March 13, 2022

Assemblymember Patricia Fahy Legislative Office Building Rm. 424 Albany NY 12248

Senator Michelle Hinchey Legislative Office Building Rm. 902 Albany NY 12247

Re: Senate bill 8171; Assembly bill 8597

Dear Assemblymember Fahy and Senator Hinchey:

We appreciate your past work on environmental protection issues, but were very disappointed to see your sponsorship of the Carbon Dioxide Removal Leadership Act (CDRLA), Senate bill 8171 and Assembly bill 8597. The bill has profound problems. On behalf of the undersigned environmental, community, faith and environmental justice organizations, we urge you to withdraw your sponsorship of the bill by striking the enacting clause. It is not enough to make amendments or pledge not to pass it. The introduction of this bill will be used to legitimize some very problematic technologies as we outline below. We expect to see these bills in Texas and Louisiana -- home to a massive petrochemical build out -- but not in New York. We can do better.

We oppose providing state subsidies to false climate solutions (e.g., plastic production, "utilization" of CO<sub>2</sub> to make new products; most forms of bio-energy) under the guise of "removing" carbon from the atmosphere, especially when such approaches will likely enable continued use of fossil fuels and its associated pollution, often in environmental justice communities.

Renewable energy combined with investments in energy efficiency, conservation, battery storage, mass transit, and electric vehicle rebates need to be the focus of our efforts to address the climate crisis right now, as does reducing the amount of greenhouse gasses that industries are allowed to release. These proven, cost-effective measures need to be prioritized – especially since the U.S. has made minimal progress in reducing GHG emissions to date. There is not enough current funding to promote these approaches. Money should not be spent promoting false solutions, such as the technologies supported in your bill.

The CDRLA has a number of serious flaws:

**The CDRLA is very expensive**. It would establish tax subsidies of up to \$350 a ton to remove carbon. This is far in excess of the current price of \$13 a ton that electric producers pay under the auctions of the Regional Greenhouse Gas Initiative (RGGI). The CDRLA asks for a \$35 million allocation by 2025.

This bill would have NYS incentivize the building of carbon removal technology including direct air carbon capture (DAC) – the most costly and complex way to reduce carbon in the atmosphere. Despite millions of dollars in government and private investment, including from the

US DOE and major fossil fuel companies, **DAC** has never been successfully demonstrated on a large commercial or utility scale.

Federal taxpayer dollars are already being used to support Direct Air Capture attempts. We believe the NYS funds would be better invested elsewhere – such as achieving the first 85% of carbon emissions reduction or by making energy efficiency retrofits more affordable for homes and commercial buildings. In 2020 the US government allocated \$450 million over 5 years to be used for research and demonstration of direct air carbon capture. The \$1 trillion Infrastructure Investment and Jobs Act passed by the U.S. Senate in August 2021 included funding to establish four DAC hubs. We do not support these uses of federal dollars, but are writing to urge you not to provide state support for such misguided approaches.

Natural carbon removal options (e.g., biological sequestration methods) are a better use of funds. While carbon removal may ultimately be necessary in the transition to the 2050 net zero emissions goals presently included in the CLCPA, there are natural carbon removal options that NYS should prioritize incentivizing and subsidizing. These include regenerative agriculture practices that increase soil carbon content, such as composting, cover cropping, and improved grazing management; afforestation, reforestation and the restoration of coastal and marine habitats. While the current bill includes some of these as options, a main beneficiary of the funding is likely to be mechanical-chemical Direct Air Capture, an unproven approach that will bring with it hazards and dangers, ranging from pipeline ruptures to contamination of drinking water, which will inordinately affect frontline, low-income communities and communities of color.

**Mechanical-chemical carbon removal requires hazardous storage.** Millions of tons of removed Co2 must be stored beneath the ocean or in underground formations where it can lead to earthquakes or be accidentally released or leaked. If released, concentrated CO2 is toxic and can cause catastrophic injury and result in mass casualty events. We do not support cleaning up one environmental mess by potentially causing others.

When carbon is removed directly from the air – or from gas/oil facilities smokestacks – it must be transported to where it can be "durably" stored. In six midwestern states, 3,500 miles of CO2 pipelines are being planned to transport millions of tons of carbon, and there are plans for seizing private land by eminent domain to build them.

**DAC is energy intensive,** requiring fossil fuels to power the operation. 1) CO2 in the atmosphere is much more dilute than in, for example, flue gas from a power station or cement plant. 2) The chemical reaction required to capture CO2 in large Direct Air Capture operations only occurs at very high temperatures. 3) CO2 needs to be compressed under very high pressure to be transported and then injected into geological formations. This contributes to Direct Air Capture projects' higher energy needs and cost relative to other CO2 capture technologies and applications.

According to a <u>white paper</u> published by <u>Microsoft</u> in 2021, the cost of direct air capture is more than 50 times the cost per metric ton of most biological carbon sequestration climate solutions. To cover some of their costs, direct air capture companies in the US sell the CO2 byproduct for a variety of purposes including enhanced oil recovery or "EOR," whereby captured CO2 is sold to oil companies, which then inject the CO2 into semi-depleted oil wells to pump even more oil out of them. See the March 2021 CNBC news report <u>here</u>.

