Q&A Table
Solar hot water

Location (City, State)	Golden, CO
Year installed	2012
Type of collector (i.e. flat plate, evacuated tube)	3 flat plate panels – each 4’ x 8’
Location of collector (i.e. rooftop, ground-mount)	Rooftop
Type of system (i.e. closed loop glycol, drainback)	Closed loop glycol
Type of backup hot water system	Modulating condensing 96% efficient Energy Star boiler
Size of storage tanks (gallons)	120
Estimated energy offset from project	25% of propane use
For domestic hot water, space heating, or both?	Both
What percent of your DHW/space heating needs are met with this system?	25% of propane use
Energy bill before and after installation (optional)	Expected savings of $2,800/year on propane
Payback period (optional)	Total costs were $30,600; after tax credits the net cost was $21,420. With expected savings on propane of $2,800/year the simple payback is 7.7 years. This doesn’t include increased insurance of $82/year, the increased value of the home, or changes in propane prices.
What made you decide to go forward with the project?	First there was the energy audit (half of it paid for by an incentive) to find out what I didn’t know about my own house. Most notably, I found I didn’t know that I had a sixteen-year-old super-inefficient boiler that loves to eat gallons of propane and shoot volumes of heat out the roof vent. Propane isn’t cheap.
What made you choose solar hot water instead of solar electricity or other renewable energy?	High propane bills.
Can you explain how your system works?	The glycol-water solution gets heated in the collector panels and brought into my water tank to heat water for space heating and domestic use. When the sun doesn’t shine and/or when more hot water is needed the high efficiency boiler does the rest.

How was the system sized?	By my installer.
How long did the install take/were there any snafus?	3 days – there were a few fixes needed after the install but nothing substantial.
How did you finance the system (i.e. cash, bank loan)?	Cash.
Did you take advantage of any financial incentives/tax credits for the project?	Yes – the 30% federal tax credit for solar hot water systems.
Has the performance met your expectations, including financially?	Yes.
Did you learn any lessons you'd like to share with others who might be considering a similar project?	Yes these things cost money, but I've learned to see them as investments—not expenses. I am investing in a lower cost of living. I am investing in my home that will run clean and green indefinitely. Perhaps most importantly, I am investing in self-respect that I am finally moving away from being part of the problem and doing all I can to become part of the solution.
All photos from *www.homelinkmag.com* *The three panels face south.*	

The old 65% efficient boiler.		
The new 96% efficient boiler.