

CONSTITUTION FOR GAS STORAGE TECHNOLOGY CONSORTIUM

Article I

Name and Purpose:

Section 1. The name of this organization shall be the Gas Storage Technology Consortium (GSTC).

Section 2. The mission of the GSTC is to assist in the development, demonstration and commercialization of technologies to improve the integrity, flexibility, deliverability, and cost-effectiveness of the nation's underground natural gas (hydrocarbon) storage facilities. Moreover, the projects selected will primarily focus on demonstration of technologies to preserve and improve the deliverability of and management of existing conventional underground storage reservoirs and salt cavern storage facilities, and secondarily focus on research to develop man-made storage systems and other non-traditional methods in close proximity to demand centers. Its functions shall pertain to natural gas science and engineering, and the dissemination of new information to the scientific community, industry and the general public. The specific research focus will be identified in the Requests for Proposals (RFPs).

The organization shall serve its Members by guiding, stimulating, and aiding their efforts to:

- i) Formulate research, development, and technology assessment goals;
- ii) Create a supporting infrastructure for conducting research and development that will increase knowledge of and expand the technological base for natural gas (hydrocarbon) storage; and
- iii) Promote and enhance the dissemination of research results and technology transfer to storage operators for the benefit of the nation.

Section 3. The GSTC and Members who are not participants in a project are not liable in any way for any activities under a given project.

Article II

Membership:

Any individual, firm, partnership, association, institution, university or corporation engaged in natural gas (hydrocarbon) storage, or engaged in research and development of technologies associated with natural gas (hydrocarbon) storage, or a user of natural gas (hydrocarbon) storage services is eligible for Membership in the GSTC Consortium.

Section I. Membership in the GSTC shall be at one of three Membership levels:

- i) Full Memberships are defined as those Members from any individual firm, partnership, institution, or corporation directly engaged in the production and service of the natural gas (hydrocarbon) industry, or individuals and institutions engaged in research and development associated with natural gas (hydrocarbon) or users of natural gas (hydrocarbon) services and who have provided an annual membership fee of \$1,000 per year. Full Members are entitled to designate one (1) voting representative to the Technical Advisory Committee, receive periodic

communications, to compete for a seat on the Executive Council, to sponsor or propose a project for Consortium funding, and to receive quarterly and final technical reports. Full Members are eligible to have up to two (2) people in attendance at meetings. Full Members are eligible to receive research funding from the Consortium. Annual membership fees for full members are subject to change at the discretion of the Executive Council. No meeting fee will be assessed to full members.

- ii) Affiliate Members are defined as those Members from associations and professional societies. Affiliate Members are entitled to designate one (1) voting representative to the Technology Advisory Committee, and to receive periodic communications. Affiliate Members are eligible to have up to two (2) people in attendance at meetings. Affiliate Members are not eligible to receive research funding from the GSTC Consortium, may not be elected to the Executive Council, nor are they eligible to receive technical reports. If however, an Affiliate member provides co-funding in support of a specific project, the Affiliate member is eligible to receive the technical reports associated with the specific project and may be eligible for appointment to the Executive Council as provided in Section III. The annual membership fee for Affiliate Membership is \$500 per year and is subject to change at the discretion of the Executive Council. No meeting fee will be assessed to affiliate members.
- iii) University Members are defined as any university or college that is engaged in research and development technologies associated with natural gas (hydrocarbon) storage. No membership fee will be assessed to University Members. University Members are entitled to designate (1) voting representative to the Technical Advisory Committee, receive periodic communications, to compete for a seat on the Executive Council, to sponsor or propose a project for Consortium funding, and to receive quarterly and final technical reports. University Members will be assessed a meeting fee of no more than \$100 per day to cover expenses associated with their attendance at meetings.

