# Survey of Off-Grid Dwellings

January/February 2003





#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed

1. Is that property now connected to the Yukon electrical grid? (i.e., do you get power from Yukon Energy or Yukon Electric?)

	nbr	%
1. Is that property now connected to the Yukon electrical grid? (i.e., do you get power from Yukon Energy or Yukon Electric?)		
- no	258	100
Total	258	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed

2. Is there a house or dwelling of any kind on this property? By dwelling we mean any kind of building that people could actually sleep and eat in, including cabins, cottages, lodges, camps, etc.

	nbr	%
2. Is there a house or dwelling of any kind on this property? By dwelling we mean any kind of building that people could actually sleep and eat in, including cabins, cottages, lodges, camps, etc.		
- yes	252	98
- no	6	2
Total	258	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed

2.2 Would you be prepared to be contacted for a study that only looks at commercial operations that are off the grid?

	nbr	%
2.2 Would you be prepared to be contacted for a study that only looks at commercial operations that are off the grid?		
- yes	5	100
Total	5	100

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 3. Is the dwelling used year-round?

	nbr	%
3. Is the dwelling used year-round?		
- yes	133	53
- no	119	47
Total	252	100

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 3.1 What months of the year is it used?

	nbr	%
January		
- yes	14	6
- no	238	94
February		
- yes	12	5
- no	240	95
March		
- yes	16	6
- no	236	94
April		
- yes	26	10
- no	226	90
May		
- yes	65	26
- no	187	74
June		
- yes	93	37
- no	159	63
July		
- yes	97	38
- no	155	62
August		
- yes	93	37
- no	159	63
September		
- yes	77	31
- no	175	69
October		
- yes	36	14
- no	216	86
November		
- yes	14	6

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 3.1 What months of the year is it used?

	nbr	%
December		
- yes	10	4
- no	242	96
Refused		
- yes	1	0
- no	251	100
Do not know		
- yes	6	2
- no	246	98
Total	252	100

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 4. Is it your main residence?

	nbr	%
4. Is it your main residence?		
- yes	85	34
- no	166	66
- do not know	1	0
Total	252	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 4.1 Is it a recreational property?

	nbr	%
4.1 Is it a recreational property?		
- yes	106	64
- no	58	35
- do not know	1	1
Total	165	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 4.1.2 What type of dwelling is this?

comment
4 work trailers at camp
A cabin
A caretaker's place on a commercial lease.
Agriculture
Business
Cabin
Cabin for hunting.
Cabin for trapline
Cabin use on farmland
Commercial lease
Commercial lodge
Commercial/residential
Cook shack
Framed dwelling
Framed house
Hunting cabin
Hunting camp
It is a business.
It is a mining site.
It's a business place - mining cabin.
It's a business.
It's a cabin on a mining claim
It's a farm.
It's a log home.
It's a rental.
It's a two bedroom house.
It's going to be a retirement home.
It's my second home.
It's my second home.
Log cabin
Log cabin
Log shack
Mining camp
Mining grounds
Minto resorts - campground
Modular home on a full basement leased to own.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 4.1.2 What type of dwelling is this?

comment
Outfitting camp
Outfitting camp
Outfitting camp
Placer mine
Research Station
Research facility used as the main residence for technicians and researchers.
Residential
Residential - works away in winter so doesn't stay here.
Sawmill and logging camp
Second home
Trapline
Trapline
Trappers Cabin
Trappers cabin
Trappers cabin
Trapping cabin
Trapping cabin
Was my main home.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 5. How many years have you made use of this dwelling?

	nbr	%
5. How many years have you made use of this dwelling?		
1	8	6
2	5	3
3	7	5
4	4	3
5	3	2
6	5	3
7	4	3
8	6	4
9	2	1
10	9	6
11	5	3
12	11	8
13	2	1
14	9	6
15	7	5
16	3	2
17	5	3
18	2	1
19	3	2
20	10	7
22	3	2
23	6	4
24	4	3
25	6	4
27	1	1
28	2	1
30	5	3
31	1	1
32	1	1
33	2	1
40	2	1
41	1	1

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

5. How many years have you made use of this dwelling?

	nbr	%
50	1	1
Total	145	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

5. How many years have you made use of this dwelling? refused/do not know

	nbr	%
5. How many years have you made use of this dwelling? Refused/Do not know		
- do not know	3	100
Total	3	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

6. Before moving to this property, did you live in another dwelling that also was off the electric grid?

	nbr	%
6. Before moving to this property, did you live in another dwelling that also was off the electric grid?		
- yes	55	37
- no	91	61
- do not know	2	1
Total	148	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

7. Have you experienced any difficulty in getting a mortgage or other financing or insurance for your off-thegrid dwelling?

	nbr	%
7. Have you experienced any difficulty in getting a mortgage or other financing or insurance for your off-the-grid dwelling?		
- yes	38	26
- no	107	73
- do not know	2	1
Total	147	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 7.1 Have you experienced any difficulty in getting a mortgage or other financing or insurance for your off-thegrid dwelling? Yes ...

#### comment

Because of lack of services and accessibility, you cannot get fire insurance.

Because of the log-building we're not able to get insurance. If we stayed there year-round they may consider it, but the lease says we can't stay there year-round.

Cannot get CMHC Mortgage so we have to get a personal loan in which case the interest is doubled.

Central Mortgage doesn't cover anything more than 15 km out of town or away from a fire station.

Fire insurance is impossible to get because of the remote location.

Getting insurance is becoming more difficult because some don't want to cover log homes anymore.

I can't get insurance because I heat with wood. I'm also a seasonal worker, so nobody will finance me.

I couldn't get a mortgage so I had to get a personal loan and the insurance is very expensive.

I couldn't get any.

I had to deal with negative people who didn't have a clue what I was trying to do.

I tried once to get a loan. For collateral I used the house but because I had no fire insurance they didn't consider it. I tried to get fire insurance, we didn't have water access or electrical heat.

I'm off a federal lease and I'm having trouble trying to get a mortgage against a lease even through Yukon Housing.

Insurance is difficult to get.

Insurance is hard to get.

Insurance is very expensive for fire.

Insurance won't insure a house with wood heat.

Insurance, can't get it.

Insurance. If you're on the grid, you can have electric heat. If you're not on the grid, they charge you whatever they want, and they do.

Insurance. Because it's a log building.

It is very expensive and had to go through two different companies to get insurance.

It was difficult because 3 families live on the property. You can't get insurance for off-grid dwellings.

It was difficult to get insurance. We weren't even considered by some mortgage companies because we were off the grid.

It was wood heated and away from a fire hall. The price was too high to insure the dwelling.

It's impossible to get insurance with wood heat and all. It would cost too much.

More challenging to get reasonable insurance. I mean, I called to get quotes from seven companies; two called me back.

Since it's only wood heat, they don't like insuring places like this.

Since there is no fire station nearby, it is impossible to get insurance.

The building is wood, so it caused difficulties to insure.

The business had some difficulties and there is no insurance.

The cost to insure a log house in the middle of nowhere is way too high.

The insurance was very expensive.

There is none available because they wanted running water and we have a wood stove as only source of heat.

We can't get a mortgage because of its remote location and it being off grid. No insurance company in the Yukon would insure us because they said we couldn't pump water if there was ever a fire. We did finally get insurance through my husband's government union.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 7.1 Have you experienced any difficulty in getting a mortgage or other financing or insurance for your off-thegrid dwelling? Yes ...

#### comment

We can't get any because we're 40 miles away from any fire protection.

We couldn't get a loan from Yukon Housing to build our addition unless we wired the whole house, so we didn't get it.

When you buy off grid, you can't get CMHC approval, which is why it's also hard to re-sell.

When you don't have electricity or running water they won't insure you. We switched from using wood to using oil but still haven't found an insurer.

Without power you can't get insurance because you have wood heat.

#### $Survey\ of\ Off\mbox{-}Grid\ Dwellings\ (Jan\mbox{-}Feb\ 2003)$

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 8. How far is the property from the electrical grid or a utility pole?

	nbr	%
Less than 1 kilometre		
- yes	58	23
- no	194	77
Between one and 5 kilometres		
- yes	52	21
- no	200	79
More than 5 kilometres		
- yes	124	49
- no	128	51
Close to a high voltage transmission line but not to a low voltage distribution line		
- yes	5	2
- no	247	98
Refused		
- no	252	100
Do not Know		
- yes	10	4
- no	242	96
Total	252	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 9. Do you intend to eventually connect to the grid?

	nbr	%
9. Do you intend to eventually connect to the grid?		
- yes	21	35
- no	34	57
- do not know	5	8
Total	60	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 9.1 Do you intend to eventually connect to the grid? Yes ...

#### comment

Because I like power.

Because I would like to have power.

Because we use a generator but it would be nice.

Being connected to the grid would make it possible to have a phone and electricity.

Convenience

Depending on the cost, I will because I'm planning on living there full time.

I don't have any other options and I do plan on living there eventually.

I have many kinds of electrical things I use and have to use the generator to run them.

I like modern conveniences.

I never thought about it, but if everybody got it and they needed me to get it, I would.

It depends on what it would cost and whether other people out there would want to.

It improves the value of the property, but personally, I don't require it.

It will make it more sellable, which is what I intend to do.

It would be really convenient because my husband is 81 years old now.

It would improve my property value, but I won't pay the \$70,000.00 they've quoted me on this.

It's a lodge so, for better service, I guess.

Some day but now it is too expensive.

The convenience of it would be great.

We could heat the place in the winter.

We want to put in a larger dwelling that will hopefully become a retirement home.

We would like to use it more often and it would be nice to have power.

Works great to just switch on the lights.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 9.2 Do you intend to eventually connect to the grid? No ...

#### comment

A neighbour tried to connect and found it wasn't worth it, so I decided not to try.

I don't want it.

I like the solitude. I like the Kerosene lamps.

I'd rather not donate any more to Yukon Electric and I plan on going with solar eventually.

I'm happy as it is now.

I'm hooked up but they won't energize the lines. I would have to pay \$5000.00 a month because I'd be the only one on 12 miles of line.

I'm running alternative and just not interested.

It costs too much to start up.

It was quoted that to connect would cost \$20,000.00.

It would be too costly.

It would cost each place out here \$25,000.00 to \$50,000.00 to connect, which is too much. We would also have to rewire our place up to code.

It would cost too much because they would have to cross the highway.

It's a get-away.

It's not necessary. I would rather invest in solar because of the cost to connect to the grid.

It's not used enough to justify having power.

It's too expensive.

It's too expensive.

It's too expensive. We are only there for about 3 weeks, so it wouldn't be worth it.

It's too expensive. We'd have to pay by ourselves.

It's way too expensive.

The cost is too high to connect.

The house is already set up for alternative energy.

There is already a solar system and generators in place so there is no point.

They want \$100,000.00 to connect us.

We are fine the way we are.

We are set up for alternative power and have invested in it. We also don't want poles and lines around for esthetic reasons. We like to be independent of large corporations and wouldn't spend the money.

We can't.

We don't need electricity up there.

We don't use it enough to make it worthwhile because we're old now.

We like it rustic.

We prefer to have the rustic effect and we don't live there year-round.

We would have if our neighbours would have agreed to go on-grid, too. Now we have too much money invested in alternative energy sources - \$35,000 worth.

We've invested a lot of money in solar panels and I like to support alternative energy.

Yukon Electric was nice to deal with, but the head of finance at Yukon Electric was very disagreeable.

258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 10. If it were available, would you want to connect to the grid?

	nbr	%
10. If it were available, would you want to connect to the grid?		
- yes	75	39
- no	74	38
- it depends	41	21
- do not know	3	2
Total	193	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.1 If it were available, would you want to connect to the grid? Yes ...

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As a back up, but not for regular use.

As a backup, but not for regular use.

Because I built with that in mind. Convenience.

Because I've lived like this long enough.

Because it costs too much for what we use.

Because it's costing too much to maintain the alternative option we have.

Because life would be easier.

Because of the inconvenience of running a generator. Also, it would lower insurance costs.

Because the generators are too expensive to operate.

Because to produce our own power would cost more than off the grid.

Because, I would love to be able to take a shower whenever I wanted without having to run out and start the generator. I would love to be able to do laundry whenever I wanted without running to start the generator. And it would tickle me pink if at night, when I open my refridgerator, I could see the food.

Convenience

Convenience and maintenance.

Convenience, definitely the convenience.

For cheap electrical power.

For convenience sake.

For convenience sake.

For convenience.

For the convenience of it.

Fuel to run the generators is so costly to purchase and haul, it would take away the aggravation to connect.

Generating our own electricity is too expensive.

I could run bigger equipment more often in my shop.

I don't want to run a power plant.

I need power there.

I would like to move there permanently and when I do I would like there to be power.

I would like to move there permanently.

I'm currently using a generator. It's very expensive, hard to get started in the cold and it's not good for the environment.

If it were economical to do so.

If the cost was reasonable.

If you are connected to the grid you can have a phone and Internet access.

It depends on the price.

It would be a lot cheaper.

It would be a lot easier.

It would be a lot more useable for the cabin.

It would be cheaper than running 2 generators.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.1 If it were available, would you want to connect to the grid? Yes ...

#### comment

It would be cheaper than running a light plant.

It would be convenient to have power because then we could use the cabin year round.

It would be convenient.

It would be easier than running a light plant.

It would be easier.

It would be more convenient.

It would be more convenient.

It would be much easier to be connected than to generate energy yourself.

It would be nice to have electricity.

It would be nice to have electricity.

It would be nice to have electricity.

It would be so much easier.

It would give me a chance to rent out the facility all year.

It would make it easier to live there.

It would make life easier.

It would make life easier.

It would simplify things out there, although I do like the rustic feel.

It wouldn't pay to switch over.

It's a less expensive energy source. It's also cleaner and quieter than running the generator.

It's convenient.

My solar doesn't work sufficiently because of the surrounding mountains.

Only if the line comes to us and all we have to do was attach a wire.

The convenience of being on grid would be why.

The convenience of it.

The convenience.

The cost of running the diesel generator is too high.

The cost of running these generators is about \$2,000.00 a month.

The ease of running the house off the grid would be greater.

The generators are too expensive.

The knowledge and upkeep for off-grid energy is time consuming and costly.

The reason for not living there full time is because it is off the grid. I would like to live out there again.

Then we could use it as our main residence.

To avoid the noise of generators and more ecologically friendly.

To be able to use kitchen appliances would be great.

To have the accessibility of power.

To use the cabin year-round, more practical. There are a lot of neighbours who have generators that they hook up and it would be quiet.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.1 If it were available, would you want to connect to the grid? Yes ...

#### comment

We would like to be able to plug in our vehicles so we can get around more.

We would like to be able to stay out there for longer periods of time.

We would like to live out there full time.

When our solar capacity isn't enough, I don't like to use the generator as a backup.

Why not? That's a no-brainer. It would be great to have power.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.2 If it were available, would you want to connect to the grid? No ...

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Because I don't want the bill at the end of the month. They want too much money in the Yukon for electricity.

Because it is a recreational property, it is not necessary.

Because it's more rustic without it.

Because it's too expensive.

Because we like our peace and quiet.

Doing fine with generators and solar.

For the peace and quiet.

I cannot use the cabin year-round so it wouldn't make sense to spend money on it.

I don't need any power outages, nor any power bills.

I don't need to. I don't want a bill in my mailbox.

I don't want to be bothered by the public.

I have no desire to modernize the cabin at this point.

I like it the way it is, quiet.

I like it the way it is.

I like my privacy. A power line would encourage more people to move here.

I like the peace and quiet.

I like the wilderness retreat.

I want to maintain the remote wilderness experience.

I'd have to rewire the house, and besides, I like being away from it all.

It costs too much money.

It is cheaper to run off the generator.

It is too expensive. I don't like all the noise that electrical appliances make.

It isn't even an option.

It would be cost prohibitive.

It would be too expensive.

It would be too expensive.

It would be worth it because I only use it for a limited amount of time. I also have my own generator.

It would bring other people out here and we don't want that.

It would cost me more for electricity than it does now with the generators.

It would cost too much.

It's a rustic log cabin.

It's cheaper to run the generators.

It's financially unfeasible. The cost would be \$70,000.00.

It's just a cabin. I don't want electricity out there.

It's just a recreational property. We don't need electricity.

It's just not something we would use.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.2 If it were available, would you want to connect to the grid? No ...

#### comment

It's more of a camping environment the way it is.

It's not a permanent residence and it would probably be too costly.

It's not feasible with the costs being so high.

It's not our main residence. It's too expensive.

It's only a summer home, we don't need the power.

It's smack dab in the middle of nowhere.

It's too expensive and we like the privacy that we have.

It's too remote.

Not interested in spending money to support bureaucracy and I'm more interested in clean energy and being self-sufficient.

Not on the property for very long, so it would not be worthwhile.

She [mom] has her own power system.

The cabin is only used 2 weeks of the year. Not worth getting electricity.

The cabin is too remote to consider.

The cost would be much too high.

The cost would be really high because there are only temporary lodgings in the area.

The house is fine being run off a generator.

There is no possibility of power lines coming out there at all.

Too expensive

We are self-sufficient and our system is renewable.

We don't need it. It costs us less not to have it because we have solar.

We don't need power for the summer camp.

We don't need to because we are fairly self-sufficient out there.

We have a self-sustaining solar system and we like to be apart from all those amenities. It would also be too costly.

We have our own power plant.

We have our own source of energy.

We like how the cabin is secluded and rustic.

We like it just the way it is.

We like the rustic environment.

We like the wilderness and the rustic lifestyle.

We only stay there in summer.

We want to keep it wilderness. We don't want a bunch of electrical wires.

We wouldn't use it enough to justify having it.

We're 105 miles out on the river, so I don't think it would be feasible.

We're almost totally self-sufficient there.

We're not there very often.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.2 If it were available, would you want to connect to the grid? No ...

#### comment

Yukon Electric charges too much to get hooked up.

[It will never be hooked up because it is located on an island.]

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.13 If it were available, would you want to connect to the grid? It depends ...

comment
At what cost?
Cost and if they decide to cross the river, which they said they would not.
Cost of connecting.
Cost would be a factor.
Cost would be a factor.
Cost.
I need to do research on the cost.
I would have to weigh the advantages and disadvantages.
I would love to get power but not for the \$125,000.00 they've quoted to me.
I would only want underground and it would depend on the cost.
If the cost is too high, then it would not be worth it.
It depends how much it would cost.
It depends if it's reasonably priced.
It depends on how expensive it is.
It depends on how much money it is to get developed.
It depends on the cost to extend the grid to their house.
It depends on the cost.
It depends on the price.
It depends on the price.
It is available but it depends. They are looking at making it a subdivision. We're waiting to see what happens. At this point it's not economic.
It would depend on the amount it would cost us to connect to the grid.
It would depend on the cost.
On cost and what we would have to do to wire our house. We'd want phone for sure.
On if it was at a competitive price, because I have close 5to \$40,000.00 invested in alternative systems. It would be more convenient and maintenance-free. With the cost of fuel now, it would also be cheaper.
On the cost of bringing power to the dwelling and whether or not we can make an arrangement with Yukon Electric for them to buy our surplus power in the summer.
On the cost to connect.
On the cost to connect.
On the cost.
On the cost.
On the cost.
On whether I could sell any extra power back to the power company.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 10.13 If it were available, would you want to connect to the grid? It depends ...

#### comment

Since they are already extending the pole down to the area already, it would depend on the cost to extend past the last pole.

The expense of having it move to such a remote location would be quite an expense.

We talk about it, but we'd rather enjoy not having electricity. We still aren't really sure.

We'd have to think about it - we are retired, so maybe we will have to connect soon.

What it implies.

Yes, we would, but it would be impossible to do so.

258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 11. Do you also use the property for commercial purposes or earn your living on this property (including subsistence activities)?

	nbr	%
11. Do you also use the property for commercial purposes or earn your living on this property (including subsistence activities)?		
- yes	101	40
- no	151	60
Total	252	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 11.(a). What kind of commercial operation do you run on the property?

	nbr	%
Trapping		
- yes	12	5
- no	240	95
Subsistence hunting/fishing/gathering		
- yes	5	2
- no	247	98
Agriculture		
- yes	23	9
- no	229	91
Placer mining		
- yes	6	2
- no	246	98
Mining exploration		
- yes	5	2
- no	247	98
Outfitting (hunting/fishing)		
- yes	8	3
- no	244	97
Other types of eco-tourism/lodge		
- yes	19	8
- no	233	92
Art or craft production		
- yes	5	2
- no	247	98
Writing or consulting		
- yes	1	0
- no	251	100
Rent it out to tenants who live there		
- yes	6	2
- no	246	98
Rent it out as a cottage/seasonal residence or to tourists	•	
- no	252	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 11.(a). What kind of commercial operation do you run on the property?

	nbr	%
Home-based business		
- yes	14	6
- no	238	94
Other		
- yes	21	8
- no	231	92
Refused		
- yes	1	0
- no	251	100
Do not know		
- no	252	100
Total	252	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 11.(a).12 What kind of commercial operation do you run on the property? Home-based business...

comment
Automotive body shop
Bed and breakfast
Bed and breakfast
Campground
Concrete contracting
Developer of software
Environmental business
Giving music lessons
Guiding
Horse riding
Keep gardens to supply our B & B and make fireweed jelly to sell
Mechanical work
Musician
Sawmill

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 11.(a).13 What kind of commercial operation do you run on the property? Other...

comment
Air Charter
Board horses and teach riding.
Cabin rentals
Café and logging
Campground
Campground/laundromat/Bed and breakfast
Canoe rentals
Commercial cabinet making
Course development
Distributor for 2-way satellite Internet and phone
Dog sledding.
Gardening
Hard rock exploration
It is a grazing range.
It's a charity summer camp.
Lodge with service station, small store, towing and 2 separate double wide trailers.
Lodge, staff housing, RV park
Make guns.
Raising buffalo and producing hay
Restaurant, Gas station
Small logging and sawmill operation

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 12. What energy source do you use for cooking?

	nbr	%
Wood		
- yes	83	33
- no	169	67
Propane		
- yes	200	79
- no	52	21
Electricity		
- yes	5	2
- no	247	98
White Gas		
- yes	7	3
- no	245	97
Other		
- yes	4	2
- no	248	98
No cooking appliance		
- yes	2	1
- no	250	99
Refused	, ,	
- no	252	100
Do not know		,
- no	252	100
Total	252	100

Survey of Off-Grid Dwellings (Jan-Feb 2003)
258 Surveys Completed less 6 with no dwelling (1 partial survey)
12.8 What energy source do you use for cooking? Other ...

comment
Alcohol
Open fire outside
Outdoor barbeque
Solar

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 13. Is your cooking appliance also used for heating?

	nbr	%
13. Is your cooking appliance also used for heating?		
- yes	66	26
- no	184	74
Total	250	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 14.(a) What kinds of heating systems are in place? No heating system

	nbr	%
14.(a) What kinds of heating systems are in place? No heating system		
- yes	5	2
- no	247	98
Total	252	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 14.(b) What kinds of heating systems are in place? Wood stove

	nbr	%
14.(b) What kinds of heating systems are in place? Wood stove		
- yes	218	89
- no	27	11
Total	245	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 14.(c). What kinds of heating systems are in place? Boiler and hot water radiators (or in-floor radiant heat)?

	nbr	%
Indoor boiler		
- yes	13	5
- no	239	95
No boiler		
- yes	228	90
- no	24	10
Outdoor boiler		
- yes	1	0
- no	251	100
Refused		
- no	252	100
Do not know		
- no	252	100
Total	252	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 14.(c).i. What kinds of heating systems are in place? Indoor boiler

	nbr	%
Indoor boiler - Wood		
- yes	2	1
- no	250	99
Indoor boiler - Fuel oil/diesel		
- yes	6	2
- no	246	98
Indoor boiler - Propane		
- yes	2	1
- no	250	99
Indoor boiler - Electric		
- no	252	100
Indoor boiler - Other		
- yes	1	0
- no	251	100
Total	252	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 14.(c).i.8 What kinds of heating systems are in place? Indoor boiler - Other...