Professor Mark Jacobson of Stanford published a <u>paper</u> documenting that "spending money on carbon capture and storage or use (CCS/U) and synthetic direct air capture and storage and use increases carbon dioxide equivalent (CO2e) emissions, air pollution, and costs relative to spending the same money on clean, renewable electricity replacing fossil or biofuel combustion." (See <u>additional article</u>.)

**330** American scientists reject carbon capture and storage. In October 2021, more than 330 U.S. scientists wrote to President Biden to urge him "to reject fossil fuel industry delay tactics like carbon capture and storage, blue hydrogen, and carbon offsets that impede the rapid transition to renewable energy and perpetuate a racist fossil fuel system."

We are concerned that mechanical-chemical carbon removal is being used as an alternative to cutting emissions or an excuse for delayed action by governments and industry. We see mechanical-chemical Direct Air removal as a speculative venture that will benefit profit-seekers and risk dangerous harms to frontline communities, particularly when operated at scale. It is being used by fossil fuel companies to keep pumping oil and gas, and releasing greenhouse gasses into our atmosphere, undercutting our last chance at staying under a 1.5-degree global temperature rise.

It is not convincing to argue that we will do everything possible to get to 85% greenhouse gas reductions and the technologies envisioned in your bill will get us to the remaining 15% reduction. We are nowhere close to achieving 85% reduction and in fact we support major investments in energy efficiency and striving toward 100% renewable energy sources.

New York's indigenous energy resources are the sun, the wind, water and geothermal energy. Let's work together to maximize those resources and not waste time and money on false solutions such as direct air capture. We can do better. We would like to work with you to enthusiastically support legislation that gets us off fossil fuels and does not perpetuate their continued use. That is not your intention, but that is how the fossil fuel industry is marketing these projects.

For all these reasons, we urge you to withdraw your sponsorship of this legislation. We look forward to your response which we will share with all of the co-signers of this letter. We would also appreciate an opportunity to meet with you after the state budget is adopted, as we understand and appreciate that you will not be advancing this as part of the state budget this year.

## Thank you.

350Brooklyn - Sara Gronim. Brooklyn, NY
350NJ-Rockland - Jordan Dale, Rockland County
350NYC - Dorian Fulvio, New York City
All Our Energy - George Povall, Long Island
Alliance for a Green Economy - Andra Leimanis, Central NY
Alliance of New York Family Councils - Gilbert Sabater, NYS
Asociacion De Mujeres Progresistas Inc. - Georgina Sanchez, Washington Heights
Beloved Earth Community of The Riverside Church - Rev. Dr. Alan Bentz-Letts, NY
Beyond Plastics - Judith Enck, Poestenkill
Bronx Climate Justice North - Jennifer Scarlott, Bronx
Bronx Greens - Paul Gilman, Bronx
Brooklyn For Peace - Charlotte Phillips, Brooklyn
Broome Tioga Green Party - Rick Sprout, Broome County

Cafeteria Culture - Debby Lee Cohen, New York City

Campaign for Renewable Energy - Sara Hess, Tompkins County

Capital Region Creation Care Coalition -Larry A. Deyss. Delmar,

Capital Region Interfaith Creation Care Coalition - Kevin Conley, Albany and Capital District

Church Women United in New York State - Mary Smith, Church Women United in New York State

Clean Air Action Network of Glens Falls - Tracy Frisch, Argyle

Clean Air Coalition of Greater Ravena-Coeymans - Barbara Heinzen, Town of Coeymans

Climate Reality Finger Lakes Greater Region NY Chapter - Thomas Hirasuna, Southern Tier

Climate Smart Philipstown - Krystal Ford, Philipstown

Coalition for Outreach, Policy & Education - Joseph Wilson, Tompkins County

Concerned Families of Westchester - Susan Rutman, Westchester

Council on Intelligent Energy & Conservation Policy - Michel Lee, Lower Hudson Valley

Don't Trash The Catskills - Judith Maguire, Roxbury

Dryden Resource Awareness Coalition - Marie McRae. Dryden

Earthkeeper Health Resources - Amy Rosmarin, National

Elmirans and Friends Against Fracking - Doug Couchon, Elmira

Energy Justice Network - Jonathan Nwaru, Westchester County

Environmental Justice Taskforce of the WNY Peace Center - Charley Bowman, Buffalo

Extinction Rebellion New Paltz - Margaret Human, New Paltz

Food & Water Watch - Alex Beauchamp, New York

Foodscraps360, LLC - Diana L Wright, Albany

Fossil Free Tompkins - Irene Weiser, Tompkins County

FrackBusters NY - Mary Finneran, Cairo

Friends of the Mahicantuck - Jessica Bennet and Sarah Bachinger, Troy

Gas Free Seneca - Joseph Campbell, Finger Lakes

Grassroots Environmental Education - Patricia Wood, LI (National)

