

# Sustainability Committee Report

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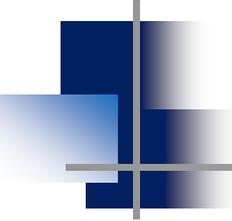
Mathieu Bouchard

NLA Staff

NLA Sustainability Committee

May 5, 2022

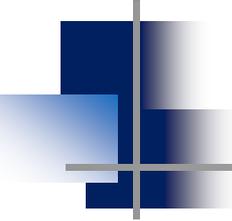
1 p.m. Eastern via Zoom



# Legislative Activity

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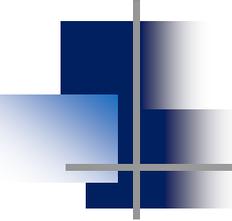
- Climate legislation was stopped last year when Senator Manchin (D-WV) said he would oppose reconciliation bill
- Senator Sinema (D-AZ) also unsure
- \$555 billion in climate incentives were on the table



## Legislative Activity—Cont'd

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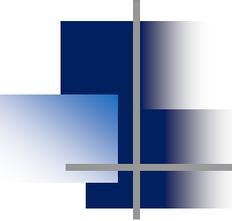
- Biden Administration has been wooing Manchin to compromise
- Meeting on April 25<sup>th</sup> of several moderate Democrat Senators (including Manchin) to discuss a path forward



# Legislative Activity—Cont'd

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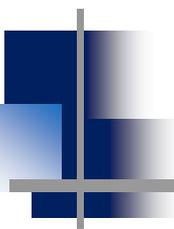
- Paths forward in the Senate:
  - Reconciliation—limits on options but requires only 50 votes plus VP Harris
  - Compromise bill—can do anything including expediting energy project permitting (which Manchin wants) but requires 60 votes to overcome an expected filibuster



## Legislative Activity—Cont'd

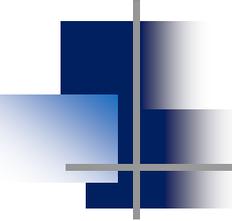
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- Climate legislation that includes rules or restrictions won't happen this year
- It is possible that Congress would agree to pass climate spending incentives
- Likely Republican gains in the midterms make them less likely to compromise
- But for the same reason, Democrats have a reason to take action now



# NLA GHG Protocol Findings 2019 & 2020

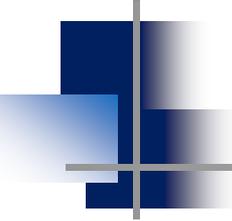
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# NLA GHG Protocol Responses

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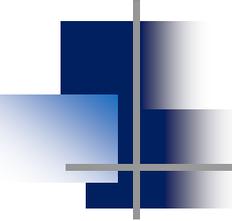
	2011	2019	2020
No. of Companies	16	12	12
No. of Plants	48	45	43



# NLA Member Kilns in Operation

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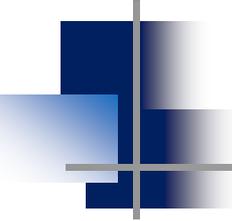
	2019	2020
Straight Rotary	49	48
Rotary Preheater	61	57
Vertical/Twin-shaft Vertical	10	10



# Data Collected

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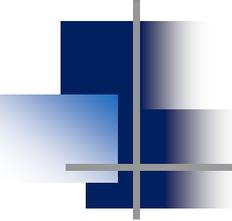
- Calcination Emissions (by kiln)
  - Product type
  - %CaO and %MgO
  - Production, calculated emissions
- Byproducts and Waste Emissions
  - Waste type
  - %CaO and %MgO
  - Amount Sold/Not Sold, calculated CO<sub>2</sub> emissions



