

Generator_Experience_1997.txt

From The old software of the Gary North Forum Date: July 11, 1997 11:01 PM f I like the Kubota for diesel and the Honda (expensive) or Generac (inexpensive) for gas. Any opinions as to which one would be best for whatever purpose? Thanks Arnold (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=230)-----

-----[Top][Previous][Next][Print] Date: July 13, 1997 09:32
PM Subject: connection of generators a few things to keep in mind when connecting generators. 1 if the generator is connected at the main electrical panel it can send power back out on to the high voltage lines. 2 one way to deal with that is to pull the meter, but the utility company generally takes a dim of that. 3 another way is to install a manual transfer switch. (Ken comments: not to mention if you do NOT put in a transfer switch an "oops" can fry your generator in half a second) (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=316)

-----[Top][Previous][Next][Print] Date:
July 14, 1997 03:14 PM Subject: PULLING THE METER: Here is OK if the power has failed We just recently had some tornados blow through. I lost power. The Neighbours brother, an electrical engineer told me it was OK to pull the meter and rig up a pig tail if the electrical utility failed to provide service, i.e. if the power failed. Of course this is just when you need it, so, no problem. Arnold (Ken comments: uh? just get a transfer switch and be done with dangerous expedient solutions, pigtail? temporary connections are more likely to eat watts or fail)

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=345)-----
-----[Top][Previous][Next][Print] Date: July 14, 1997 11:00 PM Subject: Residential Gen Sets
There are three choices for fuel for small residential, generator sets. These are gasoline, gas (natural gas or liquefied petroleum gas (LPG) which is mostly propane) and diesel fuel. Diesel engines are the most efficient and in the smaller sizes, would give the longest life, but the engines are much more expensive and are noisier. Gasoline engines are the cheapest and most readily available but are the most inefficient and expensive to run. This doesn't really matter if it is only needed once every 5 years or so to run your sump pump and freezer and a few lights for a few hours after a storm. Gasoline and diesel fuel cannot be stored indefinitely and need to have special preservatives. Diesel and gasoline tanks are dangerous to have sitting in your garage or back yard. Natural gas is the best choice as it is the lowest cost and also the engines run longer because the fuel does not contaminate the oil. Natural gas does not need to be hauled, if you have a NG pipe to your house. An advantage of a natural gas generator set is that you can use (with the proper fuel system) LPG as a backup. Gasoline could also be used as a backup but it is more complicated. The ideal system would be an engine with natural gas/propane dual fuel capability with a good sized propane tank for a reserve in case the gas utility could not serve you. Remote homeowners should consider a LPG gen set, possibly with gasoline backup, but it might be better to just buy a cheap gasoline set for backup. The three major manufacturers of this type of small residential gen sets are Kohler, Onan and Generac. They can all provide dual fuel capability on their larger (10-15 kW) sets but it would be a special order. These would typically be 3600 RPM air cooled engines with relatively short (2000 hours) life. The

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life would vary with the load, if run at half load they would probably run more than 4000 hours. Slightly larger gensets with small watercooled automotive type engines running at 1800 RPM are much more durable, but also much more expensive. The noise level of a water cooled engine at 1800 is much lower. One small manufacturer has offered a gen set which allows the engine to run at variable speed. The engine would run at low speeds when little power was needed but could go up to full 3600 RPM when max power was needed. This is a desirable feature for increasing engine life and reducing noise and fuel cost. This requires a signal conditioner or a rectifier and converter to maintain the required 60 Hz. A rectifier and converter would also have losses, reducing the efficiency gains made by keeping the engine at low speeds. All reputable gen set manufacturers offer automatic switch gear and these sets can be configured (at extra cost) to automatically start and come online on when the grid goes down. One problem with these relatively low cost, unsophisticated gen sets is that they do not maintain exactly 60 Hz, the frequency will vary with load, lower at high load, higher at light loads. Probably by 10%-15%, plus and minus 5-7% from nominal 60 HZ. The need to keep frequency constant can be handled pretty well on larger sets with isochronous governors, but these would not be available on the small, low cost gen sets. Generally the effect on lights and most appliances is not major, but computers may not accept varying frequency. If one goes to the expense of setting up a viable, residential power producing gen set, they should go a step further and configure it so they can recover the waste heat to help heat their home, especially in northern climates. (A common practice called cogeneration.) This is not feasible with air cooled gen sets, so the optimum system would require a watercooled engine and would be rather expensive. Onan and Kohler do offer watercooled marine generator sets which would work well for a residential cogeneration

package. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=364)-----
-----[Top][Previous][Next][Print]Date: July 17, 1997 08:15 PM Subject: Budget Generator Substitute ? Since the computers will be down why not utilize the inverters in the now useless U.P.S.'s (power conditioners) attached to so many of our p.c.'s ? If they are running on a small 12v battery, disconnect and run wires to car battery to power emergency lights, a small t.v., or ?? A deep cycle marine battery would be preferable if available. Recharge battery with car alternator, (caution don't run down battery too far, typical UPS will sound an alarm at about 10.5 vdc . Having a spare car/battery for jumpstarting could be wise. If you are considering power conditioning for your computer you might think ahead and get a 12v battery based unit with a test switch (that allows unit to start up without A.C. input). I have run a 75 watt small color t.v. with 75 watts of energy efficient lights (total 150 watts a.c. power for over 11 hours) and still had the reserve to start the car up several times. Those who have a generator can use this for night power when the generator noise is a problem. It's true most inverters in UPS's won't handle inductive loads (motors, transformers) well, and wattage limitations Must Be Followed. for what it's worth, Tom.. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=457)

-----[Top][Previous][Next][Print]Date:
July 22, 1997 03:58 PM Subject: RE: Budget generator substitute Running a car engine to simply

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recharge a battery is a waste of fuel. A better solution is to couple a small engine to an auto alternator to create a dedicated battery charger. Many off-the-grid people do this to avoid running a generator simply for battery charging. The advantage to this method is that often the alternator and engine can be scrounged for very little money (junkyards and old lawnmower engines). A more detailed discussion of this is at: <http://theepicenter.com> - see the "Tip 'O Da Week" section.
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=590)

-----[Top][Previous][Next][Print] Date:

August 06, 1997 11:02 PM Subject: RUN PC; off the grid I had an engineering consulting business that required me to run a PC in the field inspecting pipe lines etc. I did this by using an active UPS system from Sola, (not a stand-by system that most people now use) fed by a small honda gas generator, the active UPS system cleaned up the dirty power from the generator and was not dependent on batteries. When I would have a vehicle running all the time, I fed the UPS with an 12vdc to 120vac motor generator that I bought from a marine supply store (can't remember the name) drawback, only 60% efficeint and noisy.
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=1119)-----

-----[Top][Previous][Next][Print]Date: July 26, 1997 09:53 PMSubject: How best store gasoline?Now that I have a gasoline generator, what is the best procedure for storing gasoline?(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=739)-----

-----[Top][Previous][Next][Print]Date: September 07, 1997 11:59 AMSubject: STEAM for electricityI posted this info in the Solar area but thought I'd add it here too. My planning for the worst case led to plans for an outdoor boiler for heat and then considering the source of juice to pump the heat to the house and garage. I looked into windmills and solar. EXPENSIVE ! and I will probably use some solar but I found that steam is not the historical oddity I thought it was. The Steam Outlet PO Box 1426 Thonotassassa FL 33592 has a catalog that is also a good intro to the concept. they sell steam turbines (much more efficient than piston steam) and plans for various types of offgrid power making. catalog is \$5 refundable with an order. Very well worth it. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=2289)-----

-----[Top][Previous][Next][Print]Date: September 23, 1997 07:33 AMSubject: DUMMIESWould someone answer a few questions for us dummy generator buyers. Does fuel consumption vary with the demand put on the generator? Can the output of the gen be regulated? Is there such a thing as overkill when investing? If just water pump, sump pump and wash machine power is needed, what size gen should one buy. Will natural gas availability fail in a y2k emergency. What is necessary to convert natural to propane use? Are there larger portable propane containers available? Is it necessary to bring in an electrician to get things set up if you're as dumb as I am? HELP!!! hull
stetson (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3030)

-----[Top][Previous][Next][Print] Date:

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September 23, 1997 11:46 PM Subject: Dummies Hull I'm certainly no expert on generators since I just purchased one 2 days ago but I'll pass along what little info I gathered regarding my purchase. I had spoken to an electrician friend a few weeks ago that I was looking for a good used propane generator in the 4 to 6kw range to be used for back-up for my water well and a few other items. He called me a week ago to say he had run across a 15kw propane Onan with a auto unit with 1200 hours for \$2800. Would I be interested? Although it was a larger unit than I needed I said I would be interested if I could have some Onan service center to check it out. This was agreeable, so I took it and they load tested it for about 3 hours and with about \$35 worth of repairs gave it a clean bill of health - total cost \$220. I had already purchased a 1000gal. propane tank for \$700. So with a little copper tubing @ \$.60/ft. and about \$50 with of work by my electrician friend I should be in business shortly. Godd luck to you Vic
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3059)

