

ATTACHMENT J.4

APPENDIX D

CONTRACTOR'S COMMITMENTS

**Applicable to the Operation of
Fermi National Accelerator Laboratory**

Contract No. DE-AC02-07CH11359

8 OFFEROR'S INVOLVEMENT/RESOURCES

(L.8, M.8)

FRA is a powerful, research-focused corporate partnership of URA and UChicago, which will focus its leadership, resources, and excellence in laboratory management on maintaining US preeminence in particle physics research and attracting the ILC to the US.

Reflecting our commitment to achieving world-class research and user-facility operations at FNAL, FRA, our corporate parents (URA and UChicago), and URA's member universities have developed 19 commitments totaling \$12.1M over five years (**Figure 8-1**).

FRA 13
New
Initiative

Donors by Commitment Type	Resource Name	Total 5-Year Commitment (\$K)
Mission Support		
FRA	A. Director's Discretionary Fund	\$2,500
URA	B. Strategic Collaborative Initiatives	\$2,000
FRA	D. Key Personnel Salary Augmentation	\$875
UChicago	F. Strategic Collaborative Initiatives	\$1,250
University of Illinois	H. Strategic Collaborative Initiatives	\$430
Northern Illinois University	I. Strategic Collaborative Initiatives	\$150
Northern Illinois University	L. Joint Scintillator R&D Facility	\$625
Northwestern University	N. Strategic Collaborative Initiatives	\$950
Illinois Institute of Technology	P. Strategic Collaborative Initiatives	\$500
Business Operations		
UChicago	E. Laboratory Collaboration Council / Management and Decision Support Dashboard Initiative	\$500
EG&G/URS	S. Preliminary Assessment of Maintenance and Work Control Practices	\$43
Education Commitments		
FRA	C. Scholarships for Children of FRA Employees	\$1,000
UChicago	G. Executive Education for FNAL Staff and Scientists	\$250
Northern Illinois University	J. Scholarships for Children of FRA Employees	\$140
Northern Illinois University	K. Joint Education Programs	\$150
Northwestern University	M. Scholarships for Children of FRA Employees	\$125
Northwestern University	O. Executive Education for FNAL Staff and Scientists	\$75
Illinois Institute of Technology	Q. Scholarships for Children of FRA Employees	\$250
Illinois Institute of Technology	R. Education for Fermilab Staff and Scientists	\$300
Total Value of Commitments		\$12,113

Figure 8-1. FRA Mission Support, Business Operations, and Educational Commitments to FNAL.

FRA's Plan for Resource Management and Integration at FNAL, and Other Pertinent Information

Figure 8-2 provides additional details regarding our 19 commitments, including our plan for managing and integrating committed resources and the FRA representatives responsible for each commitment. Following this figure, we provide resource commitment forms and signed commitment letters.

Resource Name / Donor	Responsibility	Management / Integration Process
Mission Support Commitments		
A. Director's Discretionary Fund (FRA)	❖ Laboratory Director	The Laboratory Director will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. He will integrate these resources at FNAL by choosing specific activities that will most effectively support the laboratory's mission and programs, delegating as necessary and appropriate to FNAL staff the responsibility to ensure that these committed resources are leveraged appropriately.
B, F, H, I, N, P. Strategic Collaborative Initiatives (UChicago, URA, U of I, NIU, NU, and IIT)	<ul style="list-style-type: none"> ❖ Laboratory Director ❖ Laboratory Deputy Director ❖ FRA Science Committee ❖ FNAL Committee on Scientific Appointments ❖ University Presidents 	This initiative will provide scientific effort and resources to support the DOE mission and programs at FNAL. It consists of joint appointments, adjunct appointments, leaves of absence at FNAL for university scientists, joint R&D projects, joint institutes, and support for public education and outreach. The Director will delegate to the Deputy Director who will be responsible for managing these resources to ensure that they are integrated into FNAL to the benefit of DOE's mission and programs. The FRA Science Committee will oversee the use of this resource to ensure that it is leveraged to the benefit of DOE's missions. For joint appointments, the Director determines the position need based on his workforce plan. A search committee composed of senior FNAL staff and university staff will identify qualified candidates. After consideration by the FNAL Committee on Scientific Appointments, the Director will propose candidates to the FRA Science Committee, which will forward its recommendation to the full Board. The universities, through their own appointments process, will approve the joint appointee, who becomes a member of the university faculty and a staff member at FNAL—with research or management at the laboratory being the focus of the appointee.
D. Key Personnel Salary Augmentation (FRA)	<ul style="list-style-type: none"> ❖ FRA Board of Directors ❖ FRA Executive Committee ❖ FNAL HR Manager 	The Chairman of the FRA Board of Directors will be responsible for managing this resource to ensure that it is leveraged to the benefit of DOE's scientific mission and to ensure that it meets program goals and supports the laboratory's overall mission in accordance with all applicable DOE directives and regulations. The FRA Executive Committee will monitor the use of these funds and make adjustments in the amounts from time to time based on changes in need or other circumstances. The Laboratory Director will delegate day-to-day responsibility for managing this program to the FNAL Human Resources Manager.
L. Joint Scintillator R&D Facility (NIU)	<ul style="list-style-type: none"> ❖ Laboratory Director ❖ Associate Director for Research 	The Laboratory Director will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. The Laboratory Director will delegate to the Associate Director for Research the integration of this resource for the benefit of the FNAL R&D programs.
Business Operations Commitments		
E. Laboratory Collaboration Council (UChicago)	<ul style="list-style-type: none"> ❖ UChicago Vice President for Research ❖ Laboratory Director ❖ LCC ❖ Head of Office of Quality and Best Practices 	The UChicago Vice President for Research and for ANL, who is a standing member of the FRA Board of Directors, will be responsible for managing this resource to ensure that it is leveraged to the benefit of DOE's scientific mission. The FNAL Director, who co-chairs the LCC on a rotating basis with the ANL Director, will receive and approve recommendations of the Council for integration into FNAL processes and operations. The Head of the Office of Quality and Best Practices will oversee the implementation of processes and programs responsive to the approved recommendations.

Figure 8-2. Management of Commitments. FRA has developed a process—and assigned responsibility—for the management of each commitment.

