



National Certification Standard for the Geothermal Heat Pump Industry

May 18, 2010

Principal Investigator

John Kelly

Geothermal Heat Pump Consortium

GSHP Demonstration Projects

- **Timeline**
 - Start Date: January 29, 2010
 - End Date: January 31, 2012
 - Percent Complete: 1%
- **Budget**
 - Total Project Funding: \$1,077,500
 - DOE Funding Share: \$1,077,500
 - Awardee Share: \$0
 - FY09 Funding \$0
 - FY10 Funding \$1, 077,500
- **Barriers:** Unique Skill Sets and Project Diversity
- **Partners:** International Ground Source Heat Pump Association
Oak Ridge National Laboratory

- Create a national certification standard for all primary personnel involved in the installation of geothermal heat pump (GHP) systems, including drillers, plumbers, electricians, heating and air conditioning specialists, engineers and architects.
- Promote GHP deployment by:
 - Increasing customer confidence in the technology
 - Reducing the potential for improperly installed systems
 - Assuring product quality and performance
- Enable deployment of higher efficiency GHP systems
 - Improved design and installation by creation of a more consistently professional workforce

- Collaborative methodology that solicits input from a variety of industry stakeholders
 - Manufacturers
 - Professional organizations
 - Trade organizations
 - Contractors
 - Designers
 - Utilities
 - Regulators
- FY10 Milestones
 - Market research
 - Investigation of existing GHP systems
 - Update of State regulations governing GHP systems

- Develop a conceptual foundation
- Identify causes of failures and successes
- Develop criteria for each function
- Create initial prototype standard(s)
- Stakeholder feedback
- Refine prototype
- Finalize standard(s)

Team qualifications

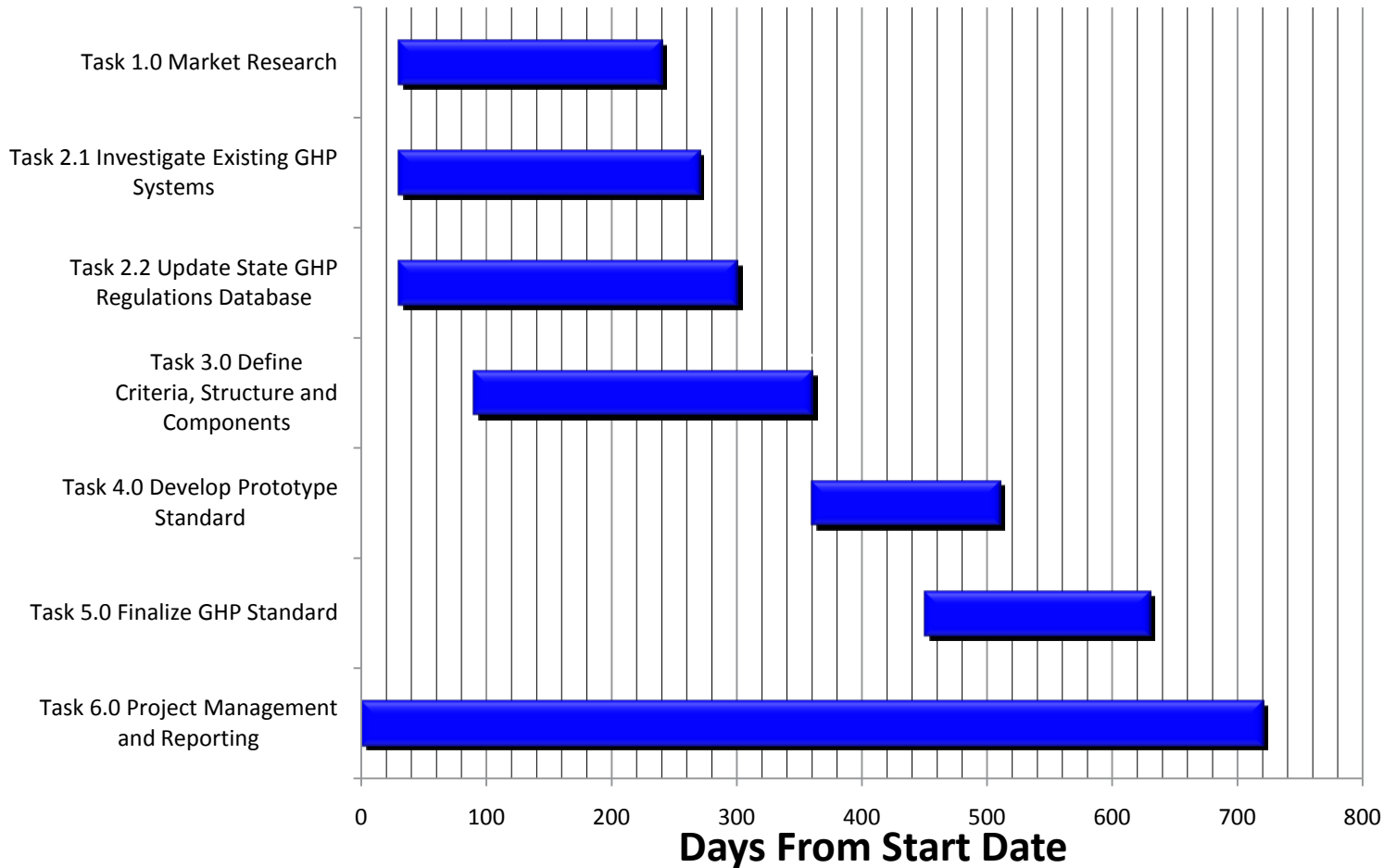
- Strong industry relationships
- Development of specifications
- Extensive training
- Academic perspective
- Federal Government GHP systems

- Project Management Team
- Control project scope
- Schedule tasks
- Monitor task accomplishment
- Define team roles
 - GHPC
 - ORNL
 - IGSHPA



- Communications
 - Internet site
 - Management team meetings
 - Stakeholder input
 - Workshops and conferences
- Budget management
 - Subawards
 - Vendors

GHP Industry Certification Standard Gantt Chart



- Follow-on industry collaboration to develop
 - Curriculum
 - Training
 - Certification
- Coordination with complimentary programs
 - EPA/ACCA/ANSI Quality Installation Spec
 - NREL GHP Roadmap

- Final Personnel Standard January 2012
- Follow-on industry collaboration needed
 - Curriculum
 - Training
 - Certification programs
- NOT
 - Equipment
 - Design
 - Installation
 - Regulations

