	Page 1 of 2 FULLY EXECUTED Purchase Order No: 4300613406 Original PO Effective Date: 02/28/2019nd Attested by th PO Issue Date: 03/05/2019office of Judicial Record Valid From: 03/05/2019 To 09/05/2019vov 2021 03:20 pm
Your SAP Vendor #: 383098	Please Deliver To: PSERS
Supplier Name/Address: AON HEWITT INVESTMENT CONSULTING INC 39584 TREASURY CTR CHICAGO IL 60694-9000 US	5 N 5th Street, Third Floor Harrisburg PA 17101-1905 US
	Please Bill To: For the preferred Email Invoice option, visit www.budget.pa.gov
Supplier Phone Number: 847-295-5000	Click Programs and select E-Invoicing. Or mail paper invoice to:
Purchasing Agent Name: Cathy Gusler	Commonwealth of Pennsylvania PO Box 69180, Harrisburg, PA 17106
Phone: 717-720-4889 Fax: 717-783-8760	Purchase Order Description: EP - Investment Consulting
This Purchase Order is comprised of: The above-referenced Solicitation, or incorporated by reference.	L the Suppliers Bid or Proposal, and any documents attached to this Purchase Order
Suppliers must provide four mandatory elements on PO invoices: PO Nur comply will result in the return of the invoice. Additional optional information information will improve invoice processing.	mber, Invoice Date, Invoice Number, and Invoice Gross Amount. Failure to on such as supplier name, address, remit to information and PO Line Item

ltem	Material/Service Desc	Qty	UOM	Delivery Date	Net Price	Price Unit	Total
	Consulting Services	2.000	Each	03/05/2019	182,875.00	1	365,750.00
	or to provide Investment Consultir classes.						
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Information:				Total Amount:			
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						Currency: USE)
Sunn	lier's Signature			Title		I	
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	Printed Name			_ Date		_	
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FULLY EXECUTED

Purchase Order No: 4300613406 Original PO Effective Date: 02/28/2019

PO Issue Date: 03/05/2019

Valid From: 03/05/2019 To 09/05/2019

Supplier Name:

AON HEWITT INVESTMENT CONSULTING INC

Header Text

Vendor to continue to provide Investment Consulting, Performance Evaluation and other related services for all PSERS asset classes for the period March 5, 2019 and continuing until the earlier of six (6) months or a new Purchase Order for these services has been executed by PSERS on the same terms and conditions as the original Purchase Order. (4300389350)

The following documents are attached and incorporated by reference and made a part of this purchase order and shall be given effect in the order of precedence as listed:

Agreement Letter

Rider 1 Purchase Order Terms and Conditions.

Rider 2 PSERS RFP 2013-1.

Rider 3 Vendor proposal to PSERS RFP 2013-1.

Rider 4 Commonwealth Terms and Conditions.

Addendum 2 - 2013-1- License Agreement for Manager Database Rider 5 for Fiduciary and Governance training for PSERS Board and staff.

No further information for this PO.

Information:	Total Amount: 365,750.00
	Currency: USD



February 22, 2019

Aon Hewitt Investment Consulting, Inc. Merritt 7 Corporate Park, Building 201 Norwalk, CT 06851 Attn: Claire Shaughnessy, CFA

Dear Ms. Shaughnessy,

As you are aware, Purchase Order #4300389350 between PSERS and Aon Hewitt Investment Consulting, Inc. ("Aon") (the "Original Purchase Order") is set to expire on March 4, 2019. PSERS has recently issued an RFP for an investment consultant, but such consultant will not be selected, nor will the contractual relationship be completed with that consultant, by March 4, 2019.

In order to ensure that PSERS continues to receive these services uninterrupted, the Parties hereby agree to enter into an Emergency Procurement, to be identified as purchase order #4300613406, effective March 5, 2019 and continuing until the earlier of six (6) months or a new purchase order for these services has been executed by PSERS (the "Emergency Procurement Period"), on the same terms and conditions as the Original Purchase Order.

The parties hereby acknowledge that PSERS will pay to Aon a total sum not to exceed \$365,750.00 for the consulting services provided by Aon to PSERS during the Emergency Procurement Period.

Sincerely,

Glen R. Grell
Executive Director

John B. Kemp, CTP

Managing Director, Investment Operations

and Risk

Approved for form and legality

Charles K. Serine

Agreed to:

Michael T. Novv

Aon Hewitt Investment Consulting, Inc.

RIDER 1

PURCHASE ORDER TERMS AND CONDITIONS

Case ID: 210601197

RIDER 1

PURCHASE ORDER TERMS AND CONDITIONS

Pursuant to purchase order number 4300389350 ("Purchase Order"), HEWITT ENNISKNUPP, INC. (the "CONSULTANT") agrees to perform the services set forth therein, those set forth below, those set forth in its Proposal of June 26, 2013, which is attached to the Purchase Order as Rider 2 and incorporated therein by reference, and those set forth in the Public School Employees' Retirement Board ("Board") transacting business as the Public School Employees' Retirement System's ("PSERS") Request for Proposal ("RFP") dated May 2013, which is attached to the Purchase Order as Rider 1 and incorporated therein by reference.

- A. Consulting Services for PSERS' Fund, including all asset classes and investments:
- 1. The CONSULTANT will review investment objectives, policies, and asset allocation, and will submit a written analysis with recommendations (if any) on investment objectives, policies, and asset allocation changes, by February 28, 2014.
- 2. The CONSULTANT will review the adequacy of PSERS' investment staff and resources, and will submit a written analysis with recommendations (if any) on the PSERS's investment staff and resource changes, by February 28, 2014.
- 3. The CONSULTANT will prepare a written Asset/Liability Study annually for each calendar year and present the results to the Board in March of the following year, beginning March 2014. The CONSULTANT will recommend a performance benchmark for the Total Fund as well as each asset class and individual portfolios.
- The CONSULTANT will review and make recommendations regarding individual portfolio guidelines at least annually.
- 5. The CONSULTANT will recommend suitable investment opportunities and practical implementation methods.
- 6. The CONSULTANT will recommend appropriate investment strategies, tactics, procedures and practices.
- 7. The CONSULTANT will provide research reports on asset allocation, investment issues, and description and evaluation of alternative approaches.
- 8. The CONSULTANT will provide information on market conditions and explain their impact on PSERS' investments.

- The CONSULTANT will assist PSERS' staff in conducting public market investment manager searches and facilitate the hiring of suitable managers, including assistance with the contract/fee negotiations.
- 10. The CONSULTANT will provide reports on investment strategies for all of our investment managers as well as the CONSULTANT's research reports on each of PSERS' public market managers, including updates as they are completed for manager visits and/or re-evaluations.
- 11. The CONSULTANT will keep PSERS fully informed on investment subjects.
- 12. The CONSULTANT will meet with the Board to report on investment matters. Generally, there are seven or eight regularly scheduled Board meetings annually. Special meetings may be scheduled as needed.
- 13. The CONSULTANT will present the performance results to the Board quarterly, including relative results versus pre-established benchmarks, results versus other public defined benefit pension plans, and the returns relative to the risks taken.
- 14. The CONSULTANT will provide a PC-based or Internet-based fund management and consulting tool that allows staff to:
 - a. Formulate investment policy and implement strategies;
 - Monitor and evaluate asset class and total fund performance and risk;
 - c. Develop asset allocation and rebalancing recommendations;
 - Select and evaluate public market investment managers, including public market manager research and consultant ratings;
 - e. Assess investment risks;
 - f. Analyze and optimize manager teams; and,
 - g. Compare the Fund performance at the asset class and total fund levels to various peer groups.

