

ENERGY TRANSITION



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The global economy is in the midst of a rapid and sweeping transition to a lower carbon future.

Companies are making major investments in reducing their direct greenhouse gas emissions, procuring lower-carbon energy, implementing nature-based climate solutions, and decarbonizing their supply chains. They also face new expectations—from investors, from governments, and key stakeholders—to disclose how they are managing risks from climate change and climate-related policies.

Companies are also entering the marketplace with revolutionary new technologies that could decarbonize energy generation, industrial operations, and mobility.

Governments are major players in the carbon transition. In some cases, they are shaping the transition as regulators. In other cases, they are shaping the transition as partners—providing loans, grants, or tax credits to support decarbonization projects and technologies.

Van Ness Feldman's multi-disciplinary Energy Transition Practice is advising clients on how to manage the risks and opportunities from these far-reaching changes. The professionals in our [VNF Solutions](#) consulting subsidiary are playing a lead role in advocacy around new energy and climate policies and federal funding programs, ensuring that the interests of our clients are protected and promoted. VNF Solutions is also providing strategic and analytical services on new technologies, emissions disclosure, and other initiatives. Our Van Ness Feldman attorneys are providing counsel on transactions, regulatory compliance, and investments spurred by the seismic shift underway in the economy.

Below are areas in which we are helping our clients to navigate the rapidly changing energy landscape.

CARBON CAPTURE UTILIZATION & STORAGE

Carbon capture, utilization, and storage (CCUS) has emerged as a critical technology pathway to achieve domestic and international emissions reduction objectives in both the electric power and industrial sectors.

The firm has been a leader in the development of the federal CCUS legislative and regulatory landscape. Our CCUS team assists clients throughout the entire spectrum of CCUS technology development and deployment – advocating before Congress for policies to create federal funding and tax credit programs for CCUS technologies, advocating before relevant federal agencies, commenting on regulatory proceedings impacting CCUS deployment, and providing project management services.

Recent Client Highlights:

- Helped secure \$5 billion in CCS funding programs in the Infrastructure, Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA). This includes securing provisions that have enhanced Section 45Q tax credits to include direct pay, and the creation of a new clean hydrogen production tax credit.
- Through advocacy work with the [Clean Hydrogen Future Coalition](#), helped secure \$8 billion in funding in the IIJA for the creation of clean hydrogen hubs.

- Providing strategic guidance and advocacy services to an energy company that is developing bioenergy with carbon capture and storage (BECCS) projects, including drafting an amendment to the tax code that would expand the definition of direct air capture to include BECCS projects and provide increased credit values to recognize the carbon negative benefits of carbon dioxide removal technology.
- On behalf of a leading stakeholder trade association, assisted in the development of and advocacy for the Section 45Q tax credit for carbon oxide sequestration.
- Led federal advocacy efforts resulting in the appropriation of \$12.1 billion for CCUS-related activities in the Infrastructure Investment and Jobs Act.
- Served as General Counsel to the FutureGen CCS project.

CARBON FREE ELECTRICITY

The Energy Transition contemplates a substantial growth in carbon-free electricity—in amounts great enough to electrify much of the transport, residential, and industrial sectors. This transition entails the development of numerous new generation projects, increased purchasing of carbon-free electricity by companies and governments, and a major build-out of transmission.

Van Ness Feldman has one of the country's leading electric practices. We are advising companies on the development and financing of the full spectrum of carbon-free electricity projects—including biomass, waste-to-energy, onshore and offshore wind, solar, tidal, wave, geothermal, hydropower, and fossil generation with carbon capture, utilization, and storage.

We counsel developers about the options for delivery of carbon-free electricity to consumers, whether interconnecting to the electric grid and obtaining transmission rights or establishing a micro-grid that is separate from, in whole or in part, the rest of the electric grid.

We negotiate and develop power sales/purchase agreements and counsel consumers of power on their supply options, provide strategies on reducing power costs, and review supply agreements.

For more information, visit our [electricity practice page](#).

