



PIOGATech

PIOGA's Technical Seminar Series

RGGI, ENVIRONMENTAL JUSTICE & INFRASTRUCTURE BILL

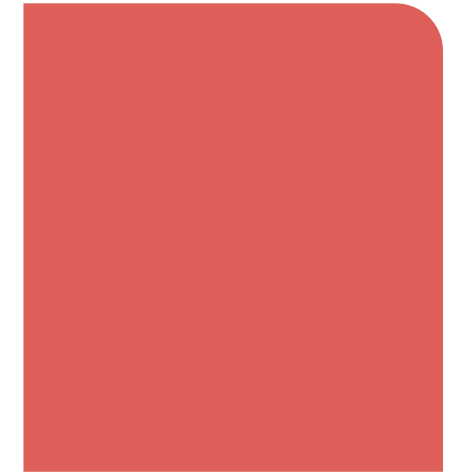
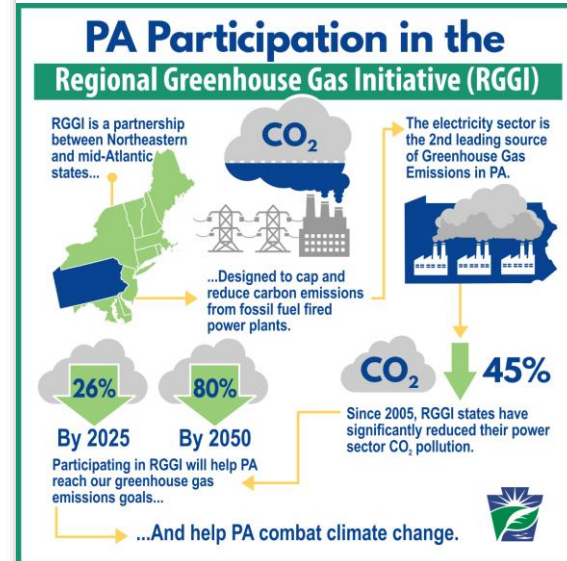


OVERVIEW

- RGGI
 - Background
 - Timeline
 - Next Steps
- Environmental Justice
 - What is it
 - Why its important to know about and follow
- Federal Infrastructure Bill
 - How does it help the oil and gas sector
 - How does it help alternative energy
- Q & A

REGIONAL GREENHOUSE GAS INITIATIVE (RGGI)

- The Regional Greenhouse Gas Initiative (RGGI) is a cooperative effort among **eleven Eastern states to reduce carbon dioxide (CO₂) emissions from power plants** within each participating state.
- Together, the participating states have established a **regional cap on CO₂ emissions**, which sets a limit on the emissions from regulated power plants within the RGGI states.
- Over time, the regional **cap declines**, so that CO₂ emissions decrease in a planned and predictable way.
- RGGI claims that “since its inception, RGGI emissions have reduced by more than 50%—twice as fast as the nation as a whole—and raised over \$4 billion to invest into local communities.”



Who are the RGGI states? The participating RGGI states include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, and Virginia.



HOW DOES RGGI WORK



- RGGI is a market-based cap-and-invest initiative.
- Within the RGGI states, regulated power plants must acquire one RGGI CO2 allowance for every short ton of CO2 they emit.
- The RGGI states distribute allowances at quarterly auctions, where they can be purchased by power plants and other entities.
- Some states hold a limited number of allowances in set-aside accounts to sell at a fixed price or otherwise distribute outside of the auction process.
- Each participating state originates allowances in proportion to its share of the regional cap. PA's allowances start at 78,000,000 short tons and decreases every year by 2,489,370.
- To comply with their state's regulations, power plants sized 25 megawatts or greater must acquire enough RGGI allowances to cover their emissions.

DEP'S JUSTIFICATION

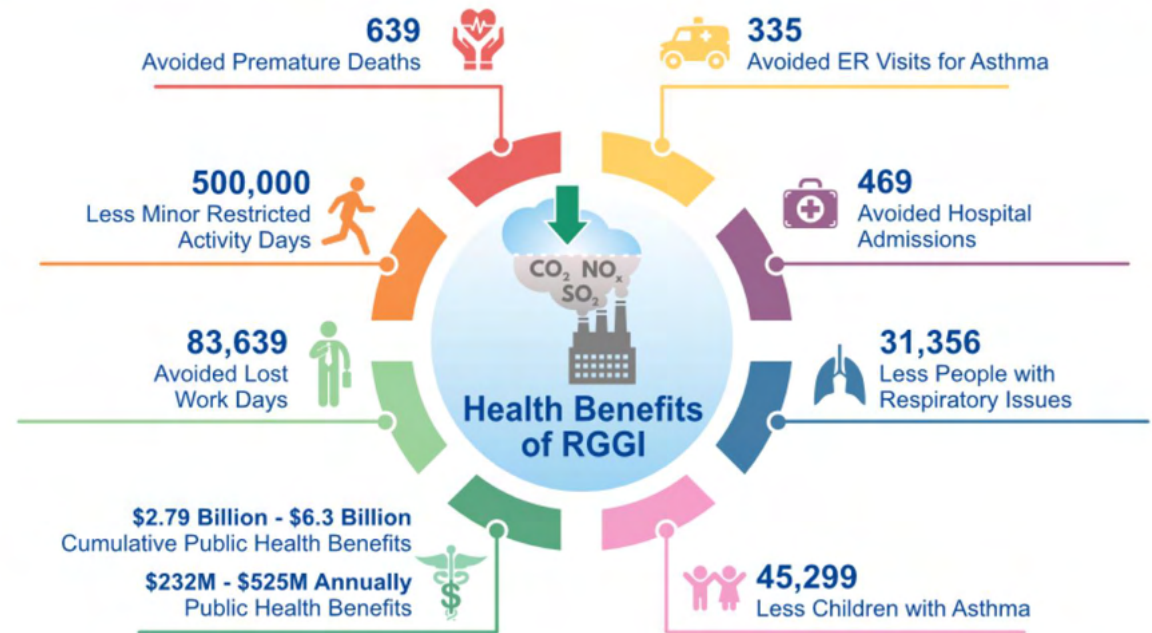
In DEP's final presentation to the EQB it outlined what RGGI means to PA, the department's justifications and specifics to PA's CO2 rule that will be applied when joining RGGI. DEP based many of its assumptions from the 2021 Climate Impacts Report.

Climate Change Impacts in Pennsylvania

- **Flooding is currently the highest-risk hazard** facing Pennsylvania, and flood risks are projected to increase; at the same time, risks from **increasing average temperatures and heat waves** could rise to be as high as flooding is today by mid-century
- **Heat waves will become increasingly common** and will create particular health and economic risks for vulnerable populations
- **All hazards could affect public health negatively**—especially heat waves, increasing temperatures, and flooding
- **Climate change will not affect all Pennsylvanians equally**
Some may be more at risk because of their location (and inability to relocate), income, housing, health, or other factors
- **Landslides and sea level rise can cause severe impacts in the locations where they occur**, but pose relatively low risks statewide
- **Severe tropical storms, flooding, and landslides already pose risks**, and these could become more likely or severe in the future



Health Benefits of RGGI



PROPOSED BENEFITS OF RGGI

RGGI Benefits Pennsylvania

- ✓ **Decreases Emissions:** CO₂ emissions will decrease by more than 10x when compared to future emissions without program participation.
- ✓ **Lowers Electricity Prices:** By 2030 electricity prices with RGGI participation will be lower than they would have been otherwise.
- ✓ **Bolsters Energy Exports:** By 2030 PA electricity exports exceed and continue to climb well above future export capabilities without RGGI.
- ✓ **Generates Jobs:** Reinvestment of RGGI proceeds into the economy will result in a net increase in jobs of over 30,000 in this Commonwealth by 2030.
- ✓ **Reduces Healthcare Costs:** Reductions in pollutants are estimated to save Pennsylvanians billions of dollars in avoided healthcare costs.
- ✓ **Improves Quality of Life:** Less deaths, hospitalizations and ER visits due to cardiac and respiratory issues exacerbated by poor air quality- especially for children.
- ✓ **Grows the Economy:** Gross State Product (GSP) in Pennsylvania by 2030 will increase by \$1.9 billion.



RGGI Investment Framework

How are Auction Proceeds Invested?

- Invested in accordance with the Department's authority under the Air Pollution Control Act to further eliminate air pollution, particularly greenhouse gas emissions in support of the CO₂ Budget Trading Program.