It is expected that at least 10 years of PSERS historical performance data, by investment portfolio, asset class, and at the total fund level will be included and that the database will be updated on a monthly basis.

Consultant and PSERS agree that the foregoing services shall be made available directly to PSERS through HEK proprietary tools ("HEK Tools") or indirectly through licensed third party applications ("Third Party Tools").

- 15. The CONSULTANT will provide training to the Board and staff, as needed.
- 16. The CONSULTANT will carry out other assignments that may be specified by PSERS.
- B. Performance Measurement Services for PSERS' Fund, including all asset classes and individual portfolios:
- 1. The CONSULTANT will prepare a monthly report containing calculated total return (before and after fees) for asset class, portfolio management styles, and individual portfolios, and compare PSERS' calculated data with benchmarks and with data for a similar population of funds by asset class and portfolio management styles for all of the public market portfolios and composites. Returns should be calculated for the following time periods: one-month, three-months, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, 10-year, and since inception.
- 2. The CONSULTANT will prepare a quarterly written report containing performance measurement attribution and analysis for each asset class and individual portfolios. The report should include a historical return analysis, dollar oriented analysis, return oriented (wealth relative) analysis, excess return analysis and risk/return analysis. Returns should be calculated for the following time periods: quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, 10-year, and since inception.
- 3. The CONSULTANT will be responsible for reconciling performance with both individual portfolio managers as well as the custodian bank on a monthly basis.
- The CONSULTANT will be responsible for the creation of additional composites with historical returns for those composites as requested by PSERS.
- 5. The CONSULTANT will provide quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, and 10-year quartile ranking reports of composite returns by Fund (i.e. Total Fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes).
- The CONSULTANT will provide consecutive year quartile ranking reports of composite returns by Fund (i.e. Total Fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes) for the past five years.
- The CONSULTANT will provide a performance attribution analysis to determine the value added by investment policy, asset allocation, and security selection.

C. Terms and Conditions

 The CONSULTANT's compensation for performing the above services shall be as set forth in the Purchase OrderThe CONSULTANT acknowledges and agrees that no further fees are payable by PSERS for the services rendered under the Purchase Order.

- 2. The CONSULTANT shall hold the Commonwealth of Pennsylvania, the Board, PSERS and the Fund, their beneficiaries, directors, officers, agents, and employees harmless from and indemnify the Commonwealth of Pennsylvania, the Board, PSERS and the Fund, their beneficiaries, directors, officers, agents, and employees against any and all claims, demands, actions, or liability of any nature, including attorneys' fees and court costs, based upon or arising out of (a) any breach of this Agreement, (b) negligence, (c) fiduciary breach or (d) failure to comply with applicable law, in each case by or of the CONSULTANT, its directors, officers, employees, and agents under the Purchase Order and shall, at the request of PSERS, defend at the CONSULTANT's expense actions brought against the Commonwealth of Pennsylvania, the Board, PSERS and/or the Fund, based upon any such claims or demands, and the costs of such defense shall be borne by the CONSULTANT and shall not constitute any expense of, nor shall be paid out of, FUND, Board, PSERS or Commonwealth of Pennsylvania assets.
- 3. PSERS acknowledges that the HEK Tools (the "Software") is provided under the Purchase Order solely for PSERS' use. PSERS shall not provide any other organization with access to the Software, or with reports or any other information obtained through it, except that PSERS may provide any asset manager who manages the FUND's assets with copies of reports that relate to the assets under management by that manager. Notwithstanding the foregoing, PSERS shall be authorized to provide access to and copies of the reports and any other information obtained through the Software and the services performed under the Purchase Order to the public and any other organization as may be required under the Right to Know Law and other similar laws. PSERS agrees that PSERS will not be granted any access to the Third Party Tools, or any copies of Third Party Tools, and PSERS shall not have any rights to use the Third Party Tools; provided, however, CONSULTANT shall utilize such Third Party Tools to perform the services, including the provision of reports and analyses to PSERS that are generated from such Third Party Tools.

The Purchase Order entitles PSERS to use as many copies of the Software as it shall reasonably require during the term of the Purchase Order. CONSULTANT retains all title and ownership of the Software, including the original disk copy and all subsequent copies of the Software, regardless of the form or media in or on which the original and other copies may exist. The Purchase Order is not a sale of the original Software or any copy.

CONSULTANT retains all title and ownership of the software and accompanying documentation, including the original disk copy and all subsequent copies of the software and documentation, regardless of the form or media in or on which the original and other copies may exist. PSERS agrees upon termination of the

Purchase Order to return to CONSULTANT all software and portions and copies thereof, documentation and other equipment furnished with the service.

All reports prepared under the Purchase Order for PSERS shall become the property of PSERS.

CONSULTANT shall defend, at its expense, any action brought against PSERS arising out of any claim that PSERS' use of the services provided hereunder infringes upon the intellectual property rights of any third party; provided further that CONSULTANT shall indemnify and hold PSERS harmless against any and all damages and costs awarded against PSERS by final court order or fully executed settlement agreement.

The Software and accompanying written materials (the "Documentation") are owned by CONSULTANT and are protected by United States copyright laws and international treaty provisions. Therefore, PSERS must treat the Software and Documentation like any other copyrighted material. Unauthorized copying of the Software, including Software that has been modified, merged, or included with other software, or the Documentation is expressly forbidden. Subject to these restrictions, PSERS may make a reasonable number of copies of the Software solely for back-up purposes.

PSERS may not distribute copies of the Software or Documentation to others, nor may PSERS rent or lease the Software or the Documentation or transfer control of the Software or Documentation to a third party without CONSULTANT's prior express written consent. In addition, PSERS may not modify, adapt, translate, reverse engineer, decompile, disassemble, or create derivative works based on the Software without CONSULTANT's prior express written consent.

CONSULTANT warrants that (i) it has the right to provide PSERS with access to the Software in accordance with the Purchase Order, and (ii) the Software shall conform to the written documentation and shall operate in accordance with CONSULTANT's written representations to PSERS.

Neither party shall be liable to the other party for any loss, injury, delay, damages or other casualties suffered by the other due to strikes, riots, storms, fires, or acts of God or government, beyond the reasonable control of such party.

4. The CONSULTANT shall not enter into any agreement by or on behalf of PSERS that (i) is binding on PSERS or allows, either expressly or by operation of law, recourse to PSERS, and (ii) creates any actual or potential liability on the part of PSERS that exceeds the scope of authority delegated to the CONSULTANT under the Purchase Order, or (iii) waives any of PSERS' rights, defenses, causes of action, or immunities. Liabilities that are not authorized by PSERS and prohibited by this Section 4 include, without limitation, any obligation on the part of PSERS to

