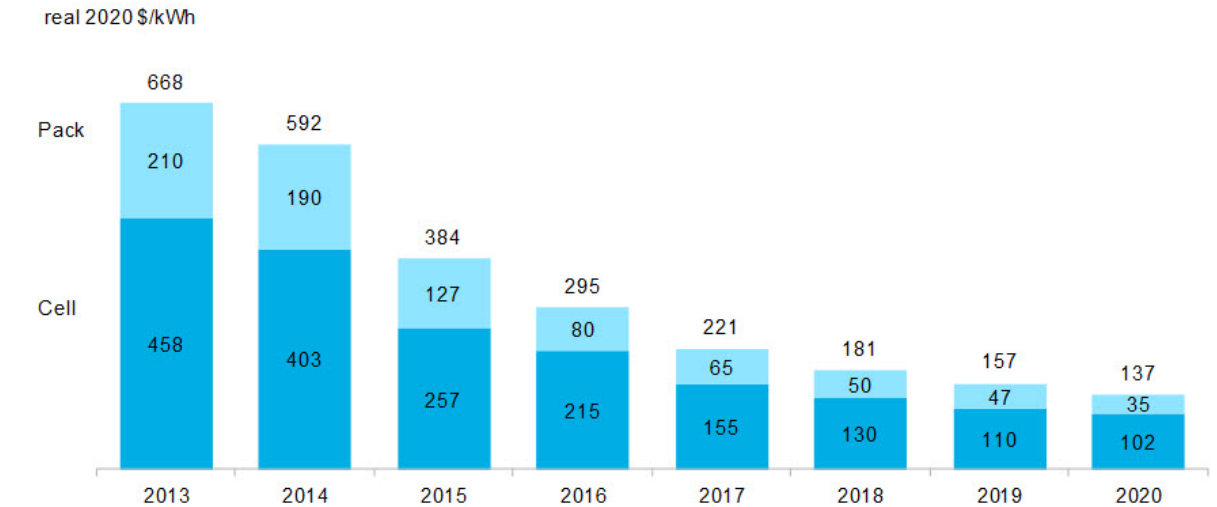


Figure 1: Volume-weighted average pack and cell price split



Source: BloombergNEF

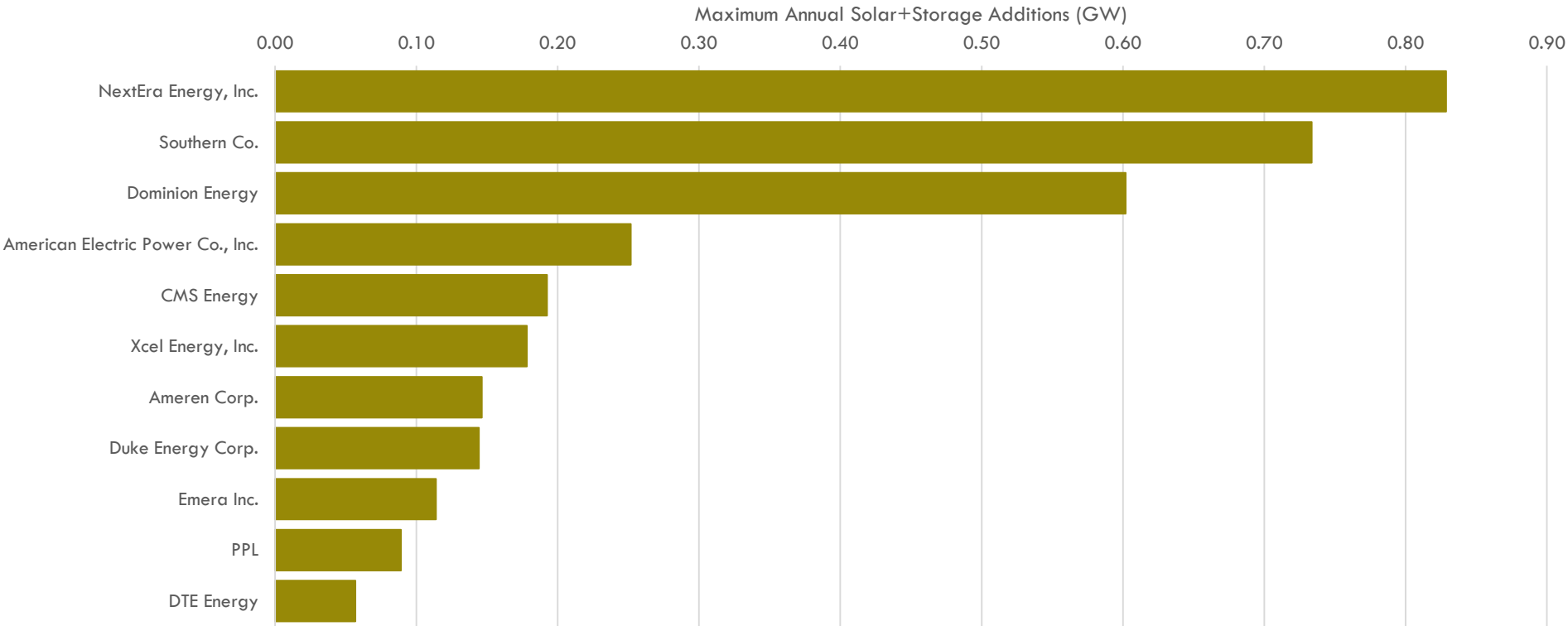


However, under current law, the **(regulated, co-op, muni) utilities that own 80% of the remaining coal** can only efficiently use tax credits to mitigate emissions from **one or two coal plants across the country each year**