Investment Plan:

- DEP is conducting a robust stakeholder engagement to consider a wide range of investments to reduce air pollution.
- Engaging with many different groups including workers, environmental justice groups, industrial groups, and many others.
- Committed to developing a draft investment plan that is posted for public comment to hear from as many Pennsylvanians as possible.
- Stakeholder engagement and plan development process will unfold throughout 2021 to allow ample time for input.



WHAT IS THE REAL GOAL OF RGGI

To eliminate the all combustion of fossil fuels



END GOAL!

Replace fossil fuels with alternative energy like solar and wind



TIMELINE - PAST

- Feb. 13, 2020 – DEP unveiled preliminary draft to AQTAC
- DEP held various stakeholder hearings (Dec. 2020), meetings and coordinated with DEP's Office of Environmental Justice
- Per the regulatory requirements DEP presented and then held voting meetings with the Citizens Advisory Council, Small Business Compliance Advisory Council, the Environmental Quality Board as well as held numerous meetings with various stakeholder and industries
- Sep. 1, 2021- IRRC approved RGGI
- October 27, 2021 – State Senate votes to disapprove RGGI (SCR 1 Senate Concurrent Regulatory Review Resolution disapproving of the Environmental Quality Board's Reg #7-559 (IRRC #3274) regarding a CO2 Budget Trading Program (RGGI)(Vote: 32-18; included 3 Dems)
- November 8, 2021 – House Environment Committee approves SCR 1, placed on House Calendar (Legislative Day 1)



REGULATORY REVIEW ACT

(EMPHASIS ADDED)

- 1982 Act 181; Section 2. Legislative intent. ...
- It is the intent of this act to establish
 - a method for *ongoing and effective legislative review and oversight in order to foster executive branch accountability*;
 - to provide for primary review by a commission with sufficient authority, expertise, independence and time to perform that function;
 - *to provide ultimate review of regulations by the General Assembly*; and
 - to assist the Governor, the Attorney General and the General Assembly in their supervisory and oversight functions.
 - To the greatest extent possible, this act is intended to encourage the resolution of objections to a regulation and the reaching of a consensus among the commission, the standing committees, interested parties and the agency.



REGULATORY REVIEW ACT SECTION 7 (d)

12/16/2021

- Upon receipt of the commission's order pursuant to subsection (c.1) or at the expiration of the commission's review period if the commission does not act on the regulation or does not deliver its order pursuant to subsection (c.1), one or both of the committees may, within 14 calendar days, report to the House of Representatives or Senate a concurrent resolution and notify the agency.
- During the 14-calendar-day period, the agency may not promulgate the final-form or final-omitted regulation.
- If, by the expiration of the 14-calendar-day period, neither committee reports a concurrent resolution, the committees shall be deemed to have approved the final-form or final-omitted regulation, and the agency may promulgate that regulation.
- If either committee reports a concurrent resolution before the expiration of the 14-day period, the Senate and the House of Representatives shall each have 30 calendar days or ten legislative days, whichever is longer, from the date on which the concurrent resolution has been reported, to adopt the concurrent resolution.
- If the General Assembly adopts the concurrent resolution by majority vote in both the Senate and the House of Representatives, the concurrent resolution shall be presented to the Governor in accordance with section 9 of Article III of the Constitution of Pennsylvania.
- If the Governor does not return the concurrent resolution to the General Assembly within ten calendar days after it is presented, the Governor shall be deemed to have approved the concurrent resolution.
- If the Governor vetoes the concurrent resolution, the General Assembly may override that veto by a two-thirds vote in each house.



REGULATORY REVIEW ACT SECTION 7 (d)

- The Senate and the House of Representatives shall **each** have 30 calendar days or ten legislative days, whichever is longer, to override the veto.
- If the General Assembly does not adopt the concurrent resolution or override the veto in the time prescribed in this subsection, it shall be deemed to have approved the final-form or final-omitted regulation.
- Notice as to any final disposition of a concurrent resolution considered in accordance with this section shall be published in the Pennsylvania Bulletin.
- The bar on promulgation of the final-form or final-omitted regulation shall continue until that regulation has been approved or deemed approved in accordance with this subsection.
- If the General Assembly adopts the concurrent resolution and the Governor approves or is deemed to have approved the concurrent resolution or if the General Assembly overrides the Governor's veto of the concurrent resolution, the agency shall be barred from promulgating the final-form or final-omitted regulation.
- If the General Assembly does not adopt the concurrent resolution or if the Governor vetoes the concurrent resolution and the General Assembly does not override the Governor's veto, the agency may promulgate the final-form or final-omitted regulation.
- The General Assembly may, at its discretion, adopt a concurrent resolution disapproving the final-form or final-omitted regulation to indicate the intent of the General Assembly but permit the agency to promulgate that regulation.

TIMELINE – RECENT

- November 30, 2021 – Governor/DEP submits RGGI through the EQB to the PA Code and Bulletin Office for publication, which denied the regulation because the General Assembly must be able to take action on a disapproval resolution under the Regulatory Review Act
- December 6, 2021 - Attorney General Josh Shapiro (Democrat running for Governor) signed off on RGGI stating that his Office of Legal Review has determined the rule to allow RGGI participation does not conflict with state law
- December 15, 2021 – The state House approved the disapproval resolution (SCR1) by a vote of 130—70
- Both chambers return on January 4th (non-voting)



Bill Number: SCR 1 (PA-21R)
Caption: By Yaw. Senate Concurrent Regulatory Review Resolution disapproving of the Environmental Quality Board's Reg #7-559 (IRRC #3274) regarding a CO2 Budget Trading Program (RGGI).
Vote: H- 688 Adoption
Date: 12/15/21
View: [Switch to Alphabetical](#)

AYES - 130

Armanini, Michael (F)(R); Benninghoff, Kerry(R); Bernstine, Aaron(R); Bizzarro, Ryan(D); Boback, Karen(R); Bonner, Tim(R); Borowicz, Stephanie(R); Boyle, Kevin(D); Brooks, Robert(R); Brown, Amen (F)(D); Brown, Rosemary(R); Burns, Frank(D); Causer, Martin(R); Cook, Bud(R); Cox, Jim(R); Culver, Lynda(R); Cutler, Bryan(R); Davanzo, Eric(R); Davis, Tina(D); Dawkins, Jason(D); Day, Gary(R); DeLuca, Anthony(D); Deasy, Daniel(D); DelRosso, Carrie (F)(R); Delozier, Sheryl(R); Diamond, Russ(R); Dowling, Matthew(R); Dunbar, George(R); Ecker, Torren(R); Emrick, Joe(R); Farry, Frank(R); Fee, Mindy(R); Flood, Ann (F)(R); Fritz, Jonathan(R); Galloway, John(D); Gaydos, Valerie(R); Gillen, Mark(R); Gillespie, Keith(R); Gleim, Barbara(R); Gregory, James(R); Greiner, Keith(R); Grove, Seth(R); Hamm, Joseph (F)(R); Harkins, Patrick(D); Heffley, Doyle(R); Helm, Susan(R); Hennessey, Tim(R); Hershey, Johnathan(R); Hickernell, David(R); Irvin, Rich(R); James, Lee(R); Jones, Mike(R); Jozwiak, Barry(R); Kail, Joshua(R); Kaufer, Aaron(R); Kauffman, Rob(R); Keefer, Dawn(R); Kerwin, Joseph (F)(R); Kim, Patty(D); Klunk, Kate(R); Knowles, Jerry(R); Kulik, Anita(D); Labs, Shelby (F)(R); Lawrence, John(R); Lewis, Andrew(R); Longiotti, Mark(D); Mackenzie, Milou (F)(R); Mackenzie, Ryan(R); Major, Abby(R); Mako, Zachary(R); Maloney, David(R); Markosek, Brandon(D); Marshall, Jim(R); Masser, Kurt(R); Matzie, Robert(D); McNeill, Jeanne(D); Mentzer, Steven(R); Mercuri, Robert (F)(R); Merski, Robert(D); Metcalfe, Daryl(R); Metzgar, Carl(R); Mihalek, Natalie(R); Millard, David(R); Miller, Brett(R); Mizgorski, Lori(R); Moul, Dan(R); Mustello, Marci(R); Neilson, Ed(D); Nelson, Eric(R); O'Neal, Tim(R); Oberlander, Donna(R); Ortitay, Jason(R); Owlett, Clint(R); Peifer, Michael(R); Pennycuick, Tracy (F)(R); Pickett, Tina(R); Pisciotano, Nickolas (F)(D); Polinchock, Todd(R); Puskaric, Michael(R); Rader, Jack(R); Rapp, Kathy(R); Rigby, Jim(R); Roae, Brad(R); Rossi, Leslie(R); Rothman, Greg(R); Rowe, David(R); Ryan, Frank(R); Sainato, Chris(D); Sankey, Thomas(R); Saylor, Stanley(R); Schemel, Paul(R); Schmitt, Lou(R); Schroeder, Meghan(R); Silvis, Jason (F)(R); Smith, Brian (F)(R); Snyder, Pam(D); Sonney, Curt(R); Staats, Craig(R); Stambaugh, Perry (F)(R); Struzzi, James(R); Tomlinson, Kathleen(R); Toohil, Tarah(R); Topper, Jesse(R); Twardzik, Timothy (F)(R); Warner, Ryan(R); Wentling, Parke(R); Wheeland, Jeff(R); White, Martina(R); Williams, Craig (F)(R); Zimmerman, David(R)