Section 1a. Full, Affiliate, and University Membership

- i) Application for Full, Affiliate and University Membership shall be submitted to the Director whose responsibility it shall be to ensure their completeness and compliance with provisions of the consortium's constitution.
- ii) Upon receipt of Membership fee, the member(s) shall immediately exercise all rights, privileges and responsibilities of Membership. In the case of a University or College, the membership fee is waived.
- iii) Calendar year shall mean January 1 through December 31.

- iv) Voting on consortium issues by the Technical Advisory Committee will only be by those members in attendance.

Section 1b. Full, Affiliate or University Members may withdraw from the Consortium upon thirty (30) days written notice to the Consortium Director. Membership fees are nonrefundable.

Article III

Organization and Officers:

The GSTC shall be governed and managed by an Executive Council and the Consortium Director.

Section 1. The Executive Council shall be the policy making body of the Consortium. The Executive Council shall establish an overall research and development plan for the GSTC, approve and issue requests for proposals to Full Members and University Members to fulfill research and development priorities, establish review procedures for research proposals, select proposals to be funded by the Consortium based upon the relevance to the established goals and objectives of the Consortium, and perform the duties necessary to achieve the GSTC mission. The director and various committees derived from the GSTC Membership shall be utilized as deemed necessary by the Executive Council to achieve these and other Executive Council goals.

Section 1a. The Executive Council shall be composed of:

- i) Nine (9) voting members elected by the Technical Advisory Committee;
- ii) The GSTC Director who shall be a non-voting member presiding over the Council;
- iii) A representative from the National Energy Technology Laboratory (NETL) who shall be a non-voting member of the Council;
- iv) A representative from the Pipeline Research Council International (PRCI) shall be a non-voting member of the Council;
- v) A maximum of two (2) university members;
- vi) A minimum of 5-storage operators - storage operator in this context is defined as a U.S. based operator that files an EIA (Energy Information Administration) 191 form;
- vii) Executive Council can be expanded as per Article III, sections 2c and 2d.

Section 1b. With the advice and consent of the Executive Council representatives, the GSTC Director shall set the time, place and agenda of the Executive Council meetings and shall preside over these meetings. Every effort will be made to hold meetings in various geographical locations throughout the country. Whenever possible, telephone conferencing will be scheduled to conduct meetings. Executive Council Members shall be responsible for their own travel and other expenses associated with the performance of their responsibilities.

Section 1c. Representatives of the Executive Council who are unable to attend the Executive Council meeting shall notify the Director as far in advance as possible. An Executive Council Member can vote in absentia provided it is done in a written form, however Executive Council Members must be present to vote on the selection of proposals to be funded by the Consortium.

Section 2. The Technical Advisory Committee shall provide research ideas, and aid the Executive Council in developing and implementing technology transfer plans for the GSTC. The Technical Advisory Committee shall advise both the Executive Council and the Director regarding the relevance and the scientific merit of the Constitution research and development programs.

Section 2a. The Technical Advisory Committee shall be composed of one (1) voting representative from each Full, Affiliate and University GSTC Membership.

Section 2b. The Technical Advisory Committee shall elect nine (9) representatives to serve on the Executive Council. In the initial year, the Technical Advisory Committee shall elect five (5) representatives who shall serve a two-year term and four (4) who shall serve a one-year term. Thereafter, the Technical Advisory Committee shall elect either four (4) or five (5) representatives each year to replace outgoing representatives. No representative can serve two consecutive terms except the one-year term representatives elected in 2004. In the event an Executive Council Representative is unable to fulfill their full term of office, the Consortium Director and the NETL Representative will convene the Technical Advisory Committee to elect a new representative to complete the unfinished term. Voting will be by electronic ballot and election by a simple majority of the voting members.

Section 2c. With the consent of the Technical Advisory Committee, the Executive Council may be expanded to eleven (11) voting Members pending a simple majority vote of the Technical Advisory Committee. The eleven members Executive Council must be composed of no less than six (6) Gas Storage Operators.