Resource Name / Donor	Responsibility	Management / Integration Process
E. Management and Decision Support Dashboard Initiative (UChicago)	<ul style="list-style-type: none"> ❖ UChicago Vice President for Research ❖ CFO ❖ Head of Office of Quality and Best Practices 	The UChicago Vice President for Research and for ANL, who is a standing member of the FRA Board of Directors, will be responsible for managing this resource to ensure that it is leveraged to the benefit of DOE's scientific mission. The Director will be responsible for the integration into the laboratory; he will delegate the implementation of the dashboard initiative to the Chief Financial Officer. The Head of the Office of Quality and Best Practices will oversee the implementation to ensure that the needs of DOE and the laboratory are met.
S. Preliminary Assessment of Maintenance and Work Control Practices (EG&G/URS)	<ul style="list-style-type: none"> ❖ EG&G President ❖ Local EG&G FNAL Support Manager 	EG&G President Randall A. Wotring, a standing member of the FRA Board of Directors, will be responsible for managing this resource to ensure its benefit to DOE's scientific mission. The responsibility for conducting the assessment will be delegated to Jeff Cotton, the proposed local EG&G manager at FNAL. This process occurs during the transition period but it is not considered to be an activity of the transition plan. This assessment will be overseen and integrated by Bob Grant, the proposed Head of OQBP and Transition Manager.
Education Commitments		
C, J, M, Q. Scholarships (FRA, NIU, NU, and IIT)	<ul style="list-style-type: none"> ❖ Laboratory Director ❖ Science Committee of FRA ❖ Board of Directors ❖ FNAL HR Manager 	<p>Scholarships for Children of FRA Employees. The Laboratory Director will be responsible for managing these scholarship funds for the children of FRA employees to ensure that they are leveraged to the benefit of DOE's scientific mission by providing an incentive for recruiting and retaining top scientific, engineering, technical and business management talent. Scholarships will be awarded on a competitive basis to children of full-time FNAL employees pursuing college degrees. The Laboratory Director will delegate responsibility for managing this program to the FNAL Human Resources Manager.</p> <p>Scholarships at NIU, NU, and IIT. These scholarship awards will be made to students who have been accepted into degree-granting programs at NIU, NU or IIT.</p> <p>Scholarships at a College of the Student's Choice (FRA). The Science Committee of the FRA Board of Directors will oversee this program to ensure that it meets program goals and supports the laboratory's overall mission. The Science Committee will monitor the use of scholarship funds and make adjustments in the amount from time to time based on changes in need or other circumstances.</p>
G. Executive Education for FNAL Staff and Scientists (UChicago)	<ul style="list-style-type: none"> ❖ UChicago Vice President for Research ❖ Laboratory Director ❖ FNAL HR Manager 	The UChicago Vice President for Research and for ANL, a standing member of the FRA Board of Directors, will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's mission. The Laboratory Director will be responsible for integration into FNAL and for choosing candidate staff or scientists to receive this education. Administration of the program will be delegated to the FNAL Human Resources Manager.
K. Joint Education Programs (NIU)	<ul style="list-style-type: none"> ❖ President, Northern Illinois University ❖ Laboratory Director 	The President of Northern Illinois University, a standing member of the FRA Board of Directors, will manage the graduate tuition waiver program and the joint Ph.D and Masters accelerator physics programs to ensure their benefit to the FNAL programs. The Laboratory Director will be responsible for integration with FNAL programs and for selection of staff and scientists to receive this education.
O. Executive Education for FNAL Staff and Scientists (NU)	<ul style="list-style-type: none"> ❖ President, Northwestern University ❖ Laboratory Director 	The President of Northwestern University, a standing member of the FRA Board of Directors, will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. The Laboratory Director will be responsible for integration with FNAL programs and for selection of staff and scientists to receive this education.

Figure 8-2. Management of Commitments. FRA has developed a process—and assigned responsibility—for the management of each commitment.

Resource Name / Donor	Responsibility	Management / Integration Process
R. Education for Fermilab Staff and Scientists (IIT)	<ul style="list-style-type: none"> ❖ President, Illinois Institute of Technology ❖ Laboratory Director 	<p>The President of Illinois Institute of Technology, a standing member of the FRA Board of Directors, will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. The Laboratory Director will be responsible for integration with FNAL programs and for selection of staff and scientists to receive this education.</p>

Figure 8-2. Management of Commitments. FRA has developed a process—and assigned responsibility—for the management of each commitment.