#### comment

Combination wood/fuel oil/diesel

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 14.(c).ii. What kinds of heating systems are in place? Outdoor boiler

	nbr	%
Outdoor boiler - Wood		
- no	252	100
Outdoor boiler - Fuel oil/diesel		
- no	252	100
Outdoor boiler - Propane		
- no	252	100
Outdoor boiler - Electric		
- no	252	100
Outdoor boiler - Other		
- no	252	100
Total	252	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 14.(d) What kinds of heating systems are in place? Furnace and hot air system

	nbr	%
14.(d) What kinds of heating systems are in place? Furnace and hot air system		
- yes	24	10
- no	221	90
- refused	1	0
Total	246	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 14.(d).i. What kinds of heating systems are in place? Furnace and hot air system

	nbr	%
Furnace and hot air system - Wood		
- yes	6	2
- no	246	98
Furnace and hot air system - Fuel oil/diesel		
- yes	8	3
- no	244	97
Furnace and hot air system - Propane		
- yes	7	3
- no	245	97
Furnace and hot air system - Electric		
- yes	2	1
- no	250	99
Furnace and hot air system - Other		
- yes	1	0
- no	251	100
Total	252	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 14.(d).i.8 What kinds of heating systems are in place? Furnace and hot air system - Other...

#### comment

2 furnaces: one fuel oil/diesel, one propane

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 14.(e) What kinds of heating systems are in place? Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters

	nbr	%
14.(e) What kinds of heating systems are in place? Free-standing or monitor-type (kerosene/oil/propane/electric/gas)		
heaters	1	1
- yes	59	24
- no	185	75
- refused	1	0
- do not know	1	0
Total	246	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 14.(e).i. What kinds of heating systems are in place? Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters

	nbr	%
Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters - Fuel oil/diesel		
- yes	26	10
- no	226	90
Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters - Propane		
- yes	15	6
- no	237	94
Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters - Electric		
- yes	1	0
- no	251	100
Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters - Kerosene		
- no	252	100
Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters — White gas		
- yes	1	0
- no	251	100
Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters - Other		
- yes	12	5
- no	240	95
Total	252	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

14.(e).i.8 What kinds of heating systems are in place? Free-standing or monitor-type (kerosene/oil/propane/electric/gas) heaters – Other...

comment
No. 1 stove oil
RSF Wood stove
Stove oil
Wood
Wood
Wood
Wood heater
Wood space heater

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 14.(f) What kinds of heating systems are in place? Electric baseboard

	nbr	%
14.(f) What kinds of heating systems are in place? Electric baseboard		
- yes	4	2
- no	242	98
Total	246	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 14.(g) What kinds of heating systems are in place? Other...

comment
Electrical heater, portable heater
Fisher wood heater
Masonary heater
Propane cook stove
Propane portable heaters.
RSF wood heater
Wall mount propane heater
Wood barrel stove
Wood fireplace

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 15. Which heating system is used most often?

	nbr	%
15. Which heating system is used most often?		
Wood stove	198	80
Boiler and hot water radiators or infloor radiant heat	7	3
Furnace and hot air system	11	4
Free-standing monitor-type heaters	16	7
Electric baseboard	1	0
Other	13	5
Total	246	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 15.7 Which heating system is used most often? Other...

comment
Free-standing wood heaters
Masonary heater
Oil space heater
Propane
Propane
Propane
Propane furnace
Propane heater
Wood heater
Wood heater
Wood heater
Wood space heater

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 16. Which light sources are used for lighting this dwelling?

	nbr	%
AC Bulbs and fixtures		
- yes	87	35
- no	165	65
DC Bulbs and fixtures		
- yes	37	15
- no	215	85
Small battery-operated lamps		
- yes	6	2
- no	246	98
Propane lamps	·	
- yes	120	48
- no	132	52
Kerosene lamps	ı	
- yes	58	23
- no	194	77
Candles	ı	
- yes	46	18
- no	206	82
White gas lantern	·	
- yes	27	11
- no	225	89
No artificial light	ı	
- yes	4	2
- no	248	98
Other	ı	
- yes	24	10
- no	228	90
Refused		
- no	252	100
Do not Know	ı	1
- yes	1	0
- no	251	100
Total	252	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 16.9 Which light sources are used for lighting this dwelling? Other ...

comment
110 Volt electric
110 solar lights (battery operated with inverter)
12 V solar lights
12 Volt solar powered lights
AC Fluorescent
Compact fluorescent
Don't know if it's AC or DC, but powered by solar.
Electric
Electric
Electric
Electric fixtures
Electric lights [Doesn't know if they're AC or DC]
Electric, but don't know what kind (generator).
Electrical
Electricic
Electricity came from the welder. Don't know if AC or DC.
Electricity provided by solar, not sure if AC or DC
From generator
Oil lamp
Oil lamps
Solar battery lights
Solar electric
Solar electric
Solar lights

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 17. Which light source is used most often?

	nbr	%
17. Which light source is used most often?		
AC Bulbs and fixtures	60	24
DC Bulbs and fixtures	13	5
Propane lamps	95	39
Kerosene lamps	28	11
Candles	10	4
White gas lantern	16	7
Other	18	7
Do not know	6	2
Total	246	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 17. Which light source is used most often? Other...

comment
110 Volt electric
AC Bulbs and fixtures and DC Bulbs and fixtures (50/50 for both)
Both equally
Don't know if it's AC or DC, but powered by solar.
Electric
Electric
Electric
Electric
Electric fixtures
Electric lights
Electrical
Electrical
Electricity came from the welder. Don't know if AC or DC.
Electricity provided by solar, not sure if AC or DC
It's 50/50 candles and white gas lantern
Oil lamps
Solar electric
Solar electric

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 18. Where do you get your water?

	nbr	%
Well		
- yes	57	23
- no	195	77
Water delivery truck		
- yes	10	4
- no	242	96
Creek, River, Lake		
- yes	135	54
- no	117	46
Spring		
- yes	9	4
- no	243	96
Self-hauled		
- yes	77	31
- no	175	69
Other		
- yes	2	1
- no	250	99
Refused		
- no	252	100
Total	252	100

#### comment

Collected from eaves into rain barrel

Pump it up

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 18.(a). What energy source do you use for pumping water?

	nbr	%
120/240 volt electric pump		
- yes	48	19
- no	204	81
12/24 volt Direct Current pump		
- yes	7	3
- no	245	97
Gas pump		
- yes	61	24
- no	191	76
Hand pump		
- yes	16	6
- no	236	94
Do not pump water	1	
- yes	110	44
- no	142	56
Other		
- yes	13	5
- no	239	95
Refused	1	
- no	252	100
Do not Know	1	
- yes	2	1
- no	250	99
Total	252	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 18.(a).6 What energy source do you use for pumping water? Other ...

comment
110 Volt electric
220 volt electric
Artisan well
Diesel pump
Generator
Gravity
Gravity feed
Gravity feed
Gravity feed
Gravity feed for summer
Gravity feed.
Haul it ourselves.
Haul own water

16.(b) Are there reasons for not pumping water:
comment
Because I get a wrangler to get the water.
Because it's quite a ways to pump from the creek.
Cost
Don't need to.
Drilled down and the well was dry, so hauling is easier.
Hauling water is easier than pumping.
I am not hooked up for any major water usage yet.
I don't have a holding tank.
I don't have a pump and I only use the place occasionally.
I don't have a pump.
I don't have a well and we use a minimal amount of water.
I don't have a well.
I don't have a well.
I don't have a well. I could use the lake water, but it's easier to bring a bucket.
I don't have electricity. The cabin is not used very often, so I don't need that much water.
I don't know. I haul the water.
I don't need much water and I don't own a pump.
I don't need to.
I don't need to. I also collect rain water in barrels for my flowers.
I don't want to.
I get all the water I need from my rain barrel.
I have a small gas pump but it isn't big enough.
I haven't got a pump.
I just don't use much water out there.
I like it to be rustic for my clients.
I would need electricity.
It comes on its own - free flowing.
It is easier to haul the water in from town.
It is easier to haul the water.
It is easier to haul water from town than to pump it.
It is easier to use buckets since the cabin is only used in the winter.
It's a cheap way of doing it and good exercise.
It's a recreational property. Pumping water would take the fun out of camping.
It's easy to haul the water from the lake. We aren't there often enough to make a water-pumping system worthwhile.
It's gravity fed.

It's gravity fed. We don't have to pump it.

#### comment

It's just as easy to haul it by hand.

It's just not needed.

It's just simpler not to pump water.

It's never been necessary.

It's not feasible because it's uphill. For the amount of time we are there it's not worth the money and the time to put in a pumping system.

It's not necessary for us to pump water. We don't use large amounts of water.

It's not necessary.

It's not worth it for the amount of time we are there, and we don't have the resources.

It's simpler this way and it works fine.

It's too expensive to pump water.

It's too far from the lake. The pump is not powerful enough.

Most of my water comes from town and I feel that the water is safe.

No reason.

No. I mean, I could get water from the lake, and we bring drinking water out.

Since the property is used all year, but not constantly, the pump would freeze.

Since there is no well or anything, hauling buckets from the creek is best.

The artesian well is self pressurized.

The bucket works fine.

The creek has contaminated water, so hauling from town is best.

The creek is 6 miles away.

The creek is a sacred grayling spawning ground, according to fisheries.

The house isn't finished yet.

The lake is only 10 feet away.

The property is not used enough to make a pump worthwhile to have.

The river is too silty.

The water is not suitable for human consumption.

The water is too murky from the river.

There is no electric heat, so I can't maintain heat, so I can't have water out there.

There is no good well water in the area.

There is no power to do so because the generator is portable and is at the cabin only if they are there for more than 2 weeks at a time.

There is no way to use a pumping system where the property is.

There is no well and the stream isn't suitable.

There is no well.

There is no well.

There isn't enough power to have a pumping system.

There's a lot of water in the lake. I don't need one.

18.(b) Are there reasons for not pumping water?
comment
There's no plumbing in the cabin.
There's no reason.
There's no way that we could put a pump in place.
There's no well.
This system is more simple.
Water delivered by truck is used by gravity flow from the tank.
Water would be hauled from town.
We are in the process of drilling a well. In the meantime, we are only out there for a couple of days. It's not worthwhile to pump water.
We bring our drinking water from town and we don't use much water for anything else.
We don't have a pump.
We don't have a well yet.
We don't have an energy source to power a pump.
We don't have electricity.
We don't have the volume of use to have a pump.
We don't need to pump water.
We don't need to.
We don't need to.
We don't need to.
We don't need very much water.
We don't use a lot of water.
We don't use enough to merit it.
We don't use that much water.
We don't use vast amounts of water and we don't have any generators.
We don't use the cabin very often. It's just not worth it.
We haul the water from the lake because we don't drink the water.
We haul water.
We have no electricity.
We have no need to.
We have no power. No reason.
We haven't had time to put the pump in yet.
We just haven't done it.
We never stay there long enough to have the need.
We take water with us.
We're not set up with a water tank yet.
We're not that organized yet.

We're not there enough to have a pump system set up.

#### comment

We're not there long enough.

When the lake freezes it is too much work to pump water. I find it easier to just haul the amount I need.

Why should I pump water when I can haul it?

	nbr	%
19. What system do you use most to heat water?		
Hot water tank	44	18
In-line on-demand hot water heater	21	8
Solar collector	1	0
Kettle stove	2	1
Wook cookstove reservoir	37	15
Boiler	2	1
No hot water	2	1
Other	142	57
Total	251	100

comment
A bucket on the stove.
A pot on the propane cookstove.
A pot on the wood stove.
Big fire outside, big pot.
Big pot on stove
Big pot on stove.
Big pot on stove.
Big pot on stove.
Big pot on the stove
Big pot on wood stove
Big pot/kettle on stove
Boil water on wood or propane stove
Bucket on fire.
Bucket on stove
Bucket on top of wood heater.
By a pot on the wood stove.
Gas heater
Kettle on propane stove

comment
Kettle on stove
Kettle on the wood stove
Kettle on top of Coleman or woodstove
Kettle on top of propane stove
Kettle on top of wood stove
Kettle on top of woodstove
Kettle on wood stove
Kettle on wood stove
Kettle stove
Kitchen propane stove
On the stove
Over a campfire
Pot on campfire
Pot on fire.
Pot on propane cookstove.
Pot on propane stove
Pot on propane stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove
Pot on stove

Pot on stove Pot on stove Pot on stove Pot on stove Pot on the propane stove Pot on top of campfire Pot on top of propane and wood stoves. Pot on top of propane heater Pot on top of propane stove Pot on top of propane stove. Pot on top of propane stove. Pot on top of wood and propane stoves Pot on top of wood heater Pot on top of wood heater Pot on top of wood or propane stove Pot on top of wood stove	comment
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Pot on top of wood or propane stove.  Pot on top of wood stove	Pot on top of wood heater
Pot on top of wood stove	Pot on top of wood or propane stove
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Pot on top of wood stove.	Pot on top of wood stove.

Pot on top of wood stove Pot on top of woodstove Pot on wood stove Pot on wood stove Pot on wood stove Pot on woodstove Pot on woodstove Propane stove Propane water heater We just set it on the woodstove We use a pot on the wood stove. We use a pot on the wood stove. Wood heat Wood stove	comment
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Propane stove Propane water heater We just set it on the woodstove We use a large pot on wood stove. We use a pot on the woodstove. We use a pot on the woodstove. Wood heat Wood stove	Propane hot water heater
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Propane stove Propane stove Propane stove Propane stove Propane water heater We just set it on the woodstove We use a large pot on wood stove. We use a pot on the woodstove. We use a pot on the woodstove. Wood heat Wood stove	Propane stove
Propane stove Propane stove Propane stove Propane water heater We just set it on the woodstove We use a large pot on wood stove. We use a pot on the woodstove. We use a pot on the woodstove. Wood heat Wood stove	Propane stove
Propane stove Propane stove Propane water heater We just set it on the woodstove We use a large pot on wood stove. We use a pot on the wood stove. We use a pot on the woodstove. Wood heat Wood stove	Propane stove
Propane stove Propane water heater We just set it on the woodstove We use a large pot on wood stove. We use a pot on the wood stove. We use a pot on the woodstove. Wood heat Wood stove	Propane stove
Propane water heater  We just set it on the woodstove  We use a large pot on wood stove.  We use a pot on the wood stove.  We use a pot on the woodstove.  Wood heat  Wood stove	Propane stove
We just set it on the woodstove We use a large pot on wood stove. We use a pot on the wood stove. We use a pot on the woodstove. Wood heat Wood stove	Propane stove
We use a large pot on wood stove.  We use a pot on the wood stove.  We use a pot on the woodstove.  Wood heat  Wood stove	Propane water heater
We use a pot on the wood stove.  We use a pot on the woodstove.  Wood heat  Wood stove	We just set it on the woodstove
We use a pot on the woodstove.  Wood heat  Wood stove	We use a large pot on wood stove.
Wood heat Wood stove	We use a pot on the wood stove.
Wood stove	We use a pot on the woodstove.
	Wood heat
Wood stove	Wood stove
	Wood stove
`	`

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 19.(a). What fuel or energy source do you use for heating domestic hot water?

	nbr	%
Wood		
- yes	130	52
- no	121	48
Fuel oil/diesel		
- yes	4	2
- no	247	98
Propane		
- yes	134	53
- no	117	47
Electric		
- yes	6	2
- no	245	98
Other		
- yes	7	3
- no	244	97
Refused		
- no	251	100
Do not Know		
- no	251	100
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 19.(a).7 What fuel or energy source do you use for heating domestic hot water? Other ...

comment
A big pot on the wood stove.
Pot on stove
Solar
Solar
Solar
White gas
[Don't have domestic water.]

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(a) Which appliances do you use? Fridge

	nbr	%
20.(a) Which appliances do you use? Fridge		
- yes	167	67
- no	84	33
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(a).(i). Which appliances do you use? Fridge

	nbr	%
Fridge Propane		
- yes	127	51
- no	124	49
Fridge 120/240 volt AC electric		
- yes	24	10
- no	227	90
Fridge DC Electric		•
- yes	1	0
- no	250	100
Fridge Other		•
- yes	11	4
- no	240	96
Fridge Combination Electric/propane		•
- yes	3	1
- no	248	99
Fridge Refused		
- no	251	100
Fridge Do not know		•
- no	251	100
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(a).(i).8 Which appliances do you use? Fridge Other ...

comment
110 electric
110 volt electric
110 volt electric
Cellar
Electric
Electric
Electric off generator
In the ground
Kerosene
None - floor fridge/cellar

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(b) Which appliances do you use? Dishwasher

	nbr	%
20.(b) Which appliances do you use? Dishwasher		
- yes	22	9
- no	228	91
- do not know	1	0
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(b).(i). Which appliances do you use? Dishwasher

	nbr	%
Dishwasher Propane		
- no	251	100
Dishwasher 120/240 volt AC electric		
- yes	19	8
- no	232	92
Dishwasher DC Electric		
- no	251	100
Dishwasher Other		
- yes	3	1
- no	248	99
Dishwasher Refused		
- no	251	100
Dishwasher Do not know		
- no	251	100
Total	251	100

Survey of Off-Grid Dwellings (Jan-Feb 2003)
258 Surveys Completed less 6 with no dwelling (1 partial survey)
20.(b).(i).8 Which appliances do you use? Dishwasher Other ...

comment
110 Volt electric
110 volt
Electric

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(c) Which appliances do you use? Freezer

	nbr	%
20.(c) Which appliances do you use? Freezer		
- yes	56	22
- no	195	78
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(c).(i). Which appliances do you use? Freezer

	nbr	%
Freezer Propane		
- yes	12	5
- no	239	95
Freezer 120/240 volt AC electric		
- yes	31	12
- no	220	88
Freezer DC Electric		
- no	251	100
Freezer Other		
- yes	8	3
- no	243	97
Freezer Refused		
- no	251	100
Freezer Do not know		
- yes	2	1
- no	249	99
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(c).(i).8 Which appliances do you use? Freezer Other ...

comment
110 electric
110 volt electric
110 volt electric
110 volt electric
Electric
Electric
Electric off generator
Electricity from generator

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(d) Which appliances do you use? Clothes Washing Machine

	nbr	%
20.(d) Which appliances do you use? Clothes Washing Machine		
- yes	80	32
- no	171	68
Total	251	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(d).(i). Which appliances do you use? Clothes Washing Machine

	nbr	%
Clothes Washing Machine 120/240 volt AC electric		
- yes	59	24
- no	192	76
Clothes Washing Machine DC Electric		
- yes	1	0
- no	250	100
Clothes Washing Machine Other		
- yes	17	7
- no	234	93
Clothes Washing Machine Refused		
- no	251	100
Clothes Washing Machine Do not know		
- yes	2	1
- no	249	99
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(d).(i).8 Which appliances do you use? Clothes Washing Machine Other ...

comment
110 Volt electric
110 solar power
110 volt electric
110 volt electric
Electric
Electric
Electric
Electric (don't know which)
Electric - generator
Electric from generator
Electricity from generator
Gas engine
Gas generator
Gas generator
Gasoline
Portable generator
Welder

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(e) Which appliances do you use? Clothes Dryer

	nbr	%
20.(e) Which appliances do you use? Clothes Dryer		
- yes	37	15
- no	214	85
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 20.(e).(i). Which appliances do you use? Clothes Dryer

	nbr	%
Clothes Dryer Propane		
- yes	20	8
- no	231	92
Clothes Dryer 120/240 volt AC electric		
- yes	18	7
- no	233	93
Clothes Dryer Other		
- yes	3	1
- no	248	99
Clothes Dryer Refused		
- no	251	100
Clothes Dryer Do not know		
- no	251	100
Total	251	100

#### comment

2 dryers, one is propane and one is 120/240 Volt electric

Combination of propane/electric

Electric

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 21. What small electrical appliances do you have?

	nbr	%
21.1 Electric kettle		
- yes	28	11
- no	223	89
21.2 Toaster		
- yes	58	23
- no	193	77
21.3 Microwave		
- yes	58	23
- no	193	77
21.4 Blender/food processor		
- yes	70	28
- no	181	72
21.5 Clothes Iron		
- yes	60	24
- no	191	76
21.6 Can opener		
- yes	10	4
- no	241	96
21.7 Coffee maker		
- yes	35	14
- no	216	86
21.8 Clock		
- yes	36	14
- no	215	86
21.9 Clock radio		
- yes	36	14
- no	215	86
21.10 TV	, ,	
- yes	102	41
- no	149	59
21.11 Satellite dish		
- yes	52	21
- no	199	79

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 21. What small electrical appliances do you have?

	nbr	%
21.12 VCR		
- yes	96	38
- no	155	62
21.13 Radio	,	
- yes	97	39
- no	154	61
21.14 Stereo/Music system		
- yes	101	40
- no	150	60
21.15 Desktop Computer	·	
- yes	48	19
- no	203	81
21.16 Laptop Computer	·	
- yes	33	13
- no	218	87
21.17 Printer		
- yes	49	20
- no	202	80
21.18 Other computer peripherals (e.g. scanner)	·	
- yes	27	11
- no	224	89
21.19 Fax machine		
- yes	18	7
- no	233	93
21.20 Block heaters for vehicles		
- yes	68	27
- no	183	73
21.21 Other		
- yes	44	18
- no	207	82
21.22 Other	,	
- yes	15	6
- no	236	94

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 21. What small electrical appliances do you have?

	nbr	%
21.23 Other		
- yes	6	2
- no	245	98
21.24 None		
- yes	92	37
- no	159	63
21.88 Refused		
- no	251	100
21.99 Do not Know		
- no	251	100
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 21.23 What small electrical appliances do you have? Other ...

comment
Bread maker
Bread mixers
CD Player
Cash registers, hair dryers, curling irons
Coffee grinder
Communication radio
Curling iron
DVD player
Electric oven
Fans, razor, curling iron
Hair Dryer
Hair dryer
Hair dryer
Hair dryer
Hand beater
Hand mixer
Hand mixer
Hand mixer
Heaters
Heaters when necessary for outhouse
Hot plate
In wall vacuum
Juicer
Juicer, waffle maker
Kitchenaid mixer
Mix master
Mixer
Photocopier
Power tools
Propane tank heaters
Pump
Radio phone
Sewing machine
Sewing machine
Sewing machine
Stand alone lamps

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 21.23 What small electrical appliances do you have? Other ...

comment
Toaster oven
Vaccuum cleaner
Vacuum
Vacuum cleaner
Waffle iron
Water pressure pump
Weed trimmer
[They rent this out and provide nothing.]