# Data Collected

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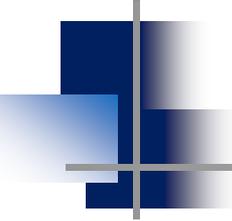
- Kiln Fuel Emission
  - Fuel types and amounts (by kiln)
  - Fuel heat values
  - Calculated CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O emissions
  - CO<sub>2</sub> CEMS (EPA Tier 4) – 2 companies, 5 plants
- Other Combustion Sources (OCS)
  - As per EPA “Report CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emissions from each stationary fuel combustion unit other than lime kilns.”
  - Fuel type, amount, and calculated CO<sub>2</sub> emissions



# Data Not Collected

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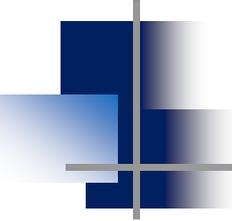
- Purchased electricity (~4-6% total emissions)
- Portable and emergency equipment (<1%)
- Quarry/Mine fuel (<1%)
- Emissions sequestered (0.3%)



# Lime Produced and Byproducts Recycled

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Million (MM) Metric Tons			
	2011	2019	2020
Quicklime	17	15.6	13.9 (-9% from 2020)
Byproducts Recycled	1.0	1.4	1.0



# Production Breakdown

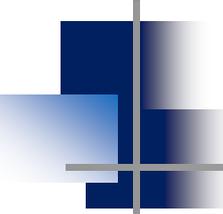
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Lime Product	% Total Production		
	2011	2019	2020
Hi-Cal	78	79	79
Dolo	21*	19	18
Other (Mag lime, dead-burned, brick grain)		2	3

\* Dolo plus "Other"

# Byproduct Recycling

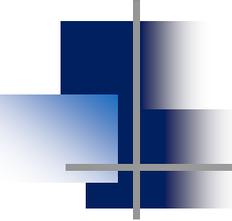
WASTE TYPE	Recycling Rate (%)	
	2019	2020
BLENDED/UNSPECIFIED LKD	58.5%	49.4%
DOLO LKD	<b>72.8%</b>	<b>66.4%</b>
DOLO OFF-SPEC LIME	0%	0.0%
DOLO SCRUBBER SLUDGE	0%	0.0%
HICAL LKD	<b>70.3%</b>	<b>73.1%</b>
HICAL OFF-SPEC LIME	34.8%	27.9%
HICAL SCRUBBER SLUDGE	0.0%	0.0%
MAG LIME LKD	0.0%	0.0%
MAG LIME OFF-SPEC LIME	0.0%	0.0%
MAG LIME SCRUBBER SLUDGE	0.0%	0.0%
OTHER CALCINED WASTE	7.5%	10.1%



# Byproduct/Waste Statistics

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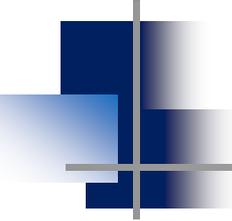
	2011	2019	2020
Overall Recycling Rate (LKD sold/total BPW produced)	42%	51.0%	46.9%
All Byproducts and Waste Generation Rate (All BPW/total lime produced)		16.2%	14.7%
LKD Only Generation Rate (LKD produced/total lime produced)		10.7%	9.8%



# Oxide Content of Lime

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	Percent CaO		Percent MgO		Percent Total	
	2019	2020	2019	2020	2019	2020
Hi-Cal	94.3	94.2	1.7	1.6	96.0	95.8
Dolo	56.9	57.1	39.3	39.5	96.2	96.6



# Oxide Content of LKD

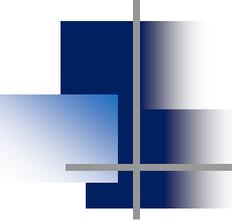
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	Percent CaO		Percent MgO		Percent Total	
	2019	2020	2019	2020	2019	2020
Hi-Cal	47.0	42.0	1.70	1.76	48.7	43.8
Dolo	24.9	23.7	18.2	16.2	43.1	40.0