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.A Director's Discretionary Fund. FRA, LLC commits to provide approximately \$500K per year to establish a Director's Discretionary Fund to leverage specific programs, initiatives, and activities at FNAL that enhance the laboratory's scientific and technology programs, enhance the user experience and contribute to employee retention. Examples of specific programs which these funds will support include: employee morale activities, awards and gifts, support for meetings and conferences, support for the FNAL User's Center, and program advocacy.</p>	
Resource Donor	Type of Resource
Fermi Research Alliance, LLC	Direct Funding
Location of Resource	Estimated Total Value
Fermi Research Alliance, LLC 355 1st Street, 2nd Floor, Batavia, IL 60510	\$2,500,000 over five years
Date Resource will be Provided	
At start of the contract in annual increments of approximately \$500K	
Resource Benefits to FNAL	
<ul style="list-style-type: none"> ❖ Conferences and meetings which develop or report results of programs in support of DOE's mission to maintain U.S. pre-eminence in scientific research ❖ Events, awards and gifts which contribute to FNAL's employee retention programs by enhancing employee morale ❖ Support for the FNAL User's Center to enhance the user on-site experience while they are at FNAL conducting research in support of DOE's programs 	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.B URA Universities Strategic Collaborative Initiatives. URA, Inc., commits to provide approximately \$400K per year to 1) seed R&D projects by providing support for URA university faculty and staff in joint projects with Fermilab, 2) fund sabbatical leaves at Fermilab and extended visits of URA university personnel to Fermilab, and 3) fund activities of URA universities' faculty and staff aimed at public education and outreach in support of DOE programs.</p>	
Resource Donor	Type of Resource
Universities Research Association, Inc.	Direct Funding
Location of Resource	Estimated Total Value
Universities Research Association, Inc., 1111 19th St., N.W., Suite 400, Washington, D.C. 20036	\$2,000,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$400K	
Resource Benefits to FNAL	
<ul style="list-style-type: none"> ❖ Innovative R&D projects to develop future science programs at Fermilab in support of DOE's mission to maintain preeminence in high energy physics in the U.S. ❖ Personnel who will contribute to the DOE Science and R&D programs at Fermilab at no charge to the Government ❖ Education and outreach to the public to develop support for DOE programs as well as to contribute to encouraging young people to pursue careers in science and technology and thereby developing the next generation of scientists and engineers 	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.C FRA University Scholarships for Children of FRA Employees. Fermi Research Alliance, LLC, commits to provide \$200K per year to fund scholarships on a competitive basis to full-time FNAL employees' children who are pursuing undergraduate college degrees. The scholarship award of up to \$4,100 per year will be continued for a maximum of four years providing the student remains in a four-year program with satisfactory academic progress.</p>	
Resource Donor	Type of Resource
Fermi Research Alliance, LLC	Direct Funding
Location of Resource	Estimated Total Value
Fermi Research Alliance, LLC 355 1st Street, 2nd Floor Batavia, IL 60510	\$1,000,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$200K	
Resource Benefits to FNAL	
<p>❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent.</p>	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.D Key Personnel Salary Augmentation. Fermi Research Alliance, LLC commits to provide approximately \$175K per year to augment DOE-approved salary levels to compete successfully for selected FRA key personnel.</p>	
Resource Donor	Type of Resource
Fermi Research Alliance, LLC	Direct Funding
Location of Resource	Estimated Total Value
FRA, LLC 355 1st Street, 2nd Floor Batavia, IL 60510	\$875,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$175K	
Resource Benefits to FNAL	
<p>❖ This resource commitment provides laboratory management funds to compete more aggressively and successfully for recruitment and retention of the best scientific and managerial talent, especially for those individuals in great demand in industry and in other parts of the research community.</p>	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.E Laboratory Collaboration Council/Management and Decision Support Dashboard Initiative. UChicago commits approximately \$100K per year to support activities associated with the Laboratory Collaboration Council initiative and the Management and Decision Support Dashboard initiative.	
Resource Donor	Type of Resource
The University of Chicago	Direct Funding
Location of Resource	Estimated Total Value
The University of Chicago 5720 S. Woodlawn Chicago, IL 60637	\$500,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$100K	
Resource Benefits to FNAL	
<ul style="list-style-type: none"> ❖ These funds will provide Fermilab's Office of Quality Assurance and Best Practices with additional means and expertise to expedite the implementation of the Dashboard which will provide key DOE and FNAL decision makers and managers near-real time data on laboratory performance to align strategies with operational objectives, actively monitor day-to-day activities, and collaborate more effectively across the enterprise to drive efficiencies towards producing the maximum scientific output from each taxpayer dollar. A more rapid implementation and earlier utilization of benefits from these efforts will provide more operational efficiencies, leading to cost savings for FNAL and DOE. ❖ Additionally, FNAL staff will be able to access subject matter experts and lessons learned at Argonne National Laboratory via the Laboratory Collaboration Council. ❖ Together these commitments will strengthen and streamline the adoption of best practices at FNAL and assure the highest quality of performance for DOE. 	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.F UChicago Strategic Collaborative Initiatives. UChicago commits approximately \$250K per year for strategic joint appointments, collaborative research projects and joint institutes.	
Resource Donor	Type of Resource
The University of Chicago	In-kind contribution
Location of Resource	Estimated Total Value
The University of Chicago 5720 S. Woodlawn Chicago, IL 60637	\$1,250,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$250K	
Resource Benefits to FNAL	
<ul style="list-style-type: none"> ❖ These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Prime among these is a joint UChicago-FNAL appointment to head FNAL's Center for Particle Astrophysics. ❖ Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, astrophysics, and accelerator research, creating new ventures and discoveries that push the frontiers of science. 	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment	
<p>8.G UChicago Executive Education for Fermilab Staff and Scientists. The University of Chicago commits approximately \$50K per year or \$250K over the five-year term of the base contract to working with Fermilab and DOE to create a non-degree executive education program for FNAL professional and scientific staff. This program will build upon and be coordinated with the proposed commitment to ANL to establish an executive program at ANL through the University's Graduate School of Business.</p>	
Resource Donor	Type of Resource
The University of Chicago	In-kind Contribution
Location of Resource	Estimated Total Value
The University of Chicago 5720 S. Woodlawn Chicago, IL 60637	\$250,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$50K	
Resource Benefits to FNAL	
❖ The benefit to DOE is an increased management capability. Administrative efficiency will lead to cost savings that can be applied to scientific programs. This will allow more mission-critical work to be accomplished.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment

8.H University of Illinois Strategic Collaborative Initiatives. The University of Illinois branches at Urbana-Champaign (UIUC) and Chicago (UIC) commit to provide resources for collaborative initiatives in programs that support DOE's mission at Fermilab. UIUC will provide support for one joint appointment at a senior level. The cost of the position would be shared equally with FNAL but the benefit to the laboratory would be ¼ FTE per year. The appointment will be in place for three of the five years of the initial contract and will have a value to the laboratory of approximately \$180K over the five-year contract period. In addition, UIUC commits resources to support one research assistant per year in support of emerging collaborative research projects between UIUC and FNAL scientific staff. The value of this resource is approximately \$50K per year or \$250K over the initial five-year contract period. UIC will provide adjunct faculty positions to help build a stronger connection between FNAL and UIC. UIC also commits to making available to FNAL R&D programs their analytical equipment at the UIC Research Resources Center at a discounted rate. UIC will support two joint appointments when the decision is made to site the ILC in Illinois.

Resource Donor	Type of Resource
The University of Illinois	In-kind contributions
Location of Resource	Estimated Total Value
The University of Illinois 364 Henry Administration Building 506 South Wright Street Urbana, IL 61801-3689	\$430,000 over five years

Date Resource will be Provided

The joint appointment will commence during the initial five-year period and not later than 24 months after the start of the contract so that three years are supported. The research assistant support will become available at the start of the contract.

Resource Benefits to FNAL

- ❖ These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent through joint and adjunct appointments. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics and accelerator research, creating new ventures and discoveries that push the frontiers of science.
- ❖ These resources support incentives that assist FNAL management to attract and retain scientists who are the leaders in particle physics research by offering an academic appointment at a prestigious university combined with a staff position at a national laboratory.
- ❖ Technical staff and equipment provided at reduced cost provide resources for support of R&D programs at the laboratory at no or reduced cost to the Government.