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 21.(a). What tools or equipment do you operate (related to your commercial operations or to hobbies)?

	nbr	%
Large stationary power tools (e.g. table saw, lathe)		
- yes	101	40
- no	150	60
Small 120 volt electric corded hand power tools (e.g. skil saw, drills)		
- yes	151	60
- no	100	40
Cordless battery-operated power tools (e.g. cordless drill)		
- yes	156	62
- no	95	38
Compressors	·	
- yes	84	33
- no	167	67
Welders		
- yes	56	22
- no	195	78
Heavy equipment		
- yes	49	20
- no	202	80
Other		
- yes	15	6
- no	236	94
None		
- yes	58	23
- no	193	77
Refused		
- no	251	100
Do not Know		
- no	251	100
Total	251	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

21.(a).7 What tools or equipment do you operate (related to your commercial operations or to hobbies)? Other

comment
Agriculture and mining equipment
Air compressor
Air tools
Bobcats
Chainsaw
Chainsaw
Chainsaw
Drill press
Electric gas pumps
Gas pumps
Mixers
Motor Boat
Pressure washer
Sanders
Wood fired filn

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 22. Do you have a telephone or radio-telephone?

	nbr	%
No phone		
- yes	95	38
- no	156	62
Regular phone line		
- yes	19	8
- no	232	92
Cellular		
- yes	20	8
- no	231	92
Radio-telephone		
- yes	89	35
- no	162	65
Satellite telephone		
- yes	26	10
- no	225	90
Refused		
- no	251	100
Do not Know	,	
- yes	2	1
- no	249	99
Total	251	100

221(a) from at your power is and recital go cantertest
comment
110 volt electric plugged into the wall
12 Volt batteries which can be recharged with my generator or solar system.
12 Volt system hooked up to a solar charger.
120 V electric battery charger
120 Volt recharged on solar system
A 12 Volt battery with a solar charger.
A fresh battery comes in with every plane; discharged batteries go out on plane.
A generator is used.
AC battery charged.
Batteries are charged by the generator.
Batteries are charged from the car battery.
Batteries charged by small generator.
Battery - charged from electricity.
Bring to town
By the car battery.
By the generator.
By the welder.
Car battery recharges when I run the car.
D Cell batteries - disposable.
DC which runs off the solar or the generator.
Deep cycle batteries recharged with the solar.
Deep cycle batteries, solar and generators.
Deep cycle lead acid batteries powered by solar and wind energy.
Electrical power from generator
Electricity
From the battery system and from the generator.
From the generator or solar.
From the generator.
From the solar power.
Generator
Generator
Generator.
I bring an extra battery with me.
I charge the phone in Whitehorse.
I charge them off the 12 volt battery in my truck.
I don't know what kind of batteries they are. We would use the generator to recharge them.

#### comment

I go to my ex-wife's house and charge the batteries.

I hook it up to DC system.

I power and recharge them with my vehicle battery.

I power it and recharge the batteries with the solar system I have.

I power it with the electric battery charger, which is charged by the generator.

I use a 12 volt battery and recharge it with the generator.

I use a car battery and recharge it with my solar.

I use a car battery to power it and I recharge the battery on the generator.

I use any battery and it lasts all summer.

I use rechargeable lithium batteries and recharge them with the generator.

I use the generator.

I use the lighter plug in my truck or I charge them in town.

In the vehicle.

In town we charge the batteries up.

In town we charge the battery.

It charges on a battery base that is plugged into the electrical.

It comes from our solar system.

It doesn't need batteries.

It has a 12 volt battery which I charge occasionally.

It has a base that is charged by the generator.

It is a wind up radion telephone.

It is hooked up to the electric.

It is powered by deep cycle batteries which are charged by the generator.

It works out of a NWTel box that we don't touch. The signal bounces off the towers.

It's a 12 Volt. We recharge it with the generator.

It's a fixed cellular 120 volt which plugs in and runs off the solar system.

It's all on the power system.

It's in my truck and recharges when I drive.

It's powered by AC power, not batteries.

It's powered by a 12 Volt battery, which runs off the generator.

It's powered through our generator.

Lead acid batteries which are recharged with the generator.

Lithium batteries are recharged in town.

N/A

N/A. Don't need to change it.

Not applicable

#### comment

Off AC electrical system. [Not the same as regular radio-phone, but does connect through radio.]

Off the generator

Plug into wall (electric)

Recharge batteries by using the generator at Fish Lake.

Recharge batteries through generator and solar system.

Rechargeable batteries with the generator.

She has a battery bank and solar system.

Solar power

The 12 Volt batteries are solar charged. The phone batteries are charged by the generator.

The 12 volt batteries are recharged by running the vehicle. [NWTel "upgrade from cellular"]

The batteries are charged by the generator.

The battery bank.

The battery is good for 8 hours use. [He doesn't charge it because he doesn't use the phone for 8 hours. He's an outfitter and only takes the phone in the bush for emergencies.]

The battery pack is good for 14 hours, but I could recharge it by running my vehicle.

The battery that's on the boat.

The generator charges the batteries.

The generator powers the phone and recharges batteries.

The generator recharges batteries.

The generator, solar panels and wind turbine all charge batteries.

The radio-telephone is in the truck, so self-charging.

The satellite phone is powered and recharged by its charge package, which we recharge when we are in town.

The solar panel and generator recharge batteries.

The solar panel's only job is to recharge batteries and keep the radio telephone going.

The solar system recharges batteries.

The telephone does not use power.

The truck battery which recharges when I run the truck.

There's a charging unit on it.

They are built in batteries and I just plug in the battery charger to recharge them.

Through the generator.

We bring them to Whitehorse.

#### comment

We charge it before we go.

We charge it with a battery, which is powered by the solar system.

We charge it with the generators.

We charge the batteries in town before we go out to the property.

We charge the batteries when we turn the generator on.

We don't have to charge the phone. If we did we would use the wind generator.

We don't.

We don't.

We have a black box plugged into the wall.

We have a car battery hooked up to it and it's charged by a solar panel.

We have a car battery that is charged by a solar panel.

We have a set of battery banks, they charge up when the generator is running. We also have inverters.

We have a solar panel that charges the battery.

We have to recharge it at home because we don't have a power source out at the cabin.

We just bring in a 12V car battery and we don't use it enough to have to recharge it.

We plug it in.

We plug it into the lighter in our vehicle.

We power it and recharge the batteries with the diesel generator

We power it off the solar.

We power it with AC and recharge the batteries in a battery bank. [the telephone is called a "Voice over I.P. telephone".]

We power it with the solar system.

We recharge the radio phone before we leave and only use the phone in emergencies.

We run a truck battery that runs off the solar system.

We run it off the solar system.

We use 12 volt batteries and recharge them with the generator.

We use R.V. batteries and recharge them by our generator.

We use a car battery and if we had to, we could recharge it with a solar charger.

We use a truck battery and we bring it home to Whitehorse to recharge it.

We use car batteries and we recharge them with the generator.

We use our AC system to power it and our converter.

We use rechargeable which we've never had to recharge because we only use it for emergencies.

We use the solar panels and car battery.

We're not out there long enough to worry about having to recharge the battery. We charge it in town.

What batteries? We have the sun and the generator.

With 12 volt DC and I recharge them with my charging system.

With a car battery and an electric recharger.

comment
With deep cycle batteries and recharged with the generator.
With the gas generator and the wind generator.
With the generator
With the generator.
With the power plant
With the solar power and back up generator and a battery pack with an inverter.

258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 22.(a) How do you power it and recharge batteries? Refused/Do not know

	nbr	%
22.(a) How do you power it and recharge batteries? Refused/Do not know		
- do not know	1	100
Total	1	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 23. Do you generate your own electricity?

	nbr	%
23. Do you generate your own electricity?		
- yes	169	67
- no	81	32
- do not know	1	0
Total	251	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 24.(a) Which of the following do you use to generate electricity? Gasoline generator

	nbr	%
24.(a) Which of the following do you use to generate electricity? Gasoline generator		
- yes	117	69
- no	52	31
Total	169	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 24.(b) Which of the following do you use to generate electricity? Diesel generator

	nbr	%
24.(b) Which of the following do you use to generate electricity? Diesel generator		
- yes	60	36
- no	109	64
Total	169	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 24.(c) Which of the following do you use to generate electricity? Propane generator

	nbr	%
24.(c) Which of the following do you use to generate electricity? Propane generator		
- no	169	100
Total	169	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 24.(d) Which of the following do you use to generate electricity? Photovoltaic/solar

	nbr	%
24.(d) Which of the following do you use to generate electricity? Photovoltaic/solar		
- yes	77	46
- no	92	54
Total	169	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 24.(e) Which of the following do you use to generate electricity? Wind generator

	nbr	%
24.(e) Which of the following do you use to generate electricity? Wind generator		
- yes	8	5
- no	161	95
Total	169	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 24.(f) Which of the following do you use to generate electricity? Micro hydro

	nbr	%
24.(f) Which of the following do you use to generate electricity? Micro hydro		
- no	169	100
Total	169	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 24.(g) Which of the following do you use to generate electricity? Geothermal and/or heat pump

	nbr	%
24.(g) Which of the following do you use to generate electricity? Geothermal and/or heat pump		
- no	169	100
Total	169	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 24.(h) Which of the following do you use to generate electricity? Other ...

comment
A gas welder that creates electricity.
Inverter
Inverter and battery bank.
When generator is on I charge a 12 volt battery.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 25.(a) Which system is used most often or generates the most electricity? During the summer months (April-October)?

	nbr	%
25.(a) Which system is used most often or generates the most electricity? During the summer months (April-October)?		
Gasoline generator	71	42
Diesel generator	36	21
Photovoltaic/solar	49	29
Wind generator	2	1
Other	2	1
Do not generate electricity at this time of the year	7	4
Do not know	2	1
Total	169	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

25.(a) Which system is used most often or generates the most electricity? During the summer months (April-October)? Other...

comment

Battery charger

Power plant

258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 25.(b) Which system is used most often or generates the most electricity? During the winter months (November-March)?

	nbr	%
25.(b) Which system is used most often or generates the most electricity? During the winter months (November-March)?		
Gasoline generator	75	44
Diesel generator	43	25
Photovoltaic/solar	16	9
Other	1	1
Do not generate electricity at this time of the year	31	18
Do not know	3	2
Total	169	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

25.(b) Which system is used most often or generates the most electricity? During the winter months (November-March)? Other...

comment
Battery charger
Complemented by wind generator
Power plant

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 26. Approximately how much did your complete electrical generation system cost to buy and install?

	nbr	%
26. Approximately how much did your complete electrical generation system cost to buy and install?		
0	1	1
100	1	1
350	1	1
500	4	3
600	1	1
750	2	1
800	2	1
1000	10	7
1200	2	1
1400	2	1
1500	5	4
1600	1	1
1800	2	1
2000	5	4
2300	1	1
2500	3	2
3000	9	6
3500	3	2
4000	5	4
4500	1	1
5000	13	9
5200	1	1
6000	7	5
8000	4	3
9000	2	1
10000	12	9
10500	1	1
13000	1	1
14000	1	1
15000	11	8
16000	4	3

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 26. Approximately how much did your complete electrical generation system cost to buy and install?

	nbr	%
17000	2	1
19000	1	1
20000	5	4
21000	1	1
24000	2	1
25000	2	1
30000	2	1
35000	1	1
36000	1	1
40000	1	1
41000	1	1
50000	1	1
55000	1	1
80000	1	1
100000	1	1
Total	141	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 26. Approximately how much did your complete electrical generation system cost to buy and install? Refused/Do not know

	nbr	%
26. Approximately how much did your complete electrical generation system cost to buy and install? Refused/Do not know		
- do not know	28	100
Total	28	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 27. How did you finance the acquisition of your electrical generating system?

	nbr	%
Paid cash		
- yes	129	51
- no	122	49
Paid cash as money became available over time		i
- yes	11	4
- no	240	96
Loan or mortgage		i
- yes	14	6
- no	237	94
Financing by supplier	1	ı
- no	251	100
Government Program (e.g RETP)	1	ı
- yes	12	5
- no	239	95
Refused		i
- no	251	100
Do not Know		ı
- yes	12	5
- no	239	95
Total	251	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 28. Did you experience any difficulty in financing your electrical generating system?

	nbr	%
28. Did you experience any difficulty in financing your electrical generating system?		
- yes	3	2
- no	157	93
- do not know	9	5
Total	169	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 28.(a) Did you experience any difficulty in financing your electrical generating system? If Yes, what kinds of difficulty?

#### comment

A diesel generator with battery bank and inverter was what we would have preferred, but we could only afford the gasoline generator.

It was hard to raise the capital.

Nobody would even touch us because we're on a mining claim.

[He inherited the system. This is why questions 27, 28 are d/k.]

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 29.(a) Do you have a Direct Current battery bank to operate any of your electrical systems?

	nbr	%
29.(a) Do you have a Direct Current battery bank to operate any of your electrical systems?		
- yes	89	53
- no	75	44
- do not know	5	3
Total	169	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(b). What system voltage do you use?

	nbr	%
12 volt		
- yes	71	28
- no	180	72
24 volt		
- yes	7	3
- no	244	97
48 volt		
- yes	1	0
- no	250	100
6 volt		
- yes	2	1
- no	249	99
Other		
- yes	7	3
- no	244	97
Refused		
- no	251	100
Do not know		
- yes	10	4
- no	241	96
Total	251	100

Survey of Off-Grid Dwellings (Jan-Feb 2003)
258 Surveys Completed less 6 with no dwelling (1 partial survey)
29.(b).5 What system voltage do you use? Other...

comment
10 volt and 20 volt
110
110
110 Volt
110 volt
120 volt
Single battery

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(c). What kind of voltage batteries do you use?

	nbr	%
Car batteries		
- yes	11	4
- no	240	96
Deep cycle batteries		
- yes	28	11
- no	223	89
Other 12-volt batteries		
- yes	20	8
- no	231	92
2-volt batteries in series (used Northwestel batteries)		
- yes	9	4
- no	242	96
Heavy equipment/cat batteries		
- yes	1	0
- no	250	100
NiCad batteries		
- yes	5	2
- no	246	98
Other	, ,	
- yes	20	8
- no	231	92
Refused	, ,	
- no	251	100
Do not Know	, .	
- yes	8	3
- no	243	97
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(c).7 What kind of voltage batteries do you use? Other ...

comment
12 volt deep cycle batteries
2 volt glass jars which are 100 years old
2 x 6 volt
24 volt
3 and 4 volt cells
6 V golf cart batteries
6 Volt
Four 6 volt batteries
Gel 12 volt in series
Gel cell for solar
Golf cart batteries
Marine battery
R.V. batteries
The inverter gives us 120 AC.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(d) What do you do to maintain your batteries? How often?

00	m	m	en	4
CU	,,,,,	ш	еп	ι

Batteries are refilled with fuel when needed.

Don't know.

Don't know.

Equalize them regularly.

Every 2 months we check the fluid levels and top them up. We recharge a couple of times a week.

Every 6 months I check the water level.

Every three months I top up the water levels.

Have to check the water level. Check them every 2 months.

I basically charge them and top up the water once every three months.

I bought caps which make them maintenance free.

I charge them for 3 hours a day with the generator.

I charge them three times a week.

I check fluid levels monthly and monitor the meter daily.

I check them once a month. I refill them and clean them.

I check, clean and fill them about once a month.

I clean them and make sure the fluids are up about twice a year. They're kept in a building so they don't freeze.

I do nothing - the generator kicks in when the batteries need recharging.

I don't know.

I have a husband who does that, so I don't know what he does.

I have no clue. Don't know.

I keep the water ups and keep it charged up.

I keep them full. Once a week I look at them.

I keep them fully charged and I equalize them on a monthly basis. I keep the fluid levels up in them.

I keep them topped up and keep them charged.

I put water in them.

I re-charge them and if I leave in the winter I let them become covered in snow, that way the snow acts as insulation from the cold.

I recharge them and clean the posts once a month.

I recharge them once a month.

I recharge them when they need to be.

I top off the water and every month equalize the batteries.

I top the fluid levels up twice a year.

I top them off with distilled water and re-charge them with the generator whenever it is needed.

It's hooked up to the photovoltaic system and that charges the batteries. We do that every few months.

It's maintenance free.

Maintain fuel and water levels; check sporadically.

Make sure levels are where they should be.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(d) What do you do to maintain your batteries? How often?

comment
Measures the fluid levels. Don't know how often.
N/A
N/A
Nothing is done to maintain batteries.
Nothing is done to maintain batteries.
Nothing.
Once every three months I boil them, which is maxing them out.
Our batteries are charged daily by the solar sytem.
Respondant does not know if there are batteries to be maintained.
She doesn't know how her husband maintains the batteries or how often.
The fluid must be maintained at the same level, and they are equalized three or four times a month.
The posts are checke and water is replenished every 6 months.
The posts are cleaned and water topped up every 6 months.
The solar and generator keep it charged up. Every time the generator is on, it's charged.
The solar chargers are permanently connected to the batteries.
The water is checked twice a year.
The water is filled once a week.
There is no maintenance because they're hooked up to the solar.
There's not much to do with them.
They get topped up with distilled water once in a while.
They have their own propane heat. We baby them. We keep water in them and check them at least every month.
They're hooked up to the solar and if they get low I recharge them with the generator.
They're low maintenance and they have a charge controller which kicks in the generator to recharge them.
They're sealed long-life batteries which are left on the solar trickle charger all the time.
This is all new to us, so I can't tell you about that yet.
Use distilled water 3 times a year.
We add water and clean the terminals with baking soda, as needed. We equalize them about every 3 months. We try not to let them drop below 24 volts.
We charge it once a week. Sometimes twice.

We charge it once a week. We equalize it once a week and check the water levels once a year.

We charge them whenever they are low.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(d) What do you do to maintain your batteries? How often?

#### comment

We check the fluid and clean the posts every two weeks.

We check the water level periodically and we recharge the batteries, as needed.

We check them 3 times a year.

We clean off the posts and recharge them every few days.

We clean them every 6 months.

We clean them every 6 months.

We don't have to maintain batteries like we use to.

We don't maintain them. We just keep them warm in the winter and charge them through the solar system.

We don't maintain them. We just replace them every 8 to 10 years.

We fill it up with distilled water and make sure it's charged up before freeze up. I check it once a year.

We fill them with water once a year.

We have a charge on it whenever the generator is on.

We keep them charged and keep water levels up, as needed.

We monitor the voltage and top them off with distilled water. We do it about once a year.

We plug in the generator.

We put distilled water in them to top up and we clean them. We check them regularly as needed.

We put it in our truck and drive to charge them up.

We put them back in our car.

We run the generator or else the solar kicks in to keep them charged.

We top up the fluid at least once a year.

We try to keep them charged up and we always store them in a warm place for the winter.

We wash them once a year.

