

**NORTH CAROLINA SOLAR CENTER**  
**NORTH CAROLINA STATE UNIVERSITY**  
**CHARTER**

**OBJECTIVES AND GOALS:**

The North Carolina Solar Center was recognized for CIL planning on August 3, 1989 by the GA. It was created on December 11, 1987, with funding provided by the Energy Division of the N.C. Department of Commerce. Its mission is to advance the use of solar technologies throughout North Carolina in the residential, commercial and industrial sectors. It is charged with providing North Carolina's citizens with the education and information they need to make sound decisions on the use of solar energy. To pursue this mission, the Center provides an array of extension services that include information dissemination, technical assistance, demonstration projects, training sessions and educational workshops, presentations and exhibitions, publications, and applied research, testing and monitoring.

In accelerating the use of solar energy, the Center hopes to accomplish three goals for the benefits of the state's citizenry: (1) a reduction in the environmental impacts associated with the use of fossil fuels; (2) enhanced energy security and economic development through the use of indigenous renewable energy resources; and (3) energy cost savings for consumers and businesses. Specific objectives include:

- To educate today's youth on renewable energy issues and technologies so they have the basic understanding required to make sound energy choices in the future;
- To stimulate and increase market activity in solar technologies;
- To increase educational opportunities and direct assistance for citizens that will assist them in making sound energy decisions;
- To provide educational and research opportunities for students at N.C. State University in the field of solar energy;
- To provide a mechanism for conducting applied research, testing and demonstration of new and promising solar technologies;
- To protect consumers and provide them with as well informed and trained industry infrastructure as possible; and
- To begin building an expanded industry infrastructure so that solar products and services are readily available to meet consumer demand throughout the state, thereby increasing consumer options.

In pursuing these objectives, the N.C. Solar Center is committed to helping the state of North Carolina obtain 20 percent of its energy from renewable resources by 2010--a goal established in 1992 by the N.C. Energy Policy Council, the state's principal energy policy board. Fulfillment of these goals is enhanced by the existence of the NCSU Solar House, which serves as the focal point for the Center's information, education and research efforts. The Solar House, located next to the McKimmon Center for Extension and Continuing Education and is visited by over 20,000 visitors each year.

## **RELATIONSHIPS:**

In conducting its public-service and research oriented activities, the Center works closely with faculty and staff throughout the University, as well as numerous state and federal agencies and organizations. Within NCSU, the Center principally administered by the Industrial Extension Service within the College of Engineering. However, it retains extremely close ties to the Department of Mechanical and Aerospace Engineering, where its faculty chairman, Dr. Herbert Eckerlin, serves as an Associate Professor in addition to his duties as an extension specialist for the Industrial Extension Service.

In specific program areas, the Center works with several county offices of the N.C. Cooperative Extension Service to operate its Solar Communities Program, a locally directed solar education and demonstration project that was awarded the National Environmental Achievement Award in 1991.

Core funding for the Solar Center has been provided since 1988 by the Energy Division of the N.C. Department of Commerce. This funding is generally renewed on an annual basis and has been continuously provided since the Center's founding. It is expected that funding will continue to be provided from this source for the next several years.