NAYS - 70

Benham, Jessica (F)(D); Bradford, Matt(D); Briggs, Tim(D); Bullock, Donna(D); Burgos, Danilo(D); Carroll, Mike(D); Cephas, Morgan(D); Ciresi, Joseph(D); Conklin, Scott(D); Cruz, Angel(D); Curry, Gina(D); Daley, Mary Jo(D); Davis, Austin(D); DeLissio, Pamela(D); Delloso, David(D); Driscoll, Michael(D); Evans, Carol(D); Fiedler, Elizabeth(D); Fitzgerald, Isabella(D); Frankel, Dan(D); Freeman, Robert(D); Guenst, Nancy (F)(D); Guzman, Manuel (F)(D); Hanbidge, Liz(D); Harris, Jordan(D); Herrin, Dianne (F)(D); Hohenstein, Joseph(D); Howard, Kristine(D); Innamorato, Sara(D); Isaacson, Mary(D); Kenyatta, Malcolm(D); Kinkead, Emily (F)(D); Kinsey, Stephen(D); Kirkland, Brian(D); Kosierowski, Bridget(D); Krajewski, Rick (F)(D); Krueger, Leanne(D); Lee, Summer(D); Madden, Maureen(D); Malagari, Steven(D); McClinton, Joanna(D); Mehaffie, Thomas(R); Miller, Daniel(D); Mullery, Gerald(D); Mullins, Kyle(D); Nelson, Napoleon (F)(D); O'Mara, Jennifer(D); Otten, Danielle(D); Parker, Darisha (F)(D); Pashinski, Eddie Day(D); Rabb, Christopher(D); Rozzi, Mark(D); Samuelson, Steve(D); Sanchez, Ben(D); Sappey, Christina(D); Schlossberg, Mike(D); Schweyer, Peter(D); Shusterman, Melissa(D); Sims, Brian(D); Solomon, Jared(D); Stephens, Todd(R); Sturla, Mike(D); Thomas, Wendi(R); Vitali, Greg(D); Warren, Perry(D); Webster, Joseph(D); Welby, Thom(D); Williams, Dan(D); Young, Regina (F)(D); Zabel, Michael(D)

PRESENT-NOT-VOTING - 0

ABSENT - 3

	Democrat		Republican		Independent	
	Votes	%	Votes	%	Votes	%
Yes:	21	23	109	96	0	0
No:	67	74	3	3	0	0

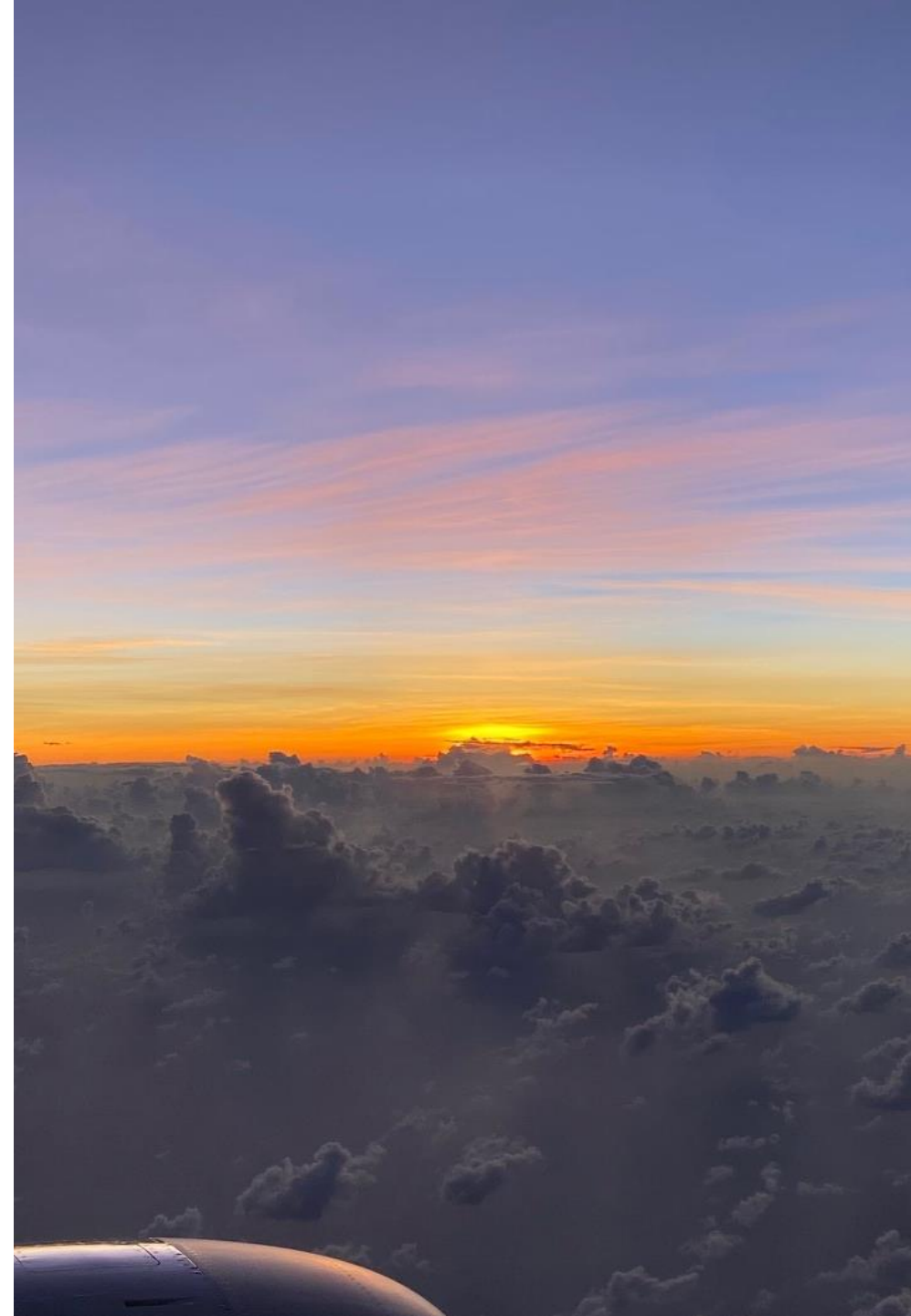
TIMELINE – NEXT STEPS

- Based on the RRA, the Governor will be presented with the resolution in which he is expected to veto it.
- The General Assembly will then have a chance to try and veto it.
- The Wolf Administration and legislative Republicans disagree as to how to read the Regulatory Review Act
The Wolf Administration says the review period for both chambers is concurrent from the day a resolution enters either chamber.
- The Legislative Reference Bureau is siding with Republicans' reading that each chamber has 30 calendar days or ten legislative days consecutively to vote on the disapproval resolution.
- Legal Battle
- Next Governor of PA