Yes, once a year we clean the post and check the water.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 29.(e) Do you have an inverter that converts Direct Current (DC) to Alternating Current (AC)?

	nbr	%
29.(e) Do you have an inverter that converts Direct Current (DC) to Alternating Current (AC)?		
- yes	67	71
- no	24	26
- do not know	3	3
Total	94	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 29.(e) Do you have an inverter that converts Direct Current (DC) to Alternating Current (AC)? If yes ... What size is your inverter?

comment
1,250 Watt
1000 watt
12 volt
12 volt
1200 watt
2 kilo-watts
2.5 kilowatt
2000 watt
2000 watts
2000 watts
2000 watts
24 kilowatts
24 volts
240 volt
2400 Watt
2400 watt
2400 watts
250 Watts
250 watt
2500 watt
3 inverters: 150 watts, 300 and 450
300 Watt
300 Watt
300 w
300 watt
4 kilo-watt
4000 Watts
4000 Watts
5,500 watts
600 Watt
- COO HALL

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 29.(e) Do you have an inverter that converts Direct Current (DC) to Alternating Current (AC)? If yes ... What size is your inverter?

comment
700 watt
7000 Watt
750 watt and 1,000 watts and two 175 watt
800
Don't know
Don't know the size of the inverter.
Don't know.
Don't know. 5000? It's a trace inverter
Don't know.
I can't remember what size.
I don't know.
It was the smaller one. I don't know the size.
It's a Trace 2000 with turbo and it makes 2500 w
No idea. Don't know.
Not sure of the size.
One 2,500 Watt, one 1,500 Watt and one 600 Watt
Stat Power Pro watt 250
There are 5 inverters: one 1500 watt, one 2500 watt, one 150 watt and two 300 watt inverters.
We have 2 - 1 that is 300 W and 1 that is 1400 W
We have 2 - one that is 750 Watts and one that is 400 Watts
We have two. One is a 300 the other is a 750.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(f) What do you do to maintain your inverter? How often?

comment
Do not maintain inverter.
Doesn't know what her husband does to maintain the inverter or how often.
Don't know.
Don't know.
Don't know.
Dust it off.
Fix the inverter when it breaks.
I check it once in a while.
I clean it once a month.
I do absolutely nothing.
I don't know.
I don't know.
I haven't done a thing.
I haven't done anything other than make sure the connections are all clean.
It hasn't given me much trouble. It's only 3 years old and the maintenance has been negligible.
It needs no maintenance unless they break.
It's automatic.
N/A
No maintenance.
No maintenance.
Not much.
Nothing
Nothing in 2 1/2 years.
Nothing is done.
Nothing is maintained on it.
Nothing, I have ran it since 1989.
Nothing, although I monitor it on my computer.
Nothing, except I do blow the dust off it once a year.
Nothing, for what they cost they should take care of themselves.
Nothing.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 29.(f) What do you do to maintain your inverter? How often?

comment
Nothing.
Nothing. I don't do anything.
Nothing. I just monitor the gauges.
The inverter does not need maintaining.
There is no maintenance required.
There is no maintenance required.
There is nothing to do.
There's nothing I do with it.
We check it with batteries every two weeks.
We clean it every 6 months.
We clean it every 6 months.
We don't do anything to it.
We don't use it very often, once a month.
We haven't had to do anything so far.
We keep it warm and check it everyday.
We take specks of the information that provides a log book.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(a) How many generators do you have?

	nbr	%
30.(a) How many generators do you have?		
1	81	49
2	52	32
3	21	13
4	7	4
5	2	1
6	1	1
Total	164	100

Survey of Off-Grid Dwellings (Jan-Feb 2003)
258 Surveys Completed less 6 with no dwelling (1 partial survey)
30.(a) How many generators do you have? Refused / Do not know

	nbr	%
30.(b) What size is your generator?		
1.8 kva	1	0
10 horsepower	1	0
10 kilo-watt	1	0
10 kilo-watts	1	0
10 kilowatts	1	0
10 kva	1	0
10 kw	1	0
1000 watts	7	3
10000 watts	1	0
11 kilowatts	1	0
11 kva	2	1
12 Volt	1	0
12 kilo-wats	1	0
12 kilo-watts	1	0
12 kva	2	1
12 kw	1	0
12.5 kva	1	0
120 watts	1	0
1200 watts	1	0
13 Kilo-watts	1	0
130 kva	1	0
1400 watts	1	0
150 watts	1	0
1500 kilo-watt	1	0
1500 watts	5	2
15000 watts	1	0
16 kva	2	1
1700 watts	3	1
17000 watts	1	0
1750 watts	1	0
1800 watts	3	1
1850 watts	3	1

	nbr	%
2 horsepower	2	1
2.2 kilo-watt	1	0
2.2 kilo-watts	1	0
2.5 kw	1	0
20 horsepower	1	0
20 kilo-watts	2	1
20 kva	3	1
2000 watts	5	2
20000 watts	1	0
220 kw	1	0
2200	1	0
2200 watts	6	3
240 kva	1	0
25 kva	2	1
2500 watts	9	4
2900 watts	1	0
3 kilo-watt	2	1
3 kilo-watts	1	0
3 kw	1	0
3.5 Kilo-watts	2	1
3.5 kilo-watt	1	0
3.5 kilo-watts	1	0
3.5 kva	3	1
300 watts	2	1
3000 watts	5	2
3500 kilo-watts	1	0
3500 watts	8	3
38 watts	1	0
3800 watts	2	1
4 kilo-watts	2	1
4 kva	1	0
4 kw	1	0
4.0 Kilo-Watts	1	0

	nbr	%
4.5 kw	1	0
40 kilo-watts	1	0
4000 watts	3	1
42 watts	1	0
4300 watts	1	0
450 watts	1	0
4500 watts	7	3
5 horsepower	1	0
5 kilo-watt	3	1
5 kilo-watts	2	1
5 kva	6	3
5 kw	2	1
5.5 d/k	1	0
50 kilo-watts	3	1
50 kva	1	0
50 kwv	1	0
500 watts	3	1
5000 d/k	1	0
5000 kilo-watts	1	0
5000 watts	29	12
550 cc	1	0
5500 watts	2	1
6 kilo-watts	1	0
6 kva	1	0
6.5 kva	1	0
6.5 kw	1	0
600 watts	7	3
6000 kilo-watts	1	0
6000 watts	3	1
64 kva	1	0
6400 watts	1	0
6500 watts	2	1
7 kva	2	1

	nbr	%
7 kw	1	0
7.2 kilo-watt	1	0
7.5 kva	3	1
7.5 kw	2	1
700 watts	1	0
75 kilo-watts	1	0
75 kwv	1	0
750 watts	3	1
7500 watts	1	0
8 Kilo-watts	1	0
8 kilo watt	1	0
8 kilo-watt	2	1
8 kilo-watts	1	0
9 horsepower	1	0
9 kva	1	0
90 kilo-watt	1	0
9000 watts	1	0
Total	240	100

	nbr	%
30.(b) What size is your generator? Refused/Do not know		
- do not know	52	100
Total	52	100

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(c) How did you determine what size of generator to get?

30.(c) How did you determine what size of generator to get?
comment
A small one to charge up batteries on the big one and for emergency power. I looked at what we needed to charge the batteries.
According to the amps that we would use. According to what we have and how many amps are needed to use them.
Adding up electrical needs, came to a conclusion that worked for them.
Already had the generator and it is used at the cabin because it is portable.
Based on need.
Based on personal demand of electricity.
Based on power needed.
Based on wattage needed to supply energy needed.
Because of what we needed and what was on sale.
By cost and use.
By figuring out how much power I needed to run 4,500 square feet.
By my demand expectations and cost.
By our power needs at the camp.

By trial and error. I started with a 3 kva, went to a 5 kva, then went to 15 kva and finally ended up with 20 kva.

Discussed with friends who have a generator and they helped determine what the respondant would need.

Everyone knows you need 5000 watts to operate everything in the house, so you try to get a large enough generator to do that.

Calculated the power used and went with the generators that best fit the need.

He got a welder that he could use and we used it for our house to generate electricity.

I already owned a generator, which was good for what I needed it for.

I bought a generator that would run my small construction tools.

By the equipment I needed to use.

By the needs of the tools I was going to use.

By the equipment that I use.

By the size of my water pump.

By trial and error and by the price.

By what is needed for our appliances.

Consulted with the firm it was purchased from.

Had generators before that met our needs.

By trial and error.
By trial and error.
By trial and error.

Don't know.

Don't know.

Don't know.

I asked my son.

I asked the store.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(c) How did you determine what size of generator to get?

#### comment

I bought one that was on sale.

I bought the biggest that I could afford at the time.

I calculated what we would need.

I decided how large a generator I could handle physically and how much power I would use.

I didn't, really.

I don't have a lot of electrical appliances so I do not need a large generator to generate a lot of energy.

I don't know.

I don't know. We just got them.

I don't know. It was the size we could afford.

I figured out what I needed to run my compressor.

I figured out what our power needs were.

I got a cheap one at an auction.

I got a generator that would support my skill saw. If it could support the skill saw then it could support everything else.

I got one that I could run my saw with.

I got the smallest generator that could power all power tools at the same time.

I got what my needs required.

I had experience with generators.

I had knowledge of my energy requirements.

I had no idea, I guessed at it.

I have lived like this since 1974, experience.

I inherited it and it works fine for my needs.

I knew from experience. I knew I needed to go bigger as the business grew.

I knew what I needed to by, by how many amps I would need to run two power tools at a time.

I looked at what I needed to run my appliances and tools and got a generator to support that.

I looked at what I was going to be using and I bought a generator that would support that.

I needed it big enough to push the pressure pump for water.

I needed one big enough to run my welder.

I talked to others who have been using generators for a long time.

I tried a bunch of different sizes until I found one that I liked.

I tried the small size first.

I wanted the highest wattage I could afford.

It came with cabin.

It came with the cabin.

It came with the house.

It came with the house.

It came with the property when we bought it.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(c) How did you determine what size of generator to get?

### comment

It came with the property.

It depends on what we want to run in the cabin. The more appliances that run at one time the bigger the generator I need.

It had to be able to power a lot of buildings.

It had to be able to run my largest power tool.

It had to be powerful enough to operate two tools. Also, it was a really good deal.

It had to support the business.

It varied on what we needed for electricity.

It was a good deal.

It was according to our circumstance at the time.

It was according to our needs.

It was available and the price was right.

It was based on our commercial needs at that time, when we were fishing.

It was donated, so we did not determine the size.

It was here when we bought the place.

It was in the right price range.

It was on sale.

It was probably the right price.

It was the one available.

It was the right price.

It was what I could afford.

It was with the property.

It was with the property.

It's big enough to give us the power we need according to our needs for the house.

It's big enough to operate power tools.

It's what we could afford.

Just other people who lived in the same situation gave me advice.

My husband determined power needs and found which size generators would fulfill the needs.

My husband determined what size.

My husband researched what was necessary to run with our solar.

My pocketbook dictated what I could buy.

On how much power they use.

On the lable it shows how much of the generator is capable of putting out.

Size of generator was determined through trial and error.

That was controlled by the power tools in the shop.

That's what they always had.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(c) How did you determine what size of generator to get?

### comment

The charger that we have will take a maximum of 30 amps AC, so we wanted to be able to run that at its full capacity. The 5,000 Watt generator also has a huge gas tank which we like because it doesn't have to be filled as often.

The cost and needs.

The generator was bought because of the price.

The generator was given to me, so I didn't determine its size.

The generator was just needed to charge batteries, so a small one was sufficient.

The generator was large enough to power tools and was small enough to be portable.

The generator would only be used to run small tools or plug in the truck, so a small generator would be all that is needed.

The installation company determined what size.

The large one was for the vacuum cleaner and larger appliances. The small one was bought for the small appliances.

The little one was bought because of fuel consumption. The large one was bought because I'm welding out here.

The price of this generator was good and with the battery system that is now in place, the 4 kva was no longer big enough.

The price was good and it said it would run a washing machine

The price was right.

The size of the generator was determined by power needed.

The size of the generator was determined by the power needed.

The size was chosen based on experience.

The size was dependant on the cost of the generator.

The size was determined by the amount of power needed.

The size was determined by the energy needed for the large power tools in the shop.

The size was determined by the power needed to use tools on the property.

The small generator had to be able to run the lights, TV and batteries. The larger one had to support my tools and washing machine.

The small one was purchased to run our computers regularly and because it was quieter. Then, as our operation expanded, we went to a larger one so we could operate tools. Now, we're hoping to veer more toward solar because our laptop computers don't require as much energy.

The smallest generator was bought that would meet the electrical needs.

The supplier determined the size based on type of tools that would be run off the generator.

The supplier determined what they should get based on the uses they planned on using it for.

Through consultants.

Through experience with generators, determining the size was fairly easy.

Through trial and error.

We already had it.

We based it on our energy requirements.

We based it on what our usage would be.

We bought a generator second hand and made sure it would have a sufficient amount of power.

We calculated how much power would be used in kilo-watts and bought generators to meet that demand.

We choose the smallest ones to meet our needs.

We consulted with Kris Selzer (Solar 2 owner/operator)

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(c) How did you determine what size of generator to get?

### comment

We did a fair amount of research and needed something strong enough to operate our heaviest demand appliance. We went for efficiency at 1 litre of fuel per hour of use.

We didn't use any determination. I bought it brand new and it was cheap.

We got a generator that would run the tools we wanted to use.

We got it from a friend, so we didn't go out and look for one.

We had Yukon Electric monitor our meter to see how much electricity we were using everyday. Then we bought a generator large enough to support that.

We had a smaller one before that wasn't able to run the table saw, so we had to upgrade.

We had experience and knew what voltage we would need for our energy demands.

We had to have a generator that would support the load we had.

We just bough the cheapest one we could.

We knew what our load capacity was through years of experience.

We looked at how much power we were going to need.

We looked at our needs.

We looked at what size of generator would be needed to run the washing machine.

We looked at what we were going to be powering. The 1000 watt generators would support the lights and the 3500 watt generator would run all the large tools.

We needed enough power to run the business, which includes an RV park, lodge, staff housing and main residence.

We needed to run larger power tools so we got what we required for this.

We use the big one for the tools. The 750 for the house and the 500 is for back up.

We went by the maximum power we needed to use.

We went with what we needed and cost was a factor.

When we moved to this place there were 2 small generators here which did not meet our needs, so we had to get larger ones.

You know how much power the appliances need, so you get a generator that can supply that much power.

You'd have to talk with my husband. I don't know.

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 30.(d). (i) Typically, how often do you use your generator? During the summer months (April-October)?

	nbr	%
30.(d).(i) Typically, how often do you use your generator? During the summer months (April-October)?		
Every day, 24 hours a day	12	7
Every day for less than 24 hours	46	28
At least once a week	31	19
On weekends only	9	5
Sporadic (e.g. depends on sunlight/wind)	54	33
Not at all	12	7
Do not know	1	1
Total	165	100

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 30.(d). (ii) Typically, how often do you use your generator? During the winter months (November-March)?

	nbr	%
30.(d).(ii) Typically, how often do you use your generator? During the winter months (November-March)?		
Every day, 24 hours a day	9	5
Every day for less than 24 hours	50	30
At least once a week	26	16
On weekends only	10	6
Sporadic (e.g. depends on sunlight/wind)	29	18
Not at all	39	24
Do not know	2	1
Total	165	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(e) Is your generator used to charge a battery bank?

	nbr	%
30.(e) Is your generator used to charge a battery bank?		
- yes	89	54
- no	73	45
- do not know	2	1
Total	164	100

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 30.(f) Approximately how much did your generator system cost to buy and install?

	nbr	%
30.(f) Approximately how much did your generator system cost to buy and install?		
0	1	1
200	1	1
400	1	1
500	4	3
600	5	4
750	2	1
800	3	2
1000	12	9
1300	1	1
1400	2	1
1500	4	3
1600	1	1
1800	3	2
2000	12	9
2300	3	2
2500	4	3
2800	2	1
2900	1	1
3000	10	7
3500	3	2
4000	3	2
4200	1	1
4500	2	1
5000	10	7
5500	2	1
6000	3	2
7000	1	1
7800	1	1
8000	5	4
8200	1	1
8500	1	1

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 30.(f) Approximately how much did your generator system cost to buy and install?

	nbr	%
9000	1	1
10000	9	7
12000	1	1
15000	3	2
16000	1	1
17000	3	2
20000	3	2
21000	1	1
24000	1	1
25000	2	1
30000	1	1
31000	1	1
36000	1	1
80000	1	1
100000	1	1
Total	135	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 30.(f) Approximately how much did your generator system cost to buy and install? Refused/Do not know

	nbr	%
30.(f) Approximately how much did your generator system cost to buy and install? Refused/Do not know		
- do not know	30	100
Total	30	100

30.(g) What do you do to maintain your generator? How often?
comment
A couple of times a year we change the oil and filter.
An oil change and service once a month.
An oil change once a month. I take it in once a year for a service.
Basically, I change the oil and filters every 300 hours.
Change oil and clean the air filter.
Change oil every 100 hours.
Change oil every 50 hours. New bearings once in 26 years. I generally just take care of it.
Change oil, clean fuel and filter every year.
Change the oil and filters every spring.
Change the oil every 250 hours.
Change the oil, keep it clean. Every six months.
Constant attention, oil, filter changes, de-carbonizing.
Don't know.
Every 100 hours we change the fuel and oil.
Fill it with gas.
Filters and oil are changed every 200 hours.
General maintenance as required.
General maintenance every 200 hours.
General maintenance once a year.
I change oil and clean the filters on a regular basis.
I change oil and filters as required by manuals.
I change oil every 100 hours and check plugs once a year.
I change oil every 100 hours and spark plugs every year.
I change oil every six months.
I change the oil about once a month as well as clean the spark plugs.
I change the oil and air filter about once a month.
I change the oil and do general maintenance about twice a month.
I change the oil and every 200 hours service it by having somebody check it.
I change the oil and filter as needed.

I change the oil and filters every 2 1/2 weeks.

I change the oil and filters every 300 hours.

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I change the oil and plugs about once a year. I keep all fluid levels up, as needed.

I change the oil and plugs every 250 hours.

I change the oil and plugs once a year.

I change the oil bi-weekly.

I change the oil every 2 weeks.

I change the oil every 200 hours, change the air and fuel filters once a year.

I change the oil every 250 hours.

I change the oil every 3 months and I keep it clean.

I change the oil every 300 hours.

I change the oil every 50 hours and once in a while I change the spark plugs.

I change the oil every 500 hours and fix things as they break.

I change the oil every once in a while.

I change the oil monthly and every 2 years I do a complete overhaul myself.

I change the oil monthly and keep all the connections clean.

I change the oil once a month.

I change the oil once a year.

I change the oil once a year.

I change the oil once every season.

I change the oil twice a year.

I change the oil twice a year.

I change the oil when it is required.

I change the oil, belts and pumps as needed.

I change the oil, grease the bearings every 100 hours.

I change the oil, once every two years. I only use it for 2 weeks a year.

I change the oil, plugs and pull cord at least once a year.

I change the spark plugs and oil every 50 hours or running time.

I check the oil and do general maintenance once in a while, or whenever it is required.

I check the oil and fill it with gas once a week.

I check the oil and gas every time I use it.

I check the oil daily.

I do an oil change every 100 hours.

I do general maintenance and I'm really nice to it. Once a year I take it in to get serviced.

I do general maintenance every 350 hours.

I do general maintenance every 500 hours.

I do general maintenance every day.

I do general maintenance when it is required.

con(g) while do you do to manifest your generator 120% official
comment
I do general maintenance whenever it is required.
I do periodic maintenance.
I do preventative maintenance every time I use it and change the oil every 20 - 30 hours of use.
I do what the manual tells me - about once a year.
I don't know.
I don't know.
I don't know.
I fill it with gas once a summer.
I just change the oil and clean the air cleaner once or twice a year.
I just check oil and fill it up. I check it every time I use it.
I keep it clean and fill it with gas every couple of weeks.
I keep it clean and well oiled, as needed.
I keep the fluids topped up and keep everything clean.
I put gas in it, every 2 days.
I put it away for the winter.
I refuel and change the oil once a month.
I refuel two times a week.
I regularly change the oil.
I service according to the manual. Change the oil and spark plugs at least once a year.
I service it twice a year by changing the oil and the plugs.
I take care of the oil and change the fuel. I do it as required.
It has to be serviced 3 times a year at an industrial equipment shop in Whitehorse. We also do minor maintenance about once a week by changing the oil and filters.
It needs to have oil changes. I couldn't tell you how often.
Just normal maintenance every two weeks.
Keep it clean and covered. When you run it, you check it.
My husband does it. He keeps it running and changes the oil.
My husband empties the oil once a year.
Normal stuff. Maintenance once a week. Oil change once a month.
Nothing.
Nothing.
Nothing.
Oil change every 250 hours and serviced every 250 hours as well.
Oil changes are once a month.

Oil is checked weekly and the generator is serviced every 2 years.

Once a month I change the oil and filters, and do a full check up once a year.

### comment

Once a month we check the oil and clean it.

Once a week I change the oil and check the spark plugs.

Once a year my husband changes the oil and checks it over.

Regular maintenance, by the book, as needed.

Self maintained. Once a year.

Spark plugs are checked and filters changed once a year.

Standard oil change, etc.

The gas and oil is changed at the end of the summer.

The generator is in a shed and the oil is checked once a month and is refueled as needed.

The generator is re-fueled once a week.

The generator is serviced every 250 hours.

The oil and filters are changed once a month.

The oil and fluids are checked every 2 months.

The oil is changed every 2 months and the generator is serviced when needed.

The oil is changed every 500 hours.

The oil is changed once a month.

The oil is changed two times a year.

The oil is checked and the generator is refueled weekly.

The oil is checked once a week and the gas is refueled every night.

Twice a year I change the spark plugs and filter and I flush the gas.

We call somebody to come out to maintain it every two years.

We change oil once a year.

We change the oil about once a year.

We change the oil and filter and refuel every 200 hours.

We change the oil and filters regularly.

We change the oil and filters weekly.

We change the oil and filters. It depends on the time of year and how much we're using it.

We change the oil and spark plugs but I don't know how often.

We change the oil and spark plugs once or twice a month.

We change the oil as we need to. We check the specks and meter and do regular maintenancd daily.

We change the oil every 100 hours.

We change the oil every 100 hours.

We change the oil every 2 weeks.

We change the oil every 3 days depending on operating time.

We change the oil every 3 or 4 months.

We change the oil every 50 hours.

### comment

We change the oil every 6 months and try to keep everything clean.

We change the oil every six months.

We change the oil every two weeks.

We change the oil once a month.

We change the oil once per month.

We change the oil twice a year.

We change the oil. That's the main thing. I change the oil every three months.

We change the spark plugs and drain the oil twice a year.

We check the batteries once a month.

We check the oil every two weeks.

We clean the spark plugs and check the fuel and oil. We check it every ten days.

We clean them up and keep them in good order. We take care of them when they are running.

We do general maintenance, at the beginning of our season in June.

We do general maintenance when it is required.

We do general maintenance when it is required.

We do oil change, spark plugs, air filter every 100 hours.

We do oil changes every six months.

We have an on site mechanic who takes care of that. I'm sure he probably changes the fuel pump, oil and filters as required.

We maintain it, change the oil and filters. Standard maintenance for gas engines. I'd say once in the summer and once in the winter.

We refuel it with gas.

We service them when required.

