

## **Sacramento Biofuels Network- SBN Biodiesel Supply Site and Member Overview**

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### **Background**

Sacramento Biofuels Network, SBN, was formed to assist people in implementing energy options beyond dependency on nonrenewable petroleum starting with establishing local access to biodiesel in the Sacramento area.

SBN services include biodiesel consumer education, organizing individual consumers into Buyers Groups and coordinating bulk biodiesel delivery for a variety of network members. The network is currently made up of biodiesel bulk purchasers, called Supply Sites, who purchase pure biodiesel (B100) in bulk through SBN utilizing suitable above ground bulk containers, usually 250 to 2000 gallon, to store and dispense the fuel. See photos.

The two basic types of SBN Supply Sites are:

**Independent Supply Sites**, who purchase biodiesel in bulk for their own in-house or personal needs including agricultural, commercial and institutional organizations and fleets. **Buyers Group Supply Sites**, where a Site Host provides space for storing and dispensing a bulk quantity of biodiesel to share with other individual buyers who become members of that Supply Site. All Buyers Group members must read and sign a site specific version of a Biodiesel Buyers Agreement (sample provided by SBN) to be a member and purchase the biodiesel from that site cooperatively. See sample agreement.

The Buyers Group Supply Sites are organized like the Community Supported Agriculture model which we call Community Supported Energy, CSE. This CSE distribution model is an effective way to bring individual consumers together to exchange information, develop mutual interests and to utilize their collective purchasing power for choices in fuel access, bulk pricing and related cooperative consumer benefits.

SBN assists members in setting up Supply Sites, meeting legal requirements and understanding basic biodiesel use and handling guidelines. Once set up, a Supply Site can make a bulk biodiesel purchase through the SBN coordinator who aggregates the orders and organizes them to combine quantities for efficient delivery, to make minimum delivery requirements and to achieve collective bulk price breaks. The biodiesel is delivered to each Supply Site by refilling their containers from the selected distributor's commercial tanker truck. The manufacturers and distributors who supply SBN Supply Sites are selected by a list of buying priorities starting with their ability to verify fuel quality according to national standards as the number one priority. See SBN Biodiesel Buying Priorities.

### **FAQ's and concerns about biodiesel**

#### **Q. What is biodiesel?**

A. It is a renewable fuel that will power any diesel engine without modification to the engine. Biodiesel is typically derived from the oil of crops such as corn, soy, canola, cottonseed and others. It delivers similar torque, horsepower and miles per gallon as petroleum diesel. In its pure form it is biodegradable, non toxic and essentially free of sulfur and aromatics. It can be blended with petroleum diesel in any proportion. Pure biodiesel is called B100 – "B" = biodiesel and "100" = 100%

#### **Q. Is it flammable?**

A. Biodiesel can be stored safely in above ground containers because it is not explosive or directly flammable without priming.

**Q. What happens if it spills?**

A. All spills should be absorbed or contained in the safest way possible. Biodiesel is non toxic and biodegradable, so spills will decompose in a relatively short time.

**Q. Is it toxic?**

A. Biodiesel is safe to the skin. Prolonged or repeated contact with skin is not likely to cause significant skin irritation. Biodiesel is less toxic than table salt.

**FAQ's about being a Buyers Group Supply Site Host**

**Q. What are the costs involved with being a Supply Site Host or Coordinator?**

A. Apart from providing the time and space, the minimum storage and pumping infrastructure typically includes a 275 gallon tank, an AC or DC 15 GPM pump with meter and filter, and various accessories totaling to about \$700-\$1000. The biodiesel cost is currently about \$3.45/gal, or \$948.75 for a 275 gallon bulk fill-up.

**Q. How are the infrastructure costs paid?**

A. It is up to the Buyers Group Supply Site Host or an appointed Coordinator to decide how the expenses will be paid or delegated. Usually, the site host, a coordinator, or one or more of the site members will take responsibility for paying the startup infrastructure expenses as well as ongoing maintenance expenses and organize their reimbursement through fees associated with ongoing biodiesel purchases made by the site's members. These fees may include - membership fees, service fees, start up fees, maintenance fees, upgrade fees...

