

PRESENTATION TO ITER FORUM

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**OPPORTUNITIES
IN THE
CONSTRUCTION PHASE
OF THE
INTERNATIONAL THERMONUCLEAR
EXPERIMENTAL REACTOR**

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U. S. INDUSTRY

U.S. INDUSTRY IS INTERESTED IN PERFORMING GOVERNMENT-FUNDED FUSION R&D AND IN THE MANUFACTURING OF COMPONENTS FOR FUSION DEVICES

HOWEVER, OPPORTUNITIES HAVE BEEN SCARCE

THE MOST RECENT OPPORTUNITIES FOR INDUSTRY WERE PARTICIPATION IN THE ITER DESIGN AND PROTOTYPING PRIOR TO US WITHDRAWAL FROM THE PROJECT

A SUMMARY “OPPORTUNITIES IN THE CONSTRUCTION PHASE OF THE INTERNATIONAL THERMONUCLEAR EXPERIMENTAL REACTOR” BASED ON A SURVEY OF 34 U.S. COMPANIES SHOWED THE FOLLOWING INTEREST AREAS:

- **MOST INTEREST**
 - **Magnet System, including superconductor and cable**
 - **Divertor System and Plasma Facing Components**
 - **RF Systems and Power Supplies**
 - **Blanket and Limiter**

- **SIGNIFICANT INTEREST**
 - **Systems Integration**
 - **Electron Cyclotron Heating**
 - **Electrical Systems**
 - **Control Systems**
 - **Balance of Plant**
 - **Construction Management**
 - **Safety and Environmental Systems**
 - **Heat Transport Systems**

- **NICHE INTEREST**
 - **U. S. Home Team Management**
 - **Assembly**
 - **Cryostat**
 - **Cryogenic Systems**
 - **Remote Handling Systems**
 - **Vacuum Systems**
 - **Vacuum Vessel**
 - **Diagnostics**

**U. S. INDUSTRIES PARTICIPANTS IN ITER SURVEY
AND THEIR AREAS OF INTEREST**

Bechtel Group, Inc., San Francisco, CA

Joint Central Team Engineering and Management
Construction Management

BIW Cable Systems, Inc., North Deighton, MA

Magnet System

Boeing Rocketdyne, Canoga Park, CA

Remote Maintenance, Electrical Systems, Systems Integration,
Breeding Blanket Development, Blanket and Shield, Control Systems,
Cryostat, Cryogenic Systems, Divertor System, Heat Transport
System, Plasma Facing Components, Power Supplies and Systems,
Safety and Environmental Systems, Vacuum Vessel.

Brush Wellman, Inc., Cleveland, OH

Divertor System, Plasma Facing Components

Calabazas Creek Research, Saratoga, CA

Current Drive Systems, RF Systems

Chicago Bridge & Iron, Plainfield, IL

Cryostat, Cryogenic Systems, Vacuum System, Vacuum Vessel

Coleman Research, Springfield, VA

Remote Handling Systems (Viewing and Metrology)

Continental Electronics, Dallas, TX

RF Systems and Power Supplies

Composite Technology Development, Inc., Lafayette, CO

Magnet System (Insulation Materials), Cryostat, Cryogenic Systems,
RF Systems, Heat Transport Systems, Divertor System.

Cryogenic Materials, Inc., Boulder, CO

Magnet System

Dielectric Communications, Raymond, ME
RF Systems

Everson Electric Company, Bethlehem, PA
Magnet System, Power Supply Systems

Fluor Daniel, Irvine, CA
Joint Central Team Engineering and Management, U. S. Home Team Management, Construction Management, Balance of Plant, Electrical Systems, Heat Transport Systems, Remote Handling Systems, Safety and Environmental Systems, Tritium and Fueling Systems, Vacuum Systems.

General Atomics, San Diego, CA
Divertor and Plasma Facing Components, Blanket and Shield, ECRF, Diagnostics, Control Systems, Systems Integration, Breeding Blanket Development, Physics.

InterScience, Inc., Troy, NY
Control Systems, Diagnostics, Physics.

Intermagnetics General Corporation, Tyngsborough, MA
Magnet System, Superconducting Materials, Cryogenic Systems, Power Leads, Gyrotrons.

INCO Alloys International, Inc., Huntington, WV
Magnet System, Heat Transfer System, Vacuum Vessel, Plasma Facing Components.

Lockheed Martin, San Diego, CA
Magnet System, Systems Integration

Lodestar, Boulder, CO
RF Systems, Physics

McDonnell Douglas, St. Louis, MO
Divertor System, Plasma Facing Components

Nooter Corporation, St. Louis, MO
Blanket and Shield, Assembly

OMG Americas (formerly SCM Metals Products), Research Triangle Park, NC

Blanket and Shield, Divertor, RF Systems

Oxford Superconducting Technology, Carteret, NJ

Magnet System

POLY-WELD, Inc., Fort Collins, CO

Assembly, Magnet System, Vacuum Vessel, Fabrication, Welding

Raytheon Engineers and Constructors, New York, NY

Joint Central Team Engineering and Management, U. S. Home Team Engineering and Management, Construction Management, Assembly, Balance of Plant, Safety and Environmental Systems, Systems Integration, Vacuum Systems, Vacuum Vessel.

SAIC, San Diego, CA

Systems Integration, Support Services

Schwarzkopf Technologies Corporation, Franklin, MA

Plasma Facing Components

Sciaky, Inc.

Plasma Facing Components, Divertor System

Stone and Webster Engineering Corporation, Boston, MA

U. S. Home Team Engineering and Management, Construction Management, Assembly, Balance of Plant, Control Systems, Electrical Systems, Power Supplies and Systems, Safety and Environmental Systems, Systems Integration.

Supercon, Inc., Shrewsbury, MA

Magnet Systems

Thermacore, Inc., Lancaster, PA

Divertor, ECRH, Heat Transport Systems, Plasma Facing Components, Power Supplies and Systems, RF Systems.

Wall Colmonoy Corporation, Dayton, OH

Magnet System(Reaction Heat Treatment of CS Coil Conductor)

W. J. Schafer Associates, Livermore, CA

Systems Integration

Westinghouse Electric Company, Pittsburgh, PA

Magnet System