We serviced it once. Once in fifteen years.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(h) Approximately how much do you spend on fuel every year?

	nbr	%
30.(h) Approximately how much do you spend on fuel every		
year?	ı	
5	1	1
10	1	1
12	1	1
20	1	1
30	2	2
50	10	10
60	1	1
80	1	1
100	9	9
120	1	1
200	4	4
250	1	1
300	3	3
400	3	3
500	11	11
600	2	2
700	2	2
750	1	1
800	1	1
1000	6	6
1200	2	2
1440	1	1
1500	6	6
2000	5	5
2400	1	1
2800	1	1
3000	2	2
3500	1	1
4000	3	3
4800	1	1
5000	3	3

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(h) Approximately how much do you spend on fuel every year?

	nbr	%
6000	2	2
7000	1	1
8000	1	1
10000	1	1
23000	1	1
27000	1	1
50000	1	1
85000	1	1
100000	1	1
Total	98	100

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 30.(h) Approximately how much do you spend on fuel every year? Refused/Do not know

	nbr	%
30.(h) Approximately how much do you spend on fuel every year? Refused/Do not know		
- do not know	67	100
Total	67	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(i) How well does your generator work? Is there anything you would change?

co	m	m	OH	1
			ЭΠ	ш.

A new one would be nice, but I'm happy with mine.

Don't know.

Don't know.

Excellent. I'd change the price. They are pretty good and very reliable.

Generator works perfectly. No, there is nothing I would change.

Generator works very well, but would rather have a diesel.

Generator works well. There is nothing I would change.

Good. It would be nice still to have real power.

Great. I can even start it. I would change where it is so it is quieter.

I don't like the gas operated generator, but I can't use the diesel generator until I have a building for it.

I had trouble with the diesel injectors.

I have it down perfect right now. The excess heat from the generator heats my shop. The cost of running it is killing me though.

I would get a bigger one and get a diesel.

I would get one that idles down because mine just goes full throttle.

I would love to be able to push a button to start it, instead of having to go outside in the cold to pull start it.

I would make it quieter.

I'd get somebody else to run it.

I'd make it quieter.

I'm satisfied. No.

It didn't work too well. It was costly. I would buy a smaller generator next time.

It doesn't work very well. I would make it more reliable so it wouldn't freeze up or use as much oil. I also wish it was easier to start.

It is satisfactory.

It operates poorly in weather below 20 degrees C.

It runs extremely well. I would like it to be more economical and maybe get a smaller back up generator.

It runs not bad but seems to always have trouble. I just loathe generators.

It spews a lot of oil, so I need to replace it.

It works alright. I would like to change the price of fuel.

It works excellent, but it's only 2 years old.

It works excellent.

It works excellent. I would really like a battery bank.

It works excellently. No, there is nothing I would change.

It works extremely well. No changes.

It works fairly well. We would change nothing.

It works fine but it is too noisy.

It works fine, but diesel would be better.

It works fine.

## $Survey\ of\ Off\mbox{-}Grid\ Dwellings\ (Jan\mbox{-}Feb\ 2003)$ 258 Surveys Completed less 6 with no dwelling (1 partial survey)

nment	
vorks fine.	
orks fine. I wouldn't change anything.	
orks fine. It could be quieter.	
orks fine. It's too loud.	
orks fine. No change.	
orks fine. No nothing.	
orks fine. There's nothing I would change.	
orks good.	
orks good. No change.	
orks good. A command start would be nice.	
orks good. I'd buy another one.	
orks good. I'd buy another one.	
orks good. I'd get a lighter one.	
orks good. It doesn't have a governor on it, so it runs full blast.	
orks good. No change.	
orks good. No, unless a powerline came.	
orks good. There's nothing I would change.	
orks great, but I still would have power.	
orks great. No, it's a good generator.	
orks just fine.	
orks just fine. I would get a diesel generator because they are more fuel efficient, they last longer and they run at a lower	RPM.
orks okay. No, I wouldn't change anything.	
orks perfect but I would like a quieter one.	
orks perfectly.	
orks pretty good but it's getting worn out, so I need to buy better equipment.	
orks pretty good. I would get a generator that is bigger and better.	
orks pretty good. There's always something to improve.	
orks really good. It puts out a lot of power and it charges batteries good.	
orks really well. I would fix the shed where the generator is kept.	
orks really well. I wouldn't change anything.	
orks really well. No, I wouldn't change anything.	
orks really well. There is nothing I would change.	

It works really well. We would insulate the shack so it is less noisy.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(i) How well does your generator work? Is there anything you would change?

### comment

It works very good.

It works very good. No, there is nothing I would change.

It works very well but I would like it to be quieter.

It works very well, but the next generator I buy will be diesel. I'm also interested in fuel cell technology.

It works very well.

It works very well. I wouldn't change anything.

It works very well. I wouldn't change anything.

It works very well. I would look for a generator invertor. I think Honda puts it out. With a generator you have to put a load on it. With the generator invertor, you don't have to have a load on it and it's quieter.

It works very well. I would rather use a battery pack or solar system.

It works very well. I wouldn't change anything.

It works very well. I wouldn't change anything.

It works very well. No change.

It works very well. No, I wouldn't change anything.

It works very well. Nothing changed.

It works well.

It works well. I want to replace it because it is getting old.

It works well. I would put it in an insulated box.

It works well. I would rather have diesel.

It works well. No.

It works well. There is nothing that I would change.

It works wonderfully. I would change nothing.

It' too small. If I had the resources I would have a bigger one.

It's a Honda, so it's great.

It's a nice little generator, but hard to start when it's really cold.

It's a perfect little Honda but it would be nice to have an electric start so the inverter would start it automatically when needed.

It's a sweet little piece of equipment, but I would rather be able to use a cleaner fuel source, like propane. I would also go solar if I could justify the cost for the amount I would use it.

It's excellent. There's nothing I would change.

It's hard to start the gas generator because of the pull string. If I could sell it I would.

It's pretty efficient, but it's starting to wear out already.

It's pretty old. It doesn't work very good anymore.

It's vented to outside but sometimes the fumes come inside so I would like to completely vent it outside from the barn.

My generator works really well. I would not change anything.

No

No

No, I like the system.

## $Survey\ of\ Off\mbox{-}Grid\ Dwellings\ (Jan\mbox{-}Feb\ 2003)$ 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 30.(i) How well does your generator work? Is there anything you would change?

comment
No, it works fine.
No, it works good.
No, it works good.
No, it works great.
No, it works well.
No.
Our generators work well. I would not have them if that were an option.
Overall, we've been pretty pleased with them.
Pretty good. I wish it was quieter.
The diesel works excellent, the rest good. There is not anything that I would change.
The generator does not work well because it is very finicky. A diesel would be better.
The generator is excellent. No, there is nothing I would change.
The generator is flawless. There is nothing I would change.
The generator works alright. Would rather have a micro-hydro system.
The generator works fine. I wouldn't change anything.
The generator works very well and there is nothing the respondant would change.
The generator works very well. No.
The generator works very well. Respondant would change nothing.
The generator works very well. Would not change anything.
The generator works well and would not change anything.
The generator works well, but is heavy and noisy.
The generator works well. A muffler for it would be good.
The generator works well. No changes
The generator works well. No, there is nothing I would change.
The generator works well. There is nothing I would change.
The generator works well. Would not change anything.
The generators work very well. One of them has an oil leak, but other than that, I would not change anything.
The generators work well until they break. We would like to change the generators to solar systems.
The generators work well, but would like newer ones.
The generators work well. If the generators were fueled by natural gas that would be better.
They are brand new and work really well. We would get a larger one.
They work beautifully but do not meet my requirements. I want to be able to run all my appliances at the same time.
They work fairly well.
They work fine although I'd like to have more power so I could just leave the lights on all the time.
They work fine and they're the only feasible option.
They work fine except I wish I had diesel because of the cost of gas.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(i) How well does your generator work? Is there anything you would change?

### comment

They work good and fairly efficiently, but it would be nice to have power so I wouldn't have to play with them.

They work good.

They work good.

They work good.

They work good. I would go to diesel or a solar panel system.

They work pretty well.

They work well, but would like an inside switch for them.

They work well. I would get a diesel generator.

They're good.

They're noisy, but they work fine.

This is our third generator and it works good.

Very well. No, I don't believe so.

We will change things. We're thinking about solar or the battery banks.

We would shut them down and jump on the grid if we could because they are a pain. Other than that, they work good.

We'd probably go to a diesel next time, but they work fine.

We're probably ready for a new one, but it works okay.

We're seeing problems. We don't want the generator. I want the grid. Between 1 - 10 it's a 5. I'm okay with it but I'm okay with replacing it with the grid.

We've never had any problems. I would not change anything.

When everything's working, it's fine.

When they run, they run good.

When they're running, they're good, but things do break down from wear. We always have to be here to man the generators, which is a pain.

Work very well. No change.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(j) Do you have any other comments about generators?

### comment

As long as they're running, they're fine.

Before you decide what type of energy you want, look at the pros and cons of both generators and power.

Diesel generators are more expensive to buy than gas but they're far more efficient to run.

Diesel generators are more expensive to buy than gas generators, but they're cheaper to run and last 2-5 times longer.

Diesel generators require pre-heat before you can start it in the winter. It's time consuming and inconvenient.

Diesel is more economical to run than the gas.

Gas generators are really loud.

Generators are an ongoing cost and pain.

Generators are efficient, but with oil and filter changes they are an ongoing expense.

Generators are terrible. They are loud, dirty, smelly and expensive.

Generators are very loud!

Generators serve a purpose. As long as they are insulated. If they are quiet.

Generators should not be used as much as they are.

Honda makes really good ones.

I can't wait for fuel cell technology to develop so I can get rid of the generator.

I do, but they're not printable

I don't like generators. They are noisy and they pollute the environment.

I don't like to use them if I don't have to, but they do their job.

I lived for years without one and they're better than nothing.

I prefer the solar or wind generation systems.

I would like a low maintenance source of energy, not a generator.

I would like to be free of them.

I wouldn't buy a diesel. It's too loud, too smelly and it's bad for the environment.

I'm interested in getting a fuel cell generator when they come available.

If you are going to buy a generator, buy one brand new. Don't buy an old one.

It is a hassle and it has been hard to start in the winter.

It would be nice to be on the grid. If you can't afford the grid, this is the next best option.

It would be nice to have a generator that was more ecologically friendly, although I don't know if that's possible.

It's a pain in the ass.

It's good to support a healthy economy, until electricity becomes affordable over time.

It's like having another wife, because you can't leave the place for any length of time. The maintenance is very high to ensure it doesn't freeze up.

Lister is a good generator.

No, I'm happy with the one I have.

No, but in conjunction with the solar system it sure is nice. The generator doesn't run 24 hours but we have power 24 hours.

No. If I had my way I'd go with microhydro, but I can't afford it.

No. It's a lousy way to generate electricity. It's dirty and environmentally not great.

	258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(j) Do you have any other comments about generators?
comment	
No. It's not my department.	
Not at all. They work fine.	

comment
No. It's not my department.
Not at all. They work fine.
Not really.
Not really. It's been a lifeline for us and has been very reliable.
Not really. They are a lot cheaper than what Yukon Electrical would charge.
There is great convenience in using fossil fuels, but if you can afford it, you should go solar.
There is some inconvenience, but all in all they work well.
They are a pain in the neck. You have to maintain them, and start them and run them.
They are noisy.
They are really noisy.
They are too heavy. They should have wheels.
They are too loud.
They are too noisy.
They don't start in cold weather.
They should be quieter.
They're a pain because they're a lot of work to ensure that they keep running during the winter.
They're a pain. Please put power in.
They're expensive and noisy to run. They're a pain in the neck for a wilderness operation.
They're expensive to run and they're noisy.
They're hard to start in cold weather and I would like to use a more efficient, cleaner source of energy.
They're loud.
They're nasty. If someone could get on the grid, better for the cost and better for the environment, the way these things smoke.
They're noisy and the fuel is getting more expensive.
They're noisy and you have to mess around with fuel.
They're noisy, but you get used to it.
They're noisy, stinky and expensive.
They're noisy.
They're not fun. They're noisy and stinky.
They're really expensive to buy and to run.
They're the only alternative to hydro.
They're too noisy.

They're very costly to run, so I would love to get on the grid.

They're very expensive to operate.

We are looking forward to power.

We are trying to wean ourselves off them, but they are good for running the electric pump. We would like to go exclusively to solar with a battery bank.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 30.(j) Do you have any other comments about generators?

### comment

We don't like having it. We are trying to bypass the inverter for computer use because the inverter produces a modified sign wave and creates static on radio and cell phone.

We would like to look at alternative sources.

We would prefer never to have to use them, but there isn't enough sunlight in winter to run on solar.

Website on a new generator system: http://www.cheniere.org/

Well, it's an undesirable feature on a home site. You have them because of neccessity.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(a) How many solar panels does your system have?

	nbr	%
31.(a) How many solar panels does your system have?		
1	20	26
2	15	20
3	5	7
4	8	11
5	5	7
6	11	14
7	2	3
8	4	5
9	1	1
10	3	4
12	2	3
Total	76	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 31.(a) How many solar panels does your system have? Refused / Do not know

	nbr	%
31.(a) How many solar panels does your system have? Refused / Do not know		
- do not know	1	100
Total	1	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(b) How many watts in total are your solar panels?

	nbr	%
31.(b) How many watts in total are your solar panels?		
5	1	3
6	1	3
10	2	5
12	1	3
25	1	3
30	1	3
50	1	3
75	1	3
80	1	3
86	1	3
100	1	3
125	1	3
150	2	5
200	3	8
210	1	3
280	2	5
294	1	3
295	1	3
300	2	5
340	1	3
360	1	3
375	1	3
480	1	3
500	3	8
600	1	3
680	1	3
700	1	3
780	1	3
900	1	3
990	1	3
1080	1	3

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(b) How many watts in total are your solar panels?

	nbr	%
1100	1	3
Total	40	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 31.(b) How many watts in total are your solar panels? Refused / Do not know

	nbr	%
31.(b) How many watts in total are your solar panels? Refused / Do not know		
- do not know	37	100
Total	37	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(c). Where are the solar panels located?

	nbr	%
On the roof of the house		
- yes	40	16
- no	211	84
Free-standing fixed		
- yes	19	8
- no	232	92
Free-standing tracking		
- yes	6	2
- no	245	98
Other		
- yes	17	7
- no	234	93
Refused		
- no	251	100
Do not Know		
- yes	1	0
- no	250	100
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(c).4 Where are the solar panels located? Other ...

comment
Fixed - attached to house.
Fixed to wall
Fixed to wall
Free standing mobile, but I have to move them.
Freestanding on a pole 20 feet off the ground
In the kitchen window.
It's free standing tracking but I can move it around.
It's on a high pole
On a pole above the roof of the house
On outside wall of cabin
On platform by electrical system.
On solar house
On the one side of cabin.
On top of adjacent building
On top of gazebo at the lake.
Outside the house
Panels are on the side of the house facing south.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 31.(d) What year was your photovoltaic system first installed?

	nbr	%
31.(d) What year was your photovoltaic system first installed?		
1981	1	1
1982	2	3
1983	3	4
1984	1	1
1985	3	4
1988	3	4
1989	4	6
1990	6	8
1991	4	6
1992	2	3
1993	7	10
1994	1	1
1995	3	4
1995 & 1997	1	1
1997	5	7
1998	5	7
1999	4	6
2000	5	7
2001	4	6
2002	6	8
2003	1	1
Total	71	100

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

## 31.(d) What year was your photovoltaic system first installed? Refused / Do not know

	nbr	%
31.(d) What year was your photovoltaic system first installed? Refused / Do not know		
- do not know	6	100
Total	6	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(e) Did you modify your system after you first installed it?

	nbr	%
31.(e) Did you modify your system after you first installed it?		
- yes	24	31
- no	51	66
- do not know	2	3
Total	77	100

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(f) What did you change on your photovoltaic system since you first installed it?

### comment

Added a tracking system and more panels were installed.

Added more batteries.

I added 2 smaller panels and 4 more solar batteries (220 amp - 6 V)

I added batteries and a panel.

I added the batteries.

I added two panels.

I changed the angle of the attack on the sun.

I connected it to more than one battery.

I put it on the stand.

I put on 3 new panels and sold the old 4. I replaced the batteries and re-did all the wiring in the house.

I upgraded it. I added components, added panels, an inverter, and added a metering device.

I've added to it.

It's constantly being modified to make it better. We've added a panel.

Moved the panels.

We added 2 more panels and changed from 12 volt to 6 volt batteries.

We added lights and changed battery banks and added small panels.

We added more batteries.

We added more panels, which were bigger.

We added more panels.

We added panels.

We changed the cable and got an indicator to provide information.

We charged our lighting source from AC to DC voltage and also installed some fluorescent lights, which are more energy efficient.

We fiddled with the tracker quite a bit. We had to replace the light sensor on it and modify the settings to limit its travel.

We've added panels and move them around to catch the sun.

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 31.(g). Where did you get your information on photovoltaic systems?

	nbr	%
Suppliers		•
- yes	34	14
- no	217	86
Manufacturers literature		
- yes	15	6
- no	236	94
Contractors		
- yes	6	2
- no	245	98
Books	i	ī
- yes	18	7
- no	233	93
Magazines	•	•
- yes	17	7
- no	234	93
Internet	i	ī
- yes	14	6
- no	237	94
Government agencies		·
- yes	3	1
- no	248	99
Other	ı	ī
- yes	37	15
- no	214	85
Total	251	100

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 31.(g).8 Where did you get your information on photovoltaic systems? Other ...

comment
Bought it with the property.
Brother-in-law
Did not get any.
Did not get information
Don't know
Don't know, system installed when house was purchased.
Don't know.
Energy alternative
Friend
Friend and trade show
Friend in Whitehorse
Friend was a seller
Friends
Friends
Friends
Friends
Friends who had solar systems.
I spoke to other people.
It came with the property.
Kris Selzer at Solar 2.
My husband works at Yukon Energy, so he knows a lot about this.
Neighbour
Neighbour
Newspaper
No idea. Don't know.
Photovoltaic owners
There was a business down south that I talked to.
Vancouver supplier
Word of mouth
Word of mouth
Word of mouth

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(g).8 Where did you get your information on photovoltaic systems? Other ...

comment
Word of mouth
Word of mouth from a friend.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(h). Who designed your system?

	nbr	%
Self		
- yes	41	16
- no	210	84
Yukon-based contractor who installed it		
- yes	12	5
- no	239	95
Non-Yukon contractor who installed it		
- yes	2	1
- no	249	99
Yukon supplier or seller of equipment		
- yes	13	5
- no	238	95
Non-Yukon supplier or seller of equipment		
- yes	6	2
- no	245	98
Other		
- yes	10	4
- no	241	96
Refused		
- no	251	100
Do not Know		i
- yes	5	2
- no	246	98
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(h).6 Who designed your system? Other ...

comment
Canadian Tire
Friend
Friend
Friend
It came with the property.
Original home owner.
Previous owner
Previous owner
The manufacturer
The previous owner

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

31.(i) How did you determine what size and type of photovoltaic system to get? For example, did you do any solar path evaluations, or estimates of your potential energy consumption, etc?

comment
A friend of mine who is an electrical engineer advised me.
At the time I bought the system, it was based on affordability.
By what we needed.
Don't know
Estimate on potential energy consumption.
I did estimates of my usage and I did a lot of research on the Internet.
I did solar path evaluations and a cost-benefit analysis.
I didn't do anything, really. I started small and added to it as needed.
I didn't. I just bought it from a friend.
I don't know.
I don't know.
I estimate energy consumption and the cost.
I found a panel that I liked and that would support a 12 volt battery, so I bought it.
I had the contractor design it.
I just bought what was cheapest.
I just kept going bigger and bigger as my needs grew.
I looked at what I could afford.
I saw this thing in Canadian Tire and thought it was a good idea for trickle charging batteries without having to use the generator.
I talked to a contractor and we did research on the Internet as well.
I talked to others who have the system.
I would imagine the previous owner would have estimated on the energy consumption.
I'm an electrician by trade, so I had a good idea of what our power consumption would be.
If you concentrate on getting something small that just works, it's okay but you can go the other way where you just keep adding to it.
Initially, I based it on the amount of power we would be utilizing.
It came with the property.
It came with the property.
It had to be able to keep a 12 Volt battery charged.
It was information supplied by National Research Council of Canada.
It was the latter. We estimated on our potential energy consumption.
It's just for the radio phone.
It's what our friend was selling.
Just choose a simple system to try it out.
Just minimal since only used for emergencies for the phones.

My husband researched how much wattage and how big a battery bank we needed.

No research. Basically a cost factor.

## 258 Surveys Completed less 6 with no dwelling (1 partial survey)

31.(i) How did you determine what size and type of photovoltaic system to get? For example, did you do any solar path evaluations, or estimates of your potential energy consumption, etc?

comment
No, the panel was bought to test how effective it would be.
No.
Nothing
Nothing.
Our system had to be able to run our lights. We looked at a system that we could afford and that woulld cover our needs.
Since the solar panel was only going to charge the phone battery, we tried a minimum number of panels and one panel turned out to be sufficient.
Size of the cabin and what we were going to use it for.
Solar path evaluations were done and also estimates of the potential energy consumption.
The company that I bought it from had many different packages. I filled out a questionaire about how much electricity I would need and the company picked a package for me.
The size and type was determined by power demand and cost per panel.
The size was determined by experience and availability of components.
The size was determined by the supplier.
The supplier determined this.
The supplier we bought it from determined that for us.
The system was given to me, so I didn't determine anything.
The type of appliances it is used for does not need to be very powerful. The supplier told them what they would need.
They were the two largest ones available at the time.
Told supplier what it would be used for.
Two panels were sufficient to charge the radio-telephone, which was all it was used for.
We certainly did estimates of our energy consumption. We negotiated and discussed our options and in the end, the size of panels was recommended by the supplier.
We did a survey of our energy consumption.
We did estimates of our potential energy consumption and solar path evaluations.
We did solar path evaluations and estimated our potential energy consumption.
We did solar path evaluations and estimated potential energy consumption.
We didn't do any formal research but we did estimate the likely load it would need to carry.
We estimated it on our energy consumption.
We estimated our potential energy consumption.
We estimated.
We got information through magazines and did estimates of our potential energy consumption.
We had a basic idea of what we needed, through word of mouth.
We just use it to charge a battery.
We just went by the seat of our pants.
We looked at what the batteries could support.

