

Case Study

BBK Helps GM Keep Their Electric Vehicle Program On-Track

In 2008, General Motors had a big problem. Their critically important hybrid electric program was at risk of suffering serious delays.

And late vehicle programs are simply not acceptable in the automotive industry.

Their battery supplier, Cobasys LLC, also supplied rechargeable NiMH batteries to Daimler Chrysler and BMW. GM was worried that Cobasys would not be able to meet their vehicle assembly schedule.

Cobasys purchased a \$12 million Automated NiMH Battery Formation System to serve their automotive customers. But their supplier was way behind schedule.

The new equipment was extremely complicated, and the supplier had limited experience building systems for manufacturing plants. Many intricate parts to the system needed to work together flawlessly. And be rugged enough to survive on the plant floor.

The parts of the system included:

- 3840 battery formation positions
- 160 battery grading positions
- 32 balancing positions
- A robotic loading cell
- 2 automated crane/elevator systems
- 1080 position with 16 batteries per pallet
- Process and chilled water systems
- Connections to the plant's Production and Information Technology systems

Cobasys could not speed up the equipment supplier's schedule. So, GM hired BBK, Ltd to resolve the problem. BBK specializes in supplier performance improvement, turn around, and crisis management.

The project needed aggressive daily project management. BBK brought in an experienced former General Motors Engineering and Program Management professional.

Scheduling, installation, testing, and buyoff activities all had problems.

- The project was more than a year behind schedule.
- The equipment was not rugged enough for the manufacturing floor.
- Plant personnel could not run or support the system.
- It could not run in Automatic Mode without continuous on-site equipment supplier support.

- Equipment documentation and drawings were poor or non-existent.
- The plant had no training courses to educate their employees.

Over the next 11 months BBK got the project back on track and managed:

- The General Motors, Cobasys, and equipment supplier relationships
- Cobasys-supplied Product Engineering, Facilities, Quality Engineering, and Information Technology resources
- The equipment supplier engineering and installation teams

BBK reviewed, updated, and implemented a new project plan which included:

- Developing an aggressive project completion schedule/timeline
- Determining the daily readiness for manufacturing
- Leading root cause problem analysis and implementing many engineering changes
- Beginning daily engineering/installation team meetings to review progress
- Conducting daily training of plant personnel to run and support the equipment
- Managing training course development and training of plant engineers, operators, and maintenance people

In less than a year, General Motors' hybrid vehicle program was no longer at risk. According to GM, the benefits of using BBK's services were:

- Huge improvements to the Cobasys NiMH Automated Battery Formation System, increasing throughput by 80% (from 128 to 768 good batteries output per 1000 input)
- The battery assembly needs of the GM, Daimler Chrysler, and BMW were satisfied
- Equipment ruggedness, ease of operation, and support improved considerably
- Plant people could now run and support the system without daily support by the supplier

This is only a sample. Contact me to discuss YOUR project:

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