FUTURE OF RGGI

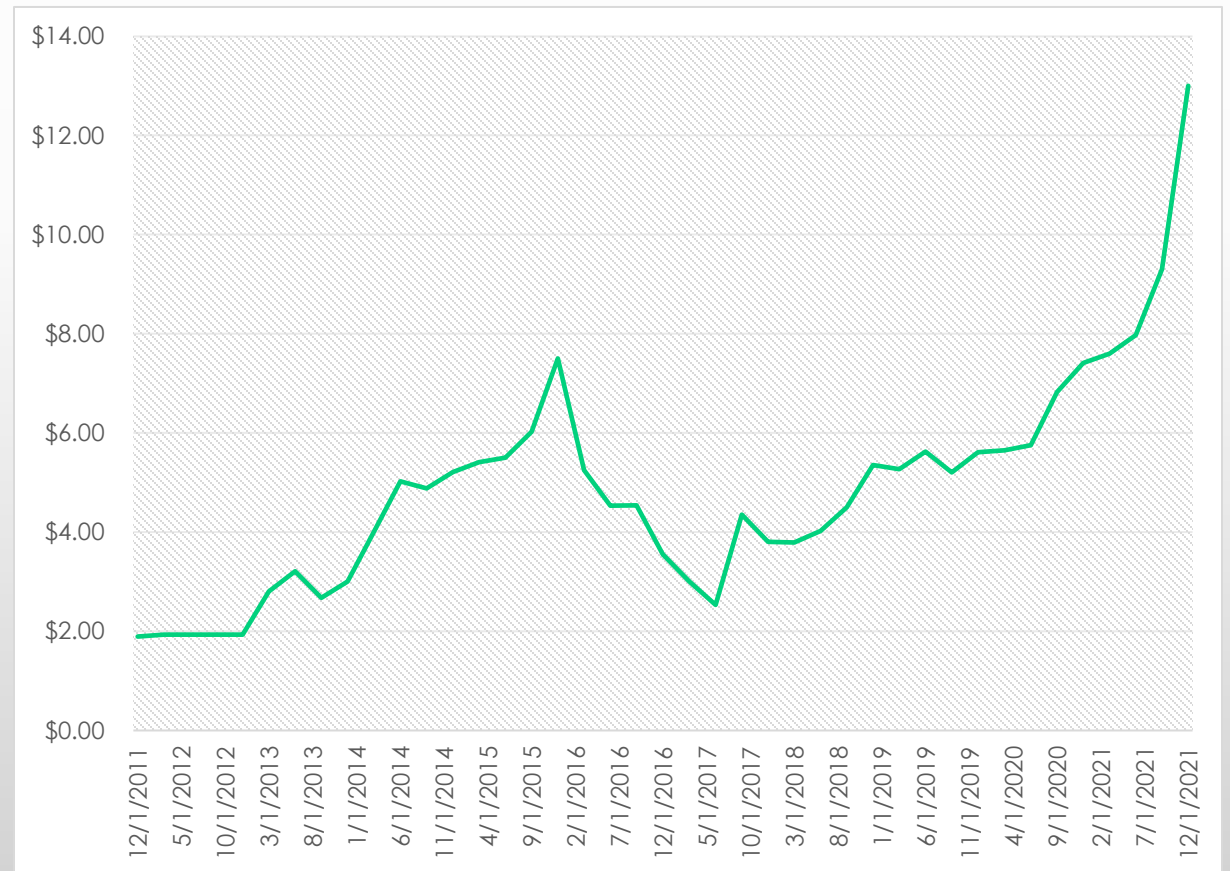
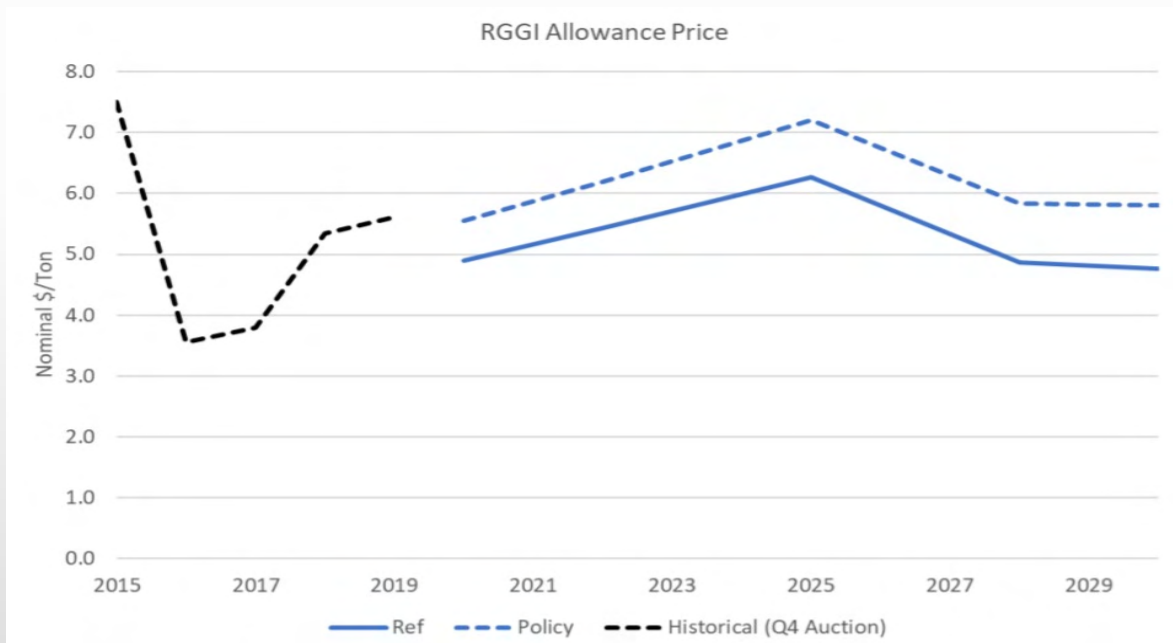
- Virginia Governor-Elect Glenn Youngkin announced in a speech that he will remove his state from RGGI via executive action.
 - Virginia joined RGGI last year after enabling legislation was passed by its General Assembly and signed into law by Governor Ralph Northam.
 - Proponents of RGGI across the state are asserting that the Governor does not have the power to remove the state from the compact without action from the Legislature.
- New Jersey has been in and out and back in of RGGI with the change of its Governor
- Federal Government's next steps
- Unpredictable



RGGI ALLOWANCE PRICE

April 23, 2020 – DEP held a Special Joint Informational Session with AQTAC
 - ICF presented its Modeling Results

RGGI’s actual price since 2011 to last auction held on December 1, 2021 - \$9.30



PROCEEDS

Pennsylvania Auction Proceeds



Estimated PA Annual RGGI Program Revenue (millions)									
	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Revenue	\$320	\$318	\$315	\$311	\$274	\$240	\$207	\$193	\$179

RGGI + Investment Scenario			
	Energy Efficiency	Clean and Renewable Energy	Greenhouse Gas Abatement
Revenue Percentage	31%	32%	31%

Math is fuzzy....

Chart suggest price \$6.50 in 2022 which would result in 48 MM allowances.

Real pricing for first half of 2022 will be \$9.30 based on last auction.

Resulting in actual auction proceeds for PA of

\$446,400,000.00

ENVIRONMENTAL JUSTICE





HISTORY OF THE OFFICE OF ENVIRONMENTAL JUSTICE

- In 1999, DEP developed a statewide [Environmental Justice Work Group \(EJWG\)](#) under Republican Governor Tom Ridge.
- In 2001, the EJWG produced the Environmental Justice Work Group Report which recommended to the DEP to develop an [Environmental Justice Advisory Board and an Office](#) within DEP to address environmental justice issues.
- In 2002, under Republican Governor Mark Schweiker DEP established the [Office of Environmental Advocate](#) as a resource and a point of contact for addressing environmental concerns, and to foster community involvement by increasing community awareness. The goals are to create environmental policies to protect vulnerable communities and sensitivity for all by including community members and advocates as partners and participants in the planning and decision-making processes.
- With the creation of the [Environmental Justice Public Participation Policy](#) in 2004 under Democratic Governor Ed Rendell, residents in environmental justice communities were granted enhanced public participation opportunities during the permitting process with certain major permit applications, in addition to the normal course of public involvement. The policy provides EJ communities the opportunity of an informational public meeting, a summary of the proposed application, increased outreach and access to information on permit applications, and the involvement of a regional coordinator to facilitate communication between the industry, DEP, and the community.



EPA Region 6, Environmental Justice Training Workshop (2014)

ENVIRONMENTAL JUSTICE ADVISORY BOARD



- The Environmental Justice Advisory Board (EJAB) is charged with overseeing the implementation of DEP's Enhanced Public Participation Policy.
- EJAB provides a forum for protecting the health of communities, especially communities with the greatest concentration of environmental risks.
- The EJAB shall review and make recommendations to DEP management on existing and proposed regulations and policies that impact the environmental health of communities.
- EJAB also provides a forum for stakeholders to share environmental concerns in their communities.
- EJAB meets quarterly and all meetings are open to the public.