**Q. How is the fuel paid for?**

A. Usually, the fuel is first paid for by the Supply Site Host or another member (all excise and sales taxes included) and then traded to members at this cost. Operating expenses incurred by the site host that need to be shared with the other members are usually reimbursed by collecting fees, mentioned above, apart from the fuel cost for transparency. The operating expenses may include things such as repair and maintenance, infrastructure upgrades, and compensation for labor, as the site host sees necessary and communicates to the other members. SBN is not intended as a conventional profit focused business and is organized more as a not-for-profit venture by principles of cooperation and transparency to support collective consumer purchasing benefits and information sharing.

**Q. Who oversees and accounts for the pumping, scheduling, maintenance and general operations of the Supply Site?**

A. The Supply Site Host or appointed Coordinator can manage or delegate these responsibilities.

**Q. Is there any special insurance required?**

A. None that we are aware of. Contact your insurance agent. This is not considered a hazardous material in any way.

**Q. Are there any regulations or permits required to buy, store or dispense this quantity of biodiesel as a commercial or residential consumer?**

A. None have been presented at this time. Secondary containment may be a consideration. Biodiesel is biodegradable, non toxic and not directly flammable or explosive. The federal and state excise taxes and sales tax are all included in the price we pay as a bulk retail, cooperative consumer venture.

## **Q. What are the benefits of being a Buyers Group Supply Site Host through SBN?**

### **A. Benefits for Buyers Group Supply Site Hosts include:**

1. Direct access to a quality verified renewable fuel at the lowest price possible
2. Participation in a model that is empowering consumers and successfully breaking away from petroleum dependency
3. Supports a local economy and sustainable business opportunities in education, agriculture, transportation and related support services and products
4. Builds awareness and confidence in the transition to alternative energy through leading by example
5. Establishes innovative personal and business relationships based on ecological and community minded principles such as personal responsibility, sustainability, transparency, cooperation and interdependency

### **SBN Biodiesel Buying Priorities** (in order of priority)

1. Quality verification- All suppliers must show astm certification or better to verify fuel quality from the manufacturer.
2. Locally produced and/or grown- Form relationships with growers, manufacturers, and distributors as local as possible.
3. Support practices of sustainability - Form relationships with growers, manufacturers, and distributors that support practices of ecological sustainability such as: utilizing waste oil feedstock before virgin oil, sustainably grown feedstock that is non GMO, no pesticides, no chemical fertilizers, organically grown whenever possible and deliver the biodiesel in trucks that run on biodiesel.
4. Support cooperative business models- Form relationships with growers, manufacturers, and distributors that support models of business that are equitable, transparent and cooperative and encourage consumer empowerment.
5. Price/value considerations- Price is always an important consideration but only after the previous priorities have been considered.
6. Consistency of supply- Although biodiesel is a renewable fuel, the capacity of supply is limited by the biological nature of its source. Adapting our energy use and expectations in balance with ecological systems and natural resource interdependency is essential for healthy coexistence and sustenance of life. Consistency of supply is only relevant in SBN buying practices as the ecological sustainability of the sources indicate. As the global petroleum reserves reach peak of production, a new awareness regarding consistency of supply will be upon us, if it isn't already.

### **Supply Site Physical Requirements**

1. The space for the storage tank must be accessible by vehicles for fueling – a vehicle can be parked within 6'-8' of the tank
2. The space for the storage tank must be accessible by a 3500 gallon(15 ton) tanker truck for refilling – within 50' of a sufficiently paved road or driveway
3. The storage tank and dispensing equipment should be covered or secured by a weather and vandalism proof housing. A garden type shed is adequate. A warehouse or garage is preferable.
4. Secondary containment of spills should be considered
5. Expansion to more tanks or a larger tank is a recommended consideration

### Vision for the Future

- Access locally produced biodiesel made from used restaurant cooking oil
- Integrate mentor/apprentice education model into local biodiesel production cooperatives
- Development of a website to make the distribution process more efficient and enable membership communication throughout the network even to other networks and coops in other cities
- Research, education, and implementation of other locally produced or accessible, renewable fuel sources such as ethanol and methane production from anaerobic composting
- Development and distribution of related products and services
- Develop relationships with local farmers for feed stock