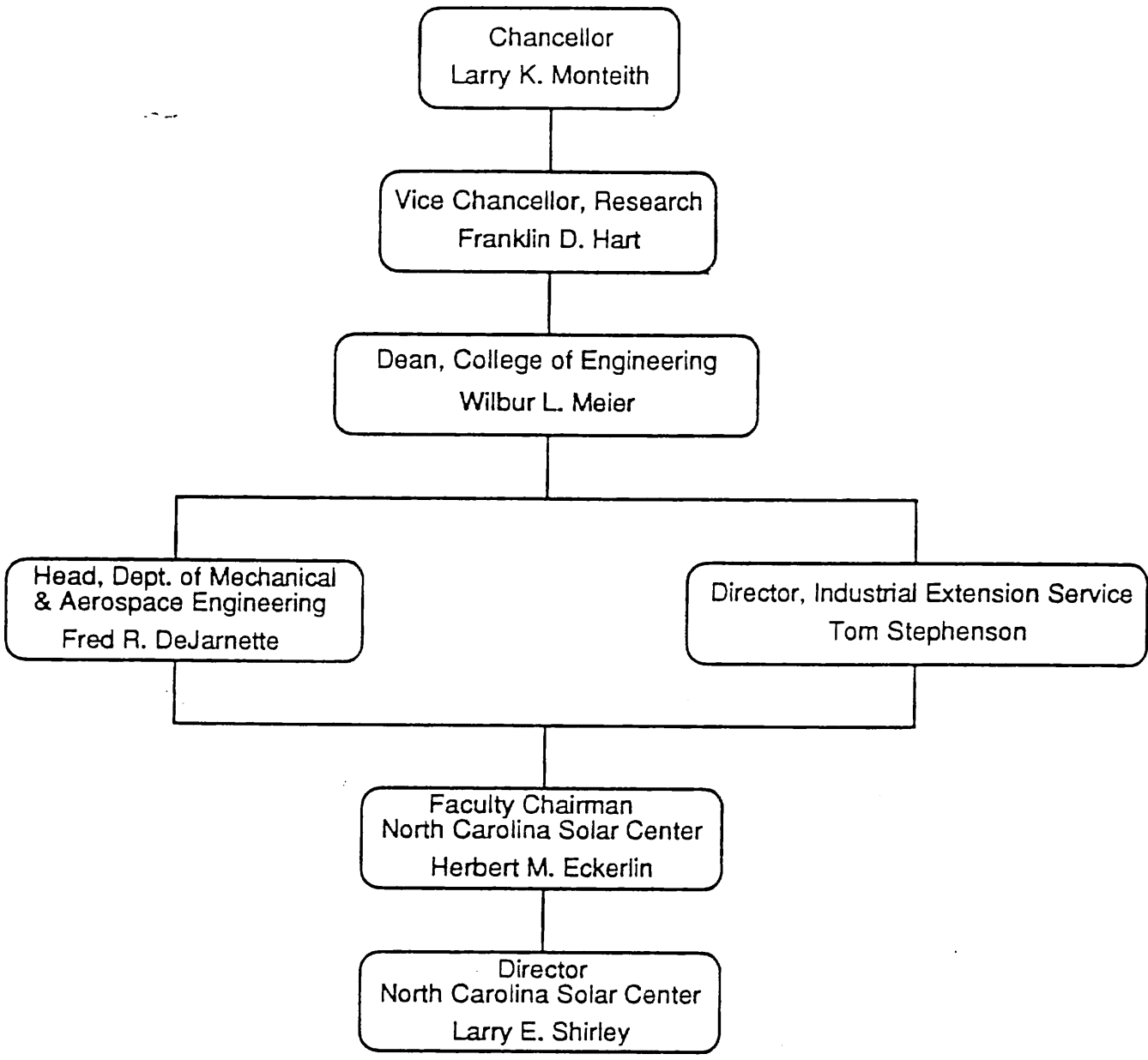
Supplemental funding for the Center has been provided by Duke Power Company, Carolina Power and Light Company, N.C. Power Company, N.C. Alternative Energy Corporation, Sandia National Laboratories and other organizations and agencies.