# Lime Industry Kiln Fuel Use (%)

	2011	2019	2020
Coal	76	64	59
Coke	21	18	20
Natural Gas	<b>2.6</b>	<b>16</b>	<b>19</b>
Alternative Fuel	0.1	1.0	1.2
Fuel Oil	0.3	<1	<1

(Expressed as a percentage of total MMBTUs)



# NLA CO<sub>2</sub> Emissions (MM Metric Tons) (based on protocol responses received)

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	2019	2020
Kiln Fuels <sup>1</sup>	9.37	8.25
Other Combustion Sources	0.07	0.07
Calcination	12.2	10.9
Byproduct and Waste Calcination	1.4	1.1
TOTAL	23.0	20.3

1. Total includes CH<sub>4</sub> and N<sub>2</sub>O CO<sub>2</sub>e

# 2019 NLA Member CO<sub>2</sub>e Emissions

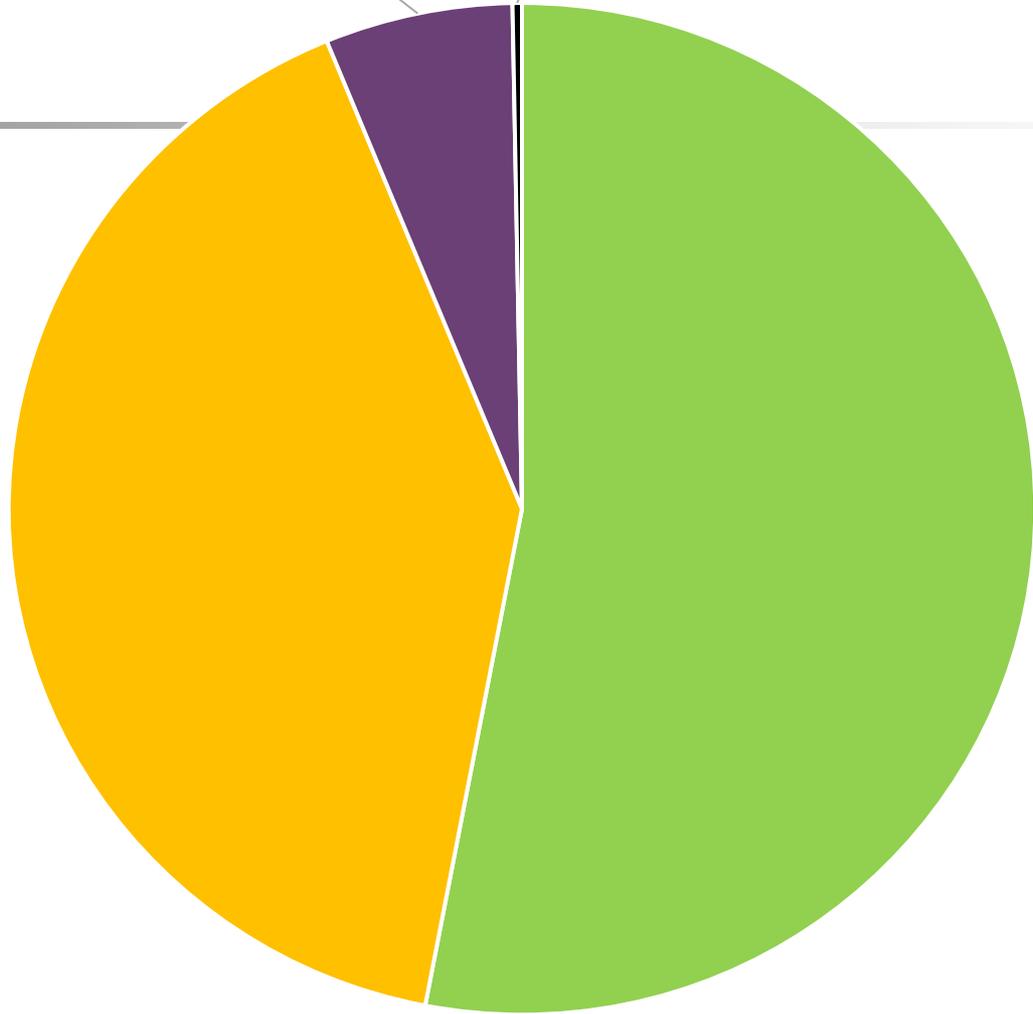
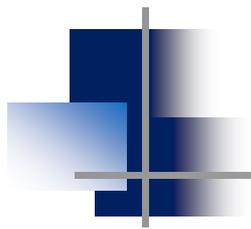
Biproducts and  
Waste, 6%