- indemnify a third party or to pay attorney fees, legal expenses, penalties, or liquidated damages.
- 5. The CONSULTANT or its parent shall maintain during the term of the Purchase Order a policy of errors and omissions insurance for the protection of the PSERS' Fund, with a limit of liability of at least \$10,000,000, to cover the CONSULTANT, its officers, and its affiliates to the extent any affiliate performs services under the Purchase Order. Unless otherwise approved by PSERS, the maximum deductible on the errors and omissions policy shall be no greater than \$1,000,000 or 10% of Consultant's parent's retained earnings. CONSULTANT shall submit a certificate of coverage evidencing the requirements set forth herein and additional documentation mutually agreed upon by PSERS and Consultant, and PSERS shall cause to be issued a written determination on compliance. CONSULTANT shall thereafter maintain annual filings of current certificates of insurance with PSERS during the term of the Purchase Order and any extension thereof. If the CONSULTANT changes insurance carriers for insurance required hereunder, CONSULTANT shall submit copies of the actual policies of said insurance as directed by PSERS. The errors and omissions policy shall contain a provision or endorsement that coverage afforded thereunder shall not be canceled or changed until the underwriter has furnished PSERS at least 30 days' prior written notice of any cancellation or change. PSERS may, in its discretion, require such changes with respect to insurance coverage as it deems appropriate for the protection of the PSERS' Fund by giving written notice of such changes to the CONSULTANT at least 30 days in advance of the effective date for such changes.
- 6. The CONSULTANT represents and confirms that it is duly registered and in good standing as an investment advisor under the Investment Advisers Act of 1940 or is exempt therefrom (and will maintain such registration or exemption). If registered pursuant to said Act, the CONSULTANT has furnished to PSERA Parts I and II of the CONSULTANT's current Form ADV filed with the Securities and Exchange Commission pursuant to Section 203(c) of the Investment Advisers Act of 1940.
- 7. The CONSULTANT shall perform its services under the Purchase Order as an independent contractor, and CONSULTANT acknowledges that it maintains Workers' Compensation Insurance and shall accept full responsibility for the payments of premiums for Workers' Compensation Insurance and Social Security, as well as all income tax deductions and other taxes or payroll deductions required by law for itself for performing services specified by the Purchase Order.
- 8. The CONSULTANT shall provide immediate written notice to PSERS of any change in the CONSULTANT's status, including, without limitation, change in directors, officers, or employees who consult on PSERS' account; modification of the business organization; material change in SEC or other government or private

- registration, accreditation, or licensing; material deterioration of financial condition including but not limited to the filing of petition in bankruptcy; the CONSULTANT's awareness that its representations and warranties herein cease to be true; and, unless otherwise restricted by applicable law, litigation alleging the CONSULTANT's negligence or fraud.
- 9. The CONSULTANT covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services under the Purchase Order. CONSULTANT further covenants that, in the performance of the Purchase Order, it will not knowingly engage any other person having such interest.
- 10. It is agreed between the parties to the Purchase Order that the Purchase Order contemplates the rendition of expert professional services, and, therefore, neither the Purchase Order, nor any interest therein, nor any claim arising thereunder shall be transferred or assigned by either party to any other party or parties.
- 11. The performance of work under the Purchase Order may be terminated by the BOARD in whole or, from time to time. Any such termination shall be effected by delivery to the CONSULTANT of a written Notice of Termination specifying the extent to which performance of the work under the contract is terminated and the date on which such termination becomes effective. In the event of termination, fees for services shall be prorated and paid or repaid. Such termination shall not relieve CONSULTANT of any liability that may be incurred for its activities in connection with the Purchase Order prior to said termination. Likewise, CONSULTANT shall have the right to terminate the Purchase Order with thirty (30) days' written notice to PSERS. Also, under these circumstances, the fees for services shall be prorated and paid or repaid.
- 12. The CONSULTANT shall not publish or otherwise disclose, except to PSERS and except matters of public record, any information or data obtained hereunder from private individuals, organizations, or public agencies, in a publication whereby the information or data furnished by or about any particular person or establishment can be identified as relating to PSERS or its responsibilities, except with the consent of such person or establishment.
- 13. The CONSULTANT agrees that any specific plans, material, records, etc., developed under the Purchase Order remain the property of PSERS, and reproduction or duplication of such materials may be done only with the approval of PSERS.
- 14. No member of the General Assembly of the Commonwealth of Pennsylvania or any individual employed by the Commonwealth shall be admitted to any share or part of the Purchase Order, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to the Purchase Order if made with a corporation for its general benefit.

- 15. The CONSULTANT shall comply with the Standard Contract Terms and Conditions attached to the Purchase Order as Rider 3 and incorporated therein by reference, which provisions may be modified from time to time with written notice to CONSULTANT.
- 16. CONSULTANT shall maintain such records, books, and accounts pertaining to services and payments under the Purchase Order in accordance with generally accepted accounting principles consistently applied. All such records, books, and accounts shall be maintained and preserved during the term of the Purchase Order and any extension thereof and for four years thereafter. During such period, PSERS, or any other department or representative of the Commonwealth of Pennsylvania, from time to time upon reasonable notice, shall have the right to inspect, duplicate, and audit such records, books, and accounts for all purposes authorized and permitted by law. CONSULTANT may preserve such records, books, and accounts in original form or on microfilm, magnetic tape, or any other generally recognized and accepted process.
- 17. Any notice, demand, direction, instruction, or other communication required or permitted hereunder shall be confirmed in writing and shall be sufficiently given for all purposes when sent (a) by certified or registered U.S. mail, postage prepaid, (b) by a nationally recognized courier service that maintains verification of actual delivery, (c) by facsimile, with a copy sent by first class U.S. mail (provided that if the date of dispatch is not a working day, the facsimile shall be deemed to have been received at the opening of business of the addressee on the next working day), or (d) by delivering the same in person to any party at the following addresses or such other addresses as may be designated in writing from time to time by the parties:

PSERS:

Jeffrey B. Clay, Executive Director

Pennsylvania, Public School Employees'

Retirement System 5 North Fifth Street

Harrisburg, Pennsylvania 17101

CONSULTANT:

David Testore, Chief Administrative Officer Hewitt EnnisKnupp, Inc., an Aon Company

10 South Riverside Plaza, Suite 1600

Chicago, IL 60606

18. PSERS reserves all immunities, defenses, rights, or actions arising out of its status as a sovereign entity or from the Eleventh Amendment to the United States Constitution. No provision of the Purchase Order shall be construed as a waiver of any such immunities, defenses, rights, or actions.

- 19. Execution of the Purchase Order constitutes certification by CONSULTANT that
 (a) the number appearing on the Purchase Order is CONSULTANT's correct
 taxpayer identification number, and (b) CONSULTANT is not subject to backup
 withholding because (i) CONSULTANT is exempt from backup withholding, (ii)
 CONSULTANT has not been notified by the IRS that it is subject to backup
 withholding as a result of a failure to report all interest or dividends, or (iii), the
 IRS has notified CONSULTANT that it is no longer subject to backup
 withholding.
- 20. The Purchase Order shall be governed by the laws of the Commonwealth of Pennsylvania and, for all purposes, shall be construed in accordance with said laws and the decisions of the courts of the Commonwealth of Pennsylvania therein, and shall be binding upon the successors and assigns of the parties thereto, and constitutes the entire agreement between PSERS and CONSULTANT with respect to the consulting services to be furnished as provided herein. No amendment or modification changing the scope or terms of the Purchase Order shall have any force or effect unless it is in writing and approved by both parties.
- 21. If any one or more of the covenants, agreements, provisions, or terms of the Purchase Order shall be held contrary to any express provision of law, or contrary to the policy of express law though not expressly prohibited, or against public policy, or shall for any reason whatsoever be held invalid, then such covenants, agreements, provisions, or terms shall be deemed severable from the remaining covenants, agreements, provisions, or terms of the Purchase Order and shall in no way affect the validity or enforceability of the remainder of the Purchase Order or the rights of the parties thereto.
- 22. CONSULTANT shall reimburse PSERS for the reasonable travel expenses actually incurred by PSERS, if any, for (i) members of PSERS' professional investment staff to travel to CONSULTANT'S location, and (ii) if the CONSULTANT sponsors investment conferences, training, seminars or similar events, attendance by PSERS' professional investment staff members. Reimbursable expenses shall include airfare, automobile rental, lodging, meals, CONSULTANT-sponsored event registration fees, and other travel-related expenses at maximum allowance rates established by the Commonwealth Management Directive 230.10 as revised, Travel and Subsistence Allowances. The reimbursable expenses for each of (i) and (ii), above, shall not exceed \$10,000 per calendar year. PSERS shall submit a claim for reimbursement of such travel expenses, which the CONSULTANT shall promptly pay.
- 23. CONSULTANT shall perform services under the Purchase Order subject to the exercise of that degree of judgment and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence who are experts in such matters, exercise in the management of like matters, not in regard to speculation but in regard to the permanent disposition of the Fund, considering

Case ID: 210601197

the probable income to be derived therefrom as well as the probable safety of the invested capital. CONSULTANT acknowledges that it is a "fiduciary" with respect to PSERS and the Fund as that term is defined in the Employee Retirement Income Security Act of 1974 (ERISA), regardless of the applicability of ERISA to the Purchase Order.