----- [Top][Previous][Next][Print]

Date: September 24, 1997 12:12 AM Subject: Some guys get all the deals! Look arround texas
for used gen pac they used all over because of the oil industry restructuring.
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3060)

----- [Top][Previous][Next][Print] Date:

September 24, 1997 10:07 AM Subject: Remember what Gary North said? Hull, one item that Gary North mentions that is easy to overlook is that after Y2K there is going to be a breakdown in the division of labor, both physical and mental labor. Translated: we all (me too!) have to get off our physical and intellectual butts and do things that we've gotten out of the habit of doing - being self reliant. While we have the system up and going, yes, let's take full advantage of it, but if we make a habit of depending on others to do what we can do ourselves, we are going to be in trouble in the future. You asked 8 questions, most could be answered by carefully reading the above posts by Jay, Eric, Barry, Albert, Tom, Bill, William, Albert, Ken, and Paul in this thread. I'm not sure what you meant by "Can the output of the gen be regulated?". How close the alternator maintains its rated voltage and frequency is not something that you'll see in the casual spec sheet, particularly when operating near full output. You need to ask the manufacturer that question, the typical retailer will just give you a glib, "oh just fine". The poster of the SOLA/Honda combo makes a good point that any line noise sensitive use, like computer or radio, should have the raw output of the alternator filtered through a GOOD UPS or filter system. If you have read the articles that GN posts under the Power Grid, Compliance, Domino Effect, and Noncompliant chip areas you shouldn't need to ask, "Will natural gas availability fail in a Y2K emergency?". While it is certainly okay to utilize a system resource, depending on it is another thing. Think of it like hang gliding - do not go higher than you mind falling. You'll have to make a decision on how much you want to pay to keep your water pump, sump pump, and washing machine (luxury item) going. If your sump pump is a critical item a

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generator might not be the most practical method of powering it, an inverter and a battery bank might be a better idea, or "cut out the middle man" and buy a DC sump pump with REAL short wires going from the battery bank to the pump. Too bad that sump pumps aren't available like the motor on my sewing machine, 100-110 volts 25-75 cycles or D.C. Northern Hydrualic has a nice catalog that will show you a WIDE variety of gen sets that are bi or tri-fuel. On propane, a 1.5'D. by 5' tank by my definition is "portable". If you want the luxury of just turning on the gen set, switching a transfer switch and running appliances, yes, get an electrician to install a transfer switch between your meter and your distribution box. If you are going to power just a few items intermitantly, and gen set and some HEAVY guage extension cords will suffice. One more thing, there just isn't ONE correct answer to any problem in Y2K because until it happens, NOBODY knows what the problem is going to be. Are looters, bureaucrats or mother nature going to be the major problem? I wish I knew. Perhaps all three, but in what sequence? You can't plan for everything, at least I can't. While I'm not going to allow myself to be overly vulnerable to the New Madrid fault dealing me an 8 richter in Feb.2000, I'm not assuming that it will.

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3068)-----

-----[Top][Previous][Next][Print]Date: October 02, 1997 07:55 PMI haven't been able to find any information on ovens for baking bread. WhenI was a kid back in the 30s, we had a big square sort of box that set on akerosene stove that my Mom used to bake in. What is available today?(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3449)

-----[Top][Previous][Next][Print]Date: October 02, 1997 09:21 PM Subject: ovens If you find out something, I sure would like to know. We were just going to try to build a metal box of sorts. Has anyone tried any of Jade Mountain's solar ovens? One, they say, will go to 500 degrees...I live in the middle of the U.S. Monica George
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3456)

-----[Top][Previous][Next][Print]Date: November 10, 1997 04:12 AM Subject: Baking You can bake bread in a pressure cooker (the choice of sailors), or you can bake in a dutch oven. Also. I beleive Coleman makes a stovetop oven with a thermometer on the door. My wife, who used the Coleman type in Alaska, says they wear-out fast.
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=5380)

-----[Top][Previous][Next][Print]Date: November 11, 1997 09:08 AM Subject: Coleman stove-top ovens Dr. Dough, can you tell me what parts of what appears to be a fairly simple contraption wears out? Other than the door, there can't be many moving parts. Is it the case that a dutch oven would do everything a stove-top oven would do and more? Thanks.