## **MANAGEMENT AND ORGANIZATION:**

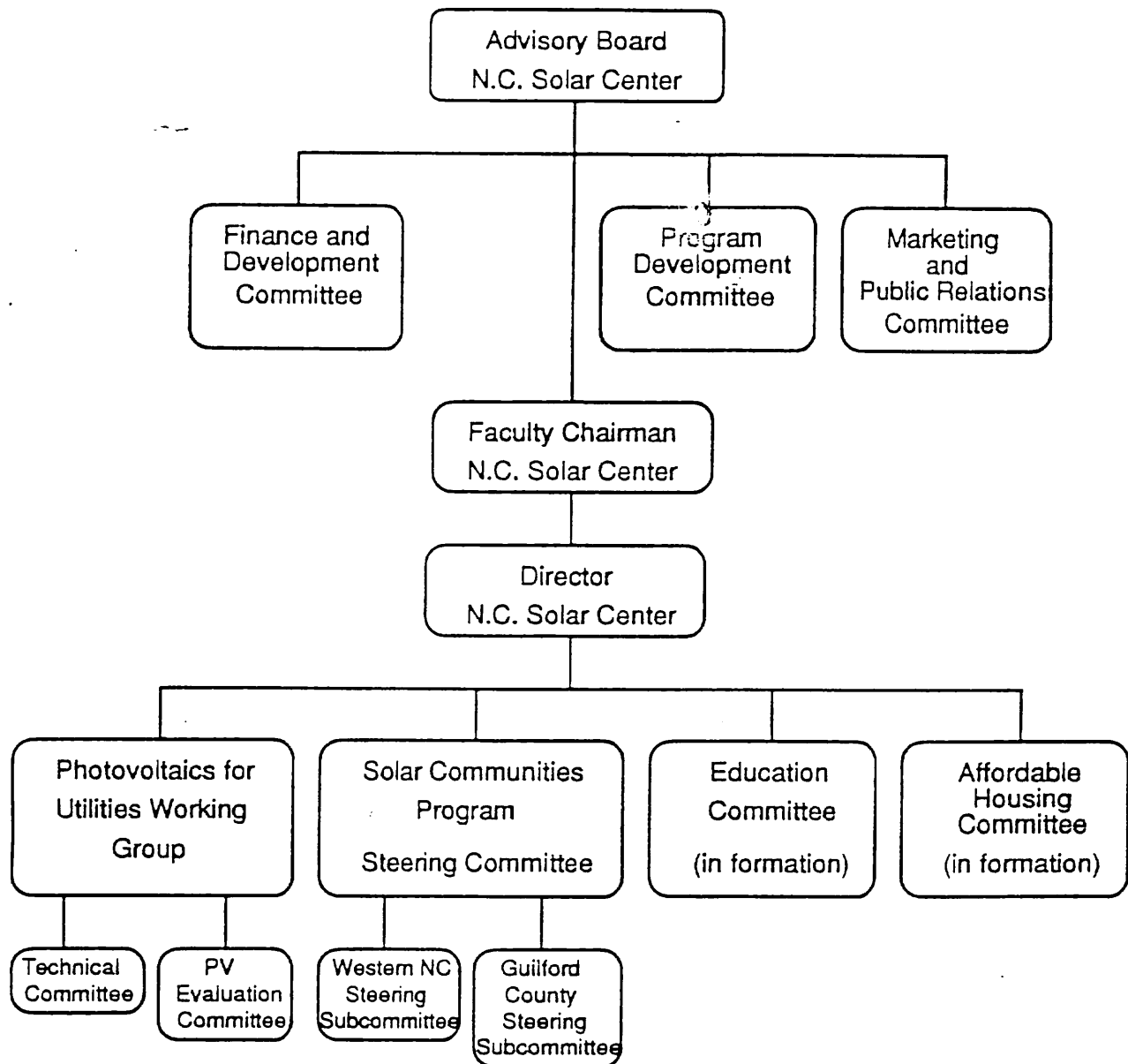
The management structure of the Solar Center is designed to ensure that the research, education and extension objectives of the Center are adequately addressed. The director, Larry E. Shirley, of the Center oversees all Center programs and operations; serves as the principal liaison with funding agencies, government agencies, trade associations, and other organizations; and represents the Center with the media and public presentations. The faculty chairman of the Solar Center, Dr. Herbert M. Eckerlin, an associate professor of mechanical engineering, provides general oversight and technical direction for the Center, as well as serving as the principal liaison with other university departments and faculty. The director reports to the faculty chairman and all other Center staff report to the director. The faculty chairman, who shares a joint appointment with the Department of Mechanical and Aerospace Engineering and the Industrial Extension Service, reports to the MAE Department Head and the IES Director.