Section 2d. With the consent of the Technical Advisory Committee pending a simple majority vote and approval of the NETL representative, the Executive Council may be expanded to include those member(s), that provide co-funding to the Consortium. The Full or Affiliate member shall be a non-voting member of the Executive Council. Terms of Full or Affiliate members so elected as non-voting members of the Executive

Council will be determined on a case-by-case basis by the GSTC Director and the Council Representative from NETL.

Section 3. The GSTC Director shall be the chief representative of the Consortium and shall be responsible for the administration of its affairs. The Director may represent the Consortium in situations where a single representative of the Consortium is appropriate. The Director may interact with public and private funding sources to secure and maintain funding necessary to meet the long-term goals of the Consortium.

Section 3a. As the GSTC Administrator, the Director shall implement the decisions of the Executive Council, and oversee the daily operations of the Consortium. The Director will establish and enforce computerized and other necessary communication systems among all Consortium Members. Under the direction of the Executive Council, the Director, in accordance with Articles III Section 4 and Articles V and VII, will operationally manage Consortium funding. The Director will have authority to establish and maintain research reporting procedures using Department of Energy guidelines where applicable. The Director may publicize the GSTC and its research results utilizing publications, research reviews, and any other means approved by the Executive Council. The Director will make recommendations to the Executive Council to aid it in setting policy for the GSTC.

Section 3b. The Director shall be appointed by the College of Earth and Mineral Sciences with the approval of the Pennsylvania State University, and serves at the pleasure of The Pennsylvania State University. It is the responsibility of the University to provide staff and facilities for the conduct of the Director's duties and responsibilities as provided in the Constitution.

Section 3c. The Director will schedule at least one Executive Council meeting per year at places and times set by the Director with the approval of the Executive Council representatives. The Director will prepare the agenda for Executive Council meetings from items submitted by the representatives of the Executive Council and the Technical Advisory Committee. The Director shall preside over the Executive Council meetings and arrange for minutes of the meetings to be recorded and distributed to all Members. Attendance by a majority of the representatives of the Executive Council shall constitute a simple majority of voting members for the conduct of business at scheduled meetings. In the event that specific items of Consortium business require a vote of the Executive Council and it is impractical to convene a full Executive Council meeting, the Director will poll the Executive Council Membership by telephone, computer, or other means. The Director in consultation with the Executive Council, shall schedule Technology Transfer meetings and Technology Advisory Committee meetings, at a minimum of one meeting per year.

Section 4. Administrative costs in support of the Director and Director's office will be borne by the Consortium and shall not exceed the management funding provided to The Pennsylvania State University through the DOE Cooperative Agreement.

Article IV.

Amending the Constitution:

Section 1. The Consortium Constitution can be amended only at the recommendation of the Executive Council. All amendments must comply with the Pennsylvania State University and the DOE Cooperative Agreement. Recommended changes to the Constitution must be first approved by a two-thirds majority vote of the Executive Council and subsequently approved by a two-thirds vote of the consortium membership.

Section 1a. Any GSTC member may propose a change in the Constitution by petition to the Consortium Director. The Director shall submit the proposed amendment or change to each representative of the Executive Council at least thirty (30) days prior to the next meeting of the Executive Council.

Article V

Program Funding:

Section 1. The GSTC Director will solicit proposals from the Full and University Members of the Consortium on an annual basis. A fully executed membership agreement must be in place and current prior to accepting a proposal for review.

Section 2. A minimum 40% co-funding is required for each proposal submitted to the GSTC Consortium. The 40% co-funding is calculated as 40% of the total cost of the proposed project. The Consortium does encourage collaboration among the GSTC Members. Full Members, University Members and any other participants in proposed research projects are encouraged to provide additional co-funding for each proposal submitted to the Consortium for review. All co-funding must be supported by appropriate documentation and will be subject to review as part of the complete proposal package.