Recent Client Highlights:

- Advising one of the world's largest internet and technology companies on corporate strategies and public policies for achieving a commitment to procure carbon-free electricity on a 24/7 basis.
- Providing development and regulatory counsel to multiple pumped storage projects under way including all aspects of permitting, development, commercialization, contracting, transmission, interconnection, federal licensing, and policy advice.
- Advising the largest off-taker in the country in the conversion of a coal facility to a green hydrogen facility, which is expected to be the first online, grid-scale green hydrogen project in the United States.
- Advising several developers of wind, solar, storage, and fuel cell technologies on regulatory and transactional issues, including counseling clients on issues relating to interconnection, transmission, FERC compliance, and disputes with potential off-takers or interconnected utilities.
- Providing counsel to large infrastructure funds seeking to invest in carbon-free technologies, including pumped storage, wind, solar, renewable natural gas, and green hydrogen.
- Assisting numerous utilities and public power clients in the transition of their historical, carbon-emitting generation fleet to predominantly carbon-free generation.
- Providing transactional counsel to a developer of solar facilities co-located within existing infrastructure corridors and rights of ways.

CARBON MARKETS

The global voluntary carbon market has crested [\\$1 billion](#).

There is increasing participation in the market by companies and financial institutions that have adopted emission reduction commitments—including commitments to achieve carbon-neutral or net-zero status across their own operations or the operations of their customers. These entities are buying carbon offsets from projects around the world, with increasing emphasis on “carbon removal” projects involving forestry activities or use of direct air capture technologies.

Participants in the voluntary carbon market rely on various “standards” programs, which provide standardized methodologies, accredited verifiers, and accounts for receiving and transferring credits. These programs include the [Verified Carbon Standard](#), the [Gold Standard](#), the [American Carbon Registry](#), and the [Climate Action Reserve](#).

One of the outcomes of the November 2021 U.N. climate talks in Glasgow was the establishment of new rules that will apply to carbon offset transactions undertaken for the purposes of complying with governmental obligations.

For over twenty years, Van Ness Feldman has counseled clients on voluntary and regulated carbon market transactions. We advise clients on whether and how the carbon markets should play a role in an organizational climate strategy or commitment. We also work with both buyers and sellers, including carbon funds and project developers. Our team has advised on a range of projects throughout the world.

The firm has drafted numerous emission reduction purchase agreements; advised on joint ventures, funds, and other financial structures for carbon finance; and has provided legal counsel on disputes and litigation arising from transactions.

Recent Client Highlights:

- Provided counsel and drafting of documentation for a transfer of option rights respecting carbon offsets generated by a forestry project in Indonesia.
- Drafted the carbon market sections of a public offering memorandum for a carbon fund that will focus on forestry-related projects in South America.
- Drafted a partnership agreement for an entity that will implement methane leakage reduction projects in Southeast Asia and sell the resulting carbon offsets.
- Founded and managed the Coalition for Emission Reduction Projects, a multi-company coalition that advocated for offset policies at the federal level and in California.

CLEAN HYDROGEN

Van Ness Feldman’s team of attorneys and policy professionals are at the forefront of cutting-edge technologies and innovations. The firm is well positioned to help companies harness old technology to serve a new era – including emerging technologies such as clean hydrogen.

Clean hydrogen is an energy source that has emerged as a potential game changer in accelerating the decarbonization process across numerous industry participants in the U.S. energy economy. Hydrogen is a versatile fuel that has the potential to power diverse sectors of the economy, particularly those that are difficult to electrify. It also can be used to store and transport renewable energy production. Hydrogen is being recognized from board rooms to scientific laboratories as a critical piece of the strategy for

achieving net-zero greenhouse gas emission targets.

We are proud to have recently launched the [Clean Hydrogen Future Coalition](#), a coalition focused on advancing policies to scale the entire value chain for clean hydrogen, including production, transport, and storage; and all end-use market applications for hydrogen. The Coalition is comprised of organizations that reflect the diversity of the value chain for hydrogen and has a shared vision that clean hydrogen is a key pathway to achieve U.S. decarbonization objectives and maintain U.S. competitiveness.

As a result of our involvement with the Coalition, our team has already begun to cultivate bipartisan, bicameral interest among Members of Congress seeking to introduce federal legislation supporting clean hydrogen.

As hydrogen blossoms as a fuel source, a major buildout of infrastructure will likely be required to store the fuel and transport it to its ultimate destination. The firm advises companies develop hydrogen transportation pipelines, as they navigate uncertainty associated with emerging regulatory regimes and permitting requirements.