We studied our energy needs over several years.

258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 31.(i) How did you determine what size and type of photovoltaic system to get? For example, did you do any solar path evaluations, or estimates of your potential energy consumption, etc?

#### comment

We took the suppliers advice, which happened to be a neighbour of ours.

What I needed to charge my 12 volt battery.

What we could afford and what we needed.

Yes, solar path evaluations were done and also estimates of the potential energy consumption as well.

Yes, through research.

Yes, we did that, determined how much we would need. That was in 1989. We over estimated then, but now need more.

Yes.

You have to do the math. Find out how many appliances the generator will support. The solar panels have to be able to support the rest.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(j). Where did you buy the components for your system?

	nbr	%
Yukon-based contractor who installed it		
- yes	13	5
- no	238	95
Non-Yukon contractor who installed it		
- yes	2	1
- no	249	99
Yukon supplier or seller of equipment		
- yes	38	15
- no	213	85
Non-Yukon supplier or seller of equipment		
- yes	27	11
- no	224	89
Other		
- yes	10	4
- no	241	96
Refused		
- no	251	100
Do not Know		
- yes	8	3
- no	243	97
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(j).6 Where did you buy the components for your system? Other ...

comment
Bought used from classifieds in newspaper.
Canadian Tire
Friend
Hong Kong
Previous owner
Private sale
Second hand from friend.
Seller in California
Seller in Portland, Oregon
Yukon friend

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(k). Who installed the system?

	nbr	%
Self		
- yes	51	20
- no	200	80
Yukon-based contractor who installed it		
- yes	15	6
- no	236	94
Non-Yukon contractor who installed it		
- no	251	100
Yukon supplier or seller of equipment		
- yes	13	5
- no	238	95
Non-Yukon supplier or seller of equipment		
- no	251	100
Other		
- yes	4	2
- no	247	98
Refused		ı
- no	251	100
Do not Know		•
- yes	4	2
- no	247	98
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(k).6 Who installed the system? Other ...

comment
Previous owner
Previous owner
The previous home owner
The previous owner.

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 31.(1) Approximately how much did your photovoltaic system cost to buy and install?

	nbr	%
31.(l) Approximately how much did your photovoltaic system cost to buy and install?		
40	1	2
60	1	2
100	4	7
150	1	2
200	1	2
300	1	2
350	1	2
400	1	2
700	1	2
1000	5	8
1200	1	2
1500	1	2
2000	3	5
2500	1	2
3000	3	5
3500	1	2
4000	2	3
5000	6	10
5100	1	2
6000	8	13
7000	2	3
8000	2	3
8500	1	2
9000	1	2
10000	3	5
12000	2	3
16000	1	2
18000	1	2
20000	1	2
24000	1	2

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 31.(1) Approximately how much did your photovoltaic system cost to buy and install?

	nbr	%
25000	1	2
Total	60	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 31.(1) Approximately how much did your photovoltaic system cost to buy and install? Refused/Do not know

	nbr	%
31.(1) Approximately how much did your photovoltaic system cost to buy and install? Refused/Do not know		
- do not know	17	100
Total	17	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(m) What do you do to maintain your photovoltaic system? How often?

#### comment

As long as your batteries are in good shape, it's maintenance-free. I do take a reading off the batteries once a month.

Basically we don't. We do dust it and check it once a year.

Change panel angles in relation to the sun.

Charge batteries, check them with volt meter, dust snow off panels every few months.

Do not maintain the system.

Don't know

Don't need to maintain solar systems.

I brush the snow off and make sure the batteries are topped up once every couple of weeks.

I brush the snow off as needed and fix the tracker when it goes awry.

I check the batteries once a month.

I clean off the snow and check the connections when needed or every six months.

I clean the connections twice a year.

I clean the panels of dust, dirt and snow, and I keep the water in the batteries topped up. Twice a year I have to overcharge the batteries to clean up the plates.

I don't do much, just little adjustments whenever I need to.

I hose off the bird drops every so often. In winter, I stand the panels up and in summer I lay them down.

I keep the panels clean.

I look on the roof to see if they're still there. They're maintenance-free.

I sporadically clear snow off the panels.

I sweep off the panels and check the fluid levels in the batteries, as needed.

I sweep off the snow and check and look after the water level

I sweep off the snow once a month in the winter.

I sweep the snow off, as needed.

I wipe off the snow and make sure there are no shadows on the panels whenever it is needed.

I wipe the dust off a couple of times a week.

I'm not maintaining it right now.

I've never done anything but clean off the panels.

It doesn't require any maintenance.

It maintains itself. We check it regularly. You can hear it moving. We make sure it's working. Also, if the system is charging the batteries, we check it regularly.

It's all automatic.

It's basically maintenance-free, although we do clean the panels twice a year.

It's maintenance free.

It's maintenance-free. I check the batteries.

No maintenance.

No maintenance.

No.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(m) What do you do to maintain your photovoltaic system? How often?

comment
No.
Not much.
Nothing
Nothing is done to maintain the system.
Nothing is done to maintain the system.
Nothing is done to maintain the system.
Nothing is done to maintain the system.
Nothing, ever.
Nothing.
Once a year my husband checks out the entire system. We also monitor the voltage and brush off the panels as needed.
Once it's installed, there's nothing to maintain.
There is battery maintenance every 6 months and the panels get wiped down 2 times in the summer.
There is no maintenance required.
There is no maintenance. The good thing about them is that they are maintenance-free.
They are pretty much maintenance-free.
We brush off the snow and check the batteries once in a while.
We brush off the snow when needed, and we change its position at the beginning of the summer.
We brush snow off the panels as needed.
We brush the snow off sometimes.
We brush the snow off when required.
We check the batteries and sweep the snow off.
We clean the snow off as required.
We don't do anything.
We keep the snow off in the winter.
We move the panels and the batteries weekly.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(m) What do you do to maintain your photovoltaic system? How often?

comment
We move the panels around to attract the sun and remove the snow as required.
We replaced the batteries a year ago.
We wash the panels once a year.
We wash the panels once a year.
Wipe off the panel when needed.
Wipe the dust off as often as needed.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(n) How well does your system work? Is there anything you would change?

#### comment

Don't know

Excellent! No, it's quiet and it's very clean.

For our use it's fine.

Great. Maybe get more power.

I am happy with it. No, there is nothing I would change.

I would add more panels. It's amazing how much power you can get out of the sun.

I would change the tracker if I knew of a better one that would be more reliable.

I would like a bigger, more modern system so we wouldn't need to keep moving the charged batteries.

I would like more panels and batteries.

I would like to add a windmill to supplement it.

I would like to take the top off of both mountains so I'd get more sun. It works good in the summer, but not in the winter.

I'd get a bigger bank, although this works fine for what I need. I'd get a bigger battery and photo unit.

I'm happy with it. Tracking would be nice, although I don't know if it is cost-effective and whether I could justify the cost.

I'm happy with the system. I mean, bigger is better, but nothing is wrong with it.

It workds really well. I would like to have them more user-friendly and make the batteries more efficient.

It works adequately. Very reliable. Yes, I'd add more solar panels and more batteries.

It works beautifully because the sun is coming back! I would get new batteries.

It works excellent, but I would also change lots of things if I had the money. I would like to get state of the are equipment.

It works fine. If I could, I would get deep cycle batteries and more panels.

It works fine. There is nothing I would change.

It works good. I would add more panels.

It works good. On a scale of 1 to 10 it's an 8. We probably need to replace a few things and add to it. We need the grid. We can't afford to replace these things. The economy in the Yukon is in need of help. Our need is the grid.

It works perfect.

It works pretty well but the instructions and manuals are confusing.

It works really well, but I'd like a bigger one.

It works really well. No change.

It works really well. I would buy more panels.

It works really well. I wouldn't change anything.

It works really well. We'd make it bigger.

It works very well, although, if we had more money we would get more panels so we would have more capabilities.

It works very well, but I would like more capacity.

It works very well.

It works very well. If I had more money, I would buy bigger batteries.

It works very well. Might add more panels.

It works very well. I wish it could generate more electricity during the winter.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(n) How well does your system work? Is there anything you would change?

#### comment

It works very well. It is 20 years old, so I might get a newer one.

It works very well. No change.

It works very well. No change.

It works well for what I need it for.

It works well.

It works well.

It works well. I wish there was more light in the winter when I need power.

It works well. I would like a bigger battery bank and/or more solar panels.

It works well. No changes.

It's designed with numerous safety features. If I had it to do over again, I would buy brand new batteries instead of secondhand.

It's fine as far as I know. I'd change for an electric telephone any day.

It's fine for us. It would be nice to get a smoother invertor, but I don't know if it's possible for our size of system without huge costs. It produces a stepped square wave instead of a fine wave.

It's good.

It's good. I would add some more panels to it.

It's not much power. It just runs the radio. I would make it bigger and buy new batteries.

It's not very good. I'd probably go with a wind generator if I had to do it over again.

It's not very productive and it is more trouble than it's worth. I would like to replace it.

It's quite a good source of power at low cost. I would like to upgrade it by adding more panels.

It's under capacity. There's no invertor, so it's limited in what it can do.

It's working good and I wouldn't change anything.

No

No, but we do need to get bigger.

No, it works good.

No, it works pretty well.

Not great. If I would stay off the grid, I would get a larger Solar System, but that's not likely.

Perfectly.

System works fine. No, I would not change anything.

System works well, but would like a bigger one.

The system works alright, but another 4-6 panels would be good. Also, a Tracker for the sun would also be good.

The system works extremely well but would like a larger system.

The system works fine. There is nothing I would change.

The system works fine. There is nothing I would change.

The system works really well. There is nothing I would change.

The system works very well. We have never had a power failure. If I could, I would get more solar cells.

The system works well, but I would like more panels.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(n) How well does your system work? Is there anything you would change?

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The system works well. Would like a bigger one.

We just love it. We would like to add a bigger inverter and add more panels.

We'd like more panels, but basically it's a workable system.

We'd like to get an inverter but can't afford it.

We're really happy with it, actually.

Well. No.

Works fine. No change.

### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(o) Do you have any other comments about photovoltaic systems?

#### comment

As the technology becomes more affordable, I think it's the way people should go.

Don't know.

Everybody should have one.

For the cost to be recovered, it takes longer than the benefits along the way.

I hope that technology will increase soon because we only get 15% efficiency from our solar panels.

I think more people should have it.

I think more people should use solar.

I think that solar panels are the way to go.

I think the Yukon Territory should be directing packages to everybody. It's a good alternative. It works compatible with the grid.

I think they're good.

I wish that the people and the government would take a more pro-active stance.

I wish that they were being used in every house in town for at least some of people's electrical needs. We have a great climate for it.

I'm very happy with it. I think that I get more power per dollar from solar than I would with a wind generator.

If we lived here year-round we woulld develop it further.

If you are going to get one, buy a new system.

It is a wonderful form of energy.

It should be a little bit cheaper to buy.

It should be mandatory for people to have to use solar support for at least some of their electrical needs.

It's a good way to go. It should be used more globally. It would be cheaper if it were more common. It is simple to use and everybody should have it.

It's a really good system because the sun is free.

It's okay as long as the sun is shining because the diesel is so expensive. Solar systems are very expensive but the payback is quick. My system will pay for itself in less than 5 years.

It's the way to go, but you also need a generator for back up.

Most of the information on this is American. It's hard to find it in Canada.

No, they are great.

No. we like it fine.

Not really.

Not really.

Solar systems are handy and cheap because there is no fuel cost.

Solar systems are quiet and do not take any fuel, but they are incredibly costly.

The beauty of this system is that you can add or replace components as you need to.

The bottom line is the cost per watt. This dictates what you should buy.

The government should install photovoltaic systems into their operations.

They are the greatest thing ever invented.

They are too expensive to buy and set up.

They work really well.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 31.(o) Do you have any other comments about photovoltaic systems?

#### comment

They're definitely something we want to get more established into and will probably go that route, eventually.

They're great, but they're limited in the winter. They work good from March to September.

They're more aesthetically pleasing compared to the generator. There is no maintenance and no loud noises. The down fall is that the equipment is expensive.

They're quieter than generators.

They're very efficient and you learn to adapt to them. You don't get power outages either.

To buy a whole system it is way too expensive.

To get a reasonable sized system it is too expensive.

Use for the Yukon is limited.

Yes, good batteries are way too expensive.

You just have to tailor them to your size and use.

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 32. Have you considered installing a photovoltaic system?

	nbr	%
32. Have you considered installing a photovoltaic system?		
- yes	58	63
- no	33	36
- do not know	1	1
Total	92	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 32.(a) Why have you not considered PV?

#### comment

After December, they don't work.

Because I anticipated electricity coming out here.

Committee decision not a personal one.

Don't know anything about it.

I already have generators. I have no time to put in a solar system and look after it.

I couldn't get anything big enough to run this lodge.

I don't know anything about it.

I don't know anything about it.

I don't know how they would work.

I don't know if it would be feasible for running a lodge because I need lots of power.

I don't need it.

I don't spend enough time there to put out that kind of money.

I don't think they're worth a damn.

I need more power than I would get from a solar system in the winter. The batteries are also too expensive.

I was told by a neighbour that the winter months just don't have enough sunlight. It's just not cost-effective.

I wouldn't know how to set it up.

It is too expensive.

It would be too expensive to buy a large system which is what we would need.

It would cost too much to buy enough panels to meet the electrical needs of the lodge.

It would only be of limited use.

It's just not available.

It's not economical for the amount of time I would use it, which would be in the winter.

Just too costly to get into and in winter months here there is not enough light.

The cost of a solar system would not be worthwhile because the grid is already extending to the property.

The initial cost is too high.

There is no need for so much electricity for a cabin that is not used very often.

There is no sense, for the amount of time I'm out there.

There is not enough sunlight during the winter months to make the cost of installing the system worthwhile.

They're just too expensive.

We already had a system, but since the batteries only have a 10-15 year lifespan, it's too expensive.

We don't even see the sun in the winter and we wouldn't be able to run a full shop on solar power.

We don't get enough sunlight year-round in the Yukon, so it wouldn't supply enough power for my needs.

We have too many trees around blocking out the sun.

We're not prepared to spend more money on a camp we don't use very often.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 32.(b) What steps have you taken to look into PV systems or what kind of information have you gathered on PV?

	m		

Books and information from supplier down south.

General information has been gathered through reading.

General information was gathered through catalogues.

Get information from local distributors and looked on the Internet. Try to educate ourselves on advantages and disadvantages of having a photovoltiac system.

I asked a neighbour about it. I'm not sure yet what to do. I'm hoping the power line will come through, I would take it.

I didn't really do much.

I don't know.

I have got some catalogues and have talked to people about it.

I have looked into it. It's just not good for this far north.

I have looked through the Internet. I have called companies to see what they offer as packages.

I have lots of catalogues and I check the Internet.

I haven't researched them yet.

I inquired about them to sellers in both Whitehorse and Toronto.

I looked at books and magazines and did somoe pricing.

I looked at how expensive it would be from the Internet.

I looked at it at the trade show.

I looked at the amount of sunlight the system would get in the winter.

I looked into it in Arizona, but it was very expensive.

I read up on them.

I really haven't looked into it yet.

I talked to others who have solar.

I've gathered a lot of information on the Internet and at trade shows.

I've gathered dealers' literature and some government literature.

I've gathered plenty of information over the last 10 years.

I've just started the place so I haven't got too serious about looking into it yet.

I've read about it and tried to be informed about the system.

I've talked to people here in the Yukon. I've had contradictory stories. They say it won't work consistently. Other say it could work for a small place like ours.

Information off the Internet from suppliers.

Information was gathered by reading catalogues and word of mouth from friends.

Information was gathered from friends who have it.

Just at preliminary stages.

My husband did read up on it in books and on the Internet.

My husband got information.

My husband talked to people who own solar systems. He also looked up a quote for the amount it would cost for us to get one.

258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 32.(b) What steps have you taken to look into PV systems or what kind of information have you gathered on PV?

comment
None
None.
Not much
Read some booklets.
Research has been done through reading and consulting with companies.
Spoke with friends that have them.
There was a system previously in use at the cabin, but was too small to be effective.
Through research, reading books and by talking to friends who have solar.
We got books to read on this.
We had meetings with Yukon Energy about what our needs were.
We have a catalogue.
We have catalogues and have looked at the prices.
We have gathered information from the Internet and have mailed out to receive information.
We have spoken to suppliers and neighbours who have the system.
We haven't really looked into it yet. My husband looked at our neighbours and was quite impressed.
We looked at magazines and catalogues, and we looked at a display at the trade show. We would buy locally if we do buy.
We researched different systems and looked at our neighbours.
We talked with a neighbour.
We used to know a fellow who was into it. We got a lot of pamphlets but found it was too much money.
We wanted solar power to heat our water. I don't know what we did to look into it.
We would have to change all of our appliances to direct current or purchase a battery bank.
We've gathered information from neighbour sources who have solar.

We've talked to a solar contractor who sent us 4 different quotes.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 32.(c) Why have you not installed a PV system?

comment
A neighbour keeps applying to extend the power to reach them, so waiting to see if that happens.
A solar system would only be put in if the respondant moved out there.
Affordability.
Because I like to pay cash and not get financing. So, I have to save.
Because of the cost.
Cost
Cost and procrastination.
For the amount of time we're down there, I don't think it would be worth spending that kind of money.
I can't afford it.
I don't have enough money.
I don't know enough about them.
I don't think I could afford it.
I have no information on it.
I haven't installed a PV system because of the expense.
I haven't needed it for my small cabin but I do want it for my house that I'm building because it's cleaner and cheaper to run than a generator.
I purchased a battery bank, but did not get solar panels because I was not sure how effective they would be in the Yukon.
I would do it if I had the capital.
I'm not really interested in electrical appliances. We go to camp to get away from that.
I'm still debating. I'm checking into a water turbine to decide which one I will go with.
It just wasn't reliable. There wasn't enough sun or money.
It too is very expensive.
It was probably the price but I don't really know.
It was too costly.
It would be too expensive.
It would require a battery bank and what would I do with it in the winter.
It's expensive. If I lived out there year-round, I would get it. Right now I'm there mostly in the summer.
It's too expensive and not worth the effort when winter is mostly dark.
It's too expensive.
It's too much money.
It's too pricey and I'm also waiting to see what happens with the fuel cell technology.
Lack of money and information
Lots of problems with them in winter and they're very expensive.
Money.
Still thinking about it.
The cabin is not ready

The cost effectiveness.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 32.(c) Why have you not installed a PV system?

#### comment

The cost is too high for the amount of electricity that it provides. I don't need much electricity.

The cost scared me.

The cost.

The expense would have been too exorbitant and we'd have to change all our appliances to direct current.

The expense would not be worthwhile.

The initial cost is too high for the power output.

The initial cost is too high.

The system is too small to be useful.

The system was purchased only two weeks ago and have not had time yet.

The system was too expensive.

There has not been a need yet to invest in a system large enough to be effective.

They're very expensive, but eventually I would like to switch to solar/wind power.

They're very expensive.

We aren't there full time so it's not worth it. We also don't have the money for it.

We couldn't generate and store enough electricity every day for what we needed.

We don't live there full-time so we don't need it.

We don't use the cabin enough to justify it.

We haven't got enough information on it. We are also saving for it.

We mainly need it in the winter and that's when it's least effective. Cost is also a factor.

We're into talks with Yukon Electric right now on whether it's feasible to bring in power.

Well, we've only had the lease for a year and it's been expensive to set up as it is now.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(a) How many wind generators do you have?

	nbr	%
33.(a) How many wind generators do you have?		
1	8	100
Total	8	100

Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(a) How many wind generators do you have? Refused/Do not know

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(b) What size are your wind generators? (watts, voltage, horse power)

comment
12 volt
35 Watt
400 Watts
400 Watts
700 w
Air 304 Watt
Don't know
I don't know.

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 33.(c) How far from your dwelling is the wind generator located?

	nbr	%
33.(c) How far from your dwelling is the wind generator located?		
10 feet	1	13
10 metres	1	13
130 feet	1	13
15 metres	1	13
50 metres	1	13
Attached to cabin on a tower 45 feet in the air.	1	13
Connected to the roof.	1	13
on roof	1	13
Total	8	100

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 33.(d). What system voltage and type of electricity does your wind generator generate?

	nbr	%
12 Volt DC		
- yes	5	2
- no	246	98
24 Volt DC		
- yes	1	0
- no	250	100
48 Volt DC		
- no	251	100
120 Volt DC		
- no	251	100
120 Volt AC		
- yes	1	0
- no	250	100
Other		
- no	251	100
Refused		
- no	251	100
Do not Know		
- yes	1	0
- no	250	100
Total	251	100

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 33.(e) What year was your wind generation system first installed?

	nbr	%
33.(e) What year was your wind generation system first installed?		
1980	1	13
1988	1	13
1990	1	13
1993	1	13
1995	1	13
2000	2	25
2001	1	13
Total	8	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(e) What year was your wind generation system first installed? Refused/Do not know

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(f) Did you modify your system after you first installed it?

	nbr	%
33.(f) Did you modify your system after you first installed it?		
- yes	4	50
- no	4	50
Total	8	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(g) What did you change on your wind generation system since you first installed it?

#### comment

I had it high up and I lowered it and cut trees around it.

I raised it 15 feet higher from the original level.

I took it down because it wasn't working properly. It needs an 80 foot tower because it wasn't in a good wind zone.

We moved it to make room for our addition.

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 33.(h). Where did you get your information on wind generation systems?

	nbr	%
Suppliers		
- yes	4	2
- no	247	98
Manufacturers literature		
- yes	1	0
- no	250	100
Contractors		
- yes	1	0
- no	250	100
Books		
- yes	1	0
- no	250	100
Magazines		
- yes	2	1
- no	249	99
Internet		
- yes	1	0
- no	250	100
Government agencies		
- no	251	100
Other		
- yes	2	1
- no	249	99
Total	251	100

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey)

33.(h).8 Where did you get your information on wind generation systems? Other ...

#### comment

A friend who got power, so he sold it to us.

