



**Michael Greenman**

## Paths to Sustainability— Short-Term Solutions

The search for energy efficiencies continues in our industry as natural gas prices remain at higher levels and competition with alternative and foreign sources increases. We have focused in the last eight years on developing new technologies through cost-shared cooperative research projects funded by DOE.

A number of new technologies from this program are in various stages of availability, implementation or preparation for the market. Now that the Industrial Technology Program has been de-funded for glass, GMIC members are seeking alternative avenues to achieve our objective of reducing the cost of melting glass.

In past issues you've learned about the Submerged Combustion Melter that promises substantial savings in a number of areas for our industry and alternative fuels, such as coal converted to synthetic natural gas using a clean gasification process, that offer substantial possibilities for reducing energy costs. But they won't be ready tomorrow!

What can we evaluate *right now* that potentially will allow us to implement

energy-saving technologies or processes in the short term?

Thursday, Oct. 18, 2007, the day following the conclusion of the Glass Problems Conference (GPC) at Columbus, Ohio (Oct. 16–17), GMIC's Energy Efficiency Committee will host a workshop (9:00 a.m.–4:00 p.m.) at the Fawcett Center. The Paths To Sustainability Conference will provide participants with some immediate (or close to immediate) solutions.

### Broad Topic Areas

The committee agreed that there are a number of technologies or processes that are in the marketplace already, achieving positive results. They just may not yet be well known. So the committee identified three broad topic areas (selected in part from the DOE-sponsored "Industrial Glass Bandwidth Analysis", completed in March 2006) that could be adopted in relatively short order:

- Waste Heat Recovery: generating electricity from furnace heat; batch/cullet preheating (widely used in Europe); heat recovery for oxy-fuel furnaces;
- Advanced Sensors/Controls: thermal imaging; redox sensors; pull rate cameras; sensors for burners; infrared laser absorption spectroscopy; sensors/controls in use in Europe;
- New Batch/Chemical Composition Technologies: fluxes or other materials that contribute to lower melting temperatures; compositions that modify melting characteristics in desirable ways; batch palletizing.

The intent is that presentations be informal, as opposed to "pre-approved" papers, to avoid some of the concerns speakers might have with being "on the record". We might refer to them as "project review style"—less formal than the typical GPC presentations and less sales oriented than the tabletop or hospitality suites.

The basic format will be a 45-min. presentation, with 15 min. reserved for discussions and Q&A, but the discus-

sion part might be extended, as the purpose will be to give audience members a high degree of confidence that the topic is worthy of closer consideration.

Presentations by glass manufacturers already using a system will be preferred so that actual experiences can be described (though, as we all know, this is not always easy!).

### Speakers

Committee members are contacting possible speakers who could present their technologies under the following guidelines:

- The technologies must be relatively new to the glass industry, i.e. we want to focus on technologies that the glass industry as a whole hasn't heard of before. Those would be "off the beaten path" technologies.
- The suppliers could be glass industry manufacturers, engineering firms or equipment suppliers.
- The technologies must be either in commercial practice (maybe not in the glass industry, but if not, readily adaptable to it) or close to it. These technologies must be beyond the investigative stage.
- Suppliers must be willing to present representative capital and operating costs.

If you have a speaker or topic to recommend, we invite you to contact GMIC immediately with your proposal, so our Energy Efficiency Committee can give the technology careful consideration. Over the next few weeks the topics will be firmed-up and GMIC will issue a formal program announcement.

The conference will be open to all interested parties but, due to space limitations, we will request preregistration. The \$25 charge will cover a box lunch and room rental expenses. To make your reservation, contact Donna Ransom, tel 614-423-3033, E-mail [dransom@gmic.org](mailto:dransom@gmic.org).

*Michael Greenman, Executive Director  
Glass Manufacturing Industry Council  
[mgreenman@gmic.org](mailto:mgreenman@gmic.org)  
[www.gmic.org](http://www.gmic.org)*