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=5472)-----

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-----[Top][Previous][Next][Print]Subject: energy/fuelI hope I don't burst anyone's expensive bubble. but I think we in our home have just about decided we can live like many in third world countries, do without. Go ahead, call me crazy. But if you turn out the lights, you go to sleep and wake up with enough rest by morning sun. The only thing I am concerned about is refrigeration. When you consider that most of the world lives without energy use, lights or a frig, it's a little less frightening. Any comments out there?(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3613)

-----[Top][Previous][Next][Print]Date:

October 06, 1997 11:37 AM

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3632)-----

-----[Top][Previous][Next][Print]Date: October 06, 1997 01:24 PMSubject: CHINA DIESEL: anyone have experience? Anyone have experience with generators from China Diesel? They have an 8K generator for around \$2000. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=3638)

-----[Top][Previous][Next][Print]Date:

October 12, 1997 11:03 PM\ Subject: ACE RESOURCE LIST Bruce Tippery, publisher of Gary's North's Firestorm Chats has made available his own personal resource list for y2k. He lists suppliers for everything from solar and wind power, generators, trees, non-powered tools, general outdoorish stuff, books on medical care, books on gardening, food preservation, etc. All you have to do for this info+ is send a self addressed, stamped envelope to: Resource List attention Bruce Tippery, PO Box 1014, Colleyville, TX, 76034. He will send the list to you free of charge, but as valuable as the information is, you might want to show your appreciation for his generosity by including \$1 or so. We all know about supply and demand, and at the price offered, the demand will be virtually unlimited. Let's try to make sure it doesn't run out. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=4085)

-----[Top][Previous][Next][Print]Date:

October 27, 1997 07:08 PM Subject: China Diesel If you would like to find out more about China Diesel Imports please see <http://www.chinadiesel.com> or call 619 669 1995 (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=4730)

-----[Top][Previous][Next][Print]Date:

December 16, 1997 02:44 PM Subject: china diesel Be sure and buy the book - More Power to You - for \$9.95. Well worth the money and a must before you purchase anything! I think you will find that the project is a little bigger than first thought. Entering with eyes wide open is advisable. China Diesel = cdi@chinadiesel.com (619-66-1995) They can take Visa, ship the book via priority mail and within two days, and 4 hours or reading, you can know more about alternative power systems than you ever needed or wanted to know. They make the point that for \$4,000 +/-, you can have a system that will last for years and provide all the power you ever will need to do just about anything. Well worth the \$9.95 (plus a little shipping)

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investment. A "must read"! Willi Nix

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7673)

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Date: December 17, 1997 05:28 PM

Subject: China Diesel Generators

Thanks for the tip

on China Diesel for generators and small

tractors. I called them, and was impressed that this is exactly

the type of machine I will want in the post Y2k world.

I thought that a Chinese generator would

be cheap and prone to

break down, however, quite the opposite is true. This is an old-fashioned,

heavy duty German designed motor, which runs at

low speed (1,800 rpm). (Apparently, when the Germans

occupied the country, they built the generator factories). The generator part

is English made

(by a subsidiary of Cummings). It even comes with

a repair kit (piston rings, head gasket, other

gaskets)! The alternator has ball bearings (100,000 hr life expectancy), and the rectifier (\$75

replacement) is the only thing that could

possibly give out. In China, the reality is that if it breaks,

you can't cart it in to get fixed, you fix it on location, as

best as you can (sounding like what

we will be experiencing).

I had thought of a Kubota diesel, but they say that the Japanese

made

the generators with less mass, and increased the rpm. I

think that the 'bulk' and slower speed will be

more desirable.

Tom

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7765)

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Date: December 18, 1997 12:33 PM

Subject:

China Diesel Generators & tractors

After much research and study I purchased a 12KW diesel

generator and a 4 wd diesel tractor with a front end loader

from CD. They are very rugged pieces

of equipment. The

generator and engine weighs 1,000 lbs.

If you want a generator to

have a long run time (>1,000

hours) you need a slow speed (1,800 rpm) engine. Engines

that run at 3,600 rpm are fine for camping and emergency

use, but they will not last very long. A

slow speed diesel

can go 10,000 hours before needing rebuilt. A high speed

engine will

need rebuilt after 500 to 1,000 hours of use.

