

Improved Environmental Control Units (IECU)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Provides standardized environmental control capabilities to the Department of Defense (DoD) in support of national security.

DESCRIPTION

The Improved Environmental Control Units (IECU) program consists of four standard sizes: 9,000 BTUH (British thermal units per hour); 18,000 BTUH; 36,000 BTUH; and 60,000 BTUH; all in five configurations. Once fielded, these systems will provide critical cooling to vital command, control, communications, computers, and intelligence (C4I) and other military electronic and support systems equipment for the U.S. Army and the wider DoD. The IECUs:

- Use R-410A refrigerant, a commercial industry standard that is compliant with all current environmental legislative requirements
- Increase reliability and decrease weight and power consumption compared to current military standard systems

- Leverage current industry standards while being ruggedized for military environments
- Are organically supportable
- Are fully operable up to +125 degrees Fahrenheit
- Provide quality cooling, heating, and dehumidification for command posts; command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems; weapon systems; and other battlefield support equipment while using a non-ozone-depleting refrigerant

Additional improvements to the warfighter in theatre are the IECU's soft start and limited inrush current; nuclear, biological, and chemical compatible and electromagnetic interference protected interface; fully embedded diagnostics; automatic safety controls; and remote control capability for operations that require users to be out of the direct area.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- **FY09–10:** Low-rate initial production of 60,000 BTUH IECU
- **FY09–10:** Engineering and manufacturing development (EMD) Phase I for 9,000, 18,000, 36,000 BTUH family of IECUs
- **3QFY10:** Receive full materiel release and a full-rate production decision for the 60,000 BTUH IECU
- **4QFY10:** Competitively “downselect” vendor and continue EMD Phase II for 9,000, 18,000, 36,000 BTUH family of IECUs

PROJECTED ACTIVITIES

- **FY10–11:** EMD Phase II for 9,000, 18,000, 36,000 BTUH family of IECUs
- **FY10–11:** Production and fielding of 60,000 BTUH IECU

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

Improved Environmental Control Units (IECU)

FOREIGN MILITARY SALES

None

CONTRACTORS

9,000, 18,000, 36,000 BTUH IECU

Competitor (EMD Phase I):

Hunter Defense Technologies (Solon, OH)

9,000, 18,000, 36,000 BTUH IECU

Competitor (EMD Phase I):

Mainstream Engineering (Rockledge, FL)

60,000 BTUH IECU:

DRS-ESI (Florence, KY)