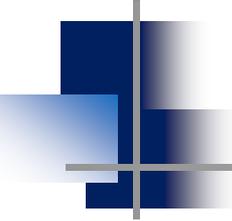
Other Combustion  
Sources, 0.3%

Kiln Fuel, 41%

Calcination  
Emissions, 53%

Attorney-Client Privilege/Joint  
Defense Privilege

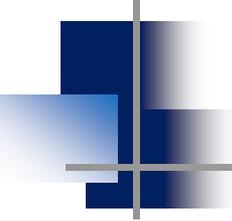




# Various Benchmarks

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- Energy Intensity Benchmark
  - Sum CO<sub>2</sub> (kiln fuel emissions, other combustion sources, CH<sub>4</sub>, N<sub>2</sub>O CO<sub>2</sub>e)/lime produced
    - Lime only, and lime & LKD
- Calcination Intensity Benchmark
  - Sum CO<sub>2</sub> (lime production, calcined by products & wastes)/lime produced + LKD sold



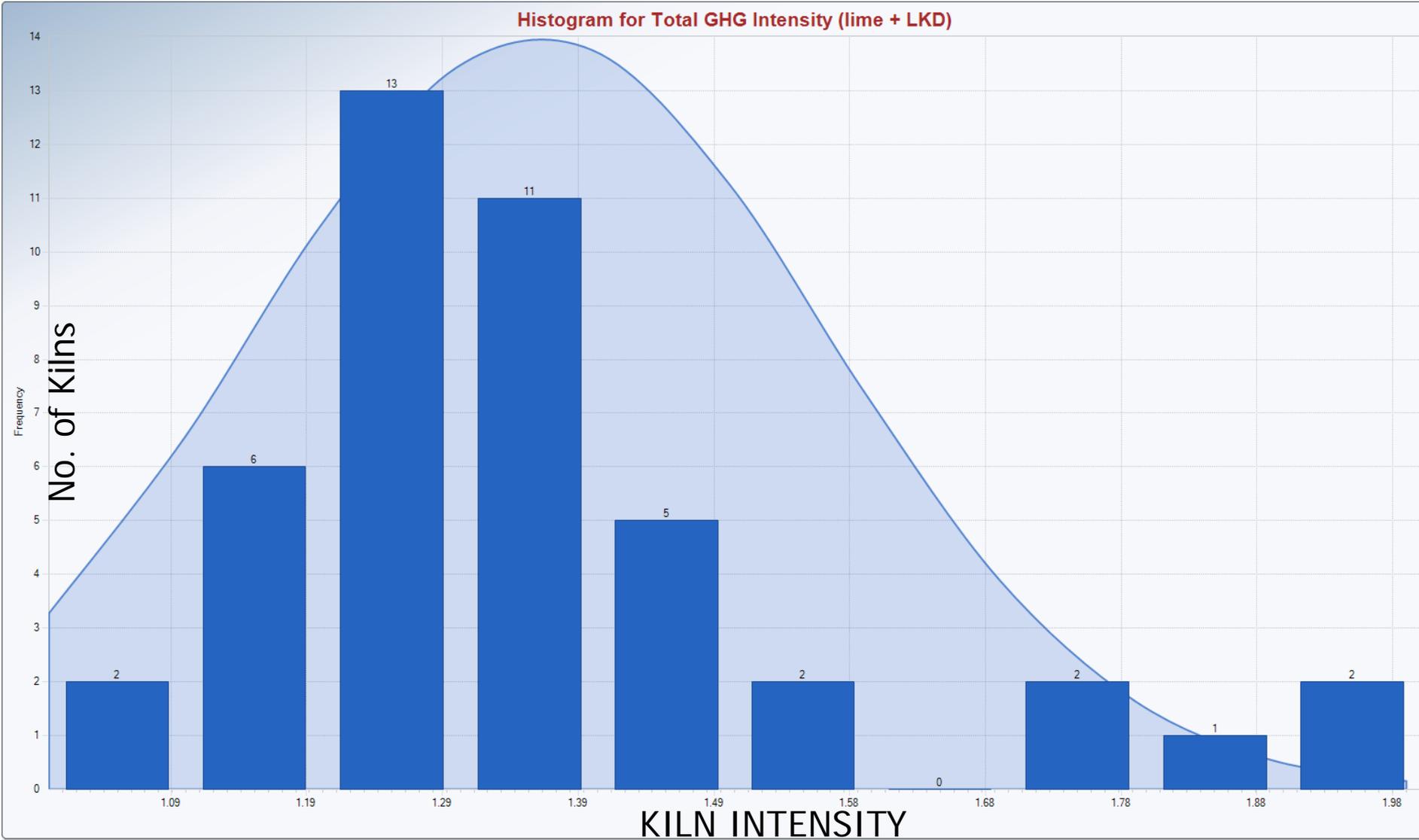
# GHG Benchmarks

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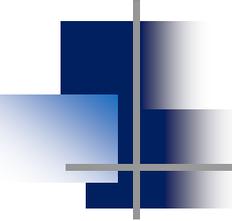
	2011	2019	2020
EPA Calcination Emissions Intensity	0.80	0.80	0.79
EPA Energy-Related Intensity			
Lime & LKD	0.60	0.57	0.57
Lime only	0.64	0.62	0.62

# Total EPA GHG Benchmarks

	All Lime		Hi-Cal		Dolo	
	2019	2020	2019	2020	2019	2020