Resource Liabilities to FNAL

None anticipated

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.I Northern Illinois University Strategic Collaborative Initiatives. Northern Illinois University commits the resources to support one FNAL–NIU joint appointment for three years in the field of Accelerator Physics. Two thirds of the work performed will be in support of DOE programs at FNAL while the laboratory will fund only one third of the salary. The value of this commitment to the DOE mission is approximately \$50K per year, a total of \$150K during the initial five-year contract period.</p>	
Resource Donor	Type of Resource
Northern Illinois University	In-kind contribution
Location of Resource	Estimated Total Value
Northern Illinois University Dekalb, Illinois 60115	\$150,000 over five years
Date Resource will be Provided	
The resource will be provided during the initial five-year contract period and not later than 24 months after start of the contract so that three years of a joint appointment are supported.	
Resource Benefits to FNAL	
<p>❖ These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the field of accelerator science, helping to create new ventures and discoveries that push the frontiers of science.</p>	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.J Northern Illinois University Scholarship Program For Children of FRA Employees. Northern Illinois University commits the resources to grant two full scholarships per year to the children of FRA employees. The value at \$14K per year per student is \$28K per year or \$140K over the initial five-year contract period.</p>	
Resource Donor	Type of Resource
Northern Illinois University	In-kind contribution
Location of Resource	Estimated Total Value
Northern Illinois University Dekalb, Illinois 60115	\$140,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of \$28K	
Resource Benefits to FNAL	
<p>❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent.</p>	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment	
<p>8.K Northern Illinois University-FNAL Joint Education Programs. Northern Illinois University commits the resources to develop a joint Ph.D. program in accelerator physics and a joint Masters degree program in RF engineering. The value of these programs is fully dependent on how many students are enrolled in the programs during the term of the contract. During the research studies phase of the Ph.D. program, an estimate of the contribution would be approximately one half FTE per student. Nevertheless, we do not assign a monetary value to this very valuable program because of the inherent variability of its value. This is a long-term investment in strengthening NIU ties to FNAL and contributing to the future of accelerator technology. NIU will also commit to two full tuition waivers for graduate students each year, who are working on FNAL programs. This has a value of \$30K per year or \$150K over the initial five-year term of the contract.</p>	
Resource Donor	Type of Resource
Northern Illinois University	In-kind contribution
Location of Resource	Estimated Total Value
Northern Illinois University Dekalb, Illinois 60115	\$150,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$30K	
Resource Benefits to FNAL	
<p>❖ There is a great need for and shortage of accelerator physicists to support the needs of the Office of Science missions related to accelerator science. Educating, recruiting, and hiring talented accelerator scientists are priorities for the DOE missions at FNAL and elsewhere in the U.S. The development of a joint Ph.D. program in accelerator science serves to train the next generation of accelerator scientists and at the same time provides the research efforts of these students working on R&D problems in support of FNAL programs. RF engineering is a necessary core competency related to the key technology of superconducting RF for the ILC. Training the next generation of engineers and recruiting them to work in support of the ILC is a high priority. The graduate tuition waiver program provides an incentive for graduate students to work in DOE mission-related research at FNAL and contributes to attracting top young scientific talent to FNAL and DOE programs.</p>	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment	
<p>8.L Northern Illinois University-FNAL Joint Scintillator R&D Facility. Northern Illinois University will maintain and locate a plastic co-extruder at FNAL and support its operation with one half FTE of technician effort. The estimated value of this commitment of equipment and personnel is \$125K per year or \$625K over the five years of the initial contract.</p>	
Resource Donor	Type of Resource
Northern Illinois University	In-kind contribution
Location of Resource	Estimated Total Value
Northern Illinois University Dekalb, Illinois 60115	\$625,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$125K	
Resource Benefits to FNAL	
<p>❖ Scintillating fiber technology is one of the enabling technologies of high energy physics particle detectors used extensively, for example, in the DZero collider detector and future detectors such as MINERvA. FNAL maintains a core competence in the use and development of this technology for particle physics experiments and other applications. The location at FNAL and use of the NIU co-extruder in DOE mission-related R&D at FNAL will reduce the cost of these R&D programs to the Government and maximize the output of these programs per dollar invested.</p>	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment	
8.M Northwestern University Scholarships for Children of FRA Employees. Northwestern University commits the resources to grant scholarships to provide tuition support to the children of FRA employees for a total of \$25K per year	
Resource Donor	Type of Resource
Northwestern University	In-kind contribution
Location of Resource	Estimated Total Value
Northwestern University 633 Clark Street Evanston, IL 60208	\$125,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of \$25K	
Resource Benefits to FNAL	
❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment	
8.N Northwestern University Strategic Collaborative Initiatives. Northwestern University commits to provide support for strategic joint appointments and collaborative research projects with FNAL scientists. Two joint Northwestern-FNAL junior or senior positions will be supported. The support for these positions will be shared equally between the two institutions but ¾ of the effort will be devoted to DOE missions at FNAL. The contribution from the university, one quarter of an FTE per joint appointment for at least three years, has an estimated value of \$350K over the five years of the initial contract period. In addition, start-up funds to support the research programs of these scientists at FNAL will be provided with a value of at least \$400K. The University will also grant two full one-year leaves of absence for faculty members to perform dedicated work in support of DOE's missions at FNAL. The University support for these scientists would be \$200K over the initial five-year term of the contract.	
Resource Donor	Type of Resource
Northwestern University	In-kind contribution
Location of Resource	Estimated Total Value
Northwestern University 633 Clark Street Evanston, IL 60208	\$950,000 over five years
Date Resource will be Provided	
The joint appointments will commence during the initial five-year contract period and not later than 24 months after the start of the contract so that three years will be supported. The leaves of absence will be granted so that they are completed during the initial five-year contract period.	
Resource Benefits to FNAL	
❖ Since Fermilab would otherwise have a need to hire equivalent staff to carry out DOE programs at FNAL, this program reduces the cost to the Government of these programs. These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, astrophysics and accelerator research, creating new ventures and discoveries that push the frontiers of science.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.O Northwestern University Executive Education for Fermilab Staff and Scientists. Northwestern University will grant partial tuition waivers (30%) for executive training programs offered by the Kellogg School of Business for up to six FNAL managers per year. This represents a commitment of \$15K per year or \$75K over the five-year period of the initial contract.</p>	
Resource Donor	Type of Resource
Northwestern University	In-kind Contribution
Location of Resource	Estimated Total Value
Northwestern University 633 Clark Street Evanston, IL 60208	\$75,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$15K	
Resource Benefits to FNAL	
❖ The benefit to DOE is an increased management capability. Continuous improvement in management will be key to achieving efficiencies throughout the organization. Administrative efficiency will lead to cost savings that can be applied to scientific programs allowing more mission-critical work to be accomplished.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.P Illinois Institute of Technology Strategic Collaborative Initiatives. IIT commits to supporting three joint IIT-FNAL appointments, one senior, and two junior faculty appointments. On average these appointments will be filled for three years out of the five-year initial term of the contract. The support for these positions will be shared equally between the two institutions but three quarters of the effort will be devoted to DOE missions at FNAL. This contribution from the University has an estimated value of \$350K over the five years of the initial contract period. In addition, the University will grant one full one-year leave of absence for a faculty member to perform dedicated work in support of DOE's missions at FNAL. FNAL would provide one third of the support and Northwestern would provide two thirds of the support. The estimated value of two thirds of an FTE contribution to FNAL programs is approximately \$150K over the five-year initial term of the contract.</p>	
Resource Donor	Type of Resource
Illinois Institute of Technology	In-kind contribution
Location of Resource	Estimated Total Value
Illinois Institute of Technology 3300 South Federal Street Chicago, IL 60616-3793	\$500,000 over five years
Date Resource will be Provided	
The joint appointments will commence during the initial five-year contract period and not later than 24 months after the start of the contract so that three years will be supported. The leave of absence will be granted so that it is completed during the initial five-year contract period.	
Resource Benefits to FNAL	
❖ Since Fermilab would otherwise have a need to hire equivalent staff to carry out DOE programs at FNAL, this program reduces the cost to the Government of these programs. These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, astrophysics and accelerator research, creating new ventures and discoveries that push the frontiers of science.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.Q Illinois Institute of Technology Scholarships for Children of FRA Employees. Illinois Institute of Technology commits the resources to grant five scholarships to provide 50% tuition support to the children of FRA employees. The value at \$10K per year per student is approximately \$50K per year or \$250K over the initial five-year contract period.</p>	
Resource Donor	Type of Resource
Illinois Institute of Technology	In-kind contribution
Location of Resource	Estimated Total Value
Illinois Institute of Technology 3300 South Federal Street Chicago, IL 60616-3793	\$250,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately \$50K	
Resource Benefits to FNAL	
❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
<p>8.R Illinois Institute of Technology Executive Education for Fermilab Staff and Scientists. Illinois Institute of Technology commits to provide one FTE-year of faculty effort, with a value of approximately \$150K over the five-year period of the initial contract, to design specific courses for FNAL staff in the diverse areas where IIT has specific competencies. In addition, IIT commits to supporting management and technical training courses for FNAL professional and scientific staff with tuition discounts up \$30K per year or \$150K over the five-year period of the initial contract.</p>	
Resource Donor	Type of Resource
Illinois Institute of Technology	In-kind Contribution
Location of Resource	Estimated Total Value
Illinois Institute of Technology 3300 South Federal Street Chicago, IL 60616-3793	\$300,000 over five years
Date Resource will be Provided	
At start of contract in approximately equal annual increments	
Resource Benefits to FNAL	
❖ The benefit to DOE is an increased management capability deriving from expanded skills of FNAL staff. Administrative efficiency will lead to cost savings that can be applied to scientific programs. This will allow more mission-critical work to be accomplished.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment

S. Preliminary Assessment of Maintenance and Work Control Practices. EG&G/URS commits four subject matter experts to perform a preliminary assessment of maintenance and work control practices. Deliverables include a brief report and presentation to assist OQBP in developing plans and preparing for implementation of best practices. EG&G will suggest a path for FNAL to implement an industry best-practice that has evolved in this arena—adoption of a reliability-centered maintenance (RCM) program with an accompanying wireless (paperless) network to interface with the existing Computerized Maintenance Management System (CMMS) application. Implementation of this at EG&G operated facilities, such as NASA's Marshall Space Flight Center (MSFC), has netted a cost reduction in the areas of required replacement parts and elimination of over 95,000 paper work orders per year.

Resource Donor	Type of Resource
EG&G/URS	Personnel
Location of Resource	Estimated Total Value
EG&G 200 Orchard Ridge Drive, Suite 100 Gaithersburg, MD 20878	\$43,000

Date Resource will be Provided

Following announcement of award, before beginning of period of performance

Resource Benefits to FNAL

- ❖ Proper implementation of RCM combines the best of the four (4) maintenance methods used today: reactive (corrective), time-based (preventative), condition-based, and proactive (predictive). FNAL should be able to reap short-term benefits from reducing reactive and time-based maintenance and longer-term benefits from proper execution of condition-based and proactive maintenance. Managed properly, the benefits derived from the short-term benefits should offset the cost of implementing the changes required to fully implement RCM.
- ❖ Over the life of the contract FNAL should be able to reduce costs associated with maintenance and work control and increase reliability of utility systems that provide required services to scientific endeavors.

Resource Liabilities to FNAL

None anticipated



August 14, 2006

Frederick M. Bernthal
President

Board of Trustees

Joe B. Wyatt, Chair
*Chancellor Emeritus,
Vanderbilt University*

Robert W. Galvin, Vice-Chair
CEO (ret.), Motorola, Inc.

Norman R. Augustine
*Chairman, Executive Committee
Lockheed Martin Corporation*

Steven C. Beering
*President Emeritus,
Purdue University*

Emanuel J. Fthenakis
CEO (ret.), Fairchild Industries

Robert M. Gates
President, Texas A&M University

Donald L. Hartill (*ex officio*)
*Professor, Cornell University
and Chair, Board of Overseers,
Fermi National Accelerator Lab.*

William H. Joyce
*Chairman and CEO,
NALCO Company*

Shirley Strum Kenny
*President, State University of
New York at Stony Brook*

Richard L. Lederman
*Director Emeritus, Fermi
National Accelerator Laboratory*

Richard A. Meserve
*President, Carnegie
Institution of Washington*

Heather Munroe-Blum
Principal, McGill University

Andrew A. Sorensen
*President, University of
South Carolina*

H. Guyford Stever (*Emeritus*)
*President Emeritus,
Carnegie Mellon University*

Mark S. Wrighton
*Chancellor, Washington University
in St. Louis*

Henry T. Yang
*Chancellor, University of
California at Santa Barbara*

Council of Presidents

Susan Hockfield, Chair
*President, Massachusetts
Institute of Technology*

Richard Herman, Vice-Chair
*Chancellor, University of Illinois
at Urbana-Champaign*

Ms. Tonja Stokes
Secretary, Source Evaluation Board for Selection of a Contractor for FNAL
U.S. Department of Energy
Chicago Office
9800 South Cass Ave.
Argonne, Illinois 60439

Re: Commitment of Resources to Fermi National Accelerator Laboratory
(FNAL) at No Cost to the Government

Dear Ms. Stokes:

Universities Research Association, Inc. (URA) is pleased to join with the University of Chicago in the formation of Fermi Research Alliance, LLC (FRA) in proposing to manage and operate Fermilab for the Department of Energy. URA has managed Fermilab for the Department since the inception of the laboratory, and we look forward to continuing to work with the Department to achieve its mission at Fermilab. In addition to our proposed role in FRA, URA makes the following specific commitment in support of Fermilab's future, as follows:

Universities Research Association agrees to provide \$400,000 per year or \$2,000,000 over five years to: 1) seed R&D projects by providing support for URA university faculty and staff in joint projects with Fermilab; 2) fund sabbatical leaves at Fermilab and extended visits of URA university personnel to Fermilab; and 3) fund activities of URA university faculty and staff dedicated to public education and outreach in support of DOE programs.