Friends

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(i). Who designed your system?

	nbr	%
Self		
- yes	7	3
- no	244	97
Yukon-based contractor who installed it		
- no	251	100
Non-Yukon contractor who installed it		
- no	251	100
Yukon supplier or seller of equipment		
- yes	1	0
- no	250	100
Non-Yukon supplier or seller of equipment		
- no	251	100
Other		
- no	251	100
Refused		
- no	251	100
Do not Know		
- no	251	100
Total	251	100

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 33.(j) How did you determine what size and type of wind generating system to get? Did you do any testing, rely on the Community wind assessment, etc?

#### comment

I calculated the cost versus wattage.

I found that 2 batteries wore down too quickly, so I got 5 batteries.

No testing was done. We got what we could afford.

There were no tests done; the wind turbine was an experiment that proved not beneficial.

We bought it cheap, second hand, from a friend.

We felt that 300 Watts of power to enhance our solar power would be a good complement.

We got all kinds of information. I don't know.

We relied on the choice that the supplier made. But all you have to do is match it to the battery bank you have.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(k). Where did you buy the components for your system?

	nbr	%
Self		
- no	251	100
Yukon-based contractor who installed it		
- no	251	100
Non-Yukon contractor who installed it		
- yes	1	0
- no	250	100
Yukon supplier or seller of equipment		
- yes	2	1
- no	249	99
Non-Yukon supplier or seller of equipment		
- yes	6	2
- no	245	98
Other		
- no	251	100
Refused		
- no	251	100
Do not Know		
- no	251	100
Total	251	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(l). Who installed the system?

	nbr	%
Self		
- yes	8	3
- no	243	97
Yukon-based contractor who installed it		
- no	251	100
Non-Yukon contractor who installed it		i
- no	251	100
Yukon supplier or seller of equipment		i
- yes	1	0
- no	250	100
Non-Yukon supplier or seller of equipment	1	
- no	251	100
Other	1	
- no	251	100
Refused	1	ı
- no	251	100
Do not Know		ı
- no	251	100
Total	251	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 33.(m) Approximately how much did your wind generation system cost to buy and install?

	nbr	%
33.(m) Approximately how much did your wind generation system cost to buy and install?		
600	1	13
1000	3	38
1200	1	13
3800	1	13
5000	1	13
15000	1	13
Total	8	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

33.(m) Approximately how much did your wind generation system cost to buy and install? Refused/Do not know

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(n) What do you do to maintain your wind generation system? How often?

comment
He checks the windmill every few months.
I keep the snow off
It's a closed unit, so there is no maintenance required.
Nothing is done to maintain the system.
Nothing, really.
Nothing.
There is nothing you can do to maintain it.
We had to change the bushings once.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(o) How well does your system work? Is there anything you would change?

#### comment

I would relocate to a better place. We have too many high trees. The more open space, you have better results.

I wouldn't change a thing.

If the wind is up, then the system works fine, otherwise it is a waste. Would like to not have the system at all.

It didn't work, so I took it down. It needs an 80 foot tower because it wasn't in a good wind zone.

It works very well. Might add another one.

It's not very useful unless you're in an open, windy site. The wind is sporadic here and we should have put it higher.

The system works good. There is nothing we would change.

They work the way they are supposed to. I would get blades with springs.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 33.(p) Do you have any other comments about wind generating systems?

#### comment

I think Yukon Electric should look more seriously at adding more wind generators to Echo Hill because the advantages far outweigh the cost.

I think if there was a direct wind they would work good. There is a lot of moving parts that are going to wear out. Rather than the solar where it stays still.

I think they're a great idea and I'd like to see more infrastructure in this area.

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 34. Have you considered installing a wind generator or wind generation system?

	nbr	%
34. Have you considered installing a wind generator or wind generation system?		
- yes	67	42
- no	89	56
- do not know	3	2
Total	159	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 34.(a) Why have you not considered installing a wind generation system or a wind generator?

comment
Again, I'm not out there enough.
Because they are expensive.
Committee decision
Doesn't create sufficient enough amounts of energy.
Don't need it.
From the Yukon Electric wind tests we found out this wouldn't be viable in our area.
Generators are doing the job.
I couldn't justify the cost when I only use the cabin sporadically.
I didn't need it, but I think it's a good idea if you're in the right place.
I don't care for things that run off batteries.
I don't get wind like Whitehorse does.
I don't have enough wind here.
I don't know anything about it.
I don't know anything about them.
I don't know anything about wind generators.
I have not considered intalling a wind system because the amount of energy I use would not be worth the cost.
I haven't even thought about it.
I heard there's not enough wind out there.
I just haven't.
I just never thought about it.
I require more power than I would get from this.
I'm 73 years old and I don't consider things like that.
I'm not interested in electrical appliances. All the work done out here is manual and I think that's a good thing.
I've just never thought of it.
I've not put much research in it.
It has just never entered into our minds.
It won't work out where we're at.
It would be too costly to purchase and transport one. I live 75 air miles into the bush.
It would be too costly.
It would be too expensive for us.
It would cost too much.
It would not be worthwhile.
It's only a recreational property.
It's too much effort.
N/A.
No reason.

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 34.(a) Why have you not considered installing a wind generation system or a wind generator?

comment
No wind here to do anything with.
No wind.
Not enough wind.
Our cabin is in the woods, so there's not much wind and I don't really know anything about them.
Since the owners may be selling the property in a few years, it is not worth the expense.
The cost effectiveness.
The cost would not be worthwhile since the grid is extending towards the property.
The property tends to be ignored because the Fish Lake property is a priority.
The time and money would end up being too much for a recreational property.
The way I'm situated, I'm in a "T" in the valley, it's just havoc with the wind.
The wind isn't sufficient here.
The wind usually only comes up on sunny days and the solar system is much more efficient.
There is no wind.
There is not enough wind at Bonanza.
There is not enough wind in the area.
There is not enough wind.
There isn't enough wind around here.
There isn't that much wind there.
There would not be enough power generated and they are noisy.
There's an insufficient amount of wind.
There's no wind here.
There's no wind.
There's not efficient enough wind.
There's not enough wind there.
There's not enough wind.
There's not enough wind.
There's not much wind here.
There's not very much wind in area.
They may end up being too much work, but really don't know enough about them.

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 34.(a) Why have you not considered installing a wind generation system or a wind generator?

comment
Too expensive
We can't justify spending more money on a camp we only use two months a year.
We don't get enough wind.
We don't get wind here at this location.
We don't have a sufficient amount of wind.
We don't have enough wind here.
We don't have enough wind out here.
We don't have enough wind out there.
We don't have enough wind.
We don't have much wind out here.
We don't have much wind.
We don't need it.
We have all the power we need.
We have no wind.
We have no wind.
We have systems that work for us.
What is it?
Where we are it is just not consistent.
Wind statistics were done at the airport and they found there was not enough wind.

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 34.(b) What steps have you taken to look into wind generation systems or what kind of information have you gathered on wind generation?

comment
A co-worker gathered information for them both.
A few years ago I noticed a magazine article.
A program that monitors the amount of wind assessed different places.
All sorts of information. We had one for years. It went kaput, I think in a windstorm.
Basic reading from catalogues was done.
Basic research
Decide if you have enough wind. Look at weather.
General research.
Have not taken any.
I bought one.
I have a book on alternative energy sources and I'm always looking through magazines.
I have all the books and prices on it.
I have been reading about this for 15 years and I recently got a quote from Industrial Electric.
I have some literature from the Canadian government.
I haven't got any information on it.
I haven't really collected information because it would need a battery bank.
I looked at the start up speed of the propellors. I also looked at how many watts they put out and the cost variables.
I looked at wind as an upgrade. I looked to see if there is enough wind here. I looked at the Internet.
I looked on the Internet.
I researched it on the Internet.
I talked to a friend of mine who is selling his and I've arranged to buy it.
I talked to a friend of mine who was looking into alternative energy sources.
I talked to a guy in Whitehorse who was supposed to come out to measure the wind, but he never showed up.
I talked to men working with them in Whitehorse and volunteered to have one set up at our place for a test.
I talked to others who have wind generators.
I talked to the weather people and made observations.
I've checked into it and I've done some research.
I've done some research into it. I read some books.
I've gathered minimal information on it.
I've looked at friends' systems and I've also gathered information from the Internet and Solar 2.
I've looked on the Internet and I've also talked to people who have wind generation.
I've received technical data from thw weather station and from wind generation suppliers, as well as my personal observation.
I've thought about it every other day for the past three years. I talk to my friends about it.
Information was gathered by books, magazines and the Internet.

Measured the available wind.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 34.(b) What steps have you taken to look into wind generation systems or what kind of information have you gathered on wind generation?

comment
My husband is a main engineer for Yukon Energy and is involved with the wind turbines at Haeckel Hill.
My neighbours have one, so I talked to them about it.
None.
None.
None.
Not much. I would like to assess wind.
Not too much.
Nothing.
Read about it.
The Yukon Department of Environment did a study and found that it wouldn't be practical for our area because the wind isn't consistent.
The supplier of the solar system lives in the same area and explained that a wind generator would not be worthwhile.
Tried it out and it kept breaking down. A wind storm finally blew it down.
Two neighbours tried this system and it wasn't satisfactory.
We are involved in monitoring the specks on a trial set up through Yukon Energy.
We bought and installed one but it's not being used because we don't get enough wind here.
We consulted with a solar contractor.
We had a model and used it for a year.
We had a wind monitoring station on the property which generated a report after a year of data collection.
We had one.
We have some catalogues and are looking into it.
We haven't looked into it yet.
We monitored the wind on our property for one and a half years.
We never really looked into it that seriously. We have friends who have had this.
We ran a test on our property.
We received technical data from weather station and wind generation suppliers. And by personal observation.
We researched different systems.
We set up a wind generator and monitored it for a year.
We studied the area that we are in and looked at our wind patterns.
We talked to others who have it.
We talked to others who know about this system and we've looked through books and magazines.
We used to have a wind generation system at the property.
We were on the wind map program and they supplied a report to us. We also consulted with Solar 2.
We've talked to friends who have been using this system.

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 34.(c) Why have you not installed a wind generation system?

00	m	m	en	•
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ш	еш	ш

Again, it's because it would need a battery bank.

Because I do not own one. They cost too much money.

Because I'm getting power soon and the cost of a wind generator would be way too expensive.

Because of capital cost.

Because of the cost.

Both previous owners investigated it and found it wouldn't be suitable at that location.

Cost and I would need more information to see if it is worth it.

Financially unfeasible.

Found the need for power to not be big enough to install one.

Had one for a while. It was prone to breakdown.

Have not assessed wind yet.

Haven't had the time. Testing solar system.

I can't justify the cost.

I don't have enough money.

I don't have enough wind.

I feel technically inadequate to run one.

I have not received the results yet.

I haven't got enough information yet and I would probably need financing for it.

I'm a senior and am happy with my lifestyle.

I'm in the process of installing one.

It is something that will be done in the future.

It looks like it's too difficult to run and the information is not as easy to obtain for our particular area.

It was determined that we didn't have enough wind.

It was more money than it was worth to me.

It was too high maintenance and we don't have enough wind in the winter.

It would be too costly and impractical for me because I live below a hill and it would have to be installed on top of the hill.

It would be too costly.

It would be too expensive.

It would be too pricey because I live at the base of a hill, so I would need an extremely tall mast for it.

It would cost a lot of money for a small improvement in power. Our wind assessment wasn't very promising.

It's just way too much money.

It's too expensive.

Make sure the cost ratio is right.

My other system works fine.

No wind in the mountains.

Not enough wind in winter.

## Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 34.(c) Why have you not installed a wind generation system?

#### comment

The cost and there is not enough wind.

The cost is an impediment.

The cost of the system is too high.

The initial cost.

The initial price was too high. There wasn't enough wind during the time of year that we needed it. It wasn't worth it.

The model I want (48 volt), isn't available yet.

The price was too high and it wasn't necessary.

The upgrade would cost too much money.

There is not enough breeze.

There is not enough wind here.

There is not enough wind.

There isn't enough wind around here to make it profitable. We had one, but we only got 1 or 2 days a month with minimal wind, so we sent it back.

There was enough wind but it just wasn't feasible.

There wasn't a sufficient amount of wind to cover the cost of the system.

There's not enough wind.

They're noisy. I'm waiting for Y.E.C. to make a decision on whether they're going to connect me, or not. I received a quote of \$70,000.00 at the top end and it would also cost me to hire a cat to clear the brush, so I don't know if I'll be connecting.

We already know which one we want and will buy. It's just a matter of finances right now.

We are not set up for it.

We bought and installed one but we had a problem with some mechanical parts, so now it's just an ornament.

We couldn't afford to get a converter and battery bank.

We did, and it died.

We don't get enough wind here.

We don't have a good enough wind regime in that area.

We don't have enough money and we don't really need it.

We don't spend enough time here to justify the cost of installing it.

We don't use the cabin enough to justify it.

We haven't decided anything yet.

We need to assess the wind for a year to see if it's strong enough to justify buying a wind generator.

We're waiting for the specks to make our decision. Also we have been in contact with the RETP and we have to see about that.

When you need electricity the most, which is in the winter, at the coldest, there is no wind.

Wind alone is no good. You also need batteries, an invertor and a generator for backup. I may get one if they don't put power in at my place soon.

You need constant wind, which we don't have. They're also noisy, so we quickly dismissed this idea. People we know have had constant problems with them, they're costly and they need to be above the trees.

Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 35.(a) How large is your micro-hydro system? Refused/Do not know Survey of Off-Grid Dwellings (Jan-Feb 2003)
258 Surveys Completed less 6 with no dwelling (1 partial survey)
35.(b). How far from the dwelling is it located?

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 35.(c). What system voltage and type of electricity does your micro-hydro system generate?

	nbr	%
voltage and type of electricity does your micro-hydro system generate? 12 Volt DC		
- no	251	100
voltage and type of electricity does your micro-hydro system generate? 24 Volt DC		
- no	251	100
voltage and type of electricity does your micro-hydro system generate? 48 Volt DC		
- no	251	100
voltage and type of electricity does your micro-hydro system generate? 120 Volt DC		
- no	251	100
voltage and type of electricity does your micro-hydro system generate? 120 Volt AC		
- no	251	100
voltage and type of electricity does your micro-hydro system generate? Other		
- no	251	100
voltage and type of electricity does your micro-hydro system generate? Refused		
- no	251	100
voltage and type of electricity does your micro-hydro system generate? Do not Know		
- no	251	100
Total	251	100

Survey of Off-Grid Dwellings (Jan-Feb 2003)
258 Surveys Completed less 6 with no dwelling (1 partial survey)
35.(d) What year was your micro-hydro system first installed? Refused/Do not know

Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 35.(e) Did you modify your system after you first installed it?

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 35.(g). Where did you get your information on micro-hydro systems?

	nbr	%
Suppliers		
- no	251	100
Manufacturers literature		
- no	251	100
Contractors		
- no	251	100
Books		
- no	251	100
Magazines		
- no	251	100
Internet		
- no	251	100
Government agencies		•
- no	251	100
Other		•
- no	251	100
Refused		ı
- no	251	100
Do not Know		•
- no	251	100
Total	251	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 35.(h). Who designed your system?

	nbr	%
Self		
- no	251	100
Yukon-based contractor who installed it		
- no	251	100
Non-Yukon contractor who installed it		
- no	251	100
Yukon supplier or seller of equipment		
- no	251	100
Non-Yukon supplier or seller of equipment		
- yes	2	1
- no	249	99
Other		
- no	251	100
Refused		
- no	251	100
35.(h).99 Who designed your system? Do not Know		
- no	251	100
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 35.(i). Where did you buy the components for your system?

	nbr	%
Yukon-based contractor who installed it		
- no	251	100
Non-Yukon contractor who installed it		
- no	251	100
Yukon supplier or seller of equipment		
- no	251	100
Non-Yukon supplier or seller of equipment		
- no	251	100
Other		
- no	251	100
Refused		
- no	251	100
Do not know		
- no	251	100
Total	251	100

#### Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 35.(j). Who installed the system?

	nbr	%
Self		
- no	251	100
Yukon-based contractor who installed it		
- no	251	100
Non-Yukon contractor who installed it		
- no	251	100
Yukon supplier or seller of equipment		•
- no	251	100
Non-Yukon supplier or seller of equipment		•
- no	251	100
Other		•
- no	251	100
Refused		•
- no	251	100
Do not Know		i
- no	251	100
Total	251	100

258 Surveys Completed less 6 with no dwelling (1 partial survey)

35.(k) Approximately how much did your micro-hydro system cost to buy and install? Refused/Do not know

	nbr	%
36. Have you considered installing a micro-hydro system?		
- yes	48	29
- no	115	69
- do not know	3	2
Total	166	100

comment
A source is not available.
Because I'm not sure of what it is.
Committee made decisions
Do not need one.
Don't know anything about it.
Don't know much about it and would rather have a wind generator.
Don't know what it is.
Don't know what it is.
Don't need it.
Don't really know anything about them.
Don't really need it.
Have systems that work for us.
I can't afford it.
I couldn't afford it.
I don't have a creek on the property.
I don't have a creek.
I don't have moving water nearby.
I don't have running water close by.
I don't know anything about it.
I don't know anything about it.
I don't know anything about that.
I don't know anything about that. What I have there now works fine.
I don't know anything about the systems.
I don't know anything about this.
I don't know but I would probably need a permit because there are fish in the creek.
I don't know what it is.
I don't know what that is.
I don't know what that is.
I don't know what that is.
I don't know what that is.
I don't know what that is.
I don't know what that is.
I have no water source.
I haven't had enough information on this, but I think it would be too costly.
I just don't need or want it.
I would prefer to use this system but there is too much red tape and obstacles with fisheries.

comment
I'm happy with my generator. It's less hassle.
I'm not interested in electrical appliances.
I'm not out there enough.
I've never heard of it.
It is not possible in my area.
It is too expensive.
It seems like a bit of overkill because I don't think we'd need that much power.
It would be far too expensive and would take too many years to pay off.
It would be impossible to do where we live.
It would be impractical because the river freezes over in the winter and that's when I need the most electricity.
It would be inconvenient to take to the river and again, I would need a battery bank.
It would cost too much.
It wouldn't work in a lake.
It's not an option.
It's not applicable to me. There is no running stream on my property.
It's not as efficient.
It's not practical.
It's only a recreational property.
It's too costly.
It's too expensive.
It's too much effort.
My neighbours would hate me and the DFO wouldn't allow it.
N/A
N/A
No opportunity.
No possibility here.
No reason.
No source of water here.
No suitable water resource.
No water.
No water.
No water.
No water. It also would only be good in the summer.
Not needed.
Our stream is pretty dry.
Since it is a cabin that may be sold in a few years, it is not worth the expense.

#### comment

The Fisheries Department is already trying to stop placer mining in the area, so to use the creeks would cause more difficulties.

The Water Board wouldn't allow it.

The cost of setting it up and running a hydro line would be too much.

The creek is too far away to be worthwhile.

The creek is too far away.

The distance from water source.

The lodge is too far from the lake to make it worthwhile.

The main problem was ice. Our water varies and isn't always in a designated channel.

The system would be too costly.

The technology is not readily available.

There are too many companies and departments to deal with.

There are too many rocks on the river bottom.

There is no access to water.

There is no accessible place for the system.

There is no creek on the property.

There is no creek on the property.

There is no creek.

There is no head on the creek.

There is no running water nearby.

There is no suitable source for it in our area. We are at the top of the watershed.

There is no water nearby.

There is no water source.

There is no water.

There is not a creek on the property.

There is not enough water by the property.

There's no flowing stream.

There's no water.

We do not have a water source.

We do not know enough about it.

We don't have a creek.

We don't have a stream nearby.

We don't have a stream on our property.

We don't have a water source.

We don't have a water source.

We don't have a water source.

We don't have any creek access.

comment
We don't have power. You'd need power to have this.
We don't have running water close to us.
We don't have running water.
We don't have rushing water here, so this doesn't apply to us.
We have all the power we need with what we have.
We have no flowing water.
We have no running water.
We haven't got that far in our thinking yet.
We like living simply.
We're too far away from water.
Winter would cause the stream to freeze up.

You need running water for that.

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 36.(b) What steps have you taken to look into micro-hydro systems or what kind of information have you gathered on micro-hydro systems?

comment
Don't know.
Extensive research locally and through B.C. and have spoken with people that have it.
I checked how much water was flowing in San Pete Creek.
I checked the stream for volume.
I did extensive research with the community.
I did research from non-Yukon manufacturers in the U.S. because it's hard to find information on this in Canada.
I didn't do much but study my creek.
I don't know.
I don't remember.
I gathered information from the Internet.
I gathered information on what systems were available and what their limitations were.
I got information from down south, but couldn't find a company who could answer my questions.
I had a friend into micro-hydro who sent me all kinds of information.
I have already designed a system.
I have an engineer friend and I've read articles in the paper as well.
I have bought an underwater generator which can be run in a fast river.
I haven't looked into it yet.
I haven't looked into it yet. I haven't gathered info on it.
I looked at different designs.
I looked at whether I had the ability to run one because if you can do microhydro, it's the best route to go.
I looked into micro-hydro as an upgrade. I looked at the waterflow to see if it would work. Looked at the Internet.
I looked into what it would require.
I requested information from a few different sources off the Internet. I also went to the Energy Solutions Centre and they didn't have anything on it.
I researched and looked at our land and property.
I studied my creek and found out that it has potential.
I talked with friends who have them. Also, I looked through the catalogue from the wind generation supplier.
I've only heard things about their use in other countries.
I've sent away for different plans and different costs. That's where I'm at now with checking into it.
I've talked to other people who know about this.
Inadvertent information, but nothing organized.
Information was gathered from various sources and parts of the system have been purchased.
It's just at the preliminary stages.
None
Not much.
Not really.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 36.(b) What steps have you taken to look into micro-hydro systems or what kind of information have you gathered on micro-hydro systems?

#### comment

Randy Clarkson came out and researched 3 creeks out here and came up with a cost estimate.

Read about how to re-route creeks to be more accessible.

Wasn't much information.

We haven't looked into it seriously.

We investigated several systems.

We looked at catalogues and on the Internet and compared systems. It's always an on-going study.