### About the Founder

Steve Bash became interested in biodiesel as part of a personal commitment for ecological change and to let others know that such changes are possible now. He has been making biodiesel and driving cars fueled by it since 2000. He gives demonstrations for schools and organizations about biodiesel and post petroleum planning and has organized a network of biodiesel buyers in Sacramento, CA called Sacramento Biofuels Network. His video production business, the Information Exchange, is currently producing a video about biodiesel for national consumer awareness called "Getting Hip to Biodiesel". Steve is a "sustainable energy enthusiast" by nature which guides his business endeavors and sense of community service.



275 gallon plastic tote on pallet, 40"x48"x48"; 15 GPM DC pump w/meter, filter & auto shut off nozzle; battery



500 gallon or greater aboveground storage tanks with secondary containment vessels, manufactured from tough linear or crosslink polyethylene, rotationally molded to form a seamless, one-piece tank that will not leak, rust, chip or corrode.

## Sample Biodiesel Buyers Agreement

Please initial each statement and sign below to indicate your acceptance. Questions? Call Steve Bash (916) 966-2375

- 1) My signature below and payment arrangements with the Site Host represents my membership in the Site Host's biodiesel buyer's group. My account will be assessed as I pickup my quantities. The biodiesel is paid by members at the the Site Host's cost and includes all applicable excise and sales taxes. If additional site operating expenses are necessary, service fees may be charged by the Site Host to members, separate from the biodiesel cost.
- 2) I understand that biodiesel can accelerate the break down of rubber fuel hoses and gaskets causing them to leak. Vehicles made before 1994 probably have rubber fuel hoses and gaskets and will need to be replaced either before or upon failure with biodiesel compatible hoses and gaskets such as Viton, Teflon, Nylon. Check with the manufacturer.
- 3) I understand that the solvent characteristics of biodiesel will loosen and "clean out" the petroleum based diesel sediments that stick and accumulate in the fuel system. This dislodged diesel sediment can clog the fuel filter and will require monitoring and possibly changing the fuel filter within the first few tanks full of biodiesel used. A clogged filter may cause the car to stall and fail to start. I also understand that clogged fuel filters with a bypass mechanism can send the dislodged sediment into the engine and cause damage.
- 4) I understand that biodiesel may need to be "winterized" in colder temperatures with various percentages of petro diesel and/or anti gel additives to keep the fuel flowing properly. Depending on the source and quality, biodiesel can begin to gel between 25F- 45F. Winterizing suggestions are available upon request.
- 5) I understand that I will NOT be using a California Department of Measurement Services certified meter to dispense my fuel. Although the meter can and will be calibrated correctly as a general maintenance procedure, it will not be certified by the DMS.
- 6) If requested, I will provide the Site Host, with information about my fuel use such as my odometer reading and vehicle make and model to be used for compliance with State and Federal regulatory requirements.
- 7) I understand that the use of biodiesel may void my vehicle warranty. Check with the dealer.
- 8) I understand that biodiesel will only be available for dispensing by appointment or during designated hours posted by the Site Host. Any request to operate the pump at any other time will be considered an emergency.
- 9) If prepaying for a quantity of biodiesel, I agree to pick up my share within the time specified by the Site Host or my remaining quantity may be sold to another member and a credit will be applied to my account.
- 10) I understand that the biodiesel I am purchasing is guaranteed by the producer to meet the ASTM specifications required by law. I will not hold the Site Host or any other facilitators of this distribution arrangement liable for any complications that arise from its use and I accept full responsibility for learning about and using this fuel in my vehicle.
- 11) I understand that the intention of the Site Host, Property Owner, and any other facilitators of this distribution arrangement is to create a cooperative opportunity for all members to support the use of a renewable resource. By signing this agreement I also intend to participate in cooperation and resolution through communication and community mindedness.

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Print Name

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Signature

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Date

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Address

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Phone

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Email