

KENTUCKY ARGONNE BATTERY MANUFACTURING RESEARCH AND DEVELOPMENT CENTER

RALPH J. BRODD
Director



Mission

Kentucky Cabinet for Energy and Environment, Argonne National Laboratory, the University of Kentucky and the University of Louisville agree to work together to:

1. Assist Argonne et al by fabricating quantities of state-of the art Li-Ion cells to quantify the performance of new cell chemistries.
2. Define the performance of critical new materials technology and develop new manufacturing equipment and cell processes.
3. Position the US and Kentucky industry as cost effective, competitive players in the worldwide battery market.
4. Re-establish the U.S. as a world leader in battery materials, manufacturing technology and equipment.



Goals

1. Accelerate the commercialization of advanced battery production processes and new technologies developed at national laboratories, universities, existing manufacturers as well venture groups. (All work related proprietary materials and processes will be held strictly confidential.)
2. Generate new business opportunities for Kentucky and US entities to meet national and security needs. Close the gap between the materials developer and the cell manufacturer to speed the introduction of new high performance battery materials
3. Facilitate the interaction and collaboration of Industry, universities and national laboratories to optimize the component supply chain and develop viable battery manufacturing capabilities in the U.S consistent with our vision.
4. Establish capability to design and construct new concepts for cell assembly and cell constructions leading to more efficient, high performance, low-cost cell assembly processes.



Activities

- 1 Fabricate and evaluate the electrical and safety performance of new battery cell materials produced by developers at national laboratories, universities and industry in “commercial” cylindrical and prismatic cell formats
- 2 Develop new cell designs and fabrication processes with greater reliability, higher speed and lower cost.
- 3 Provide a platform to re-establish the United States as a world-leader in battery manufacturing technology through scale-up of state-of-the-art and newly developed battery materials, process technologies and cell assembly equipment
- 4 Serve as a focal point for battery technology developments for Kentucky as well as at industry, government and universities on a nationwide basis.



Near Term Activities

1. Develop a charter to quantify the Center activities and the interactions of the various member organizations
2. Establish an Advisory Board to monitor and guide the Center's activities and programs.
3. Plan, construct/establish the Kentucky-Argonne Battery Manufacturing Research and Development Center at the Kentucky Energy Research Park complex in Lexington, KY
4. Develop a roadmap for advanced battery systems used in Transportation and Energy Storage applications
5. Identify key infrastructure and technology developments required to develop and maintain a leadership position over the next 10-year period.