Lime Only	1.48	1.46	1.35	1.39	1.69	1.66
Lime + LKD	1.36	1.37	1.26	1.31	1.44	1.46



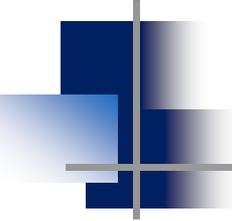
Attorney-Client Privilege/Joint  
Defense Privilege



# Takeaways since 2011

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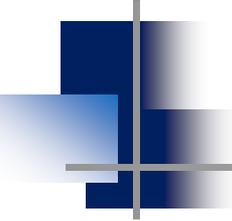
- 2019 & 2020 Production is down ↓
- Natural gas use is up, and increasing ↑
- Overall energy intensity has decreased ↓
- Calcination intensity unchanged →
- LKD recycling – fluctuates within historical norms →
- Various oxide content of lime and LKD unchanged →



# Why Do This?

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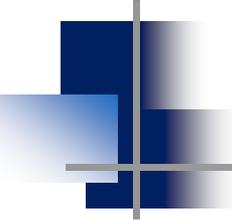
- Accurate and up to date industry snapshot
- Accurate benchmarking
- Highlight efficiency improvements
- Required data in preparation for climate legislation



# Any plant or company-specific questions?

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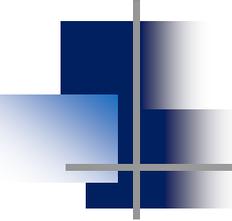
- Call Jon