We looked into it but the government said we would have to do a 4 year study of the creek at a cost of \$80,000.00 to us.

We read articles in the paper and we have an engineer friend.

We've been watching our creek for 20 years and figure we could get 15 kw out of it, which would be enough to run a sluicing plant.

We've looked at a catalogue and we've spoken to a neighbour who is doing research on it.

[missed]

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 36.(c) Why have you not installed a micro-hydro system?

#### comment

All the paperwork for licenses and things are taking a long time.

Because of the cost.

Fisheries would never allow me to, because the creek is a fish bearing creek.

I didn't get the wheel, or make one. With the new land use permits and regulations it would be hard to get a system set up.

I don't have the money to install one. It would also only be seasonal, so a geothermal system would be more beneficial.

I don't know enough about it yet.

I don't think we are able to do this. We're not that close to the river.

I haven't got that far into the process yet. I also don't have ready access to a creek.

I'm just checking into it now. I'm also checking into a new gel battery that's the size of a washing machine. It could be expensive, though.

I'm not sure it would work and they won't take it back.

I'm still looking into it.

It was a matter of money. It was too much.

It was more money than it was worth to me.

It would be hard to establish a permanent location for it because we move the creek around to mine the property.

It would be too costly.

It would be too involved.

It would be too much to undertake right now.

It would cost \$100,000.00 to install and there would be too much surplus power.

It would cost too much and permits are too hard to get.

It would cost too much to run the cables from our house to the creek, which is 0.5 km away. We don't need it that badly, we like our rustic lifestyle.

It would take 3 miles of wiring and the power plant is so economical to run that it would be hard to produce the same results for the same amount of money.

It's a waste of time talking to the government because I've met all the criteria for my water license and yet they're always threatening to take it away.

It's the money thing.

It's too much to handle alone.

My husband is not feeling well. Everything has been put on hold.

My water source just wouldn't allow it.

Not enough water.

The brook that we would use is the source of the community's drinking water and we couldn't disturb that.

The cost is phenomenal and in December/January the water source would dry up and there would also be ice to contend with.

The cost is too expansive.

The cost.

The cost.

The creek freezes and spring is too far away.

The creek is too far away and the water level in the winter would be too low.

The excessive cost, maintenance and the difficulty of installing the system.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 36.(c) Why have you not installed a micro-hydro system?

#### comment

The exorbitant cost and the hoops you have to jump through with the government. If the government wasn't involved, it would probably only cost half the price.

The volume was not high enough.

There were climate issues, such as flooding, icing and freezing.

There's not enough water pressure.

There's red-tape and it's expensive. The creek is under Yukon Electric use. We need contracts and insurance. Yukon Electric would be able to put a stop to their turbine at any time. Microhydro is not encouraged.

We are up on top of a ridge and there is no water flowing down to us.

We couldn't get approval from the Yukon government.

We don't have access to a water source.

We have a really wild spring run-off, so the system would not be secure.

We need more information.

We're still testing it.

# 258 Surveys Completed less 6 with no dwelling (1 partial survey)

# 37. Which of the following programs do you know or are you familiar with?

	nbr	%
RETP (rural electrification and telecommunications program)		
- yes	87	35
- no	164	65
Community wind assessment program		
- yes	48	19
- no	203	81
House Calls 2000		
- yes	22	9
- no	229	91
Residential energy management program		
- yes	38	15
- no	213	85
RET Screen		
- yes	7	3
- no	244	97
Energuide for Houses (Yukon Housing)		
- yes	102	41
- no	149	59
Other		
- yes	6	2
- no	245	98
None		
- yes	93	37
- no	158	63
Total	251	100

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 37. 7 Which of the following programs do you know or are you familiar with? Other ...

comment					
	20	-	-	010	4

A partnership program between T.I.A. and Energy Solutions for providing alternative energy solutions for businesses.

An energy audit program around 1998 - we paid \$99.00 for it.

Fuel rebate

Rural Telephone Program

Yukon Electric pamphlets

[He knew of rural electrification, but not telecommunication program.]

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 38. Have you applied to or used any of them?

	nbr	%
38. Have you applied to or used any of them?		
- yes	44	28
- no	113	72
Total	157	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 38.(a). Have you applied to or used any of them?

	nbr	%
RETP (rural electrification and telecommunications program)		
- yes	26	10
- no	225	90
Community wind assessment program		
- yes	2	1
- no	249	99
House Calls 2000		
- yes	3	1
- no	248	99
Residential energy management program		
- no	251	100
Red Screen		
- no	251	100
Energuide for Houses (Yukon Housing)		
- yes	12	5
- no	239	95
Other		•
- yes	5	2
- no	246	98
Total	251	100

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey) 38.(a).7 Have you applied to or used any of them? Other...

#### comment

Energy Audit Program - maybe 1998

Fuel rebate

I applied for a program to provide alternative energy solutions for businesses but I never heard back from them. That was in March 2001.

Rural Telephone Program

The program that does energy audits.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 39. Do you have any suggestions for off-grid energy programs that would better meet your needs?

#### comment

2

2

A better telephone system would be great. A rural telephone would even be a vast improvement.

A communal wind generator may be good since the residences are right by the lake.

A solar program.

A wind generating power program would be useful.

At some point we will inquire about solar.

Better telecommunications out there would be nice.

Can there be a regulation to sell alternative energy to the grid?

Clean sources of energy should be promoted like solar power rather than generators that take fuel.

Each person has an independent system and independent needs so they have to do things on their own. I don't believe in grants.

Energy suppliers should petition the government so specific locations are available to electricity, and make it practical to have power out in the bush.

Generators should be part of the RETP program and information should be more widely available regarding the RETP.

Grants for systems and/or fuel would be wonderful.

Have people be more pro-active. I wish there was more information.

I choose to live this way because I want to. I don't want to see power lines. Solar or wind energy would be nice, so I could have some lights, but I can live without it.

I do not want to see power poles.

I don't know right now.

I don't know right now.

I don't think hydro is the answer. People replace their appliances at least every 2 years because of all the power surges. There have been 5 surges already today. People pay way too much for the type of service they get.

I don't think so.

I don't want to answer that because it is the committee that makes the decisions.

I really want a wind generator.

I shouldn't even be talking off grid programs, I should be on grid by now. All my neighbours are on grid and the nearest pole is only 1 km away. They told me they could put me on-line for \$5,000.00 if I would pay \$500.00 for them to do a study. They were going to run my line from the native village. After I paid the \$500.00 for their study, they came up with a quote of \$125,000.00. I've flown all over the Yukon for 20 years and I've seen a lot of power lines out there. There are lines to hook up one little native shack, lines to thaw ditches and 90% of the microwave stations have power. There's a power line all the way from Whitehorse to Teslin, with a minimal amount of people hooked up to it. Why should I have to pay \$125,000.00 to hook up when I'm only 1 km away from the nearest pole? Th

I think the RETP program should include wind generation systems, for suitable areas.

I think there needs to be better prices and more availability.

I wish I could get a grant or a low-interest loan to upgrade or install state of the art alternate energy.

I would be keen to hear about a microhydro system that works from wave action, if there were such a thing.

I would be nice if someone would offer assistance to people designing their own alternative energy system. I had to do it all on my own.

I would like a consultant who was knowledgeable about solar/wind/hydro systems who could help people who need it on a lower scale.

I would like a fuel cell if it ever becomes financially feasible.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 39. Do you have any suggestions for off-grid energy programs that would better meet your needs?

#### comment

I would like more information about off-grid energy.

I would like to be given some advice and information about energy sources.

I would like to be more informed about different energy sources.

I would like to have some help.

I would like to see tax incentives and clean air credits.

I would like to see the various levels of government make it easier to jump through the red tape.

I wouldn't mind having a turbine in the river right now but it's too expensive.

I'd like them to look into fuel cell technology. It could be wonderful in a rural community. We could also give excess power back to the power company.

I'd like to receive a package in the mail, so I'd know all my options.

I'd like to see something put into place for our community, which is comprised of 16 - 5 acre lots across the river from Dawson City. It would be nice to get a community well and wind generating or solar energy programs to encourage using alternative energy sources.

I'm not interested, so I have no need or desire for any programs.

I'm not qualified to answer as I'm not really living out there.

I'm not sure. Life is simple and you shouldn't complicate it to make things better.

I'm perfectly happy doing what I'm doing. Only thing I would change is in telecommunication.

I'm pretty well covered now.

I've never even considered any programs. I've always worked for what I want.

If solar was not so expensive we would have installed it.

If the Yukon government offers support and subsidized power rates for people who are on the grid, they should offer the same support to people who are off the grid.

If the electric company could come up with a complete package for off-grid that was affordable.

If you're poor I think you can get a grant. I make too much money so I don't qualify. I think that's not fair.

It would be nice to have grants available for alternative energy. I could get rid of my generator for something more environmentally friendly, like a wind generator or a solar system. I wish the government would assist people who were off the grid. To have programs that encouraged people to get on the grid, to help financially and to help with supplying information on alternative energy.

Lower the price of fuel.

Maybe more education about alternate energy.

More and more information. People don't know what's available.

My place is too remote and unpopulated for any programs.

N/A

No comments.

No suggestions for off-grid programs. The government should not put so much effort into promoting off-grid programs; they would be much further along if they just ran electrical lines up and down the highway because alternative energy is ridiculous. The cost and time spent on the upkeep of generators and solar systems is too much and the respondant feels ignored by the government because there have been no form of subsidizing for the cost. [was very hesitant to participate in the survey because he doesn't want to contribute to programs he feels are not going to benefit him.]

No, I am hoping to get power some day soon.

No, I don't know enough about it yet.

### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 39. Do you have any suggestions for off-grid energy programs that would better meet your needs?

comment
No, I don't think so.
No, I don't.
No, but if they had more off the grid applications for grants I would be interested.
No, maybe funding that would help a lot of people.
No, not right now. I'm happy the way it is.
No, they've done a good job.
Not off the top of my head.
Not really.
Not really. You settle for something small or you can get really big, but there is nothing I would change.
Not.
Put a bridge over the Yukon and put a line on it.
Put a community wind generator on the hill and sell the excess energy to the grid.
RETP is a good program. We have co-operated together as a community at Deep Creek regarding RETP. There has been co-operation on Yukon Electric's part when we approached them this time.
Since the line goes right behind the house, how much would it be to connect?
Solar power should be more encouraged. A way to do that would be to lower the cost of panels.
Solar would be good if the government gave grants or subsidies for it.
Some small communities should get a wind generator to serve several properties rather than every house having a generator.
The Yukon Government could come back to earth with prices. There would be more land owners.
The Yukon government should offer more support for Micro-hydro systems.
The federal government should help me out because I want to start a coffee shop and small store at Tatchun, right by the tourist campground. I need to buy a big diesel generator that would run everything and I need a new boat and motor.
The government could subsidize fuel costs.
The government should hold consultation sessions to assess your current situation and offer financial help for alternative energy solutions

The government should hold consultation sessions to assess your current situation and offer financial help for alternative energy solutions. Otherwise, people tend to go with the easiest way, which is to keep pouring gas into the generator because they don't have enough information on alternatives.Q14[c]: 5 indoor boilers.

The government should subsidize 50% of the cost to go for green power. There should be a program to establish that.

The government should subsidize off-grid energy costs.

The needs at each location and the purposes would vary. Each system has to be designed to meet the needs of the user. I tend to believe that solar has great possibilities, if supplemented in the winter.

The power company should be required to purchase surplus electricity from independent power producers.

The programs should provide low-interest loans for people who are interested in solar.

#### 258 Surveys Completed less 6 with no dwelling (1 partial survey)

#### 39. Do you have any suggestions for off-grid energy programs that would better meet your needs?

#### comment

There needs to be something that is low cost. A program that offers alternate energy for a reasonable price.

There should be subsidies for alternate sources of power.

There would have to be a fairly large subsidy program to help out a business my size.

There's not much on the market that would be useful to me. I have enough backup power.

There's only 3 surveyed lots down at the lake so it wouldn't be worth putting power into there.

There's plenty of information on the Internet if I need to find it.

They need to try to provide for the off grid. If more people bought power, it would be better for the Yukon.

They should connect us to the grid. That should be a priority of the Selkirk First Nation.

They should drop the power down to the campground (Fox Lake) and run a low voltage line to the ends of the lake.

They should go out and assess individual situations so they can offer guidance and whatever help is available.

They should make it easier and more cost effective to purchase and use micro-hydro.

They should offer low interest loans for electricity. RETP is our first choice. We would like to be on the grid because there is less maintenance required.

They should run a line through the property that's more economical, not a high voltage line.

They should send out information on energy products that are out there, so people are not in the dark.

They tend to push you into full systems when all you really might want is a partial system.

To make financing easier for us, especially from Yukon Housing.

To make the information more available for alternative energy and to have the information on new technology.

We are comfortable the way we are.

We are happy the way things are.

We are happy the way we are.

We could put up a wind mill.

We don't need electricity. We like it how it is.

We need a program that talks about solar energy in the Yukon and how to use it efficiently for Yukon winters.

We need more encouragement to produce alternative energy.

We need more information for solar concepts.

We need more information more readily available. I don't know where to get it and you can't make decisions on stuff you don't know about.

We need to have more information available. It needs to be simple and non-technical.

We would like more information on energy sources.

We would like to have microhydro but Yukon Energy needs to help.

We're looking at all our options. We have been for years. We could use to hear anything new either by mail or e-mail. We will take the grid if it's available. We're still waiting on that information. I think we have taken the initiative to learn about all our options, but for the general public, I think if they don't know, it is up to the government o help inform them about alternative energy.

We're pretty happy with the RETP program. It's nice not to have to deal with any of the electrical companies.

When the government does offer programs, they should send out more information in the mail.

Would like to see microhydro systems more accessible and available.

Yeah, everybody else who wants power, if I don't want it I shouldn't have to pay for it for five years.

# Survey of Off-Grid Dwellings (Jan-Feb 2003) 258 Surveys Completed less 6 with no dwelling (1 partial survey)

### 39. Do you have any suggestions for off-grid energy programs that would better meet your needs?

#### comment

Yukon Electric could install a community generator, which would supply our lodge, Iron Creek Lodge (which is only 6 km. Away), the highway maintenance camp and various houses which are also in the area. They did this at Swift River for the community.

Yukon Energy should supply off-grid battery banks for a monthly rate.

#### comment

Because of high fuel prices, the government should offer incentives to get off the grid and offer low interest loans to people who do.

Financial incentives and educational programs would be a good plan.

Financing the major costs of Pro-Generation models has made it so that it is not very easy to have one installed.

For the people who have put in the time and energy to go off-grid, there should be a break in taxes. This would encourage more people to go off grid.

Get us some help up here in Silver City.

Getting connected to the grid is just too expensive. It's not worth it.

Getting hooked up to the grid is too expensive.

How do I get information about these programs and how is the public informed.

I believe in off-grid energy. I like how it doesn't cause as much pollution.

I hope they never come in with power where I am.

I need a solar panel and I'm looking into buying it.

I really appreciate that when you use the power it's already paid for. You're not going into debt for it. There is also no false security. I knew somebody who lost a whole freezer full of food; they don't get reimbursed, you know.

I really support off-grid energy and prefer it to on-grid. There are more direct consequences for over use of electricity, which prevents over use.

I really want a hydrogen fuel cell.

I think YTG should be encouraging mircohydro as much as possible. I would like to get some information on the new "stream machine" or "torpedo" microhydro systems that I've heard about.

I think solar and wind are the way to go, if they were more affordable.

I think that off-grid energy is very important and could really help agriculture. The government should inform people about alternate energy sources. If you could create a system that combines solar and wind energy, it would be a really powerful and useful system.

I think the grid should be expanded considerably.

I told Yukon Electric and Y.T.G. a long time ago to dam San Pete Creek and they could have enough power to run all of Beaver Creek. There aren't any fish in there anyway.Q28: It's not his.

I would go with solar and wind rather than a power line.

I would like information about wind energy.

I would like to know more about federal programs that deal with off-grid energy.

I would like to see alternate energy systems become more affordable.

I would support alternative energy sources, such as micro-hydro.

I'm a big fan of alternate sources of energy and I would like to see it more accessible to people who need it on a smaller scale.

I'm fully in favour of energizing the Yukon. It will boost the population

I'm only interested in supporting energy sources that are environmentally friendly.

I'm thinking about going off grid here in Edmonton. It would'nt be economically friendly, but it would be environmentally friendly.

If I could get information on the services just mentioned, that would be helpful.

If I wanted to sell surplus energy, it would cost me \$300,000.00 to run wires to Jakes Corner.

If the government is going to offer energy programs, they should mail more information to the people.Q.22: Xll Phone (similar to radio phone, but it is open air.)

If there was a support program for people putting in solar or wind generating systsms, that would be good.

#### comment

If you do not use a lot of electricity, off-grid energy is a good way to go.

Is Yukon Electric thinking about offering service to outlying areas?

It is a lot of work to be off the grid, but the cost to connect is not worth it.

It is really hard to get through the paper work for micro-hydro systems. Would like information about geothermal/heat pumps.

It is very nice not to have to worry with the generator going off.

It might be good for people who have to work and don't live too far in the boonies but not for me living way out in the bush.

It would be nice for there to be money available for people in the city to go off grid if they choose. There should be a program that would offer grants for alternate energy. Q7(a): I don't have the title for it. It is a squatters row property.

It's a great idea, environmentally friendly and should be encouraged.

It's a great idea.

It's a really good idea.

It's great.

It's still too expensive for a bigger system.

It's too expensive for electricity.

It's very expensive to get on grid nowadays, so off grid is better philosophically as well as financially.

More information about what you can do.

More information should be published in newspapers and other sources, describing how solar systems are simple, reliable and an asset even to people living in the city. It works for everyone.

No

No - see above.

No comment.Q30(h): \$2000.00 a month

No, I don't.

No, not really.

No, we like the way we do it.

No.31(b): 3.2 amps

No.Q.27: Didn't know how to answer as the generating system came with the property.

No.Q.27: Unable to answer as the generator was donated to the church.

No.Q2: The dwelling is a houseboat that has been pulled up on the land and is used as a cabin.

No.Q3.1(a): For sale. Not currently being used.

No.Q3.1(a): was used year-roundQ25(a): anymore

No.Q30(b) 5.15 Kva 6.20 Kva

No.Q30(h): 5 gallons of fuel used.

No.Q30(h): Use a full Jerry can of gas per week in winter and one can every two weeks in summer.

No.Q30(h): used 4-5 drums of gas per year.

No. Q31(b): 15 amps

No. I don't think so.

None.

#### comment

Nope.

Not at the moment. Q22: NWTel provided it. I was told it was through radio waves but very high tech.

Not at the time.

Not at this time.

Not really.

Not really.

Not really.

Not really. It's a pain. It was fun at first. Now I'd like to get electricity. I do have a comment. I wish that you didn't have to buy every nut and bolt to put electricity in.

Not right now.Q30(d)(ii): once a month.

Nothing can be done cheaply out in the bush. We need more resources and information.

Off-grid energy should be used more.

On a community co-operative level, off-grid energy would be good, especially for smaller communities.

Only that the different options, it's difficult to know what would work. You have to try it first.Q27: Came with property. Q31(h): It came with the property.

Programs should reflect the priorities of Yukoners. Electricity is more of a priority than culture, so the money output should reflect that.Q30(b): Generator 5 is 3 kilowattQ30(h): Less than a 30 gallon drum.

Q.27: The generating system was given to him.

Q30(h): Use 50 litres per year.

The RETP wouldn't touch us because we're on mining claims.

The best solution for off grid energy would be a windmill with a battery bank, an invertor and a generator, for backup.

The government should have researched information available pertaining to the different areas in the Yukon.

The government should make more information about energy sources available to the public and make it easier to finance them.[Respondant wants to be notified when the survey is done. Wants to receive any information about energy sources.]

The only feasible way to go in remote areas is to be self-contained. I would rather use microhydro or wind generation complemented by solar, if I could, although electric is better than propane. [Q. 30(h): 60 gallons a year.]

The technology is there, so why don't we use it? It's also scary the amount of power that's going by my place. If I connect, the power surges might blow up my appliances.Q22: It used to be called Rural Tel 2 phone, but I don't know what NWTel calls it now.

There should be a government program to make it cheaper, for environmental reasons.

There should be a lot more information out there and I don't mean pamphlets (which people just use for fire starter). There should be face-to-face community open houses to get information out to the people.

There would be advantages to being on-grid, but the price is too steep for us. We were given a quote of \$10,000.00, which we thought was fine but they changed it to \$18,000.00 firm.Q30(f): It came with the cabin when we bought it.

They should have some wind development up here on the Klondike Highway.Q.31. (b): 6 volts

They should offer low interest loans for people purchasing their own alternative energy system.

We had considered getting electricity from Haines Junction but it was too expensive.

We should all be looking into off grid energy. Using natural resources.

We should have a larger infrastructure in this area because more and more people are looking to get off the grid. They should have extra battery space to store extra solar electricity.

#### comment

What is the recommended way of disposing of all these batteries when we have to replace them? I would like to think building inspectors would be really well versed in alternative energy.

When people generate excess energy, can it be sold back to Yukon Energy?

Why aren't solar batteries recycleable anymore?

Why do they have to charge so much for solar systems? Most people can't afford it. They can't afford to run their appliances like they're stove, fridge and hot water tank.

Why isn't off-grid electrical solutions more promoted? Solar is more efficient and globally friendly.

Would it be possible to have community generators? Q22: Closed system radio phone. [Respondant has a hot tub.]

Yes, it is good when you're young, but hard when you're old.

Yukon Energy should not have the monopoly. I should be able to go out and buy my own pole and transformer cheaper than they charge.

[Respondant would like to know about off-grid energy and alternative energy programs.]

258 Surveys Completed less 6 with no dwelling (1 partial survey)

41. The Energy Solutions Centre will be selecting about 40 off-grid residences to do a full-scale free energy audit. Would you be interested in participating and obtaining a report on the energyefficiency of your off-grid residence?

	nbr	%
41. The Energy Solutions Centre will be selecting about 40 off-grid residences to do a full-scale free energy audit. Would you be interested in participating and obtaining a report on the energy efficiency of your off-grid residence?		
- yes	105	43
- no	133	55
- do not know	6	2
Total	244	100