URA is providing this new commitment of resources to Fermilab in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,

Frederick M. Bernthal
President



Tonja Stokes
Executive Secretary
Source Evaluation Board for Selection of a Contractor for FNAL
U.S. Department of Energy
Chicago Office
9800 South Cass Ave.
Argonne, Illinois 60439

OFFICE of the VICE PRESIDENT for RESEARCH
AND FOR ARGONNE NATIONAL LABORATORY

5801 SOUTH ELLIS AVENUE, SUITE 502
CHICAGO, ILLINOIS 60637

THOMAS F. ROSENBAUM
John T. Wilson Distinguished Service Professor of Physics
Vice President for Research and for Argonne National Laboratory

Re: Commitment of Resources to Fermi National Accelerator Laboratory at No Cost to the Government

Dear Ms. Stokes:

The University of Chicago is pleased to join with Universities Research Association in the formation of Fermi Research Alliance, LLC (FRA) in proposing to manage and operate Fermilab for the Department of Energy. The University has long been a collaborator in science programs at the laboratory and we look forward to this new role in working with the Department to achieve its mission at Fermilab. In addition to our proposed role in FRA we commit to support Fermilab as follows:

(1) The University of Chicago commits approximately \$250K per year, or \$1,250,000 over the term of the five year base contract for strategic joint appointments, collaborative research projects and joint institutes. These funds will provide the laboratory director with additional flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Prime among these is a joint UChicago – FNAL appointment to head FNAL's Center for Particle Astrophysics. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, and accelerator research, creating new ventures and discoveries that push the frontiers of science.

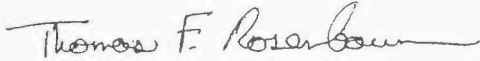
(2) The University of Chicago commits approximately \$100K per year, or \$500,000 over the five year term of the base contract to support activities associated with the Laboratory Collaboration Council and the Management and Decision Support Dashboard (MDSB) initiative. These funds will provide Fermilab's Office of Quality Assurance and Best Practices with additional means and expertise to expedite the implementation of the MDSB which will provide key DOE and FNAL decision makers and managers real-time data on laboratory performance to align strategies with operational objectives, actively monitor day-to-day activities, and collaborate more effectively across the enterprise to drive efficiencies towards producing the maximum scientific output from each taxpayer dollar. A more rapid implementation and earlier utilization of benefits from these efforts will provide more operational efficiencies, leading to cost savings for FNAL and DOE. Additionally, FNAL staff will be able to access subject matter experts and lessons learned at Argonne National Laboratory via the Laboratory Coordinating Council. Together these commitments will strengthen and streamline the adoption of best practices at FNAL and assure the highest quality performance.

(3) The University of Chicago commits to working with Fermilab and the Department of Energy to create a non-degree executive education program for Fermilab professional and scientific staff. This program will build upon and be coordinated with the proposed commitment to establish an executive education program at Argonne through the University's Graduate School of Business. This commitment is valued at approximately \$50,000 per year, or \$250,000 over the five year term of the base contract. This is expected to yield an increased management capability

and administrative efficiency and thus lead to cost savings that can be applied to scientific programs. This, in turn, will allow more mission critical work to be accomplished.

The cost to provide this corporate commitment is, for the purposes of this contract, acknowledged to be unallowable costs, with the further understanding that such commitment would only be undertaken so long as the contract remains in effect. Such commitment is further acknowledged to be separate from and unrelated to the fee. The University of Chicago is pleased to provide this commitment of resources to FNAL in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,



Thomas F. Rosenbaum
Vice President for Research and for Argonne National Laboratory
University of Chicago

UNIVERSITY OF ILLINOIS

Chicago • Springfield • Urbana-Champaign

Office of the President
364 Henry Administration Building
506 South Wright Street
Urbana, IL 61801-3689

PRESIDENT'S OFFICE

AUG 11 2006

B. Joseph White
President

August 8, 2006

Dr. Robert J. Zimmer
Chairman of the Fermi Research Alliance and
President, The University of Chicago
Administration Building
5801 South Ellis Avenue, 502
Chicago, Illinois 60637

Dear Dr. Zimmer:

I am writing to affirm the full support of the University of Illinois to the University of Chicago, in partnership with the Universities Research Association, Inc., in creating an exciting future for Fermilab as a unique component of our nation's scientific research infrastructure. We are pleased to join you in providing scientific and administrative leadership and look forward to participating as a full member in the governance structure of Fermilab and as a major contributor to the advancement of Fermilab's science mission.

The University of Illinois campuses at Chicago and Urbana-Champaign, both of which have long and accomplished histories of scientific involvement at Fermilab, will provide separate, campus specific letters committing their support. The purpose of my letter is to complement and endorse our campuses commitments.

To assure an effective and integrated partnership between the University of Illinois and Fermilab, the Offices of the President and the Vice President for Technology and Economic Development are committed to providing high level leadership through service in the governance structure for Fermilab. In addition, the Vice Chancellors for Research at the University of Illinois at Chicago and at the University of Illinois at Urbana-Champaign agree to serve and give leadership to science policy and strategy at Fermilab.

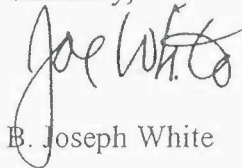
The University of Illinois is enthusiastic about potential collaborations with Fermilab to encourage more young people to pursue careers in science and technology. Developing tomorrow's science and technology leaders is absolutely essential if we are to compete in the global marketplace.

Zimmer
August 8, 2006
Page 2

Advancing the economic wellbeing of Illinois, the Midwest and the nation is an important responsibility of the University of Illinois. We share the mission to broaden and strengthen economic growth and development through investments in discovery research and the accelerated transfer, development and commercialization for the public benefit of innovations and new technologies resulting from this investment. Therefore, the University of Illinois pledges its unwavering support to design strategies and develop successful programs to foster rapid technology deployment to market thus achieving maximum local, regional and national economic impact.

I look forward to partnering to guide the future of Fermilab, an important national resource.

Sincerely,

A handwritten signature in black ink that reads "Joe White". The signature is written in a cursive, somewhat stylized font.

B. Joseph White

cc: Frederick Bernthal-President, Universities Research Association, Inc.
David L. Chicoine-Vice President, University of Illinois
Richard H. Herman-Chancellor, University of Illinois at Urbana-Champaign
Sylvia Manning-Chancellor, University of Illinois at Chicago
Piermaria J. Oddone- Director, Fermi National Accelerator Laboratory

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research

Fourth Floor Swanlund Building
601 East John Street
Champaign, IL 61820-5711



August 9, 2006

Dr. Piermaria Oddone
URA Batavia Proposal Center
355 First Street
Batavia, IL 60510

Dear Dr. Oddone:

The University of Illinois at Urbana-Champaign (UIUC) strongly supports the proposal of the Fermi Research Alliance for the management and operation of Fermilab. UIUC has a strong interest in the future of research at Fermilab, and is committed to strengthening the ties between the research and educational programs of our two organizations.