High speed engines are not made for continous duty

applications.

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7872)

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Date: January 08, 1998 03:11 PM

Subject: China Diesel Reliability

> After much research and study I purchased a 12KW

> diesel generator and a 4 wd diesel tractor with a

> front end loader from CD. They

are very rugged

> pieces of equipment. The generator and engine

> weighs

1,000 lbs.

>

> If you want a generator

> to have a long

run time (_1,000 hours) you need a

> slow speed (1,800 rpm) engine. Engines that run

> at 3,600 rpm are fine for camping and emergency

> use, but they will not last very

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long. A slow > speed diesel can go 10,000 hours before needing > rebuilt. A high speed engine will need rebuilt > after 500 to 1,000 hours of use. High speed > engines are not made for continuous duty > applications. My 8KW CDI generator (which I purchased used) has run over 22,000 hours with no breakdowns. I have a hobbs meter (a time meter) on it, and I change the oil and filter every 50 hours of operation (although one storm it ran for 245 hours over that limit, non-stop) and the only maintenance that I've done to it that wasn't preventative was changing the belts (I bought industrial belts at the parts store, changed them at around 8400 hours because the old belts were looking a little ragged, and the new belts are still going strong). I have a generator house, with sound and vibration isolation, a very large muffler (with low back pressure), and a cooling system with a 50 gal drum as a recovery tank. I also have forced air cooling over the generator while it's running (with a 1500 cfm fan, blowing filtered air). With any engine it's important to run it correctly. Diesels do best when run at their design load, which means I run mine about once a week (when I'm at my place in the mountains), and run it for about 5 hours. During that time I charge the batteries, pump water, vacuum the house, and if I have any projects requiring my power tools, I try to do it then. I actually run my generator with a 5kw pulley installed. This results in a fuel consumption of about 5 hours per gallon. The generator feeds a Trace 2024 inverter / battery charger, and about 2.1 kw worth of deep cycle batteries (next year I'm going to swap them out for individual cell type phone batteries). I also take care of the batteries, keep them charged evenly, topped off with distilled water, and they're kept in their own, sometimes heated (when the weather gets real cold) half of the power house. My power house is a concrete block double building, the batteries are in one side and the inverter and power center (things that should be kept away from battery fumes) are in the other. The whole thing is insulated well, to keep the temperatures stable and above freezing. I even have a very small propane heater to keep the building warm (set at 45 degrees) when I'm away - I don't want the batteries to freeze. I designed all of this myself, based on the knowledge I picked up with an engineering degree (Aerospace, I should be building a rocket ship), and the books More Power and various vendors catalogs. My system allows me to do most anything I want in the house, with little impact from a normal life. I have the usual accessories of life including a microwave (it's hard to find one these days without a digital display that wastes power), a TV/VCR and satellite dish,

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telephones, computers, printers, fax machine, etc. The inverter handles all of it well. The only real concession I make is to have high-efficiency bulbs, and to have the TV/VCR on a power strip so that if I want to watch them, I have to first turn them on manually - but then I can use the remote. This summer I installed a PV array (photo-voltic), next summer I plan on putting in a wind plant. It won't do much, but every watt helps.

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=9687)-----

-----[Top][Previous][Next][Print]Date: October 12, 1997 07:46 PMSubject: ovensI found an oven that sets on top of the stove in the Lehman catalog. Just what I was looking for. Check that catalog out. It has hundreds of great things for the non-electric lifestyle.Hull

Stetson(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=4078)-----

-----[Top][Previous][Next][Print]Date: October 14, 1997 12:56 PMSubject: Best idea yet\$150 12V Solar recharging panel available through Survival Center or Nitro-Pak co., + spare car battery = limited power for occasional use of 12V TV's, space heaters, radios, and all sorts of other gizmos found in the RV section of J.C. Whitney's catalogue.(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=4154)