# Social Cost of Greenhouse Gasses (GHGs)

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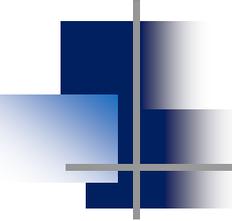
- Interagency Working Group (IWG) issues social cost of GHGs
- Started in 2010 under Obama Admin.
- Trump IWG issued new SCC estimates much lower (\$1-\$12/ton)
- Biden broader SCC (\$51-\$85/ton)
  - Discount rate (3% v 7%)
  - Include international impacts v. domestic



# Social Cost of GHGs—Cont'd

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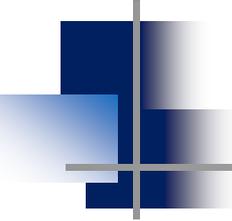
- Social Cost of GHGs used in:
  - Rulemakings
  - Cost-benefit analysis
  - Policy decision-making



# Social Cost of GHG-Cont'd

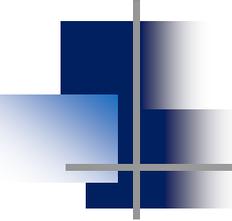
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- Court in Louisiana issued an injunction prohibiting use of the SC GHG
- 5<sup>th</sup> Circuit reversed the district court and allowed the SC GHG to be used pending the appeal
- US Chamber of Commerce will present on SC GHG at NLA Annual Meeting in Nashville, TN on June 13, 2022



# Questions and Discussion

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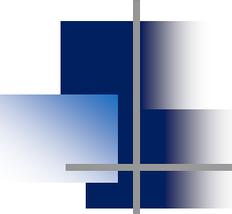


# SEC Climate Disclosure Rule

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- SEC announced sweeping new climate change disclosure requirements on March 21, 2022
- Published in *Federal Register* on April 11, 2022
- Directly applies only to publicly traded companies but indirectly applies to all
- Requires significant new climate-related disclosures

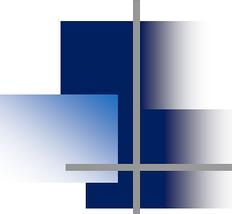
# SEC Climate Disclosure Rule— Cont'd



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- Requires registrants to include climate disclosures in registration statements and annual reports including:
  - Climate risks reasonably likely to have a material impact on the business and consolidated financial statements
  - Actual and potential impacts of such risks on strategy, business model and outlook
  - Governance of climate risks and risk management process

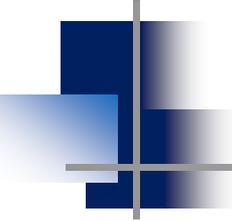
# SEC Climate Disclosure Rule— Cont'd



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- Require disclosure of direct GHG emissions (Scope 1) and indirect emissions from purchased electricity or other forms of energy (Scope 2).
- Scope 3 emissions (upstream and downstream) required for larger companies if material to them or if they have set GHG emission reduction goals.

# SEC Climate Disclosure Rule— Cont'd



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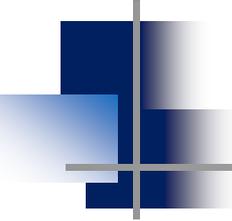
- Requires all registrants to include climate related financial statement metrics and related disclosures in a note to their audited financial statements.
- Requires “assurance” from accelerated and large accelerated filers for Scope 1 and Scope 2 emissions

# SEC Climate Disclosure Rule— Cont'd

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- Timing:
  - Large Accelerated filers: 2023 (2024 filings); Scope 3 → 2024/2025
  - Accelerated Filers: 2024 (2025 filings); Scope 3 → 2025/2026
  - Smaller Companies: 2025 (2026 filings); Scope 3 → Exempt

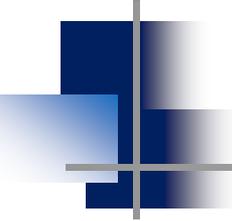
# SEC Climate Disclosure Rule— Cont'd



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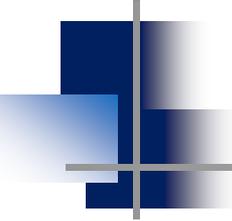
- Large Accelerated Filers > \$700 million public float
- Accelerated Filers : \$250-\$700 million float and revenues > \$100 million
- Smaller Reporting Companies: public float < \$250 million or Public float < \$700 million and revenue < \$100 million

