

KRUU/Fairfield, IA, station manager James Moore; KTAO/Taos, NM, owner Brad Hockmeyer; and KGO/San Francisco Director of Engineering Joe Talbot shed some light on the benefits — both financial and environmental — of operating your station with solar power.

# Community Unity

<b>Call letters:</b>	KRUU-LPFM
<b>Ownership:</b>	Fairfield Youth Advocacy
<b>Management:</b>	Board of directors, full-time volunteer general manager, 100 volunteer hosts producing 80 shows a week, James Moore, station manager
<b>Market:</b>	Jefferson County and Fairfield, IA
<b>On air since:</b>	September 30, 2006
<b>Years in format:</b>	Eclectic since inception
<b>Target demo:</b>	Jefferson County, general population
<b>Slogans:</b>	The Voice of Fairfield, Iowa ... and Beyond We put the unity in community The first solar-powered radio station in the Midwest Open source, grassroots community radio
<b>Website:</b>	www.kruufm.com

**>What are your signature events, and how do they relate to or benefit the community?**

On Sept. 9, 2009, KRUU flipped the switches on its solar arrays and became the first solar-powered radio station in the Midwest. As a solar station, KRUU helps brand the community's cultural, creative, entrepreneurial, and sustainable elements. But the amazing part is that, except for a few hundred dollars for electricians and a \$2,500 partial grant, the entire project — planning, parts, construction, and specialized labor — was donated by community experts, individuals, and organizations.

**>Tell us more about the station's community involvement.**

KRUU was created by the community, for the community. The programming is 98 percent locally produced, with more than 100 hosts creating 80 programs a week. Attracting colorful, well-connected, committed people of all ages and walks of life, our hosts are the soul of the station's success. The station's purpose is to serve as a community center, a clearinghouse for information, a safe place for civil discourse even on controversial subjects, and a hub that connects Fairfield with the world via the Internet.

These items and projects were donated:



- 60-foot tower donated and erected by amateur ham operator
- 260-foot freestanding tower donated and delivered by local energy company
- 10 batteries for solar arrays' backup and wiring conduits arranged by local sustainability nonprofit
- Marmoleum floor donated and installed by local green company
- Permaculture gardens by sustainability local university students
- Fiberoptic hookup by local Internet service provider
- Major roof repair by weekend Eagle Scout project
- Live remote mobile KRUUzer bus restored by area mechanic
- Digital mixing board donated by Roger Waters of Pink Floyd
- Solar arrays and inverter donated by private family

**>Describe a typical day at the station.**

I'm looking forward to a time when there is a typical day at the station! Volunteers man the phone, help archive shows, sweep the floor; hosts prerecord in the back studio; someone comes by with an idea for a show or interview; e-mails are answered; underwriting and event sponsor packages are confirmed, someone drops off a check donation or brings cookies; staff head to an appointment with the local emergency response director, or an event planner, or to Ottumwa for a press event with the president.

**>What kind of power backup do you have in case of emergency?**

We have 10 batteries in case of power outages. The system is designed to run the broadcast booth and transmitter. We predict we could run for 25 hours. We also have a generator that could recharge batteries, if necessary, to extend possibilities.

**>In addition to the environmental and good citizenship implications of being solar-powered, what bottom-line cost savings do you hope to realize?**

The solar energy generates up to 20 percent in electrical savings. The best part about incorporating sustainable practices is how attention naturally shifts to maximizing energy efficiency. Our IT team came up with a way to replace computer towers with transformers that reduced wattage draw from 240 to 40, meaning five computers now require less energy than one did before.

A local glass company is providing 3/8-inch double-paned windows for the station, which our area energy company identified as the best way to lower costs. Our goal is to get as close to net zero as possible. We hope to build three more sets of arrays with 200-watt panels, as well as a possible geothermal addition.