CRITICAL MINERALS & RARE EARTH ELEMENTS

The global carbon transition is set to drive an enormous spike in demand for mineral resources that are necessary inputs for batteries, magnets, electricity transmission lines, and other key technologies. The [International Energy Agency](#) has found that stabilizing global temperatures at a level consistent with the Paris Agreement would mean a quadrupling of mineral requirements for clean energy technologies by 2040.

However, China currently dominates the supply chain for these critical minerals and rare earth elements—including lithium, graphite, cobalt, neodymium, and nickel. In response, the U.S. government is prioritizing the development of a domestic supply chain. Existing and emerging policies and programs provide substantial grants, loans, and loan guarantees for new projects and technologies.

Our team is at the forefront of efforts to help develop a domestic supply of critical minerals and rare earth elements.

Recent Client Highlights:

- For a potential investor in a new Critical Minerals mine in the Southwest U.S., providing [due diligence](#) on environmental and resource permitting and review requirements.
- Providing [federal funding](#) advice and advocacy services to the developer of a pilot Rare Earth Elements separation facility in Appalachia using a new technology.

ENVIRONMENTAL JUSTICE

The energy transition is bringing increased attention to issues of Environmental Justice (EJ), presenting new legal risks and business imperatives for industry. It has never been more important for companies to proactively consider how local communities and other stakeholders will be affected by their operations and decisions in order to appropriately manage legal and reputational risks.

Members of Van Ness Feldman's team of attorneys and policy professionals have frontline experience navigating EJ implications, including building successful relationships with affected communities and providing insightful guidance about the impacts of EJ laws and policies. The firm's capabilities also include crisis management and incident response should a client's operations result in an unexpected

event that adversely impacts a neighboring community, or culturally sensitive area.

Recent Client Highlights:

- Developed screening tools that identify potential EJ concerns around a facility or project and offer options for meaningful engagement with residents to find workable paths forward.
- Assisted multiple clients in calculating potential adverse pollution impacts from projects located near or in disadvantaged and vulnerable populations, including air pollutant emissions, water discharges, and soil contamination.
- Provided educational seminars to help clients prepare to interface with stakeholders, tribes, and environmental activists.

EMERGING ENERGY TRANSITION COMPANIES

The Energy Transition requires innovation, creative problem solving, and entrepreneurs taking risks to solve evolving challenges and leverage opportunities. Forged out of the energy crises in the 1970s, Van Ness Feldman has a long history of working with emerging companies and startups focused on navigating dynamic economic and policy shifts in energy, natural resources, and land use.

We advise entrepreneurs and companies focused on energy storage, hydrogen, rare earth metals, high voltage transmission, renewable generation, responsibly sourced natural gas, and electric vehicle charging, to name a few. We represent developers building the infrastructure needed for the energy transition and the founders looking to bring great ideas into the world.

Our policy group leads coalitions that advance issues for the emerging [hydrogen economy](#), [carbon capture use and sequestration](#), and mitigating climate change. Van Ness Feldman also helps clients navigate the complicated and ever-evolving world of [federal funding](#). In recent years, the firm has helped clients secure nearly \$3 billion in federal funding through agency-led solicitations; Congressional authorizations, appropriations, and member-directed spending; loan guarantees; tax credits; grants; and federal procurement contracts.

Recent Client Highlights:

- Advising a seed-round company with a fast-charging battery and technology interface for electric vehicles that can be deployed across the distribution grid and help balance load. Provided guidance on preparing for investments, debt options, government grant opportunities, and opportunities with public utilities.
- Providing strategic and federal funding advice to a company with a recently patented technology for separating rare earth oxides from coal wastes.
- Advised a company, which was launched within Google's X division, that has a technology for developing and installing residential geothermal heat pumps at a cost significantly lower than conventional heat pump technologies. Provided representation on the development of federal tax credits.
- Advised a pre-seed stage company attempting to recycle palm oil waste in an ecofriendly manner and provide electricity and employment opportunities to communities where the palm oil waste is extracted. Drafted formation documents and advised on strategy and opportunities for government funding.
- Advising multiple companies that are developing innovative technologies for the production or use of hydrogen. Provided counsel and representation on federal funding and regulatory policy.
- Provided strategic and federal policy counsel to a company with a technology that mineralizes carbon dioxide emissions and turns them into carbon-negative chemical products.