Over the five year period of the contract, UIUC is willing to provide support for one research assistant each year to participate in emerging collaborative research projects between UIUC and Fermilab staff, provided that the projects are selected through a competitive process and that the UIUC funding for the project is matched by Fermilab. As you may know, the College of Engineering has already committed \$100,000 to the Dark Energy collaboration. In addition, UIUC faculty members collaborating with Fermilab staff can apply to existing, competitive seed-funding programs managed by Office of the Vice Chancellor for Research. These programs include the Campus Research Board and the Critical Initiatives in Research and Scholarship. (<http://www.research.uiuc.edu/crb/> <http://www.research.uiuc.edu/cri/>)

UIUC is eager to explore opportunities to extend our educational offerings through cooperation with Fermilab, and we expect that it will be possible to fund these efforts by means of joint grant proposals. Programs of particular interest to the campus include a joint graduate degree and an undergraduate specialization in accelerator physics, short course development and the expansion of existing outreach programs at both Fermilab and UIUC.

UIUC is willing to conduct a joint search with Fermilab for a senior faculty member under our Faculty Excellence program. We see such a position as a powerful tool for building strong collaborative research programs between our institutions.

UIUC is committed to allowing our faculty members to perform research at Fermilab. In addition to the ongoing research programs involving our faculty, faculty release time could be funded by Fermilab to allow our faculty to spend additional time on projects that are mutually agreed upon by UIUC and the Director of Fermilab. This would likely be in the context of faculty sabbaticals.

Finally, UIUC plans to work closely with Fermilab and other institutions to build infrastructure and research programs to support the development of the International Linear Collider at Fermilab.

UIUC is fully supportive of broadening and strengthening our relationship with Fermilab. We look forward to actively developing community and state support for the International Linear Collider and other Fermilab activities. Expanding our institutional interactions with Fermilab is critical to maintaining our leadership in High Energy Physics. As our interactions with Fermilab grow, we hope to enlarge participation in education and research to other disciplines at UIUC.

We look forward to working with you and the other members of the Fermi Research Alliance. If you have questions or need additional information, please contact Howard Guenther, hguenthe@uiuc.edu, or Melanie Loots, mloots@uiuc.edu, in my office. Either can be reached at 217-333-0034.

Sincerely,



Charles F. Zukoski
Vice Chancellor for Research

c: Fred Bernthal
Michael Turner

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office of the Dean (MC 228)
College of Liberal Arts and Sciences
601 South Morgan Street
Chicago, Illinois 60607-7104

PRESIDENT'S OFFICE

August 2, 2006

AUG 08 2006

Dr. Robert Zimmer, Chairman, Fermi Research Alliance
President University of Chicago
5801 S. Ellis Ave, Suite 502
Chicago, IL 60637

Dear Dr. Zimmer:

The University of Illinois at Chicago (UIC) is pleased to join the University of Chicago and the Universities Research Association (URA) in support of the Fermilab Research Alliance proposal to manage and operate Fermilab. The UIC Department of Physics has a long history of experimentation at Fermilab, and we intend to continue that relationship in the future. In support of the proposal to the Department of Energy, UIC makes the following commitments to Fermilab.

UIC will join URA and through its financial contributions to URA will help build joint programs with Fermilab (\$35K). In addition UIC will seek out Fermilab scientists for adjunct faculty positions to help build a stronger connection between our two institutions. In the long term we commit to at least two joint faculty appointments when the decision is made to site the International Linear Collider in Illinois. We also commit to making our specialized facilities available to Fermilab scientists, especially the powerful analytical equipment at the Research Resources Center, at the same discounted rate as other local research universities.

We look forward to working with you and your colleagues in the future.

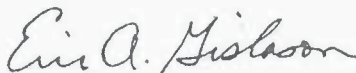
Sincerely,



R. Michael Tanner
Provost



Christopher M. Comer, Dean
College of Liberal Arts and Sciences



Eric A. Gislason
Vice Chancellor for Research

cc: Piermaria Oddone, Director FNAL
Fred Bernthal, President URA

UIC



NORTHERN ILLINOIS
UNIVERSITY

Office of the President
Altgeld Hall 300
DeKalb, Illinois 60115-2854
(815) 753-1271
FAX (815) 753-8686

PRESIDENT'S OFFICE

AUG 15 2006

August 9, 2006

Dr. Robert Zimmer
Chairman, Fermi Research Alliance
President, University of Chicago
5801 S. Ellis Ave.
Suite 502
Chicago, IL 60637

Re: Commitment of resources to Fermi National Accelerator Laboratory at no cost to the government

Dear Dr. Zimmer:

In connection with the Fermi Research Alliance proposal to manage and operate Fermilab, Northern Illinois University is pleased to make the following commitments.

Northern Illinois University commits resources to support one FNAL – NIU joint appointment for three years in the field of Accelerator Physics. NIU will cover two thirds of the salary for an annual contribution of approximately \$100K/year and a total of \$300K over the initial term of the contract.

Northern Illinois University commits the resources to grant up to two full undergraduate tuition scholarships to the children of FRA employees per year. This is valued at \$28K/ year or \$140K over the initial term of the contract. These scholarships would be given on a competitive basis, with qualifications similar to that of the most demanding scholarship programs at NIU. These scholarships help in the recruitment of top talent to Fermilab by adding to the excellent educational opportunities for the children of Fermilab employees.

Northern Illinois University commits to two full tuition waivers for graduate students per year who are working on Fermilab programs. This has a value of \$30K/year or \$150K for the first five year term of the contract.

Northern Illinois University commits the resources to develop a joint Ph.D. program in accelerator physics and a joint Masters degree program in RF engineering. The development of a joint Ph.D. program in accelerator science serves to train the next generation of accelerator scientists and at the same time provides the research efforts of students working on R&D problems in support of FNAL

Dr. Robert Zimmer

August 9, 2006

Page 2

programs. Radiofrequency engineering is a necessary core competency related to the key technology of superconducting RF for the ILC. Training the next generation of engineers and recruiting them to work in support of the ILC is a high priority. The value of these programs is fully dependent on how many students are enrolled in the programs during the term of the contract. This is a long term investment in strengthening our ties to Fermilab and contributing to the future of accelerator technology.