Case ID: 210601197

RIDER 2

PSERS RFP 2013-1



April 8, 2013

RE: Request for Proposal - PSERS RFP 2013-1

You are invited to submit a proposal to the Pennsylvania Public School Employees' Retirement System (PSERS) in accordance with the enclosed specifications to satisfy a need for Investment Consultant Services.

All proposals must be submitted in the number of copies outlined in Section I-12 of the RFP to PSERS, Attention: Terrianne Mirarchi, 5 North 5th Street, Harrisburg, PA 17101. Proposals must be received at the above address no later than 1:30 PM, June 27, 2013. Late proposals will not be considered regardless of the reason.

All questions should be submitted by email (with subject line "PSERS RFP 2013-1 Question") to John Kemp at johkemp@pa.gov no later than May 20, 2013. All Offerors will be provided with answers to questions asked by any one Offeror.

Thank you.

Sincerely,

Terrianne P. Mirarchi

Purchasing and Contracting Manager

REQUEST FOR PROPOSALS FOR

INVESTMENT CONSULTANT SERVICES

ISSUING OFFICE

Pennsylvania
Public School Employees' Retirement System
(PSERS)

RFP NUMBER

PSERS RFP 2013-1

DATE OF ISSUANCE

May 2013

REQUEST FOR PROPOSALS FOR

Investment Consultant Services

TABLE OF CONTENTS

CALENDAR OF EVENTS	iii
Part I—GENERAL INFORMATION	1
Part II—PROPOSAL REQUIREMENTS	9
Part III—CRITERIA FOR SELECTION	23
Part IV—WORK STATEMENT	28
APPENDIX A, PROPOSED AGREEMENT (Including the Commonwealth's S Contract Terms and Conditions)	tandard
APPENDIX B, DOMESTIC WORKFORCE UTILIZATION CERTIFICATION	
APPENDIX C, PROPOSAL COVER SHEET	
APPENDIX D, SMALL DIVERSE BUSINESS LETTER OF INTENT TEMPLATI	E

CALENDAR OF EVENTS

The Commonwealth will make every effort to adhere to the following schedule:

Activity	Responsibility	Date
Deadline to submit Questions via email to John Kemp at <u>johkemp@pa.gov</u> .	Potential Offerors	05/20/2013
Pre-proposal Conference—N/A.	N/A	None
Answers to Potential Offeror questions posted to the DGS website (http://www.dgsweb.state.pa.us/RTA/Search.aspx) no later than this date.	Issuing Office	05/30/2013
Please monitor website for all communications regarding the RFP.	Potential Offerors	
Sealed proposal must be received by the Issuing Office at Public School Employees' Retirement System ATTN: Terrianne Mirarchi 5 North 5 th Street Harrisburg, PA 17101	Offerors	06/27/2013 1:30 PM

PART I

GENERAL INFORMATION

- I-1. Purpose. This request for proposals (RFP) provides to those interested in submitting proposals for the subject procurement ("Offerors") sufficient information to enable them to prepare and submit proposals for the Public School Employees' Retirement System's (PSERS) consideration on behalf of the Commonwealth of Pennsylvania ("Commonwealth") to satisfy a need for Investment Consulting Services ("Project").
- I-2. Issuing Office. PSERS ("Issuing Office") has issued this RFP on behalf of the Commonwealth. The sole point of contact in the Commonwealth for this RFP shall be John Kemp, Portfolio Manager, PSERS, 5 North 5th Street, Harrisburg, PA 17101, johkemp@pa.gov, the Issuing Officer for this RFP. Please refer all inquiries to the Issuing Officer.
- I-3. Scope. This RFP contains instructions governing the requested proposals, including the requirements for the information and material to be included; a description of the service to be provided; requirements which Offerors must meet to be eligible for consideration; general evaluation criteria; and other requirements specific to this RFP.
- I-4. Problem Statement. The purpose of this RFP is to obtain the service or services of an offeror or offerors to provide investment consulting and/or performance evaluation services for all PSERS asset classes. Additional detail is provided in Part IV of this RFP.
- I-5. Type of Contract. It is proposed that if the Issuing Office enters into a contract as a result of this RFP, it will be a fixed-fee contract based on the proposed Purchase Order Terms and Conditions and including the Standard Purchase Order Terms and Conditions as shown in Appendix A and available at www.dgs.state.pa.us. The Issuing Office, in its sole discretion, may undertake negotiations with Offerors whose proposals, in the judgment of the Issuing Office, show them to be qualified, responsible and capable of performing the Project.
- I-6. Rejection of Proposals. The Issuing Office reserves the right, in its sole and complete discretion, to reject any proposal received as a result of this RFP.
- I-7. Incurring Costs. The Issuing Office is not liable for any costs the Offeror incurs in preparation and submission of its proposal, in participating in the RFP process or in anticipation of award of the contract.
- I-8. Pre-proposal Conference. There will be no Pre-proposal conference for this RFP. If there are any questions, please forward them to the Issuing Officer in accordance with Section I-9.
- I-9. Questions & Answers. If an Offeror has any questions regarding this RFP, the Offeror must submit the questions by email (with the subject line "RFP PSERS RFP 2013-1 Question") to the Issuing Officer named in Part I, Section I-2 of the RFP. If the Offeror has questions, they must be submitted via email no later than the date indicated on the Calendar of

Events. The Offeror shall not attempt to contact the Issuing Officer by any other means. The Issuing Officer shall post the answers to the questions on the DGS website by the date stated on the Calendar of Events. An Offeror who submits a question after the deadline date for receipt of questions indicated on the Calendar of Events assumes the risk that its proposal will not be responsive or competitive because the Commonwealth is not able to respond before the proposal receipt date or in sufficient time for the Offeror to prepare a responsive or competitive proposal. When submitted after the deadline date for receipt of questions indicated on the Calendar of Events, the Issuing Officer may respond to questions of an administrative nature by directing the questioning Offeror to specific provisions in the RFP. To the extent that the Issuing Office decides to respond to a non-administrative question after the deadline date for receipt of questions indicated on the Calendar of Events, the answer must be provided to all Offerors through an addendum.

All questions and responses as posted on the DGS website are considered as an addendum to, and part of, this RFP in accordance with RFP Part I, Section I-10. Each Offeror shall be responsible to monitor the DGS website for new or revised RFP information. The Issuing Office shall not be bound by any verbal information nor shall it be bound by any written information that is not either contained within the RFP or formally issued as an addendum by the Issuing Office. The Issuing Office does not consider questions to be a protest of the specifications or of the solicitation. The required protest process for Commonwealth procurements is described on the DGS website.

