



## Climate Change, Clean Technology, & Renewable Energy

### BIOFUELS

#### *A Solution for U.S. Energy Security and Global Climate Change*

Volatile energy prices, growing political instability in oil producing regions of the world and an increased concern about the environmental impacts of fossil fuel consumption have combined to raise American concerns about the nation's future energy security. These concerns have spurred strong interest in developing biofuels as a complement, and potentially a successor, to petroleum-based fuels.

With their low CO<sub>2</sub> outputs and their ability to use feedstocks from the nation's farmlands and forests, agricultural and cellulosic biofuels are widely regarded as offering the most rapid, effective and lowest-cost pathway to increased domestic production of transportation fuels while addressing global climate change concerns. Van Ness Feldman works with companies that possess the vision, capability and desire to make the biofuel industry a force for effectively dealing with America's energy security and environmental challenges.

#### *Shaping an Emerging Market*

Van Ness Feldman enjoys a national reputation for representing leaders and innovators in each sector of the energy industry – renewable electricity, energy transportation infrastructure, energy efficiency, pollution control technologies, and climate change management. We are proud to extend this reputation to the biofuel industry, where we represent businesses that are defining this emerging sector. As the market evolves, we help our clients overcome regulatory hurdles to project development, take advantage of federal incentive programs, and shape the new laws and policies that will ultimately pick the industry's winners and losers.

We understand the challenges and opportunities for businesses in all sectors of the biofuel industry:

**Feedstocks.** Tomorrow's fuel will come from a variety of feedstocks – wood and wood waste, dedicated agricultural crops, agricultural waste, newly developed energy crops and landfill waste. Van Ness Feldman represents feedstock interests to ensure that federal biofuel policies are “feedstock neutral,” promotes extension and modification of current tax credits, and represents clients before federal agencies on regulatory matters affecting the marketability of certain feedstocks.

**Technology.** While the technology for converting cellulosic biomass into ethanol holds tremendous promise, it faces a number of hurdles prior to commercialization. Due to the complexity of the process and the relatively early stage of technology commercialization, the capital cost of cellulosic biofuel production facilities is substantially higher than conventional grain ethanol facilities

that use mature technology. We work with biofuel technology clients to forge strategic partnerships within the conventional energy industry and with the federal government. We also help clients attract private investment capital and explain their proprietary technologies to potential investors.

**Production.** The feedstock, energy output and environmental benefits of biofuels create a powerful incentive to develop and commercialize these technologies in all regions of the United States. Today, entrepreneurial companies, major existing ethanol producers, university and private labs, equipment suppliers, feedstock sources and, importantly, the federal government are beginning to dedicate the financial and intellectual capital to transform this fledgling industry. We help biofuel entrepreneurs, and the investment community that supports them, understand the political environment in which they operate.

**Distribution.** Beyond the challenges of large-scale production, the biofuel industry faces tremendous hurdles in successfully moving its product from the refinery to the consumer. Due to its physical properties, ethanol cannot be transported in pipelines that carry petroleum products. Few service stations provide E85 to their customers. Biodiesel blends of 10-20 percent are unavailable in many regions of the country. Van Ness Feldman uses its more than three decades of expertise in the fields of electricity, natural gas and petroleum product distribution to help biofuel clients overcome these hurdles through strategic alliances with some of these industries, as well as through the development of dedicated biofuel storage and transportation facilities.

**Consumption.** The Energy Policy Act of 2005 established what many thought was an ambitious goal to increase the portion of ethanol and biodiesel in the nation's fuel supply. In reality, America's appetite for renewable fuels has resulted in these targets being met and exceeded several years in advance. Van Ness Feldman represents the innovation leaders in the automobile industry in their efforts to put more flexible fuel vehicles on the nation's roadways.

### *Representative Matters*

- Representing **Enerkem**, a Canadian company that has developed a process for gasifying sources of cellulose, and then liquefying the gas into cellulosic ethanol.
- Representing a **leading cellulosic biofuel company** in the successful campaign to create a dedicated cellulosic biofuel production tax credit in the 2008 Farm Bill.
- Representing several clients that are developing advanced clean vehicle technologies, including fuel cell, hybrid and **alternative fuel vehicles**.
- Managing the **Cellulosic Ethanol Alliance**, a collaborative industry effort to create federal incentives necessary to drive cellulosic technology forward to the marketplace.
- Representing clients interested in developing feedstocks for biofuels. Those include **next generation feedstocks** such as camelina, algae, and corn and sorghum hybrids, as well as conventional timber and agricultural products.
- Representing a **manufacturer** engaged in bio-engineering products that can be used as fuels and fuel additives.
- Helping **several biodiesel and cellulosic biofuel interests** advocate for a broad, feedstock-neutral definition of "renewable biomass" in evolving U.S. energy policy.
- Leveraging our networks, we brought two clients together to form a **new biofuels joint venture** that is fully capitalized and has secure access to competitively priced feedstocks.

- Helped a **biofuels developer** build the first cellulosic ethanol demonstration plant in the United States. Once completed, the plant will make cellulosic ethanol from sugar cane waste (bagasse) and energy cane, a less sugary fibrous cane grown specifically for this purpose.