Challenges

Tax normalization limits benefits for customers of regulated utilities.

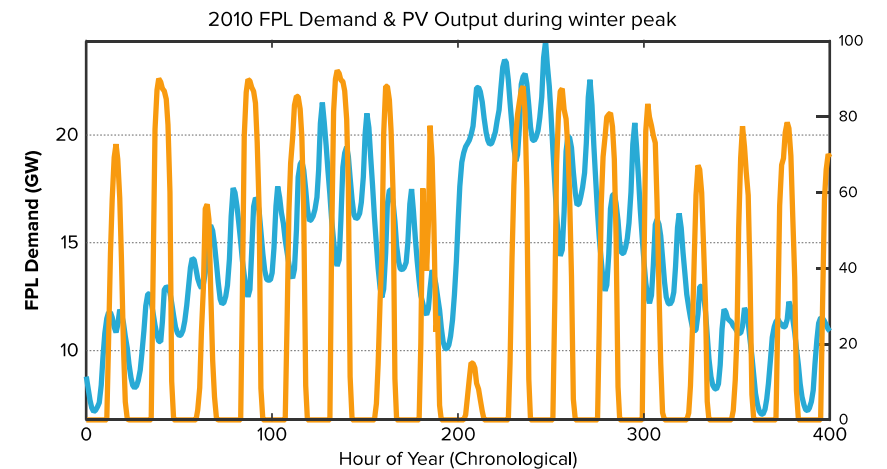
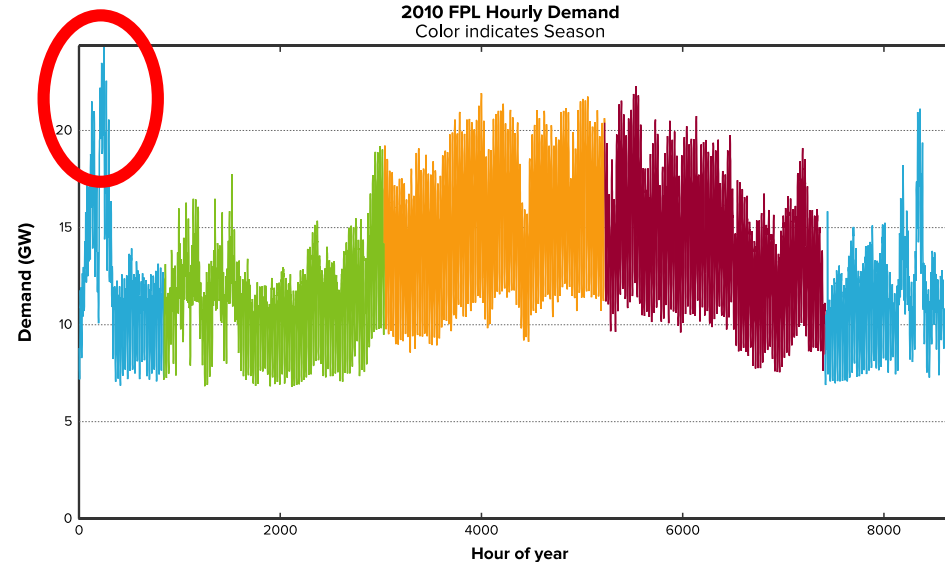
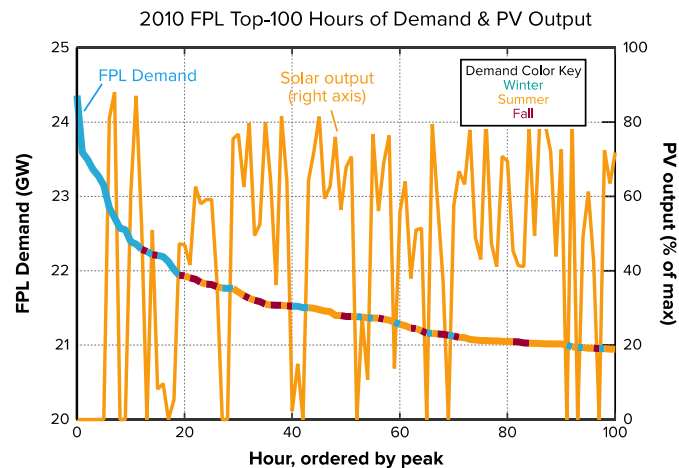
Co-ops, munis, and regulated utilities can't use these tax credits efficiently to mitigate energy burden.