- I-10. Addenda to the RFP. If the Issuing Office deems it necessary to revise any part of this RFP before the proposal response date, the Issuing Office will post an addendum to the DGS website at http://www.dgsweb.state.pa.us/RTA/Search.aspx. It is the Offeror's responsibility to periodically check the website for any new information or addenda to the RFP. Answers to the questions asked during the Questions & Answers period also will be posted to the website as an addendum to the RFP.
- I-11. Response Date. To be considered for selection, hard copies of proposals must arrive at the Issuing Office on or before the time and date specified in the RFP Calendar of Events. The Issuing Office will not accept proposals via email or facsimile transmission. Offerors who send proposals by mail or other delivery service should allow sufficient delivery time to ensure timely receipt of their proposals. If, due to inclement weather, natural disaster, or any other cause, the Commonwealth office location to which proposals are to be returned is closed on the proposal response date, the deadline for submission will be automatically extended until the next Commonwealth business day on which the office is open, unless the Issuing Office otherwise notifies Offerors. The hour for submission of proposals shall remain the same. The Issuing Office will reject, unopened, any late proposals.
- I-12. Proposals. To be considered, Offerors should submit a complete response to this RFP to the Issuing Office, using the format provided in Part II, providing fifteen (15) paper copies of the Technical Submittal and one (1) paper copy of the Cost Submittal and two (2) paper copies of the Small Diverse Business (SDB) participation submittal. In addition to the paper copies of the proposal, Offerors shall submit two complete and exact copies of the entire proposal (Technical, Cost and SDB submittals, along with all requested documents) on CD-

ROM or Flash drive in Microsoft Office or Microsoft Office-compatible format. The electronic copy must be a mirror image of the paper copy and any spreadsheets must be in Microsoft Excel. The Offerors may not lock or protect any cells or tabs. Offerors should ensure that there is no costing information in the technical submittal. Offerors should not reiterate technical information in the cost submittal. The CD or Flash drive should clearly identify the Offeror and include the name and version number of the virus scanning software that was used to scan the CD or Flash drive before it was submitted. The Offeror shall make no other distribution of its proposal to any other Offeror or Commonwealth official or Commonwealth consultant. Each proposal page should be numbered for ease of reference. An official authorized to bind the Offeror to its provisions must sign the proposal. If the official signs the Proposal Cover Sheet (Appendix C to this RFP) and the Proposal Cover Sheet is attached to the Offeror's proposal, the requirement will be met. For this RFP, the proposal must remain valid for 120 days or until a contract is fully executed. If the Issuing Office selects the Offeror's proposal for award, the contents of the selected Offeror's proposal will become, except to the extent the contents are changed through Best and Final Offers or negotiations, contractual obligations.

Each Offeror submitting a proposal specifically waives any right to withdraw or modify it, except that the Offeror may withdraw its proposal by written notice received at the Issuing Office's address for proposal delivery prior to the exact hour and date specified for proposal receipt. An Offeror or its authorized representative may withdraw its proposal in person prior to the exact hour and date set for proposal receipt, provided the withdrawing person provides appropriate identification and signs a receipt for the proposal. An Offeror may modify its submitted proposal prior to the exact hour and date set for proposal receipt only by submitting a new sealed proposal or sealed modification which complies with the RFP requirements.

I-13. Small Diverse Business Information. The Issuing Office encourages participation by small diverse businesses as prime contractors, and encourages all prime contractors to make a significant commitment to use small diverse businesses as subcontractors and suppliers.

A Small Diverse Business is a DGS-verified minority-owned business, woman-owned business, veteran-owned business or service-disabled veteran-owned business.

A small business is a business in the United States which is independently owned, not dominant in its field of operation, employs no more than 100 full-time or full-time equivalent employees, and earns less than \$7 million in gross annual revenues for building design, \$20 million in gross annual revenues for sales and services and \$25 million in gross annual revenues for those businesses in the information technology sales or service business.

Questions regarding this Program can be directed to:

Department of General Services Bureau of Small Business Opportunities Room 611, North Office Building Harrisburg, PA 17125 Phone: (717) 783-3119

Fax: (717) 787-7052

Email: gs-bsbo@pa.gov Website: www.dgs.state.pa.us

The Department's directory of BSBO-verified minority, women, veteran and service disabled veteran-owned businesses can be accessed from: <u>Searching for Small Diverse Businesses</u>.

- I-14. Economy of Preparation. Offerors should prepare proposals simply and economically, providing a straightforward, concise description of the Offeror's ability to meet the requirements of the RFP.
- I-15. Alternate Proposals. The Issuing Office has identified the basic approach to meeting its requirements, allowing Officers to be creative and propose their best solution to meeting these requirements. The Issuing Office will not accept alternate proposals.
- I-16. Discussions for Clarification. Offerors may be required to make an oral or written clarification of their proposals to the Issuing Office to ensure thorough mutual understanding and Offeror responsiveness to the solicitation requirements. The Issuing Office will initiate requests for clarification. Clarifications may occur at any stage of the evaluation and selection process prior to contract execution.
- I-17. Prime Contractor Responsibilities. The contract will require the selected Offeror to assume responsibility for all services offered in its proposal whether it produces them itself or by subcontract. The Issuing Office will consider the selected Offeror to be the sole point of contact with regard to contractual matters.

I-18. Proposal Contents.

- A. Confidential Information. The Commonwealth is not requesting, and does not require, confidential proprietary information or trade secrets to be included as part of Offerors' submissions in order to evaluate proposals submitted in response to this RFP. Accordingly, except as provided herein, Offerors should not label proposal submissions as confidential or proprietary or trade secret protected. Any Offeror who determines that it must divulge such information as part of its proposal must submit the signed written statement described in subsection c. below and must additionally provide a redacted version of its proposal on a CD-rom, which removes only the confidential proprietary information and trade secrets, for required public disclosure purposes. The CD should clearly identify the Offeror, note that it is a redacted copy and include the name and version number of the virus scanning software that was used to scan the CD before it was submitted.
- B. Commonwealth Use. All material submitted with the proposal shall be considered the property of the Commonwealth of Pennsylvania and may be returned only at the Issuing Office's option. The Commonwealth has the right to use any or all ideas not protected by intellectual property rights that are presented in any proposal regardless of whether the proposal becomes part of a contract. Notwithstanding any Offeror copyright designations contained on proposals, the Commonwealth shall have the right to make copies and

distribute proposals internally and to comply with public record or other disclosure requirements under the provisions of any Commonwealth or United States statute or regulation, or rule or order of any court of competent jurisdiction.

C. <u>Public Disclosure</u>. After the award of a contract pursuant to this RFP, all proposal submissions are subject to disclosure in response to a request for public records made under the Pennsylvania Right-to-Know-Law, 65 P.S. § 67.101, et seq. If a proposal submission contains confidential proprietary information or trade secrets, a signed written statement to this effect must be provided with the submission in accordance with 65 P.S. § 67.707(b) for the information to be considered exempt under 65 P.S. § 67.708(b)(11) from public records requests. If financial capability information is submitted in response to Part II of this RFP such financial capability information is exempt from public records disclosure under 65 P.S. § 67.708(b)(26).

I-19. Best and Final Offers.

- A. While not required, the Issuing Office reserves the right to conduct discussions with Offerors for the purpose of obtaining "best and final offers." To obtain best and final offers from Offerors, the Issuing Office may do one or more of the following, in any combination and order:
 - 1. Schedule oral presentations;
 - Request revised proposals;
 - 3. Conduct a reverse online auction; and
 - 4. Enter into pre-selection negotiations.
- B. The following Offerors will not be invited by the Issuing Office to submit a Best and Final Offer:
 - 1. Those Offerors, which the Issuing Office has determined to be not responsible or whose proposals the Issuing Office has determined to be not responsive.
 - Those Offerors, which the Issuing Office has determined in accordance with Part III, Section III-5, from the submitted and gathered financial and other information, do not possess the financial capability, experience or qualifications to assure good faith performance of the contract.
 - 3. Those Offerors whose score for their technical submittal of the proposal is less than 70% of the total amount of technical points allotted to the technical criterion.