Section 3. Proposals from non-US Full and University members may be accepted and funded, provided that 75% of the total cost, based on actual costs, is conducted in the U.S.

Section 4. The Consortium Director shall receive proposals from the Full and University Members and distribute the proposals to the Executive Council fourteen (14) days before the Consortium meeting.

Section 5. The Executive Council is the final decision making body for approval of all projects funded by the GSTC.

Section 6. The GSTC Director will notify all applicants of their funding status in writing within fourteen (14) days of the Executive Council decision.

Section 7. For each research project funded through the Consortium, the Executive Council will appoint a small (2-4) member ad-hoc committee consisting of GSTC Members to help provide technical guidance during the conduct of the work. Members are precluded from appointment to ad-hoc committees for a project co-funded by the member's corporate or university affiliation. Technical progress will be reviewed periodically at Consortium meetings.

Article VI.

Publications and Conferences:

Section 1. Overview Articles will be used to promote and describe, in non-technical terms, the activities of the GSTC. The preparation, presentation and publication of overview articles for GSTC projects shall remain the responsibility of The Pennsylvania State University. GSTC Members shall be provided with the opportunity to review any overview papers or presentations containing any of the results of the GSTC funded projects and are free to distribute overview articles.

Section 2. Presentations. Full Members and University Members may present technical papers on their GSTC funded projects provided the Consortium is acknowledged for its funding and provided that said Presentations do not contain any proprietary information subject to non-disclosure restrictions.

Section 3. Publications. Subject to the following restrictions, Full and University Members shall be free to publish the results of the GSTC funded projects provided they maintain the confidentiality of Gas Storage Technology information, where it has been clearly marked "Confidential" in the initial proposal funded by the GSTC:

- i) All such publications shall be consistent with deliverables and statement of work approved by the Executive Council and contained in the subaward/subcontract issued by The Pennsylvania State University;
- ii) DOE shall be given the right to review and comment on all publications pursuant to Section 4.18 of DOE Cooperative Agreement No. DE-FC26-03NT41779; and
- iii) Parallel to the DOE review period, the Executive Council shall have the right to review and comment upon any such publications and to the extent practical; and
- iv) The DOE and the Executive Council shall have 30 days to provide comments to the Consortium Director. The Consortium Director will distribute comments to the author of the publication. Authors shall give any such comments due consideration.

Section 4. The GSTC Director shall be responsible for the preparation of all guidelines for technical reports and publications that have been approved by the Executive Council.

Article VII.

Finances:

Section 1. The Pennsylvania State University will serve as fiscal agent for the Consortium. As such, the Pennsylvania State University will represent the Consortium in fiscal matters and have the ultimate accounting and financial reporting duties and the sole legal authority to enter into contracts and to administer and expend funds on behalf of the Consortium. Periodically a summary of the total value of the GSTC consortium will be posted to the Consortium website and will be available only to current members.

Article VIII.

Intellectual Property Rights Policy for Gas Storage Technology Consortium:

Section 1. Pursuant to Chapter 18 of Title 35 of the United States Code, commonly known as the Bayh-Dole Act, as enacted by the Department of Energy (DOE) in DEAR 952-227-11, any domestic small business firm or nonprofit organization conducting research under Consortium funding (Research Party) may elect to retain title to any invention conceived of or first actually reduced to practice by its employees in the course of or under the research conducted with Consortium funding. Title to these inventions will be subject to DOE patent policies, including retention by the Government of a license for Government use and march-in rights, and U.S. competitiveness and manufacture requirements. The Consortium will petition the DOE for a class waiver of ownership rights to any inventions conceived or first actually reduced to practice by employees of entities other than domestic small business firms and nonprofit organizations. Information that results from the research and development conducted with Consortium funding and that would be trade secret or commercial or financial information that is privileged or confidential if the information had been obtained without Federal support, may be protected from public disclosure for up to five years after development of the information, but shall be available to Consortium Members during the period of protection.