Statement of API President and CEO Red Cavaney before the Senate Energy and Natural Resources Committee

April 12, 2007

I am Red Cavaney, President and CEO of API, the national trade association of the U.S. oil and natural gas industry. API represents more than 400 companies involved in all aspects of the oil and natural gas industry, including exploration and production, refining, marketing and transportation, as well as the service companies that support our industry.

API welcomes this opportunity to present our industry's views on renewable fuels and S. 987, the proposed Biofuels for Energy Security and Transportation Act of 2007.

For centuries, energy and food have been the engines that have given rise to mankind's ascendancy from poverty, particularly in the developing world. To give a family food, warmth, mobility, and a job is to progress toward a more stable world and to nurture an improving standard of living for every man, woman and child.

The International Energy Agency forecasts that world-wide energy demand will increase by 50 percent between now and 2030. For those of us steeped in the energy business for well over a century, one stark conclusion flowing from this forecast stands out – our world, and our nation, will need all commercially viable energy sources for decades into the future, including both fossil and alternative energy sources.

Our companies have long been pioneers in developing alternatives and expanding our utilization of existing sources of energy. From 2000 to 2005, the U.S. oil and natural gas industry invested an estimated $98 billion in emerging energy technologies, including renewables, frontier hydrocarbons such as shale, tar sands, and gas-to-liquids technology. This represents almost 75 percent of the total $135 billion spent on emerging technologies by all U.S. companies and the federal government. Our companies are actively investing in second generation biofuels research in cellulosic ethanol and biobutanol and weekly we hear of new and exciting approaches to growing and utilizing biomass in the motor fuels markets.

Given this huge global appetite for energy, energy security, not “energy independence,” should be our nation’s energy framework going forward. Today, the U.S. oil and natural gas industry provides two-thirds of all the energy consumed each year by our nation. However, we import more than 60 percent of our oil in order to meet consumer demand.

The United States must do everything it can to access a diversity of resources around the world. “Energy independence” would be at odds with this objective. For all the talk of the need to wean ourselves from Arabian Gulf oil, the fact is the amount of Arabian Gulf oil imported has been substantially unchanged for years. Our real supply security depends on international trade. Our Arabian Gulf partners provide important supply -- but they are only one source, representing less than 20 percent of the whole.

As we take steps to meet the energy needs of future generations, we must focus on three areas: meeting growing demand, improving energy efficiency and environmental performance, and developing new energy technologies.

- First, we must continue to meet our nation's growing energy needs through diverse sources of oil and natural gas supplies both here and around the world, while alternative and renewable sources continue their rapid rates of growth;
- Second, American industry must continue to increase its energy efficiency and the American public should be encouraged to become more energy efficient; and
- Third, we must develop new technologies to find and produce increased oil and natural gas supplies, improve energy efficiency, and develop new economic sources of renewable energy.

The current Renewable Fuels Standard (RFS) has stimulated substantial investments to grow biofuels supplies, particularly ethanol, beyond that required to satisfy the RFS. In addition, research into advanced production methods and alternative fuels is underway. The existing RFS has done its job well in stimulating the ethanol industry. Last year, our industry utilized 25 percent more than the target amount of ethanol established under the RFS. Additionally, nearly 50 percent of all gasoline consumed in the U.S. now includes ethanol.

Thanks to the almost seamless transition of huge amounts of ethanol into our nation's gasoline pool, ethanol is gaining broader consumer acceptance. From our experience, we know that customer acceptance is the single most important factor in the success of a

product, especially a transportation fuel. It is ever more essential that we maintain and build the consumer acceptance of ethanol.

In assessing policy options to further increase alternative fuels usage, the following should be considered:

- Reliance on market forces is the best way to satisfy our growing fuel requirements to ensure reliable supply and deliver the greatest value to consumers. Policies should be performance-based and provide a level playing field for all energy options, including renewable/alternative fuels, without favoring one specific technology over another or creating unsustainable or uneconomic solutions. They should be feedstock neutral;

- Government should not over-promise on the potential for renewables to reduce petroleum demand. Overestimates create unrealistic expectations, poor policy and wasted resources;

- Government policy should strive to encourage sustainable and competitive second generation technologies;

- The most economic and practical use of ethanol is E-10, which should be maximized before considering higher ethanol blends. E-10 requires no modifications to vehicles, no major changes to service station fueling equipment and tankage, and has a lengthy

history of successful fuel use by consumers. Consumers will likely be unhappy with the mileage penalty of E-85;

- The existing infrastructure/distribution system should continue to grow and be utilized to the extent practicable. The industry was stretched last year in maximizing ethanol integration into the national gasoline pool, due in part to a tight wholesale delivery infrastructure, that is, additional terminals and blending facilities for ethanol, rail cars and rail spurs. The growth in infrastructure must keep pace with consumer demand. Greater cooperative work involving infrastructure among all stakeholders will benefit the consumer;

- Wide-spread use of E-85, however, would require that the major technological and economic hurdles of cellulosic ethanol conversion first be overcome. Even with breakthroughs in cellulosic ethanol production technology, significant logistical hurdles will need to be addressed. Gathering the feedstock (biomass such as forestry waste and switch grass), processing it, disposing of “waste” products, and delivering ethanol to markets at a cost comparable to gasoline has yet to be demonstrated on a commercial-scale;

- E-85 use is also constrained by a number of additional factors. Corn-based ethanol is not sustainable at levels that would support widespread use of E-85. Moreover, E-85 requires flexible-fuel vehicles which currently comprise only 3 percent of the existing vehicle fleet. EIA estimates that flexible fuel vehicle (FFV) penetration of the vehicle

fleet will not rise above 10 percent until sometime after 2030. Even in 2030, new owners of FFVs, like many of the current owners, might fill up with E-10 rather than E-85. Moreover, E-85 also requires special service station fueling equipment and storage tanks;