The issuing office may further limit participation in the best and final offers process to those remaining responsible offerors which the Issuing Office has, within its discretion, determined to be within the top competitive range of responsive proposals.

- C. The Evaluation Criteria found in Part III, Section III-4, shall also be used to evaluate the Best and Final offers.
- D. Price reductions offered through any reverse online auction shall have no effect upon the Offeror's Technical Submittal. Dollar commitments to Small Diverse Businesses can be reduced only in the same percentage as the percent reduction in the total price offered through any reverse online auction or negotiations.
- I-20. News Releases. Offerors shall not issue news releases, Internet postings, advertisements or any other public communications pertaining to this Project without prior written approval of the Issuing Office, and then only in coordination with the Issuing Office.
- I-21. Restriction of Contact. From the issue date of this RFP until the Issuing Office selects a proposal for award, the Issuing Officer is the sole point of contact concerning this RFP. Any violation of this condition may be cause for the Issuing Office to reject the offending Offeror's proposal. If the Issuing Office later discovers that the Offeror has engaged in any violations of this condition, the Issuing Office may reject the offending Offeror's proposal or rescind its contract award. Offerors must agree not to distribute any part of their proposals beyond the Issuing Office. An Offeror who shares information contained in its proposal with other Commonwealth personnel and/or competing Offeror personnel may be disqualified.
- I-22. Issuing Office Participation. Offerors shall provide all services, supplies, facilities, and other support necessary to complete the identified work, except as otherwise provided in this Part I, Section I-22.
- I-23. Term of Contract. The term of the contract will commence on the Effective Date and will end five years after the Effective Date. The Issuing Office will fix the Effective Date after the contract has been fully executed by the selected Offeror and by the Commonwealth and all approvals required by Commonwealth contracting procedures have been obtained. The selected Offeror shall not start the performance of any work prior to the Effective Date of the contract and the Commonwealth shall not be liable to pay the selected Offeror for any service or work performed or expenses incurred before the Effective Date of the contract.
- I-24. Offeror's Representations and Authorizations. By submitting its proposal, each Offeror understands, represents, and acknowledges that:
 - A. All of the Offeror's information and representations in the proposal are material and important, and the Issuing Office may rely upon the contents of the proposal in awarding the contract(s). The Commonwealth shall treat any misstatement, omission or misrepresentation as fraudulent concealment of the true facts relating to the Proposal submission, punishable pursuant to 18 Pa. C.S. § 4904.
 - B. The Offeror has arrived at the price(s) and amounts in its proposal independently and without consultation, communication, or agreement with any other Offeror or potential offeror.

- C. The Offeror has not disclosed the price(s), the amount of the proposal, nor the approximate price(s) or amount(s) of its proposal to any other firm or person who is an Offeror or potential offeror for this RFP, and the Offeror shall not disclose any of these items on or before the proposal submission deadline specified in the Calendar of Events of this RFP.
- D. The Offeror has not attempted, nor will it attempt, to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.
- E. The Offeror makes its proposal in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.
- F. To the best knowledge of the person signing the proposal for the Offeror, the Offeror, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last **four** years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as the Offeror has disclosed in its proposal.
- G. To the best of the knowledge of the person signing the proposal for the Offeror and except as the Offeror has otherwise disclosed in its proposal, the Offeror has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Offeror that is owed to the Commonwealth.
- H. The Offeror is not currently under suspension or debarment by the Commonwealth, any other state or the federal government, and if the Offeror cannot so certify, then it shall submit along with its proposal a written explanation of why it cannot make such certification.
- I. The Offeror has not made, under separate contract with the Issuing Office, any recommendations to the Issuing Office concerning the need for the services described in its proposal or the specifications for the services described in the proposal.
- J. Each Offeror, by submitting its proposal, authorizes Commonwealth agencies to release to the Commonwealth information concerning the Offeror's Pennsylvania taxes, unemployment compensation and workers' compensation liabilities.
- K. Until the selected Offeror receives a fully executed and approved written contract from the Issuing Office, there is no legal and valid contract, in law or in equity, and the Offeror shall not begin to perform.

I-25. Notification of Selection.

- A. Contract Negotiations. The Issuing Office will notify all Offerors in writing of the Offeror selected for contract negotiations after the Issuing Office has determined, taking into consideration all of the evaluation factors, the proposal that is the most advantageous to the Issuing Office.
- B. Award. Offerors whose proposals are not selected will be notified when contract negotiations have been successfully completed and the Issuing Office has received the final negotiated contract signed by the selected Offeror.
- 1-26. Debriefing Conferences. Upon notification of award, Offerors whose proposals were not selected will be given the opportunity to be debriefed. The Issuing Office will schedule the debriefing at a mutually agreeable time. The debriefing will not compare the Offeror with other Offerors, other than the position of the Offeror's proposal in relation to all other Offeror proposals. An Offeror's exercise of the opportunity to be debriefed does not constitute nor toll the time for filing a protest (See Section I-27 of this RFP).
- I-27. RFP Protest Procedure. The RFP Protest Procedure is on the DGS website at http://www.dgsweb.state.pa.us/comod/ProtestProcedures.doc. A protest by a party not submitting a proposal must be filed within seven days after the protesting party knew or should have known of the facts giving rise to the protest, but no later than the proposal submission deadline specified in the Calendar of Events of the RFP. Offerors may file a protest within seven days after the protesting Offeror knew or should have known of the facts giving rise to the protest, but in no event may an Offeror file a protest later than seven days after the date the notice of award of the contract is posted on the DGS website. The date of filing is the date of receipt of the protest. A protest must be filed in writing with the Issuing Office. To be timely, the protest must be received by 4:00 p.m. on the seventh day.
- I-28. Use of Electronic Versions of this RFP. This RFP is being made available by electronic means. If an Offeror electronically accepts the RFP, the Offeror acknowledges and accepts full responsibility to insure that no changes are made to the RFP. In the event of a conflict between a version of the RFP in the Offeror's possession and the Issuing Office's version of the RFP, the Issuing Office's version shall govern.

PART II

PROPOSAL REQUIREMENTS

Offerors must submit their proposals in the format, including heading descriptions, outlined below. To be considered, the proposal must respond to all requirements in this part of the RFP. Offerors should provide any other information thought to be relevant, but not applicable to the enumerated categories, as an appendix to the Proposal. All cost data relating to this proposal and all Small Diverse Business cost data should be kept separate from and not included in the Technical Submittal. Each Proposal shall consist of the following three separately sealed submittals:

- A. Technical Submittal, which shall be a response to RFP Part II, Sections II-1 through II-8;
- B. Small Diverse Business participation submittal, in response to RFP Part II, Section II-9; and
- C. Cost Submittal, in response to RFP Part II, Section II-10.

The Issuing Office reserves the right to request additional information which, in the Issuing Office's opinion, is necessary to assure that the Offeror's competence, number of qualified employees, business organization, and financial resources are adequate to perform according to the RFP.

The Issuing Office may make investigations as deemed necessary to determine the ability of the Offeror to perform the Project, and the Offeror shall furnish to the Issuing Office all requested information and data. The Issuing Office reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Offeror fails to satisfy the Issuing Office that such Offeror is properly qualified to carry out the obligations of the RFP and to complete the Project as specified.

II-1. Mandatory Minimum Qualifications and Requirements.