The Solar Center's Advisory Board was established to provide diverse input into the Center's selection of the Center's programs, services and research agenda. Its recommendations are provided to the director and faculty chairman on both a group and individual basis. In addition, the Advisory Board is composed of high-ranking leaders from key state and local organizations which have a direct impact on solar energy policy in North Carolina. Board members include the following:

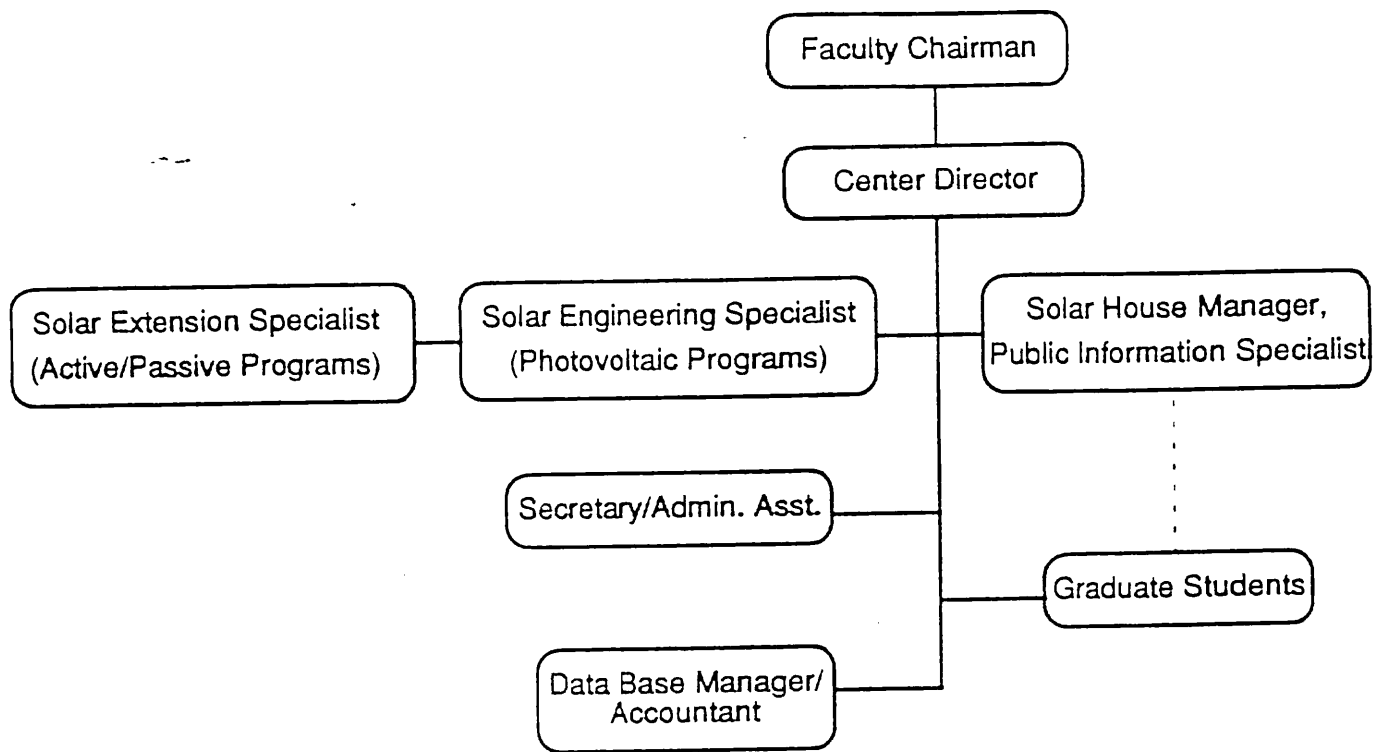
- Mike Nicklas, Innovative Design (Chair)
- Tom Stephenson, NCSU Industrial Extension Service
- Henson Barnes, former pro-tem of NC Senate, Attorney
- Howard Bryan, former state senator, Realtor
- Paul Konove, N.C. Solar Energy Association, builder
- Earl MacCormac, former science advisor to Governor, N.C. Quality Leadership Foundation
- Mitch Williams, Carolina Power and Light Company



**Figure I. Organization Structure of the North Carolina Solar Center at North Carolina State University, May 24, 1993.**



**Figure II. Center Advisory Board and Committee Structure, North Carolina Solar Center at North Carolina State University, May 24, 1993.**



**Figure III. Staffing Structure of the North Carolina Solar Center at North Carolina State University, May 24, 1993.**