# SEC Climate Disclosure Rule— Cont'd



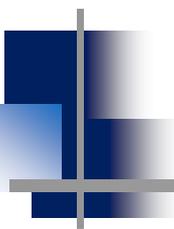
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- Comments are due on May 20, 2022
- SEC proposed rule is available online now and on the NLA website
- U.S. Chamber will be filing comments
- Rule will likely be challenged by numerous groups and State AGs (but probably not by the Chamber)
- NLA will continue to follow this rule



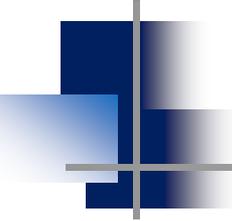
# Questions and Discussion

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# EPA Environmental Justice (EJ) Screen, TRI, and RSEI

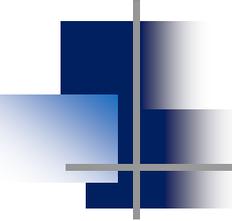
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# Environmental Justice

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“The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”



# EJSCREEN

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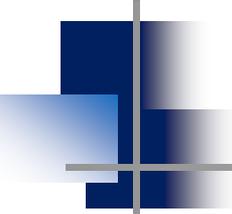
- EPA develop environmental and mapping tool “EJSCREEN”
  - nationally consistent dataset and approach for combining environmental and demographic indicators



## EJSCREEN (cont.)

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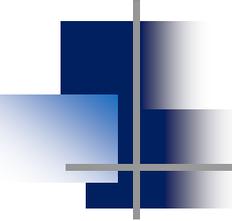
- Search on city, state, or Zip for:
- Environmental Justice Indexes
- Pollution and Sources
- Socioeconomic Indicators
- Health Disparities
- Climate Change Data
- Critical Service Gaps
- Additional demographic details



# EJSCREEN Available Data

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- Pollution and Sources
  - PM<sub>2.5</sub>, Ozone, DPM, Air Toxics (cancer and non-cancer), traffic, lead paint, Superfund proximity, RMP facility proximity, Hazwaste proximity, USTs, and Wastewater discharge
- Socioeconomic Indicators
  - Demographics, people of color, low income, unemployment, education, age brackets



# EJSCREEN (cont.)

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- Health Disparities
  - Low life expectancy, heart disease, asthma
- Climate Change Data
  - Wildfire hazard potential, drought, coastal flood hazard, 100-year flood plain, sea level rise
- Critical Service Gaps
  - Broadband gaps, food, medically underserved

# Risk Screening Environmental Indicators (RSEI) Model

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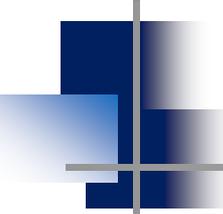
- TRI  RSEI  EJSCREEN
- RESEI user can focus on chemicals, industry sectors, facilities, and geographic areas
  - Identify high-scoring facilities and industry sectors
  - Examine trends over time
  - Prioritize issues for communities
  - Assess EJ issues
    - Help communities and policymakers identify areas of potential concern



## RSEI Model (cont.)

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- RELIANT ON TRI DATA
- MYTH – conservative, over-reporting is a “safety net” to prevent fines
- This is not a good strategy
- If EPA auditors suspect over-reporting, they can dig deeper and potentially issue fines
- EPA encourages facilities to use TRI Self-audit program



# TRI Self-Audit Program

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- Incentives for regulated entities to voluntarily discover and correct violations....
- Entities must voluntarily discover, disclose, expeditiously correct and prevent recurrence of future violations
- 100% reduction of gravity-based civil penalties
- Recommendation for no criminal prosecution