FOR PERMIT APPLICANT

- If the facility will be located within an EJ Community, DEP recommends following the steps outlined below:
 - Become familiar with the [Environmental Justice Enhanced Public Participation Policy](#).
 - Contact the [EJ coordinator in your region](#).
 - Engage the local community early in the process and schedule at least one public meeting. The EJ coordinator will assist in planning an effective community meeting.
- **Sample Documents:**
 - [Covanta Energy Corporation's Community Outreach and Environmental Justice Policy \(PDF\)](#)
 - [Plain Language Summary \(PDF\)](#)
 - [Meeting Invitation Flyer \(PDF\)](#)
 - [EJ Community Involvement Checklist \(PDF\)](#)
 - [Permit Applicant Outreach Activities Guide Fact Sheet \(PDF\)](#)
 - [Public Notice \(PDF\)](#)

RGGI Equity Principles

Environmental justice ensures fair treatment and meaningful involvement of all people in the development of environmental laws, regulations and policies and embodies the principle that populations should not be disproportionately exposed to environmental impacts.

DEP has developed and prioritized for implementation, a set of **RGGI Equity Principles** whereby the Department in development of this rulemaking and associated investment framework commits to :

- Inclusively gathering and considering input from the public related to decisions made under RGGI.
- Protecting public health and welfare, mitigating any adverse impacts on human health, especially in EJ communities.
- Working equitably and with intentional consideration to distribute environmental and economic benefits of the proceeds of allowance auctions.





PUBLIC FUNDING OPPORTUNITIES

Federal Funding

U.S. Environmental Protection Agency Community Action for a Renewed Environment Program

- **The Environmental Justice Collaborative Problem-Solving (CPS) Cooperative Agreement Program** - Provides funding for eligible applicants for projects that address local environmental and public health issues within an affected community.
- **The Environmental Justice Small Grants Program** - Supports and empowers communities working on solutions to local environmental and public health issues.
- **The State Environmental Justice Cooperative Agreement Program (SEJCA)** Provides funding to eligible applicants to support and/or create model state activities that lead to measurable environmental or public health results in communities disproportionately burdened by environmental harms and risks.
- **Diesel Emissions Reduction Act (DERA) Grants** - Funds clean diesel technology through the National Clean Diesel Campaign. These technologies include emissions and idle control devices, aerodynamic equipment, engine and vehicle replacements, and alternative fuel options.

State Funding

- **Pennsylvania Department of Community and Economic Development (PA DCED)**
- **Community Development and Planning**
- **General Assistance Websites**
- **DEP – Environmental Education Grants:** Provides funding for environmental education projects that address: watersheds, air quality, brownfields, sustainable energy, climate change, geologic resource extraction, environmental literacy, formal and non-formal EE Certification, STEM education, curriculum revision or integration and other environment and ecology topics.
- **DEP - Pollution Prevention Reimbursement (Pump & Plug UST):** Grants are issued to eligible tank owners of underground storage tanks.
- **DEP - Small Business Advantage Grant Program:** Provides reimbursement grant funding to promote the pollution prevention and energy efficiency practices of small businesses.
- **DEP – Energy Conservation and Pollution Prevention Grants, Rebates and Loans:** Several rebates programs, loans, and grants available to individuals and organizations.



PRIVATE FUNDING OPPORTUNITIES

Foundation Grants

- **The Norman Foundation:** Supports efforts that strengthen the ability of communities to promote economic justice and development through **community organizing, coalition building, and policy reform efforts; work to prevent the disposal of toxics in communities and to link environmental issues with economic and social justice;** link community-based economic and environmental justice organizing to national and international reform efforts.
- **Coldwater Heritage Partnership:** Grants for up to \$6,000 to facilitate community support for natural resource conservation in Pennsylvania.
- **National Trails Fund:** Grants ranging from \$500 to \$5,000 for non-profit organizations that are committed to protecting nature and helping Americans enjoy the outdoors..
- **Lee Initiatives Health and Wellness Grants:** Grants ranging up to \$50k for non-profit organizations that improve the **overall health of residents.**
- **Colcom Foundation:** The foundation's principal funding interests reflect a primary concern for quality of life, which it strives to address with honesty, compassion and responsibility.
- **Foundation for Pennsylvania Watersheds:** The grant-making foundation that invests in local efforts to protect healthy, natural streams, to clean up pollution and to restore degraded wildlife habitat. **The foundation's goal is to assist grassroots organizations with project implementation.**
- **Heinz Endowments:** Heinz has a history of providing funds for economic development targeted at addressing the needs of low-income areas in the Pittsburgh region.



EXAMPLE OF CURRENT OPEN GRANT



- EPA Opens \$20 Million Competitive Grant Competition for Community Air Pollution Monitoring through the American Rescue Plan (ARP) to enhance ambient air quality monitoring in communities across the United States, especially in underserved and overburdened communities that often lack access to adequate air quality information. EPA will award funds to support community and local efforts to monitor air quality and to promote air quality monitoring partnerships between communities and Tribal, state, and local governments. Community-based nonprofit organizations, Tribes, states, and local governments may apply for the grants.
- Under the ARP, Congress provided EPA with a one-time supplemental appropriation of \$100 million to address health outcome disparities from pollution and the COVID-19 pandemic. Of that \$100 million, \$50 million has been dedicated to environmental justice (EJ) initiatives that identify and address disproportionate environmental or public health harms in underserved communities, and \$50 million is dedicated to address air monitoring for the same issues.

WHAT'S NEW FOR EJ'S

- On October 28, 2021, [Governor Wolf](#) issued an [Executive Order](#) strengthening his administration's efforts to address environmental justice and support low-income communities and communities of color that are adversely impacted by environmental issues and adverse health impacts by:
 - Permanently establishes the Department of Environmental Protection's (DEP) Office of Environmental Justice, headed by a director of Environmental Justice appointed by the DEP secretary.
 - Formally establishes the Environmental Justice Advisory Board and an Environmental Justice Interagency Council.
- [Democratic State Representatives](#) Donna Bullock, Malcolm Kenyatta and Chris Rabb and state Senator Vincent Hughes have proposed bills to support the governor's executive actions.
 - Their bills would
 - require a more transparent and open process before certain facilities are built or expanded within areas defined as "burdened communities,"
 - [codify the Office of Environmental Justice](#) within DEP and
 - codify the Environmental Justice Advisory Board.
 - These legislative actions would protect these actions from being unilaterally disbanded.
 - "Environmental injustice is one of the most urgent issues of our time," Kenyatta said. "It is linked to racial injustice, as people of color tend to be most negatively affected by climate change."



FEDERAL INFRASTRUCTURE BILL

What are the major provisions?

How does it help the oil and gas sector?

What are the tax implications?



MAJOR PROVISIONS

- **H.R.3684 - Infrastructure Investment and Jobs Act**
- Signed by President Biden on November 15, 2021
- Bill addresses provisions related to federal-aid highway, transit, highway safety, motor carrier, research, hazardous materials, and rail programs of DOT.
- Among other provisions, the bill
 - extends FY2021 enacted levels through FY2022 for federal-aid highway, transit, and safety programs;
 - reauthorizes for FY2023-FY2026 several surface transportation programs, including the federal-aid highway program, transit programs, highway safety, motor carrier safety, and rail programs;
 - addresses **climate change**, including strategies to reduce the climate change impacts of the surface transportation system and a vulnerability assessment to identify opportunities to enhance the resilience of the surface transportation system and ensure the efficient use of federal resources;
 - **revises Buy America procurement requirements** for highways, mass transit, and rail;
 - establishes a rebuild rural bridges program to improve the safety and state of good repair of bridges in rural communities;
 - implements new safety requirements across all transportation modes; and
 - directs DOT to establish a pilot program to demonstrate a national motor vehicle per-mile user fee to restore and maintain the long-term solvency of the Highway Trust Fund and achieve and maintain a state of good repair in the surface transportation system.