Green Education and Legal Fund - Mark A Dunlea, Poestenkill

Green Party of Nassau County - Joseph Naham, Nassau County

Green Party of New York - Cassandra Lems, New York State

Green Party of Onondaga County - Howie Hawkins, Syracuse and Onondaga County

GreenFaith - Amy Brooks Paradise, Hudson Valley

GreeningUSA - Diane Brandli, Central New York

HabitatMap- Michael Heimbinder, Brooklyn

Hunt Country Vineyards - Art Hunt, Branchport

KingstonCitizens.org - Rebecca Martin, Kingston

Labor-Religion Coalition of NYS - E. West McNeill, Albany - Statewide

League of Women Voters of NYS - Laura Ladd Bierman, NYS

Lights Out Norlite - Joseph R Ritchie, Cohoes

M/T Net Co. -John Mylod, Poughkeepsie

Media Alliance Inc - Steve Pierce, Capital Region

Mothers Out Front - Adirondacks Monique Weston, Keene and Keene Valley, NY

Mothers Out Front Dutchess - Johanna Fallert, Dutchess County

Mothers Out Front New York -Alÿcia Bacon, Albany

Mothers Out Front- Tompkins - Elisa Evett, Tompkins County

Mountain Top Progressives - Ellen Schorsch, Windham, Hunter, etc

Network for a Sustainable Tomorrow - Adam Flint, Southern Tier

New Paltz Climate Action Coalition - Jess Mullen, Hudson Valley region

New York Communities for Change - Jonathan Westin, New York

New York Interfaith Power & Lght - Glenn Jacob, LI (statewide)

New York Progressive Action Network - Cari Gardner NYS

New York Solar Energy Society - Wyldon King Fishman, Bronx

North American Climate, Conservation and Environment(NACCE) - Jerry Rivers, Roosevelt

North Bronx Racial Justice - Jennifer Scarlott, Bronx

North Country Earth Action - Lisa Adamson, Queensbury Glens Falls etc

North Country NYPAN - Sue Abbott-Jones, Saranac Lake, NY

Northeast Organic Farming Association of New York - Katie Baildon, statewide

NY Geothermal Energy Organization (NY-GEO) - Bill Nowak, Buffalo

NYC Grassroots Alliance - Jill McManus, NYC

NYCD16 Indivisible - Natalie Polvere, CD16

NYPAN Enviro Committee - Cari Gardner, Green County

NYPAN Greene - Cari Gardner, Greene County

PAUSE (People of Albany United for Safe Energy) - Diana Wright, Albany

People for a Healthy Environment - Doug Couchon, Chemung & Steuben Counties

Progressive Schenectady - Katie Chao, Schenectady

RAFT - Gerri Wiley, Tioga County/Southern Tier

Redwoodoaks - Jeff Miller

Rensselaer Environmental Coalition - Dave Ellis, Rensselaer

Resist Spectra - Marie Inserra, Peekskill

Rivers & Mountains GreenFaith Circle - Michael Richardson, Upper Hudson Valley

RPI Sunrise Movement - Kriti Sharma, Rensselaer Polytechnic Institute (Troy)

Safe Energy Rights Group - Courtney Williams, Peekskill

Saratoga Sites Against Norlite Emissions - Joseph R Ritchie, Cohoes

Seneca Lake Guardian, A Waterkeeper Alliance Affiliate - Joseph Campbell, Finger Lakes

Sisters of St. Dominic of Blauvelt, New York - Sister Joan Agro, Blauvelt

Solidarity Committee--Capital District - Doug Bullock, Albany

Southern Door Community Land Trust - Hajra Aziz, Broome

St Catherine of Siena, Ithaca - Mary Crosley, King Ferry

Stephanie Low Artists Inc. - Stephanie Low, NY

Stop NY Fracked Gas Pipeline - Becky J. Meier, Capital District

Stop the Algonquin Pipeline Expansion - Susan Van Dolsen, Westchester County

StopCricketValley.org - Bill Kish, Harlem Valley

Sullivan Alliance for Sustainable Development - Linda Reik, Sullivan County

Surfrider Foundation - Matt Gove, NY

Sustainable Tompkins - Gay Nicholson, Finger Lakes Region

The Climate Reality Project: Capital Region, NY Chapter - Laura Faulk, Capital Region

The Park Church in Elmira - Doug Couchon, Elmira

United for Action - Elizabeth Kelley, NY

United For Clean Energy - Tina Volz-Bongar, Regional Hudson Valley

Upper Hudson Green Party - Kaleb Winters, Troy / Capital Region

Uptown Progressive Action - Rana Sioufi, NY

UU Congregation of Binghamton, Green Sanctuary - Wes Ernsberger, Binghamton, NY

Watervliet Huddle - Sally H Lauletta, Wynantskill

WESPAC Foundation, Inc. - Nada Khader, Westchester County

Westchester Alliance for Sustainable Solutions - Caitlin Chang, Peekskill

Westchester4Change's - Diane Torstrup, Susan Van Dolser, Westchester County

Western New York Environmental Alliance - John Whitney, Western NY

Women Against War - Catherine Cavanaugh, Albany

Zero Waste Ithaca - Yayoi Koizumi, Ithaca