\*We exclude Berkshire Hathaway Energy, which is unique among utility holding companies in having a parent company with significant federal tax liabilities to take advantage of the ITC and PTC.



And for a rapid shift to clean energy we also need emerging clean technologies – like H2, CCS, storage, offshore wind, efficiency, and nuclear – to help with grid flexibility, such as during cold winter spells



So, while climate action looks economic in the long run with current policy, near-term energy cost burdens, extreme weather risks, and fossil community job losses are inadequately addressed

### Existing Coal Plant

**Capacity:** 1.5 GW  
**Book life:** 30 years  
**Annual generation:** 10 million MWh  
**Annual emissions:** 10 million metric ton CO<sub>2e</sub>  
**Operating cost:** \$35/MWh  
**Recent investments:** \$1.5 billion

**Current customer costs:** \$520 million/year  
**Local Benefits:** \$200 million/year in plant and mine wages, taxes, and royalties  
**Non-Local Benefits:** \$320 million/year in mine, rail, and plant investment returns

**Future Remediation Costs:** \$600 million in total (\$20 million/year)

**Replacement resource:**  
- 3 GW wind and solar  
- 1.5 GW 4-hour battery storage

**Replacement cost:**  
- \$4.5 billion

**LCOE w/ ITC:** \$37/MWh

### Transition with Current Policy

**Customer cost:** \$780 million/year (with \$40 million/year normalized 26% ITC), declining over time, **\$260 million/year increase**  
**Local Benefits:** \$40 million/year for coal ash remediation work, **\$160 million/year lower**  
**Non-Local Benefits:** \$780 million/year in RE wages, coal/RE returns, **up \$460 million/year**



## Reforms proposed to the Production Tax Credit (PTC), Investment Tax Credit (ITC), and the 45Q tax credits for carbon storage – when complemented by the CEPP and DOE loans – can address many of these issues

Challenge	Policy Solution
Tax normalization limits benefits for customers of regulated utilities.	<b>Allow PTC for Solar and Remove Tax Normalization Requirements:</b> Exempt the ITC from tax normalization requirements and allow the PTC for solar and solar + storage as an alternative to the ITC, thereby allowing utilities more flexibility to pass these benefits through to their customers and communities.
Co-ops, munis, and regulated utilities can't use these tax credits efficiently to mitigate energy burden.	<b>Make Energy Tax Credits Direct Pay:</b> Make the ITC, PTC, and 45Q available to any entity regardless of tax status (including co-ops and munis, but also regulated utilities with limited tax capacities) as direct pay or via Tax Choice Bonds.
The PTC only focuses on some of the clean technologies we need	<b>Make the PTC available to all clean generation technologies:</b> Allow the PTC to be claimed for all generation that can reduce carbon emissions and address environmental and economic impacts on energy communities
Demand-side resources, storage, and transmission are excluded	<b>Extend the ITC to storage and transmission and add the RTC:</b> This reduces the cost of enabling grid technologies, while also making the same benefit available to technologies that reduce or shift demand



For example, the combination of a DOE loan with direct pay of 45Q tax credits can reduce the ratepayer cost of carbon mitigation through CCS by \$1 billion, helping make it more cost-competitive