-----[Top][Previous][Next][Print]Date: October 14, 1997 03:11 PMSubject: A better idea yet? Major D., instead of purchasing various 12VDC appliances to run off of your solar panel into car battery, you just might want to purchase an inverter. The cost of the inverter will be less than the cost of the 12VDC appliances. Now the type of inverters you see in hardware and sporting goods stores are inexpensive and invariably the bottom of the heap. You'll find prices like \$40/100W, \$125/500W etc. Their output is labeled modified sine wave (MSW). Looks more like a square wave with hiccups. Dual voltage square wave would be a lot more descriptive. MSW will work perfectly for resistive loads and (usually) small motors. This double square wave MIGHT wreck noise havoc with radios and computers however. I have found that the little 125W MSW unit I have powers my laptop perfectly, but my laptop is of recent vintage and well shielded. Some inverters in this category will get REAL hot if you try to run them near full power for any length of time, especially with a motor that has an inductive load. Some of your better inverters have cooling fans and/or massive heat sinks on the top/sides. When you get into the higher power inverters, the more expensive units sometimes have true sine wave output. A purer sine wave can be found in low power units in the form of Uninterruptable Power Supply (UPS) units that are sold for use with computers. You are paying for quick switching, which you don't need in Y2k, but you are getting a very clean AC. The "average" UPS is NOT designed for long term duty, 5-15 minutes depending on load. The better larger UPSs have massive heat sinks cooled by fans. Some UPSs have jacks in the back for additional external battery input, will even trickle charge the battery, and are designed for longer use. Like everything else, in inverters and UPSs, you get what you pay for. You need

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to consider the trade-offs between power and duration at a given price point. Another point is that the higher powered inverters will NOT run off of a cigarette plug in your car. 600W output from 12VDC input is over 50 amps! This is why a really large inverter that has a 1,200W output is usually rigged for 24VDC input (50 Amps) or 48VDC (25 Amps) rather than 12VDC (100 Amps!). Common #12 copper wire can carry 30 amps IF used in knob & tube (single wire in open air) and drops to 25 A inside Romex or other sheathing. You want WAY more capacity than you "need" in wire to avoid voltage drop and power loss. On the subject of voltage drop and power loss, if you use 12V, your appliances need to be REAL close to your power supply. Rule of thumb is that for a given load, twice the voltage = 1/2 the voltage drop. Call 120V a triple doubling of 12V (it's a bit more really) and you have eight times the voltage drop (figured as a percentage of original voltage). If you are into jury-rigging, and can locate the UPS where kids or pets will not get to it, you could remove the housing for better cooling (exposed 120VAC ain't safe) and hooking up an additional battery. Another aspect of the UPS is that one's wife might object to spending money preparing for some event that the vast portion of people aren't even aware of (yet!). Whereas purchasing something to protect the expenditure you have made in your computer from brownouts, blackouts, spikes, and line noise (bigger UPSs usually have excellent filtering) might be a LOT more saleable.

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=4158)-----

-----[Top][Previous][Next][Print]Date: October 15, 1997 07:26 PMSubject: I'm new to this: QUESTION. . .I'm somewhat surprised to see so many questions about refrigeration and generators. I had assumed that, with no fuel to run generators, they would not be a long term solution. With refrigeration, would not our energies be better spent in drying foods, etc.? I suspect that we really need to change our thinking in a more basic way. . . We would probably need to eliminate as many energy-dependent articles around the house (cave, whatever. . .) that we can, as much as I'd like to keep my computer (and freezer and toaster and blender. . .). (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=4215)

-----[Top][Previous][Next][Print]Date: October 16, 1997 10:22 AM Subject: Power?? I guess that some of us are just not living in the same scenario as you. Personally I don't think that the power will be off more than a week for major cities or more than two months for the rest of us. A week without power will result in most cities going up in flames (no water, no food, and the criminal element looting). Electricity is so important to the country that I expect a major effort by all concerned to get it back up. Maybe all of the above is wishful thinking but I have at least 6 mo of backup power to make adjustments to my living if proven wrong. I can live without electricity but I choose not to and have the means to implement my choice. Some in these forums may not have the means to implement such a choice and they should plan for the worst and prepare to live without power. Paul

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=4249)-----

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-----[Top][Previous][Next][Print]Date: December 16, 1997 05:22 PMSubject: Tri Fuel Generator
I just ordered a TRI-FUEL 9000 watt generator that runs on gasoline,natural gas, or propane. 16 hp 4 cycle air cooled with elec. start. Cost\$1800. I have natural gas at my home. I bought a 1000 gal propane tank andplan to store gasoline also. I will use natural gas as long as it isavailable, then use gasoline as the storage life is short and then use thepropane. The brand name is DYNA. Ordered from Northern Equipment andSupply.(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7690)