- Advising a company that develops power plants using bioenergy with carbon capture and sequestration (BECCS) technology on state and federal regulatory and legislative policies.
- Representing a startup transco working on myriad projects to connect renewable energy to load and upgrade key high voltage transmission corridors across the country. Advising on permitting, interconnection issues in the organized markets, public policy, government strategy, and transactions.
- Advising a waste heat startup that creates and finances custom solutions for large industrial facilities. Facilitated meetings with energy infrastructure companies and advised on government funding and interconnection issues in the organized markets.

FEDERAL FUNDING OPPORTUNITIES IN THE IIJA & IRA

The passage of both the Infrastructure, Investment and Jobs Act and the Inflation Reduction Act provides an unprecedented opportunity for investment in the nation's energy infrastructure, allowing for the development of tools necessary to curb carbon emissions and strengthen resiliency against the current global challenge of climate change and other threats.

Agencies will be tasked with implementing new and/or expanding existing programs to award federal funds to eligible infrastructure projects. Agency offices will issue requests for information to inform their decisions in establishing grant program parameters, develop and publish solicitations for project applications, set timelines for awards and oversee implementation of awarded funds. The Department of Energy and other federal agencies will be responsible for spending billions of dollars for power and grid related programs, including grid infrastructure, resiliency investments, clean energy demonstration projects and cybersecurity. Along with the Department of Energy, the Department of Transportation will provide \$7.5 billion for the construction of alternative fueling infrastructure for electric, biofuels and hydrogen transportation fuels.

It is important to engage the agencies as they develop the parameters of these grant programs, to ensure projects will meet the program criteria for a funding award, and to ensure solicitations are designed to support clients' infrastructure projects. Our professionals have had significant success in assisting clients through these processes, assisting clients in the development of grant applications, and negotiating awards in both Democratic and Republican Administrations.

More information can be found on our [Federal Funding page](#).

INFLATION REDUCTION ACT TAX PROVISIONS

Van Ness Feldman's federal tax policy practice combines substantive, legislative tax policy acumen with focused experience in energy and environmental policy—allowing the firm to effectively promote clients' tax issues with legislators, regulators, and decision-makers across the political spectrum. The newly enacted Inflation Reduction Act (IRA) includes myriad tax and spending provisions that will be beneficial to project developers and other key industry stakeholders and our team is uniquely positioned to help clients focus on these opportunities.

Specifically, the firm helped clients secure significant modifications to the IRA, including:

- Modifications/Improvements to Section 45Q - Carbon Sequestration Tax Credit
- Clean Hydrogen Production/Investment Tax Credit
- Renewable electricity credits
- Renewable fuels credits
- Direct Pay/Transferability

- Clean Vehicle Credit
- Commercial Clean Vehicle Credit

For more information on these provisions and how they may benefit your business, please contact [Michael Platner](#).

GREENHOUSE GAS REGULATION

Van Ness Feldman's Energy Transition practice advises clients on managing the risks and opportunities resulting from greenhouse gas regulation—including both federal and state regulation. We work with clients on regulations affecting mobile sources, transportation fuels, electric power plants, oil and gas facilities, and industrial facilities.

During the rulemaking stage, our team provides clients with policy analysis, assistance in developing comments, advocacy with the agency, and rulemaking-related litigation. We then advise on ongoing compliance issues—including permitting and enforcement.

More information is available on our [Climate Change](#) page.

Recent Client Highlights:

- Advised multiple oil and gas sector clients on the U.S. Environmental Protection Agency's promulgation of methane emission standards.
- Advised a leading biofuels company on legislation and rulemakings related to Washington State's Clean Fuels Standard.
- Advised one of the country's largest electric power companies on federal legislation that would establish clean energy and climate policies for the power sector.
- Advised one of the country's largest municipal energy entities on climate-related policies developed by the state of California.
- Drafted comments on methane regulations proposed by the state of New York for the New York Reliable Energy Infrastructure Coalition—a coalition of interstate natural gas pipeline companies.

GULF COAST ENERGY TRANSITION

The Gulf Coast is the epicenter for America's oil and gas production and related petrochemical and chemical industries. Texas alone [accounts](#) for over 35% of U.S. crude oil production and approximately a quarter of the country's natural gas production. The Gulf also boasts incredible renewable resources and infrastructure capabilities being harnessed

At the same time, rising global temperatures are [projected](#) to increase flooding, hurricane, and tornado risks for the entire region.

