

The Energy Research Center's **Energy Liaison Program**

Since 1978, the Energy Research Center (ERC), through its Energy Liaison Program (ELP) has been dedicated to providing companies with practical and timely solutions to their problems related to power generation and energy conversion. The ELP is designed so that industrial firms can

effectively and efficiently access the University's resources. Many participating companies think of Lehigh as an extension of their in-house engineering capabilities.

The ERC's professional staff and faculty, representing three of Lehigh's colleges and academic disciplines such as mechanical engineering, materials science, civil and environmental engineering, chemical engineering, geology, biological sciences, chemistry, and economics, participate in problem-solving activities that include:



- Equipment Design Modifications
- Failure Analyses
- Computer Software Development
- Feasibility Studies
- Literature Searches
- Environmental Impact Analyses
- Cost Analyses
- Economic and Social Impact Studies
- Programs for On-Site Training

PROGRAM MEMBERSHIP AND BENEFITS

The ELP Director serves as the primary contact with each member company. His familiarity with the faculty and staff and with equipment, library, and computing resources enables him to find the right multi-disciplinary combination to solve a particular problem. Member companies select a person to act as their ELP Coordinator to provide a one-on-one interface with the ELP Director. This direct working relationship helps member companies fully utilize the resources available to them and stay informed of the emerging technologies, ideas and research here at Lehigh. Participation in the ELP provides:

- Consultation with Lehigh's faculty and staff
- Use of world-class equipment and instrumentation at highly discounted rates, usually a 50% reduction
- Attendance at workshops and technical meetings at Lehigh, at no cost, where publishable research is presented and technological advances and challenges are discussed
- Access to Lehigh's extensive library system
- 20% registration fee discount for Energy Research Center "Short Courses"
- The opportunity to participate in industry/university collaborative research funded by the U.S. or PA governments
- Post-project telephone support with researchers



ANNUAL MEMBERSHIP FEE

The Annual Membership fee is \$20,000 and provides for consulting services, equipment usage fees, laboratory supplies, field testing, and researcher travel, among other project expenses, up to that amount. Member companies execute an Energy Liaison Program Membership Agreement and then an account is established at Lehigh for the activities that will be conducted during the membership year, which can begin at any time. Thereafter, no purchase orders are required for individual tasks or projects, facilitating quick turnaround for immediate problems. Short-term, small budget projects are termed "interactions." The ELP Coordinator is given a budget estimate for approval before any work is done and quarterly financial reports of account activity are also provided. Longer-term projects with budgets in excess of \$20,000 are termed "Research and Testing Projects" and are budgeted at preferential rates for ELP members.



Lehigh University is a non-profit, tax-exempt institution of higher education. The Liaison Program is committed to furthering the University's mission of education, research, and the advancement and dissemination of knowledge.

RECENT PROBLEM-SOLVING PROJECTS AT THE ERC

- NO_x Control and Heat Rate Improvement Through Combustion Optimization
- Diagnosing the Causes of Opacity Excursions
- Furnace Slagging Control
- Sootblowing Optimization
- SNCR System Optimization
- Equipment Design Improvements
- Air Preheater Performance Improvements and Cold End Fouling
- CEM Flow Measurement Accuracy Analyses and Bias Error Reduction
- Component Failure Analyses
- Component Life Predictions
- Coal Pipe Balancing

Energy Liaison Program



For more information about the Energy Liaison Program or the Energy Research Center, please contact:

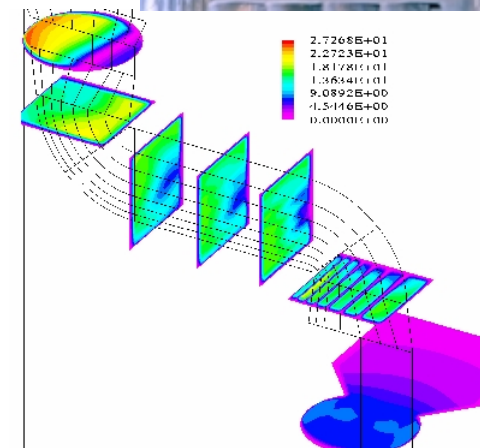
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