



November 6, 2019

Mr. Fausto Fernandez, Director  
 Contracting Officer  
 Business Management Division  
 U.S. Department of Energy  
 Brookhaven Site Office  
 Building 464  
 Upton, NY 11973

**SUBJECT: BSA's Performance Commitment for Fiscal Year ("FY") 2019 Relative to the Accepted Commitments for FY 2015 – FY 2025**

Dear Mr. Fernandez:

Brookhaven Science Associates, LLC ("BSA"), in its capacity as manager and operator of Brookhaven National Laboratory ("BNL"), has proposed, and the Department of Energy ("DOE") has accepted, over \$118M in Commitments over the next decade from external sources to support our vision for BNL.

Contract No. DE-SC0012704 Section J - Appendix B (the "Contract") required an annual performance plan by BSA that provided the DOE an objective measurement of BSA's Commitments that advance the Laboratory mission, as stated in PEMP 4.3.

The table below reflects the FY 2019 actual dollars delivered, cumulative actual dollars delivered, and the estimated value of Commitments over the decade. Since the award of Contract, the amounts attributable to specific items have been refined. Notwithstanding, the total Commitments remain firm. In addition, following the table, I have laid out the progress for actions associated with New York State funding as of the end of FY 2019 under the "Action Plan/Milestones" section below.

Source/Commitment	Alignment with BSA's Critical Outcomes or Other Initiatives	Delivery Timeframe	FY 2019 Actual Delivered	Total Cumulative Delivered	Estimated Total Value (millions)
<b>New York State</b>					
High-Energy X-ray Beamline at NSLS-II	Transformation of synchrotron science; in operando/in situ energy science	2015–2020	\$11M	\$15M	\$25M
Energy Recovery Linac (ERL)	Origins of matter and mass	2015–2020	\$6M	\$25M	\$25M

Source/Commitment	Alignment with BSA's Critical Outcomes or Other Initiatives	Delivery Timeframe	FY 2019 Actual Delivered	Total Cumulative Delivered	Estimated Total Value (millions)
Establish Big Data Consortium–Center for Data-Driven Discovery (C3D)	Data-driven discovery	2015–2020	\$8M	\$10.3M	\$15M
CryoEM	Materials & Chemical Complexity: NSLS-II, CFN		\$3.7M	\$13.5M	
<b>NYS Total</b>			<b>\$29.1M</b>	<b>\$63.8M</b>	<b>\$65.0M</b>
<b>Brookhaven Science Associates</b>					
Capitalize Agreements for Commercializing Technology (ACT) and non-federal Work for Others (WFO) to accelerate Laboratory growth agenda	Growth in WFO, energy technology; workforce development; community relations	2015–2025	\$15K	\$2.4M	\$3.2M
STEM education and community outreach	Workforce development; community relations	2015–2025	\$342K	\$1.3M	\$2.5M
Laboratory employee college scholarships	Workforce attraction and retention	2015–2025	\$113K	\$0.6M	\$1.5M
Laboratory Director discretionary funds	All Critical Outcomes	2015–2025	\$1.1M	\$7.0M	\$15M
<b>BSA Total</b>			<b>\$1.6M</b>	<b>\$11.3M</b>	<b>\$22.2M</b>
<b>Stony Brook University</b>					
Stony Brook-BNL Joint Appointments	Synchrotron Sciences; Energy Sciences; High-Energy Physics (HEP); Environmental; Data-driven Discovery	2015–2025	\$6.1M	\$23M	\$26.2M
Stony Brook-BNL Seed Grant Program and other related support	All Science Critical Outcomes	2015–2025	\$230K	\$1.3M	\$2M
<b>Stony Brook Total</b>			<b>\$6.3M</b>	<b>\$24.3M</b>	<b>\$28.2M</b>
<b>Partner Universities</b>					
Partner Universities - BNL Joint Appointments	Transformation of synchrotron science; in operando/in situ energy science	2015–2020	\$2.041M	\$8.342M	\$3.0M
<b>Partner Universities Total</b>			<b>\$2M</b>	<b>\$8.3M</b>	<b>\$3.0M</b>
<b>GRAND TOTAL</b>			<b>\$39M</b>	<b>\$107.7M</b>	<b>\$118.4M</b>

**Action Plan/Milestones:**

With respect to the New York State funding, we made the following progress during FY 2019:

Establish Big Data Consortium–Center for Data-Driven Discovery (“C3D”): The project agreement is fully signed and executed. Empire State Development Corporation (“ESDC”) issued an original advance of \$.75M and BSA has received additional installments totaling \$10.3M. In addition, BSA has provided up to \$1.9M in royalty funds to assist with project cash flow challenges.

Energy Recovery Linac (“ERL”): The ERL project agreement is fully signed and executed. BNL has received the full funding of \$25M from NYSERDA. The first 10 of 12 technical milestones have been met on schedule or early. Both “Go-No-Go” milestones have been accomplished. Currently focused on milestone #11.

High-Energy X-ray (“HEX”) Beamline at NSLS-II: The HEX project agreement is fully signed and executed. NYSERDA issued BSA a total of \$11.4M since commencement of the work. The total project award amount is \$25M. HEX is currently 25 months into a 52-month project with the plan to finish in December 2021. The HEX oversight board has now signed off on the 3<sup>rd</sup> and final go/no-go decision, which was achieved two (2) months early.

CryoEM: The Cryo-EM project secured DOE approval. Contract with ESDC fully signed and executed. Received \$13.5M. Microscope contracts have been awarded. Ground breaking ceremony for the new LBMS in December 2018. ESDC is retaining the remaining \$1.5M for MWBE subcontracting.

We continue to be actively engaged in discussions with officials within the State Administration to secure all funding to support these important projects. We will continue to keep you updated on our progress.

If you have any questions, please do not hesitate to contact me.

Sincerely,



George Clark  
Chief Financial Officer

cc: J. Anderson (BSA/BNL)  
M. Bernstein (BSA/SBU)  
B. Bosley (Battelle)  
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