- A. The Offeror must meet <u>all</u> of the following minimum qualifications, and agree to meet each of the following requirements, to be given further consideration. <u>Failure to satisfy each of the minimum qualifications</u>, or agree to meet each of the following requirements, will result in the immediate rejection of the proposal.
 - 1) As of May 31, 2013, the Offeror must have at least five (5) public pension plan clients, of which at least 3 public pension plan clients must have over \$1 billion in assets, for whom it provides investment consulting work at both fund- and asset-class levels. Duties related to each engagement must include asset allocation, asset/liability, and risk analysis.

- 2) The Offeror must have been in the business of providing investment consulting services for at least five years, evidenced by a certificate of incorporation or copy of Form ADV as well as documentation of investment consulting clients (including venture capital/private equity/real estate consulting clients) which date back five years.
- 3) The Offeror must be a Registered Investment Advisor with the SEC under the Investment Advisors Act of 1940. Provide a copy of the latest Form ADV Parts I and II.
- 4) The primary consultant and principal assistant that will be assigned to the PSERS account must each have at least five years' experience analyzing, monitoring, recommending for investment, or investing in, each asset class recognized by PSERS in its Investment Policy Statement, Objectives, and Guidelines, which can be obtained at www.psers.state.pa.us/investment/guide/guide.htm.
- 5) The Offeror must have, or have access to, a database sufficient in size and scope to allow an analysis of the risk and returns of investment firms and each of their strategy offerings.
- 6) The Offeror's primary consultant must not have provided general consulting services to either the Commonwealth of Pennsylvania, State Employees' Retirement System, or the Commonwealth of Pennsylvania, Pennsylvania Municipal Retirement System during the past three years.
- 7) The Offeror will be required to reimburse PSERS for the reasonable travel expenses actually incurred by PSERS, if any, for (i) members of PSERS' professional investment staff to travel to Offeror's location and (ii) if the Offeror sponsors investment conferences, training, seminars or similar events, attendance by PSERS' professional investment staff members. Reimbursable expenses will include airfare, automobile rental, lodging, meals, Offeror-sponsored event registration fees, and other travel-related expenses at maximum allowance rates established by the Commonwealth Management Directive 230.10 as revised, Travel and Subsistence Allowances. The reimbursable expenses for each of (i) and (ii), above, will not exceed \$10,000 per calendar year.
- 8) Offeror will be required to perform services under this agreement subject to the exercise of that degree of judgment and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence who are expert in such matters, exercise in the management of like matters, not in regard to speculation but in regard to the permanent disposition of the Fund, considering the probable income to be derived therefrom as well as the probable safety of the invested capital. Offeror will be required to acknowledge that it is a "fiduciary" with respect to PSERS and the Fund as that term is defined in the Employee Retirement Income Security Act of 1974 (ERISA), regardless of the applicability of ERISA to this agreement.

- 9) Offeror will be required to include in its consulting services staff professionals dedicated to, and expert in, investment risk and investment governance topics.
- B. The Offeror's consulting team must provide written responses to each of the aforementioned mandatory qualifications and requirements substantiating how your firm satisfies each qualification and confirming that your firm will satisfy each requirement. The responses must contain sufficient information as prescribed to assure the Board of its accuracy. Failure to provide complete information will result in the rejection of the proposal.

II-2. Offeror's Qualifications.

- A. Please provide the following information about your firm:
 - 1) State the full name, year formed, history, ownership structure, names of owners or partners, subsidiary or affiliate relationships, and the reporting and control structure of the firm.
 - 2) Do senior executives have ownership interests in the firm? If so, how much?
 - 3) State the name, title, address and telephone number of the proposal contact person. Will the primary consultant assigned to PSERS account have ownership interest in the firm or is there a specific arrangement for sharing in the profits earned by the enterprise (e.g., salary, bonus, group/individual performance incentives, profit sharing, etc.)? Please describe.
 - 4) List services to the investment community (e.g., trading, investment management, database), other than investment consulting services, provided by your firm, and/or any parent, subsidiary, or affiliate.
- B. Please provide the following financial information:
 - 1) Audited financial statements for the past three (3) years.
 - 2) Any special audit reports concerning internal controls for the past three (3) years.
- C. Within the past five years, have there been any significant developments (e.g., changes in ownership, personnel reorganization, new business ventures) in your firm? If so, describe these developments in detail.
- D. Do you anticipate any significant changes in your firm? If so, describe these anticipated changes and their impact on clients.
- E. Have any senior executives left the firm in the past five years? Please describe the circumstances of their departure(s).

- F. Explain your firm's goals for expansion and accepting new client business. How will the firm control the quality of service to clients? Include the following:
 - 1) Total number of accounts that will be accepted.
 - 2) Total assets that will be accepted.
 - 3) Plans for additions to professional staff and approximate timing in relation to growth of accounts and/or assets.
- G. What is the location of firm headquarters and any branch offices? If several locations, what quality controls does the firm use to ensure consistency of services among clients, and how does the firm handle research, information processing and databases?
- H. List your firm's lines of business and approximate contributions of each business to your firm's total revenue. If you are an affiliate or subsidiary of another company, what percentage of the firm's total revenue does your division generate? Please describe the organizational structure and your relationship to the parent company and any other subsidiaries.
- I. Over the past five years, has your organization or any officer or principal been involved in any litigation or other legal proceedings relating to your investment or consulting activities? If so, provide a brief explanation and indicate the current status.
- J. Present the previous experience and expertise of the firm providing the services proposed for PSERS.
 - 1) List the names of pension funds your firm has as clients, indicating whether your firm represents these clients on a discretionary or non-discretionary basis.
 - 2) List your five largest public pension plan clients by assets. For each of these pension fund clients, please provide asset value of client by asset class, year client retained your firm, average five year asset mix of client, percent of fund for which you provided consulting services, and the five year annualized total return of the client funds' investment portfolio as of March 31, 2013.
 - 3) Please complete the following for current clients:

Asset Value of Pension Fund Client	No. of Pension Fund Clients	Average Years Clients Retained the Firm
Less than \$1 billion		
\$1 billion – less than \$10 billion		
\$10 billion – less than \$30 billion		
More than \$30 billion		

- 4) Does your firm operate any funds or other pooled investment vehicles, including, but not limited to, funds of funds? Please identify each.
- 5) Please list the names of pension plan clients that you have added in the last three years, and the assets of each.
- 6) Please provide the names of all pension plan clients that you have lost in the last three years, the asset size of each, and why they were lost.

K. Describe your research and analysis capabilities.

- 1) Are your resources internal or external? If any external resources are used, provide a description including the name of vendors providing these resources. How is the information used to inform and advise clients? List investment research reports or studies that you have provided clients in the past 12 months. Describe your capability to carry out special projects requested by PSERS. Provide sample reports that best represent your research capabilities.
- 2) Outline the sources used to obtain data for publication of newsletters or periodicals. Include samples of your publications.
- 3) Describe any other service not included in Part IV "Work Statement" that you believe would be beneficial to PSERS and that you are proposing to provide for PSERS.
- 4) State what you believe differentiates your consulting services from your competitors.
- 5) Explain in detail any potential for conflict that would be created by your firm contracting with PSERS, including other client relationships that may inhibit services to PSERS and/or the other clients.
- 6) How does your firm resolve potential conflicts of interest in recommending or making investments in prospective programs among clients?

II-3. Personnel Qualifications.

- A. Provide an organization chart showing name, title, function, and area of expertise of pension fund consulting professionals and support staff.
- B. For proposed primary consultant, principal assistant, and risk professionals, provide the names of all clients and nature of engagement for which these individuals assume a similar role. What are their other duties for the firm?