Northern Illinois University will maintain and locate a plastic co-extruder at FNAL and support its operation with one half FTE of technician effort. The estimated value of this commitment of equipment and personnel is \$125K per year or \$625K over the five years of the initial contract. Scintillator technology is one of the enabling technologies of high energy physics particle detectors used extensively, for example, in the DZero collider detector and in future detectors like Minerva. FNAL maintains a core competency in the use and development of this technology for particle physics experiments and other applications. The location at FNAL and use of the NIU co-extruder in DOE mission related R&D at FNAL will reduce the cost of these R&D programs to the government.

Northern Illinois University is pleased to provide this commitment of resources to FNAL in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,



John G. Peters
President

cc: Piermaria Oddone, Director Fermilab
Fred Bernthal, President URA



August 7, 2006

Dr. Robert Zimmer, Chairman, Fermi Research Alliance
President University of Chicago
5801 S. Ellis Ave.
Suite 502
Chicago, IL 60637

Re: Commitment of Resources to Fermi National Accelerator Laboratory at No Cost
to the Government

Dear Dr. Zimmer:

Northwestern University supports the University of Chicago and the Universities Research Association in their proposal to manage and operate Fermilab through the Fermi Research Alliance (FRA). We have long standing collaborations with Fermilab and we want to enhance this relationship in the future to our mutual benefit. We commit to support Fermilab in the future as follows.

Northwestern University commits the resources to grant tuition scholarships to the children of employees of FRA who are admitted as undergraduates for a total of \$25k/year. This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent.

Northwestern University commits to two joint Northwestern – FNAL positions, senior or junior faculty appointments. The university investment in these positions consists of the start-up packages adding to at least \$400K plus a 50% salary commitment for three years per faculty adding to at least \$700K. The support for these positions will be shared between the two institutions but the effort will be concentrated on the Fermilab program.

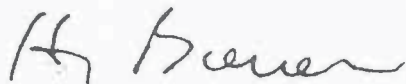
The University will grant a total of two academic years of leaves of absence for faculty members to perform dedicated work in support of DOE's missions at FNAL. FNAL would provide one-third of the support and Northwestern would provide two-thirds of the support. The University support would add to \$200K over the initial term of the contract. Since Fermilab would otherwise have a need to hire an equivalent effort to carry out DOE programs at FNAL, this program reduces the cost to the government of these programs.

The University will grant partial tuition waivers (30%) for executive training programs offered by the Kellogg School of Business for up to 6 Fermilab managers per year. This represents a commitment of approximately \$15K/year or \$75K over the life of the

contract. Continuous improvement in management will be key to achieving efficiencies throughout the organization.

Northwestern University is pleased to provide this commitment of resources to FNAL in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,

A handwritten signature in cursive script, appearing to read "H. Bienen".

Henry S. Bienen
President
Northwestern University

cc: Piermaria Oddone, Director Fermilab
Fred Bernthal, President URA



August 11, 2006

Dr. Robert Zimmer, Chairman, Fermi Research Alliance
President, University of Chicago
5801 South Ellis Avenue
Suite 502
Chicago, IL 60637

Re: Commitment of Resources to Fermi National Accelerator Laboratory at
No Cost to the Government

www.iit.edu

Lewis Collens
President

Office of the President
Perlstein Hall, Suite 223
10 West 33rd Street
Chicago, Illinois 60616

312.567.5198
312.567.3004 Fax
collens@iit.edu

Dear Dr. Zimmer:

Illinois Institute of Technology supports the proposal of the Fermi Research Alliance for the management and operation of Fermilab. IIT has a strong connection and interest in the health of Fermilab and its future, and makes the following commitments.

IIT commits to support three joint IIT – FNAL appointments, one senior and two junior faculty appointments. On average these appointments will be filled for three years out of the five year initial term of the contract. The appointments will be in leadership and research positions that are of utility to the Fermilab program and the DOE and also advance IIT's contributions to particle physics. The approximate IIT investment for the salary support of these three appointments (for the three year average duration) is approximately \$700K.

In addition, IIT will grant one full year leave of absence for faculty members to perform dedicated work in support of DOE's missions at FNAL. FNAL would provide one-third of the support and Northwestern would provide two-thirds of the support. The estimated value of two-thirds of an FTE contribution to the FNAL programs is approximately \$150K over the five year initial term of the contract. Since Fermilab would otherwise have a need to hire an equivalent effort to carry out DOE programs at FNAL, this program reduces the cost to the government of these programs.

IIT commits the resources to grant five scholarships to provide 50% tuition support to children of FRA employees that are admitted to IIT. The value at \$10K per year per student is approximately \$50K per year or \$250K over the initial five year contract period. This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent.



Dr. Robert Zimmer
Page 2
August 11, 2006

IIT commits to a 50% discount for management and technical training courses for FNAL professional and scientific staff up to a total aggregate discount of \$30K/year. This will give FNAL staff the opportunity to expand their skills and to build the connections with IIT. The management efficiencies gained through the higher level of training will benefit DOE and FNAL.

Finally, IIT commits to providing the expertise of several faculty members who would design specific training courses for Fermilab staff in the diverse areas where IIT has special competencies. The aggregate commitment would be one FTE-year during the initial term of the contract representing an investment of approximately \$150K.

We are pleased to offer these commitments to strengthen the future of Fermilab.

Sincerely,

cc Piermaria Oddone, Director FNAL
Fred Bernthal, President URA



August 16, 2006

Tonja Stokes
Executive Secretary
Source Evaluation Board for Selection of a Contractor for FNAL
U.S. Department of Energy
Chicago Office
9800 South Cass Ave.
Argonne, IL 60439

Re: Commitment of Resources to Fermi National Accelerator Laboratory at No Cost to the Government

Dear Ms. Stokes:

EG&G is pleased with our selection to provide operations and business management consulting services under contract to Fermi Research Alliance, LLC (FRA) in support of the Office of Quality and Best Practices. EG&G and its parent company, URS, has a long history in providing operations, quality, engineering, maintenance and management services to Government and private entities and is looking forward to being part of the Fermilab team.

In addition to our role outlined in the proposal, we commit to providing a preliminary assessment of maintenance and work control practices after award announcement, at no expense to the Government, to assist FRA in development of an improvement plan under the auspices of Quality and Best Practices.

EG&G will provide four subject matter experts to perform the assessment of current practices. The personnel will make two visits of approximately one week each with two weeks between for caucus. A brief report and presentation will follow at FRA management's convenience.

Please contact Mr. Jeff Cotton or Dr. Tom Wrenn at 435-830-4150 or 301-258-6566 respectively, if you have any questions about this subject.

Sincerely,

Randall A. Wotring
President
EG&G Technical Services, Inc.

200 Orchard Ridge Drive
Suite 100
Gaithersburg, MD 20878
PHONE (301) 258-6581
FAX (301) 721-2220