

## **The RTJ Renewable Energy Trailer - An Educational Resource**

The Renewable Energy Trailer contains **all of the components and connections that a home would require to generate useable electrical power from the sun and the wind.** It was designed to help students and homeowners learn about energy conservation and about the renewable energy options which are available today. **All of the trailer components are off-the-shelf and readily available.**

The trailer components include:

- four 175 Watt solar panels
- a 400 Watt wind turbine
- a system charge controller
- a DC panel with disconnects
- a DC to AC inverter
- an AC breaker panel with disconnects
- a visual input/output monitor
- four 6 Volt deep discharge batteries

The Trailer sponsored and developed by the Reduce the Juice Project (RTJ), Orangeville Hydro (OH) and Orangeville District Secondary School (ODSS). The Trailer was built at ODSS by RTJ staff with the support of technical teachers and students. The trailer will be stored at OH or ODSS depending on its task schedule.

The Trailer will be used this summer by the RTJ Team Leaders and Student Auditors as part of the Orangeville Community Energy Conservation Initiative. During the school year Science, Geography Technical and Business teachers will use the Trailer as part of their curriculum to teach skills and knowledge related to energy concepts, renewable energy technologies and the costs and benefits of energy systems. Orangeville Hydro will use the Trailer at community events as an educational and promotional tool.

### **Some Background about Reduce the Juice (RTJ)**

The Reduce the Juice Project is a not-for-profit foundation created to promote energy awareness among young people and their communities and to encourage sustainable energy solutions.

This year in Orangeville, RTJ has three objectives:

1. To build renewable energy demonstration systems at both high schools to promote education about energy choices and future energy technologies.
2. To raise awareness in Orangeville about energy conservation and renewable energy technologies.
3. To encourage the residents of Orangeville to reduce their use of electricity by at least 5% this summer.

Sponsors and supporters of Reduce the Juice include: **Conservation Bureau of Ontario, Environment Canada, Fairfield Group, Orangeville District S.S., Orangeville Hydro, Service Canada, Town of Orangeville, Westside S.S., University of Waterloo.**

**For further information contact [gpp@reducethejuice.ca](mailto:gpp@reducethejuice.ca) or 519-943-0303**