-----[Top][Previous][Next][Print]Date:
December 16, 1997 10:23 PM Subject: Tri fuel generator Joe, thanks, this is what I am looking for. Can you post where to purchase this little beauty?
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7705)

-----[Top][Previous][Next][Print]
Date: December 17, 1997 12:10 AM Subject: Company for Generator Their homepage is:
<http://www.northern-online.com/> I found the generator in the catalog it is not online.
catalog#160094-F517 Tel. 1-800-556-7885 Battery, rack, and cables not included
(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7713)

-----[Top][Previous][Next][Print]
Date: December 17, 1997 03:52 PM Subject: tri-fuel generator what are
the specs on this unit? what type of outlets? watts and voltage? what is the effeciency?
Walt (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7751)

-----[Top][Previous][Next][Print]
Date: December 17, 1997 05:18 PM Subject: Tri-fuel generator
The only information I had was from the catalog. Here it is: 9000
watt Tri-Fuel generator runs on gasoline, LP, or natural gas. Muscular 16 HP, 4-cycle, air
cooled Briggs Vanguard OHV engine has electric start. Delivers 9000 watts
surge, 8000 continuous. Runs power tools and lights at the job site.....provides reliable
standby power too! Derate 10% for LP, 20% for natural gas. Generator has
four 15 Amp, 120 Volt outlets and one 30 Amp, 120/240 Volt Twistlock outlet. Low oil shutdown.
Runs 5.6 hours on a full 4.5 gallon tank of gas at half load. 33 1/2"L X 18
1/2"W X 25"H. Electric start battery, rack, and cables not included. U.S.A. Two year
limited generator and engine warranty. Ship Wt.260 lbs. Item# 160094-517 Discount Price
\$1859.99 When I ordered the price quoted was just under \$1800. plus freight
of about \$75. I'm sure if you have any other questions Northern can supply the answer. The 800
number is in my previous post. I talked to a friend who works for the local
power company who has also done electrical work for me. He said to be safe,

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especially for them a double throw switch needs to be installed at your Amp box. The only other safe way would be to pull your meter if you hook up without the switch. Of course your're not supposed to do that but in an emergency you could probably get by with it. If you wish to keep it portable you could just hook it direct to whatever you want to power. If you hooked up to your house you would need to be careful and not overload the unit by running too much at one time. Joe

(http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7762)-----

-----[Top][Previous][Next][Print]Date: December 18, 1997 10:20 PMSubject: ALL Fuel GeneratorI have located on the Web a carburator which enables engines to burn anytype of fuel...gas, diesel, kerosene, peanut oil, corn oil...etc. It is known as the GEET Carburator. This Corporation is selling these carburators on the Coleman 5KW Generator for \$1350 & is also installing them on American cars & trucks (1984 & older - which have carburators). For more information, see these 2 Web sites: www.inett.com/himac {under Geet & Paul Pantone} and the 2nd site is: www.geet.com Imagine that...so what if you can't get fuel at the gas station, dump just about anything you can find...oil, alcohol...this carburator has even run on 80% ocean water & 20% diesel! Wow...check it

out. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=7925)-----

-----[Top][Previous][Next][Print]Date: January 02, 1998 11:28 AMSubject: Geet CarbsHas anyone purchased this carb, know of anyone first hand who has used this carb and/or has the plans to build the carb. Please reply directly to

me. Thanks. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=8886)-----

-----[Top][Previous][Next][Print]Date: January 09, 1998 11:20 PMSubject: Food for thought! If things deteriorate and electricity as well as other utilities go down for an extended period of time, we need to ask ourselves a basic question: What do I absolutely have to have to live? Answer: Food, water, shelter, protection. You don't have to have a refrigerator, or power to run one. 1/1/2000 comes in the winter for most folks in North America. Need some ice? Has it snowed lately? Is there a nearby stream in which you can immerse perishables in big freezer bags? How about digging a big, dark hole and keeping things cool using the old "wine cellar or meat locker way"? Or, simply store foods that don't need refrigerating! You do need to have reliable access to water, so if you need to rely upon an electric pump, you better have enough power to run it...and you better have a spare unit, or at least spare parts. You don't have to have a generator to run a pump (an inverter and car battery will do provided you've got a means to charge the battery, such as a solar charger.) Also consider that your water supply may not be adequately treated or filtered. It might be wise to find out how to test the water, and obtain some means of filtration or purification such as the tablets used by the military. For shelter, you don't need a generator to be effectively sheltered. But you may need some means to heat a room in which to live and it would be nice if that same means of obtaining heat could double to cook and heat water and provide light at night.