- In increasing biofuels usage, the government should address secondary impacts including the impact on food supplies and the environment (e.g., water use and water quality degradation, pesticide use, and increased VOC/NOx emissions). Because of the potential for widespread effects on the environment, regulatory agencies will need to develop metrics for assessing the relative life-cycle impacts and benefits from potential large-scale increases in biofuels use;

- Government policy should encourage the utilization of the existing national refinery infrastructure for the co-processing of renewable feedstocks that can result in products with a renewable content that is compatible with the existing fuel distribution infrastructure;

- State-by-state ethanol mandates create additional boutique fuels, interfering with the reliable supply of fuels during times of supply disruptions and increasing distribution costs. State-by-state mandates also conflict with the flexibility and efficiencies provided in the Energy Policy Act of 2005 (EPACT05) with respect to where biofuels are supplied and product type. Just last week, for example, an eighth state passed another, different biofuels mandate. One state law allows and encourages the mixing

of clear gasoline and ethanol-blended gasoline in the same retail tank. When this occurs, not only are emissions actually increased but the fuel violates federal environmental regulations. Congress recognized the potential problems from the proliferation of boutique fuels in gasoline and eliminated their expansion in the EPACT05. In that same legislation, the Renewable Fuels Standard stresses maximum fuel flexibility;

- Another example of restrictive state requirements can be found in the Southeastern U.S., where most states currently fail to provide exceptions or modifications to their gasoline standards to accommodate ethanol's impact on fuel volatility. As a result, refiner/marketers face potential non-compliance with state gasoline standards if they blend ethanol with fungible conventional gasoline. Tailoring the base fuel at the refinery to assure compliance by the finished blend would reduce gasoline supplies and increase fuel cost, thereby removing any incentive to blend ethanol;

- All mandates for increased renewable fuel usage should be accompanied by periodic technology/feasibility reviews that would allow for appropriate adjustments so that energy companies are not penalized due to the economic and technical hurdles that might prevent reaching biofuels usage targets or goals. All mandates for increased renewable fuel usage should also include contingency provisions that suspend requirements for increased biofuels usage in the event of significant supply or distribution disruptions.

While we have made progress over the past year, important questions remain. These must be addressed if we are to build on our joint progress and ultimately realize the full potential for ethanol within our nation's transportation fuels portfolio.

API also offers these specific comments concern S. 987, the proposed Biofuels for Energy Security and Transportation Act of 2007:

1. Restrictions on federal requirements in Energy Policy Act of 2005 (EPACT05) should continue.

- A federal alternative or renewable fuel mandate should not:
  - Have a per-gallon requirement;
  - Require any particular alternative fuel to be used to meet a mandate;
  - Require an alternative fuel to be used in any particular geographic area; and
  - Require an alternative fuel to be made from particular feedstocks or restrict the use of any feedstock or processing scheme.

2. States (and political subdivisions thereof) should be preempted from setting state alternative or renewable fuel mandates.

- There should be an explicit, complete federal preemption of states from setting standards/controls of any type for alternative fuels.
- An alternative would be to set out restrictions on the states in lieu of an explicit preemption.

3. EPA should be provided with additional authority to grant temporary waivers during supply emergencies -- EPACT05 section 1541(a)

- There should be federal (EPA) preemption of existing state fuel and ASTM performance regulations when a waiver is issued during a supply emergency. During Hurricanes Katrina and Rita, EPA waived certain federal fuel requirements promptly to increase fuel supplies. However, in many cases state action was also required and frequently the state responses were not prompt. The result was unnecessary delays in increasing fuel supplies. EPA should be provided with authority to waive both federal and state environmental and product quality (situations where a state adopts its own product quality regulations and situations where states adopt ASTM specifications) fuel requirements during "an event of national significance."
- There should be emergency waiver authority for up to 90 days. The 20-day limit for waivers provided in EPACT05 is adequate for most situations but proved inadequate during Hurricanes Katrina and Rita. Thus, the timeframe for waivers should be increased to “up to 90 days” for an event of “national significance" so designated by the President. This increased time will provide much needed flexibility in terms of arranging for additional fuel supplies, particularly longer lead time product imports.
- Waiver authority should remain with the EPA Administrator. EPACT05 language should be retained so that the EPA Administrator – not the President – has authority for fuel waivers and preemption of state regulations. To change authority to the President would prevent speedy implementation of waivers, which is what was intended.

- Additional adjustments should be made to the emergency waiver language in EPACT 2005. EPA interpretation of the waiver language has caused some confusion and concern regarding supplying waived fuel. Several changes to the waiver language would help to correct these problems.

4. Alternative fuel technology review should be required with report to Congress and adjustment of alternative fuel standard and phase-in schedule.

- All mandates for increased renewable fuel usage should be accompanied by periodic technology/feasibility reviews that would allow for appropriate adjustments so that energy companies and consumers are not penalized due to the economic and technical hurdles that might prevent reaching alternative or biofuels usage targets or goals. We recognize that S. 987 provides for a National Academy of Sciences review of this type.

In summary, the U.S. oil and natural gas industry continues to make good progress in meeting our nation's growing energy needs and improving environmental performance. Looking ahead, we need to develop all economically viable energy sources including fossil and renewable fuel sources. By relying, to the greatest extent possible, on market forces, understanding consumer impact and preferences, encouraging development of new technologies, and addressing secondary impacts of expanded renewable fuel usage, I am confident that our industry and the nation will meet the energy challenges in the years ahead.

API and its member companies stand ready to work with the Committee and to provide whatever additional information or assistance we can on the issues I have addressed, as well as other related issues that may arise during the course of Committee deliberations.