# KTAO — Radio's First Solar Station

<b>Call letters:</b>	KTAO
<b>Ownership:</b>	Taos Communications Corp.
<b>Market:</b>	Taos-Santa Fe
<b>On air since:</b>	1986
<b>Years in format:</b>	24
<b>Target demo:</b>	25-54
<b>Slogan:</b>	World Famous Solar Radio
<b>Website:</b>	ktao.com

**>What are your signature events, and how do they relate to or benefit the community?** In 1997, we launched the annual KTAOS Solar Music Festival, which invites musicians to play for free in support of renewable energy. We try to draw as much attention to the power of the sun as we can, and combining world-class music with solar exhibits draws much larger crowds!

In 2004, we purchased a 6,000-square-foot restaurant at the base of Taos Mountain on three acres of land. We created the Solar Center, where we have presented everybody from Dr. John and Joan Armatrading to Little Feat and Taj Mahal. We have just added 242 solar panels at the Solar Center as part of a collaboration with our local electric cooperative.

**>Please tell us about the station's community involvement.**

We are the hub of this community. We hold radiothons for the local animal shelter, domestic violence shelter, youth groups, etc. Over the past 10 years, we have helped raise over a million dollars for these groups. KTAOS has also discovered a brilliant way to support our art community while increasing our bottom line. Each year we publish the KTAOS Art Calendar. We sell each month to a gallery, which provides them as a gift for their visitors and a collaborative way for them to promote the arts in Taos.

**>What power backup do you have in case of emergency?**

We monitor our battery levels daily. We have the ability to remotely power down when we see that our batteries are getting low — but with 300-plus days of sunshine per year, it's rarely necessary.

**>In addition to the environmental and good citizenship implications of being solar-powered, what bottom-line cost savings do you hope to realize?**

Our sister station (the same size as KTAO) has a \$2,000-a-month power bill at its transmitter site. We have saved as much as a half million dollars since we went solar, and we keep saving every day. This doesn't include the benefits from not relying on fossil fuels. Nearly 700 tons of coal were not mined and burned to power KTAOS, and that has prevented countless tons of CO2 from entering the atmosphere. Then there's the goodwill and all the media attention through the years, which is almost impossible to quantify.



## THE WHYS AND HOWS OF GOING SOLAR

By Joe Talbot

**Why to:**

- Show your station's concern for the environment. Do something "real" and visible to your community. Avoid "greenwashing" — phony green projects or promotions.
- Show your audience how to do it by sharing the experience as you plan and implement. Use your project as an opportunity to demonstrate successful techniques for implementation of alternative power in business. Let them learn along with you.
- Show your station's effectiveness to your audience, advertisers, and community. Sell your partners on the value of radio advertising at the same time!
- Build a relationship with a potential advertiser: Utilities often have incentive programs they need to promote via advertising, and it's likely this will be the

alternative power vendor's first experience with broadcast advertising. Help them succeed!

- Cut power costs over time: The payback can be slow, but the goodwill is immediate. Your local alternative power partner knows what will work best for you.

**How to:**

- Identify partners and vendors: They can do the work, and they have the experience to know what works best in your area and what incentives might be available.
- Identify opportunities: With the help of your vendor/partner, find locations where the use of alternative power makes the most sense.



- Find creative ways to minimize your costs: Barter, sponsorships, and salable events work well.
- Work with your municipality to minimize delays and roadblocks. Any construction project can have speed bumps. A good relationship with city council members or the mayor can smooth them.
- Work with your engineering department to minimize the possibility of downtime. Always keep your technical people fully in the loop.
- Have a plan to share the project and its benefits with your audience via website, news reports, podcasts.
- Make the system turn up an event: politicians, utility company officials, local organizations, schools.
- Look for other ways to save energy on the consumption side: air conditioning systems, LED tower lighting, old equipment replacement. Sometimes you can save more than you can make!

*Joe Talbot is director of engineering at Citadel's KGO and KSFO/San Francisco.*