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A fireplace seems ideal, if you have access to the wood. A propane/gas stove, lamp and heater element would also serve if you can store enough propane. And, why not have a good, cold weather sleeping bag on hand for each family member? If all else fails, that bag should give you the means to stay warm. As for protection, the best solution is to remain inconspicuous and appear to be as bad off as everyone else! Generator sets are noisy...even the quieter ones. And having a house/shelter lit up while everyone else is "in the dark" is only going to invite trouble and unwanted "guests." At the very least, you better get some really good black-out curtains and only burnlights in those rooms. Remember that inverters, batteries and solar chargers are extremely quiet and can be concealed more easily than a generator. Also consider that you are at greater risk for unwanted guests if you have a generator set parked outside...they might view that as an invitation to make an appropriation, and why stop outside your back door? If you had foresight to install a generator, who knows what other goodies might be found inside, such as food, parts, water, etc. While having a supply of firewood may also attract unwanted visitors, at least this is a more common sight than a generator and less likely to stir up thoughts of entering the home. As for me and my family, we now live in a rural community with decent neighbors and our own town police force. 2500 population with a grocery store, drug store, three gas stations, full medical clinic and surrounded by agriculture. We have an old generator already, but I won't use it except when absolutely necessary. We have an inverter with deep-cycle marine batteries and a charger. A solar charger is on the way. We have a fireplace and have made a habit of stocking a substantial supply of wood, so no one would be the wiser if they see a big pile out back. We have a "rabbit gun", good axe and knife. We've got plenty of tools. Our windows are blockable with dark curtains. We plan on keeping one or two rooms functional, and closing off the rest of the house if worse comes to worse. Also, we're 2/10ths of a mile from a farmer's irrigation well, (he has a generator and pump on it) and we've made sure we have a good rapport with him. He grows corn, tomatoes, beans, cukes, etc. and even has a storage bin near our home that is filled with edible grain. We've got enough AC wire to run a cable from his irrigation generator to our house, and we've got a few good sized buckets for water and a wagon to haul it. We've got 2 bikes to get in and out of town. We have a manual air pump for the tires and several cans of fix-a-flat! You get the idea...perhaps we all need to think in such terms and try to figure out what we'll need, should things turn bad. Maybe we should each try killing the main circuit breaker and cutting off the main water line...then go about your life and see what problems you encounter. Then, do what you've got to do to solve the difficulties. Having a generator may be nice, but is it really THAT important and necessary? If you've simply got to have one, I suggest you get one that can run on more than one fuel, or get the smallest, quietest gas unit you can find. Good luck, and I hope I prompted some thinking. I'd like to get your

thoughts, too. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=9839)-----

-----[Top][Previous][Next][Print]Date: February 06, 1998 01:28

PM Subject: Fuel for Thought (and for generators?) I was considering purchasing a gasoline or diesel powered generator to provide electric power until I realized this: We certainly will not be able to rely on the Power Grid

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as it exists today. Of course, the reason we will not be able to rely on the Power Grid is once the transportation and shipping via truck and train is interrupted the fuel will stop moving. Then the oil and coal operated power stations (75% of the Power Grid) will cease operating. They store about a 3 week supply of reserve and that's it. "Where are we going to get gasoline or diesel fuel when the fuel stops running"? Do you really think we can store enough for years? I hope so, but I do not think most of us can. I have an alternative to a gasoline or diesel powered generator. I am in the process of drawing up a detailed set of plans explaining how to build a 12 volt DC battery bank using alternators hooked together to charge them, (these are easily available now and will be after the year 2000) driven by a 40 to 60% replica of a steam engine used about the turn of the century as a power source. There are companies that build these steam engines (anywhere from 20 - 50 inches long that could provide adequate power using wood and water to keep a large battery bank charged. Add an inverter and AC power is available for your use as well. Also I have located a company who manufactures steam driven Tractors (11 feet long by 4 feet wide) for those interested in a "workhorse" for agriculture, milling flour, sawmill and many other uses. If interested in finding out more information about this concept let me know and I will go into more detail. I am putting together a package detailing this information. (http://garynorth.entrewave.com/forums/Index.cfm?CFApp=12&Message_ID=12761)

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Year 2000"	Relocating					