Infrastructure Investment and Jobs Act (Selected energy RD&D programs, \$ in millions)

Carbon management	
Regional direct air capture hubs	3,500
Carbon capture demonstration and pilot programs	3,474
Carbon storage commercialization	2,500
Carbon dioxide transportation infrastructure loans	2,100
Industrial decarbonization demonstration projects	500
Carbon utilization program	310
Direct air capture prizes	115
Clean hydrogen	
Regional clean hydrogen hubs	8,000
Clean hydrogen electrolysis demonstration program	1,000
Clean hydrogen manufacturing and recycling program	500
Energy storage	
Battery material processing infrastructure grants	3,000
Battery manufacturing and recycling infrastructure grants	3,000
Energy storage demonstration projects	505
Battery recycling RD&D grants	125
Critical minerals and materials	
Mineral security projects	802
Rare earth elements demonstration facility	140
USGS Earth Mapping Resources Initiative	320
USGS energy and minerals research facility	167
Renewable energy	
Water power	156
Wind energy	100
Geothermal energy	84
Solar energy	80
Grid resilience	
Grid resilience and reliability demonstration projects	5,000
Nuclear energy	
Advanced reactor demonstration program	2,477
Advanced manufacturing	
"Future of Industry" program and industrial research centers	550

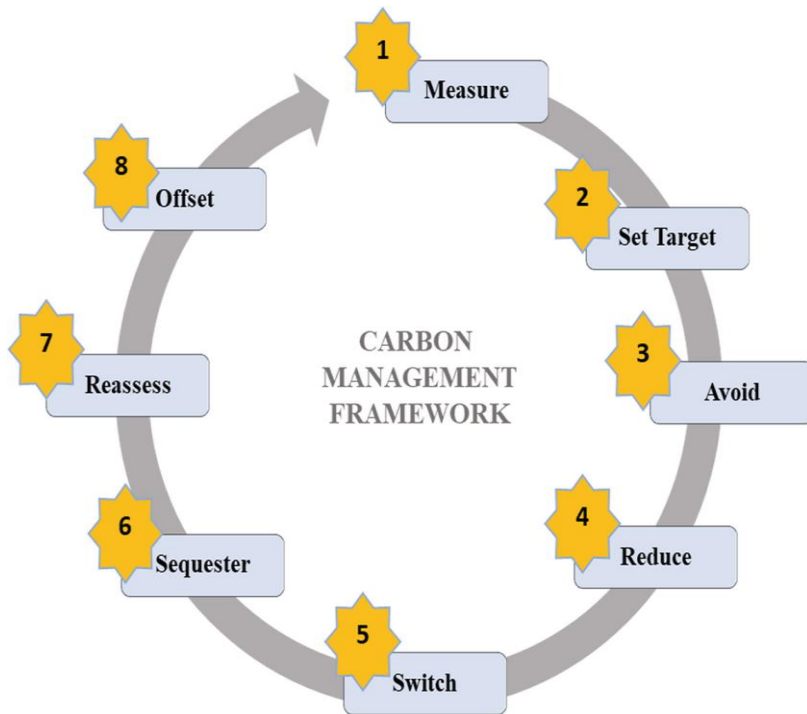
* All funds are for DOE unless otherwise noted



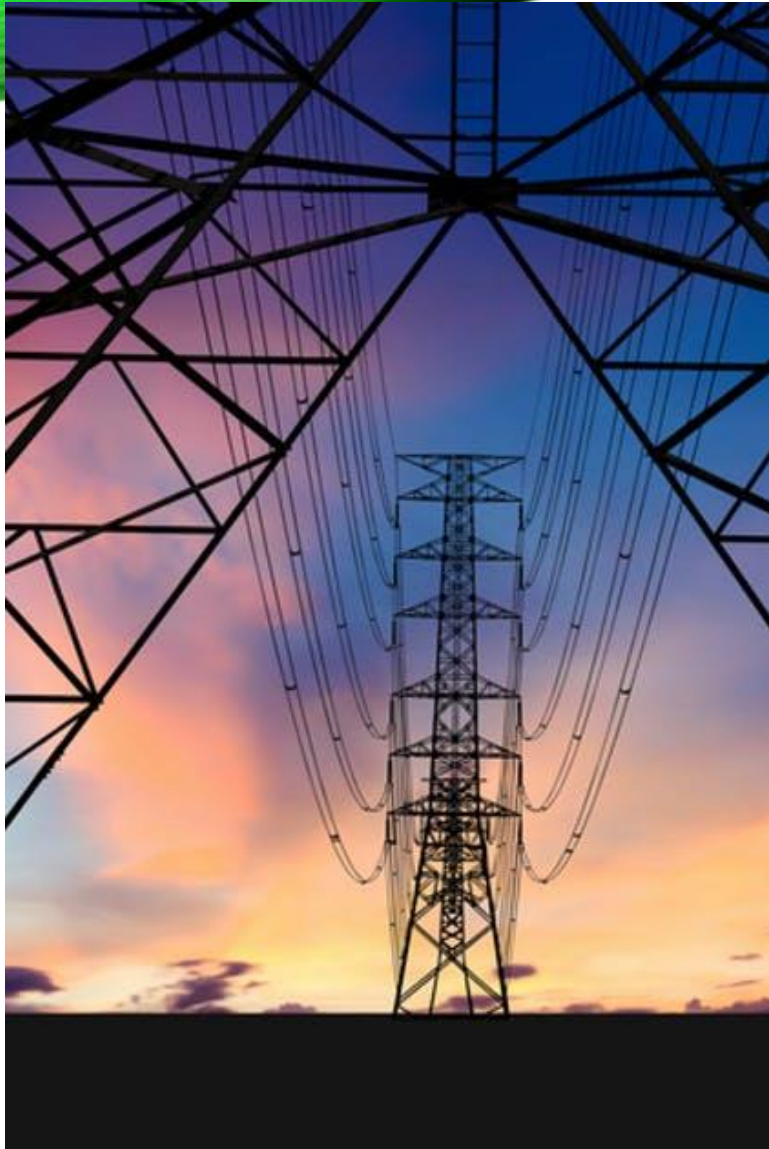
POSITIVE OUTCOMES FOR NATURAL GAS CUSTOMERS & COMMUNITIES

- Important provisions in the bill include:
- **Energy Efficiency Revolving Loan Fund Capitalization Grant Program:** Includes funds to increase energy efficiency by leveraging high-efficient systems which use [natural gas and hydrogen](#).
- **Cost-Effective Codes Implementation for Efficiency and Resilience:** Directs that building codes take a holistic and equitable approach measuring building energy savings rather than just measuring the energy used on site.
- **Hydrogen Research and Development:** Includes research and development related to [hydrogen](#) for end-use, including commercial and residential heating, transportation, storage, the safe and efficient delivery of hydrogen using pipelines, and [hydrogen hubs](#)
- **Grants for Charging and Fueling Infrastructure:** Establishes a grant program to strategically deploy publicly accessible [electric vehicle charging infrastructure](#), [hydrogen fueling](#) infrastructure, [propane](#) fueling infrastructure, and [natural gas fueling](#) infrastructure along designated alternative fuel corridors or in locations accessible to all drivers of electric, hydrogen, propane, and natural gas vehicles.
- **Energy Cyber Sense Program:** Creates a voluntary U.S. Department of Energy (DOE) program to help examine [cybersecurity technologies](#) intended for use in the energy sector.
- **Enhanced Grid Security:** Directs DOE to operate an energy sector cybersecurity research, development and deployment program and an advanced program to secure energy networks against natural and man-made hazards.
- **Low Income Home Energy Assistance (LIHEAP):** Allocates an additional \$500 million over 5 years to the LIHEAP program.

CARBON MANAGEMENT



- The bill represents a sea change in DOE’s support for [carbon capture, utilization, and storage \(CCUS\)](#), providing more than **\$6 billion** over five years for R&D and technology demonstrations. Over half the funding will go to carbon capture projects, with the Energy Act stipulating that DOE aim to **fund six demonstration projects: two for coal power plants, two for natural gas power plants, and two for industrial facilities.** **The Energy Act further directs DOE to support two carbon storage projects, one in each of the “two major coal-producing regions in the United States.”**
- In addition to the CCUS funding, the infrastructure bill provides \$3.5 billion over five years **to establish four regional “hubs” for removing carbon dioxide directly from the atmosphere**, an initiative not included in the Energy Act. The bill prioritizes projects that are scalable and directs DOE to locate **two of the hubs** “to the maximum extent practicable ... **in economically distressed communities** in the regions of the United States **with high levels of coal, oil, or natural gas resources.**” The bill also provides \$115 million in one-time funding for prize competitions focused on pre-commercial and commercial direct air capture technologies.
- The bill further provides more than \$2 billion to set up a loan program to support the construction of [infrastructure for transporting carbon dioxide](#) and \$500 million over four years to fund demonstration projects for reducing greenhouse gas emissions from industrial sources.



