

**Memorandum of Understanding**  
**between**  
**The International Linear Collider - Global Design Effort**  
**and**  
*Argonne National Laboratory*

**March 2, 2006**

**1. Introduction**

**1.1 General Description**

The DOE High Energy Physics Advisory Panel (HEPAP) has stated the need for a 500-GeV electron-positron linear collider to address fundamental particle physics questions at the TeV energy scale, and recommended that such a facility be the next major project for the U.S. High Energy Physics program. The International Linear Collider (ILC) is envisioned to be a globally international project to construct such a linear collider to address this mission need. Research and Development (R&D) for the ILC is being carried out by an international collaboration of laboratories and universities, in three regions of the world (the Americas, Asia, and Europe), under the direction of an international Global Design Effort (GDE). The GDE is a virtual organization with members drawn from existing laboratories and universities. Overall coordination of the technical activities within the Americas region is the responsibility of the GDE-Americas Regional Director.

This Memorandum of Understanding (MoU) establishes a collaboration between Argonne National Laboratory (ANL) and the GDE, hereinafter referred to as the “Parties”, to work jointly on the technical design and R&D needed for the ILC. This agreement between the Parties is made in the context of existing national and international collaborations, does not alter those collaborations, and is not exclusive; other laboratories or universities may join at any time under similar agreements.

This MoU does not constitute a legal contractual obligation on the part of either of the Parties. The Parties’ rights and obligations in carrying out the work are governed by their respective DOE or NSF prime contracts.

All work performed by ANL as part of the ILC Collaboration will be coordinated by the ANL ILC Program Leader. Definition of the scope of work and planning of specific work to be done at ANL are the responsibilities of the GDE-Americas Regional Director and the ANL ILC Program Leader. The scope of work done at ANL will be documented in this MoU and future Amendments to it. Detailed work packages to be completed in a specific frame of time will be described separately in Addenda to this MoU.

## **1.2**    *Objective*

The objective of this MOU is to document the terms of agreement between GDE and ANL under which work in support of the ILC is to be performed at ANL.

## **1.3**    *Scope*

This MoU covers work to be performed at ANL during the R&D and technical design phase of the project. The scope of work to be done by ANL may include elements of conceptual design and modeling, engineering, procurement, fabrication and testing of prototypes, preparation of documentation, and participation in review and management processes. This agreement does not specify the time of performance of tasks in any particular category, nor does it preclude the addition of tasks by amendment to this MoU.

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## **2. General Provisions**

### **2.1 *Terms and Conditions***

The ANL Laboratory is managed and operated by the ANL contractor under DOE contract number W-31-109-ENG-38. All work performed by ANL in support of the ILC will be consistent with the terms and conditions of this contract.

### **2.2 *Funding***

Funds for the work to be accomplished at ANL will be agreed to by the GDE-Americas Regional Director and the ANL ILC Program Leader. These funds will be defined in annual Addenda to this MOU. Funds for work done at ANL in support of the ILC will reside at ANL, and transfer of funds to ANL will be made by DOE Financial Plan Transfer. Funding will typically be transferred at six-month intervals to allow for possible adjustments in the work to be done at ANL.

### **2.3 *Cost Recovery***

It is understood that ANL is operated as a full cost recovery facility. All costs of work done at ANL on the ILC are to be covered by the funds described in Section 2.2 above, and the ANL ILC Program Leader will be responsible for management of these funds. The GDE-Americas Regional Director, in consultation with the ANL ILC Program Leader, may request at any time that specific work on the ILC at ANL be redirected or terminated. ANL will respond to such requests as quickly as possible within DOE and ANL personnel management guidelines.

### **2.4 *Reporting***

ANL will submit to the GDE-Americas Regional Office semiannual progress reports of the work done at ANL. These reports will contain descriptions of technical progress, statements of goals for the next reporting period, and indications of long-range plans for all work being done at ANL. These reports will be submitted at the midpoint and close of the Fiscal Year, and will become part of technical and budget planning for the GDE.

ANL will submit to the GDE-Americas Regional Office a quarterly statement of costs and commitments incurred for all work being done using the funds described in Section 2.2 above. These reports will become part of the technical and budget planning for the GDE.

### **2.5 *Ownership of Equipment***

All equipment purchased or fabricated using the funds described in Section 2.2 above at ANL will be the property of DOE/ANL and shall be subject to the ANL property management system. All new equipment purchased by ANL for exclusive use in the ILC R&D effort or

incorporated into ILC prototypes will remain under control of the GDE until it is deemed by the GDE-Americas Regional Office that such equipment is no longer needed. New equipment which is jointly shared by the ILC R&D effort and other programs of the ANL Laboratory will be controlled jointly by ANL Laboratory and the GDE-Americas Regional Office. New equipment which is supplied to laboratories outside the Americas region for ILC R&D efforts will remain under the control of the GDE Regional Office in that region until it is deemed by the GDE that such equipment is no longer needed.

## **2.6 *Intellectual Property***

Rights with regard to intellectual property are regulated by the ANL contractor and the U.S. Department of Energy. “Intellectual property” includes but is not limited to inventions, technical data, and software.

## **2.7 *Scientific Publication***

All work covered by this MoU will be unclassified. Publications will be collaborative, although either Party has the right to publish information in part or in whole, independent of the other, subject to informing the other Parties in writing of their intention to do so. Consent to publish may be denied in writing by a Party if proprietary information is involved. Disputes will be settled through mutual cooperation befitting the scientific goals of the project.

All publications and all intellectual property developed under this collaboration are subject to ANL procedures and contract number W-31-109-ENG-38, i.e., the contract between the ANL contractor and the U.S. Department of Energy, which requires that all publications receive prior copyright and invention review. All publications are required to indicate the contribution made by each of the Parties.

## **2.8 *Amendments***

This MOU may be modified or amended from time to time by written agreement of both Parties.

## **2.9 *Public Information Coordination***

Subject to applicable laws and regulations, decisions on the disclosure of information to the public regarding the ILC program shall be made by the GDE-Americas Regional Director following consultation with the ANL ILC Program Leader when appropriate.

### **3. Plan of Work**

Under this Memorandum of Understanding, ANL will carry out activities in the main program areas listed in Section 1.3. Particular activities and deliverables will be specified and agreed upon by the ANL ILC Program Leader and the GDE-Americas Regional Director and documented in Addenda to this MOU.

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## 4. Execution

### 4.1 *Effective Date*

This MOU shall become effective upon the latter date of signature of the Parties. It shall remain in effect until superseded or five years from the effective date, whichever comes first.

### 4.2 *Approvals*

The following concur in the terms of this Memorandum of Understanding:

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Dr. Barry Barish,  
Director, GDE

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Dr. Robert Rosner,  
Laboratory Director, ANL

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Date

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Date

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Dr. Gerry Dugan,  
Regional Director, GDE-Americas

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Associate Laboratory Director, ANL

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Dr. Kwang-Je Kim,  
ANL ILC Program Leader