Navigating the path to a successful energy transition in the Gulf Coast Region—one that maintains the region's economic strengths, global reach, and ecological and cultural diversity—requires deep experience and understanding of regulatory, political, and legal challenges and opportunities at the state, regional, and federal levels.

Our multi-disciplinary Carbon Transition Practice is advising clients in the Gulf Region on energy projects, adaptation initiatives, and critical infrastructure. With the Gulf Coast as an ideal location for hydrogen and carbon capture, utilization, and sequestration hubs, Van Ness Feldman attorneys are at the forefront representing clients on the full range of legal, regulatory, and policy issues.

Recent Client Highlights:

- Providing counsel regarding federal permitting for ecosystem restoration projects along the Gulf Coast and Mississippi River.
- Represented companies and governments on large-scale projects on the Outer Continental Shelf; extensive experience representing clients before the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement.
- Helped develop and adopt Louisiana's Integrated Ecosystem Restoration and Hurricane Protection: Louisiana's Comprehensive Master Plan for a Sustainable Coast.
- Advising startups and founders working on projects and systems to support or enhance renewable generation, smart grid technologies, distributed generation, electric vehicle deployment, the hydrogen economy, and CCUS in the Gulf Coast Region.
- Represented the National Fish and Wildlife Foundation in the Gulf region and managed relationships with state & federal agency leaders, Members of Congress and their staff, as well as other key stakeholders and the public at large.
- Represented a coalition of rural electric power co-operatives in a lawsuit against a generation owner over the allocation of charges for environmental compliance.
- Represented a large public redevelopment project with respect to energy efficiency and federal funding.

LOW CARBON FUELS

A revolution is underway in how the transportation sector is fueled. Gasoline is making way for low-carbon alternatives such as liquid biofuels, electricity, renewable natural gas, and hydrogen.

Governments are shaping this revolution through federal and state regulations and also through tax credits and other funding policies.

At the federal level, the Renewable Fuel Standard requires increasing levels of biomass-based fuels in the transportation sector. In addition, several states have established clean fuels standards that promote both biofuels and electricity for transportation uses.

Alongside these regulatory mandates there are a host of tax credits or other financial incentives that support the construction of electric vehicle charging infrastructure and biofuels production facilities.

Our energy transition team is advising clients on multiple low-carbon fuel policies and projects.

Recent Client Highlights:

- Advised Growth Energy – the nation's premier trade association advancing pro-biofuels policies – on legislative matters and on policies developed by the U.S. Environmental Protection Agency.
- Advised a client on opportunities for crediting use of biomass-based electricity as a transportation fuel under the federal Renewable Fuels Standard.
- Advised a biofuels producer on legislation and related rulemakings for Washington State's Clean Fuels Standard.
- Defended a client in an enforcement action brought by the U.S. Environmental Protection Agency under the federal Renewable Fuels Standard.
- Advised a client on permitting for the development of a new biofuels production facility in the Pacific Northwest.

WEST COAST ENERGY TRANSITION

California, Oregon, and Washington have ambitious policies on greenhouse gas regulation and project permitting and siting—resulting in both risks and opportunities for the energy transition. Each state has policies driving to carbon neutrality in the power and transportation sectors. In addition, each state has extensive requirements for the siting of new projects.

With our offices in the Bay Area and Seattle, Van Ness Feldman regularly advises clients on business strategy and projects on the West Coast. Our professionals have deep knowledge of regulatory requirements and clean energy incentives, as well as experience with all stages of the development of clean energy projects. Our professionals also have strong working relationships with state and local regulators and other policy-makers.

Recent Client Highlights:

- Advising infrastructure funds, developers, and public and investor-owned utilities on clean energy development projects, including pumped hydro storage, solar, wind, battery storage, clean hydrogen, and fuel cells.
- Providing counsel to one of the nation's largest biofuels producers on the development of Washington State's Clean Fuels Standard.
- Advising an international energy company on the siting of a bioenergy with carbon capture and sequestration project on the West Coast.
- Providing strategic counsel on siting and permitting of renewable energy facilities and associated environmental review of lifecycle greenhouse gas emissions, including associated litigation
- Providing counsel to clients on commercial contracts and regulatory approvals for carbon offset projects under California's cap-and-trade program.
- Advising an energy company on Oregon's development of climate legislation and regulation.
- Assisting clients with analysis and advocacy related to electrification policies.