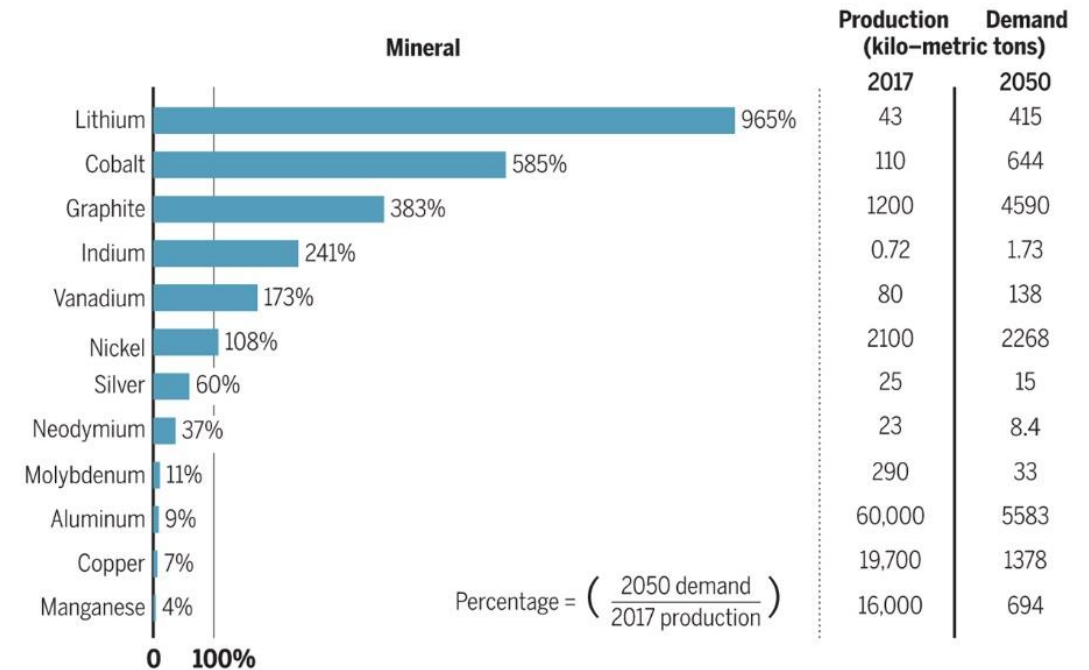
CLEAN ENERGY TRANSMISSION

- The Bipartisan Infrastructure Deal's more than **\$65 billion** investment is the largest investment in **clean energy transmission** and the electric grid in American history.
- It upgrades our power infrastructure, including by building thousands of miles of new, resilient transmission lines **to facilitate the expansion of renewable energy**.
- It creates a **new Grid Deployment Authority**, invests in research and development for advanced transmission and electricity distribution technologies, and promotes smart grid technologies that deliver flexibility and resilience.
- It also invests in demonstration projects and research hubs for next generation technologies like advanced nuclear reactors, carbon capture, and clean hydrogen.

CRITICAL MINERALS

- Over **\$1.6 billion** is directed to **critical minerals R&D and supply chain security programs**, split between DOE and the U.S. Geological Survey.
- DOE will receive \$400 million across four years to award R&D grants related to the **mining and recycling of critical minerals** and \$140 million, all in the current fiscal year, to support the establishment of an **academic facility** that will research the reclamation and refinement of rare earth elements.
- USGS is allocated \$167 million in the current fiscal year to establish a **USGS-owned academic facility** for research in energy and minerals.
- The agency will also receive \$320 million over five years to expand its **Earth Mapping Resources Initiative**. Earth MRI currently has an annual budget of just over \$10 million, supporting efforts to identify and map critical mineral resources in the U.S.

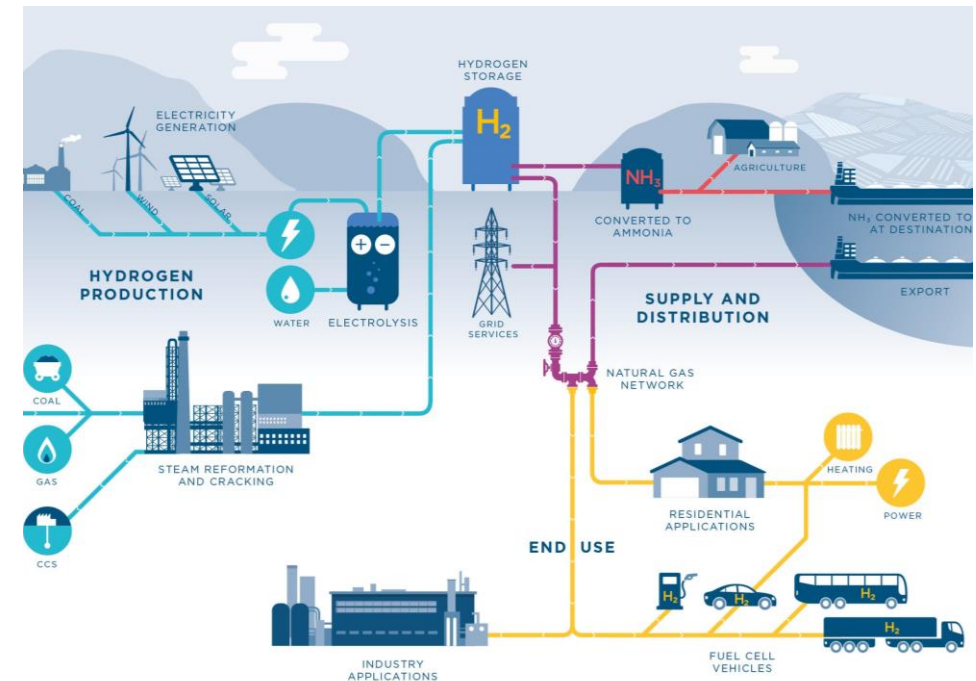
Growth in mineral needs for low-carbon energy technology



All production and demand data reflect annual values. 2017 data reflect annual production for all uses. 2050 data reflect estimated demand for only low-carbon energy technology uses. Data from (7).

REGIONAL CLEAN HYDROGEN HUBS

- The bill dramatically expands DOE’s support for hydrogen fuel, providing **\$8 billion over five years** to support the establishment of **four regional hubs for producing “clean” hydrogen**, another initiative not included in the Energy Act.
- **Hydrogen** could potentially serve as an important clean fuel source for applications in areas such as transportation and industry, but currently its most economical means of production is from fossil fuels, which entails high greenhouse gas emissions. **“Green hydrogen” produced from renewable energy has no such emissions**, but it involves high costs, which DOE’s recently announced **“Hydrogen Shot”** initiative aims to drive down by 80%.
- The bill stipulates that at least **one of the hubs should employ fossil fuels coupled with carbon capture**, at least one should employ renewable energy, and at least one should employ nuclear energy.
- The bill also stipulates that **at least two of the hubs should be located in regions that produce natural gas**.
- Aside from the regional hub program, the bill includes \$1 billion for a **clean hydrogen electrolysis** demonstration program and \$500 million for a clean hydrogen manufacturing and recycling program.



LEGACY POLLUTION



- Delivers the largest investment in tackling legacy pollution in American history by cleaning up Superfund and brownfield sites, [reclaiming abandoned mines, and capping orphaned oil and gas wells](#).
 - Millions of Americans also live within a mile of the tens of thousands of abandoned mines and oil and gas wells – a large, continuing course of methane, a powerful greenhouse gas that is a major cause of climate change.
 - The bill will invest [\\$21 billion to clean up Superfund and brownfield sites, reclaim abandoned mine land, and cap orphaned oil and gas wells](#). These projects will remediate environmental harms, address the legacy pollution that harms the public health of communities, create good-paying, union jobs, [and advance long overdue environmental justice](#). This investment will benefit communities of color like the 26% of Black Americans and 29% of Hispanic Americans who live within three miles of a Superfund site – a higher percentage than for Americans overall.
- **A [\\$4.7 billion](#) job creation package aimed at creating tens of thousands of good-paying jobs** for people to begin the task of finding and [sealing off orphaned oil and gas wells](#).
 - Changes liability coverage—a.k.a. “[bonding](#)”—that will help **ensure that oil and gas companies operating on federal lands have the money on hand to clean up spent oil and gas wells when they’re done**, instead of passing the buck to taxpayers.

RUSH TO USE FUNDS AND PLUG WELLS

- DEP is rushing to line up plug-ready wells as it awaits the first wave of funding.
- To put the funding increase in perspective, consider that Pennsylvania's Office of Oil and Gas Management has spent a total of **\$37 million over the last three decades to plug 300 wells** — most of them to rectify emergency situations like contaminated water, houses blowing up or methane gas filling up a church.
- In contrast, the state Department of Environmental Protection is lining up a **batch of 500 wells to plug with just the first \$25 million** infusion of federal money from the U.S. Department of the Interior.
- The agency has already issued two bulletins to the oil and gas industry seeking contractors for plugging jobs — and for related services, such as documenting pollution, site reclamation, and erosion and sediment control.
- As of mid-November, **nearly 100 companies** had responded. Environmental groups and universities could get contracts and find subcontractors to perform the needed work.
- The first wells to be plugged will be ones with critical environmental problems or safety issues, such as methane venting into the air or briny water or oil leaking into streams, water supplies or aquifers.
- In most cases, wells are plugged by removing old metal casing from the wells, which can be 3,000 feet deep or more, and plugging the full length of the shaft with cement or a nonporous gel or slurry.



PLUGGING CONTRACTOR INFORMATION

- DEP's Well Plugging Program issues contracts for orphan and abandoned well plugging projects through the Construction Contracts Division. The number and size of projects vary from year-to-year. If interested in being notified about bidding opportunities, please contact the Legacy Well and Geologic Services Section at 717.772.2199.
- For more information about how to become eligible to bid on projects or to view bidding opportunities, use the following links.
 - [Information for Bidding on Well Plugging Contracts \(PDF\)](#)
 - [Construction Contracts](#)
 - [General Conditions for Construction \(2016, PDF\)](#)
 - [General Help for Vendors \(PDF\)](#)
 - [Pennsylvania's Supplier Service Center](#)
 - [Commonwealth's Supplier Service Center – BidExpress](#)
 - [eMarketplace](#)
- Plugging and Plugging Support Contractors Wanted: With funding being imminent, DEP is seeking firms to complete a registration survey to assess the interest, availability and ability to perform plugging and plugging support work. [Click here to take the survey.](#)
- Resources
 - [Farmline Maps](#)
 - [Video: Historical Oil and Gas Wells in Pennsylvania](#)
 - [Current orphan, abandoned, and DEP plugged well report](#)
 - [Oil and Gas Online Mapping Tool](#)
 - [Historical Oil and Gas Development in Allegheny County](#)
 - [GSA Poster](#)
 - [Abandoned and Orphan Oil and Gas Wells And The Orphan Well Plugging Fund \(PDF \)](#)
 - [PIOGA Plugging Workshop](#)

CURRENT ORPHAN OR ABANDONED WELL PLUGGING PROGRAM (OAWP)

- Act 13 of 2012 establishes the Marcellus Legacy Fund and allocates funds to the Commonwealth Financing Authority for funding orphan or abandoned well plugging projects using the Orphan or Abandoned Well Plugging Program (OAWP).
- There is a maximum of \$1,000,000 for any project.
- **Eligibility**
 - Projects which involve the cleaning out and plugging of abandoned and orphan oil and gas wells; stray gas mitigation systems; and well venting projects.
 - Municipalities
 - Authorized Organization
 - Institution of Higher Education
 - Watershed Organization
 - For-Profit Businesses
 - Councils of Governments





WHAT ARE THE TAX IMPLICATIONS?

- **Major Tax Changes in the American Jobs Plan**
 - The American Jobs Plan would include the following major tax changes:
 - Raise the federal statutory corporate tax rate from 21 percent to 28 percent.
 - Raise the tax on Global Intangible Low Tax Income (GILTI) from 10.5 percent to 21 percent, calculate GILTI on a per-country basis, and eliminate the exemption of the first 10 percent return on foreign qualified business asset investment (QBAI).
 - Repeal the foreign derived intangible income (FDII) deduction.
 - Impose a 15 percent minimum tax on corporate book income for firms with over \$2 billion in net income.

TAX IMPLICATIONS CONT'D

- The American Jobs Plan would also include the following tax changes which we did not model, due to a lack of data and/or a lack of policy detail, and which in total roughly offset each other in terms of revenue as estimated by the administration:
 - Replace the Base Erosion Anti-Abuse Tax (BEAT) with the Stopping Harmful Inversions and Ending Low-Tax Developments (SHIELD).
 - [Increase taxation of foreign fossil fuel income.](#)
 - Restrict deductions for domestic interest expense.
 - Remove tax deductions for offshoring jobs, offset with a credit for onshoring jobs.
 - Support research and development expenditures as an offset for repeal of FDII.
 - Support housing and infrastructure through expanded Low-Income Housing Tax Credit and other provisions.
 - [Prioritize clean energy through repeal of fossil fuel tax preferences and various clean energy tax credits.](#)





TAX IMPLICATIONS CONT'D

The updated draft legislation would include the following major changes, effective January 1, 2022, unless otherwise noted:

Individual Income Taxes

- Create a new surcharge on **modified adjusted gross income** (MAGI), defined as adjusted gross income less investment interest expense, equal to 5 percent on MAGI in excess of \$10 million plus 3 percent on MAGI above \$25 million.
- Extend the American Rescue Plan Act (ARPA) Child Tax Credit (CTC) expansion through 2022, and make the entire CTC fully refundable on a permanent basis
- Extend the ARPA's temporary expansion of the **Earned Income Tax Credit (EITC)** eligibility, phase-in rates, and amount through 2022
- Limit Individual Retirement Accounts (IRAs) contributions when balances reach \$10 million and accelerate required minimum distributions for those accounts
- Raise the cap on the **state and local tax (SALT)** deduction from \$10,000 to \$80,000 and extend this cap through 2030. The \$80,000 SALT cap amount would also apply to the 2021 tax year. For 2031, the SALT deduction cap would be set at \$10,000.

Pass-through Business Taxes

- Expand the base of the **3.8 percent Net Investment Income Tax** (NIIT) to apply to active business income for pass-through firms
- Make permanent the active pass-through loss limitation enacted in the 2017 Tax Cuts and Jobs Act (TCJA)

Corporate and International Taxes

- Impose a 15 percent minimum tax on corporate [book income](#) for corporations with profits over \$1 billion, effective for tax years beginning after December 31, 2022
- Create a 1 percent [excise tax](#) on the value of stock repurchases during the taxable year, net of new issuances of stock, effective for repurchases after December 31, 2021. Excluded from the tax are stock contributed to retirement accounts, pensions, and employee-stock ownership plans (ESOPs).
- [Change the Global Intangible Low-Taxed Income \(GILTI\)](#) regime, effective for tax years beginning after December 31, 2022, including:
 - Reduce the deduction for GILTI to 5 percent, resulting in a tax rate of 15 percent
 - Calculate GILTI on a country-by-country basis
 - Reduce the deduction for Qualified Business Asset Investment (QBAI) to 5 percent
 - Reduce the foreign tax credit (FTC) haircut to 5 percent and allow FTCs to be carried forward for 5 to 10 years and disallow FTC carrybacks
 - Exempt GILTI from expense allocation rules
 - [Include foreign oil and gas extraction income \(FOGEI\)](#)
- Reduce the deduction for [Foreign-Derived Intangible Income \(FDII\)](#) to 21.875 percent, resulting in a tax rate of 15.8 percent, effective for tax years beginning after December 31, 2022
- Create a new limitation on interest expense deductions for certain multinational corporations, effective for tax years beginning after December 31, 2022
- Modify the [base erosion and anti-abuse tax \(BEAT\)](#) for multinational corporations
- Create a new limitation on foreign company base sales and services income





TAX IMPLICATIONS CONT'D

Other Modeled Tax Proposals

- Delay the requirement to amortize research and development (R&D) expenses over five years, instead of taking immediate deductions, to begin after 2025 instead of after 2021
- **Modify, extend, and create a variety of tax credits for green energy and other efforts primarily through 2031 or 2033**
- Reinstatement of the Superfund tax on crude oil and imported petroleum at 16.4 cents per gallon (indexed to inflation), and double the reinstated Superfund tax on the sale of chemicals
- Levy a federal excise tax on nicotine specified at \$50.33 per 1,810 milligrams of nicotine.



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