- C. Delineate the proposed management of services to PSERS. Provide names of staff who will serve as primary consultants, principal assistants, and other general contacts with your firm. Specify the role and scope of involvement for each individual. Will the primary consultant be available to attend all Board meetings and assist the Board's investment staff when needed?
- D. For proposed primary consultant, principal assistant, risk professionals, and other key individuals who will be providing services to PSERS, provide a biographical profile to include education, years and areas of professional investment consulting experience, and years and areas of professional investment consulting experience with your firm.
- E. Provide name and position of pension fund consulting professionals who were added to the firm during the past three years. Provide name and position of pension fund consulting professionals who left the firm during the past three years.

II-4. Soundness of Approach.

A. General Consulting Services (includes all asset classes)

- 1. What is the overall philosophy of the firm regarding an investment consultant's role with respect to the board of trustees, staff, and investment managers?
- 2. State as clearly as possible the firm's investment philosophy. Are there any fundamental beliefs about capital markets which underpin the firm's investment advice to its pension plan clients? Include discussion on your views as they pertain to varying investment environments (e.g., inflationary, recessionary), and on the separation of alpha from beta.
- 3. What are the most critical issues to consider in establishing investment policy for a public sector pension plan?
- 4. Please summarize, in one page or less, the firm's investment consulting capabilities and expertise. What are the firm's major strengths and limitations? Do you provide any services which are not provided by other investment consultants? Why should PSERS engage you as its investment consultant?
- 5. How would you suggest that we measure and evaluate the performance of your firm as an investment consultant?
- 6. Describe the process you will use to recommend investment objectives and policies for PSERS. Provide samples of investment objectives and policies you have developed for pension fund clients that demonstrate the types of approaches your firm might recommend to PSERS. Highlight risk management components of the process.

- 7. Describe the process and resources you will use to recommend asset allocations for PSERS. Discuss the possible circumstances and process whereby you might recommend that an asset allocation should be changed. Provide samples of asset allocation plans you have developed for pension fund clients.
- 8. Included in Appendix A of PSERS' Investment Policy Statement, Objectives and Guidelines is a copy of the Fund's current asset allocation plan. What changes, if any, would you recommend?
- 9. Describe the process you will use to recommend a structured investment program that includes core versus specialty portfolios, active versus passive portfolios, mix of investment management styles, and number of portfolios. Provide a sample structured investment program.
- 10. Describe how you will review the adequacy of PSERS investment staff and resources available to administer PSERS' investment program and invest the Fund's assets. Include in your description how you will assess the appropriateness of staff size and expertise, and the technological tools available to staff.
- 11. Describe your process, and the variables included, in preparing a written Asset/Liability Study, and note the frequency they would be issued. Provide a sample Asset/Liability Study you would submit to PSERS' Board.
- 12. Describe what you will include in the analysis of PSERS results with the Annual Investment Plan.
- 13. Describe the variables and methodology you will consider in recommending performance benchmark(s) for PSERS. Provide samples of benchmarks you have recently recommended for current pension fund clients.
- 14. Describe how you will identify and evaluate new investment opportunities to recommend to PSERS. Provide samples of reports that would be made available to PSERS which detail the results of your firm's analysis.
- 15. Describe the process you will use to conduct investment manager searches and to recommend candidates to PSERS. Identify all criteria that might be taken into account in order to complete your recommendations. Include a description of the size of your manager database and experience negotiating performance-based fees.
- 16. Describe your process of reviewing investment manager performance and consistency of investment approach.
- 17. Describe your process of performing due diligence review and analysis on the staff and operations of investment managers. Provide samples of reports that would be made available to PSERS which detail the results of your firm's analysis.

B. Performance Measurement

- 1. Describe the content, format, and method of delivery of the quarterly performance reports you will prepare for PSERS. Include:
 - a) Data and method used to calculate total return before and after fees. Please identify which criteria in your methodology can be customized by client preference. PSERS, PSERS' custodian bank, investment managers, and/or fund administrators will supply a monthly portfolio asset list with accrual market values for marketable securities. PSERS' will supply quarterly portfolio market values and cash flow data for real estate, venture capital, and private equity investments.

Please indicate whether you use your own pricing sources and describe how you will investigate/resolve pricing errors in the custodian bank's asset list. Describe how you handle pricing for derivative investments. Identify your pricing sources and hierarchy by asset class.

- b) Time periods for which total returns can be calculated.
- c) Standard indices, custom indices, and benchmarks you will use for comparison.
- d) Total population of funds and public pension funds (including a large fund subset) you will use for universe comparisons.
- e) Characteristics you will compare.
- f) Breakdown of PSERS' fund market value.
- g) Market conditions.

Please comment on your ability to provide draft quarterly performance reports within 3 business days following receipt of final quarter-end market values from our custodian and partnerships. Will you be able to issue final reports within 3 business days after receiving comments from PSERS on the draft? What quality control systems and procedures do you use to ensure that reports are prepared accurately and delivered on time?

Provide sample quarterly pension fund performance reports.

2. Describe in detail the performance measurement attribution and analysis service you propose to provide for PSERS. Note its usefulness for PSERS. Provide sample reports.

- 3. Describe the content, format, and method of delivery of the **monthly** performance reports you will prepare for PSERS and its advisors. The monthly reports will include only the public market portfolios and composites and will exclude the private market portfolios.
 - a) Data and method used to calculate total return before and after fees. Please identify which criteria in your methodology can be customized by client preference. PSERS' custodian bank, investment managers and/or fund administrators will supply a monthly portfolio asset list with accrual market values for marketable securities.

Please indicate whether you use your own pricing sources and describe how you will investigate/resolve pricing errors in the custodian bank's asset list. Describe how you handle pricing for derivative investments.

- b) Time periods for which total returns can be calculated.
- c) Standard indices, custom indices, and benchmarks you will use for comparison.
- d) Total population of funds and public pension funds (including a large fund subset) you will use for universe comparisons.
- e) Characteristics you will compare.

Please comment on your ability to provide draft monthly performance reports within 3 business days following receipt of final month-end market values from our custodian. Will you be able to issue final reports within 3 business days after receiving comments from PSERS on the draft? What quality control systems and procedures do you use to ensure that reports are prepared accurately and delivered on time?

Provide sample monthly pension fund performance reports by asset class.

- 4. Describe in detail the PC-based or Internet-based fund management and consulting tools that your firm will provide. Provide sample reports. NOTE: PSERS may require a demonstration of such tools.
- 5. Provide sample reports by asset class depicting investment and risk exposures, and note their usefulness for PSERS.

II-5. Miscellaneous.

A. Please discuss the appropriate role(s) of risk management in administration of investments for a public pension plan such as PSERS. Specify criteria that should be measured and analyzed, and the appropriate role(s) of the Board, staff, and consultant in measuring and analyzing the risk criteria. How does this relate to your views on the separation of alpha from beta?

- B. Please discuss your views on the appropriateness of either passively managed portfolios, actively managed portfolios, or a combination of both actively and passively managed portfolios, by asset class. What important factors must be considered by a pension fund such as PSERS in order to determine which of these approaches is likely to be most beneficial?
- C. For each asset class specified below, identify the role you see it playing in a large pension fund today and in the future, and identify form (e.g, separate account, derivative) of investments (if any) you feel are prudent.
 - 1) Real Estate
 - 2) Commodities
 - 3) Infrastructure
 - 4) Hedge Funds
 - 5) Alternative (e.g., venture capital, private equity, private debt)
 - 6) Risk Parity
 - 7) Master Limited Partnerships
- D. What do you see as being the most significant changes that will be occurring in asset allocation for pension funds over the next 10 years? Please comment.
- E. Disclose all services provided and compensation received (including the sources of such compensation, whether direct or indirect) between your firm and investment managers, plan officials, beneficiaries, sponsors, and/or others as required by Standard 2b of the Investment Management Consultants Association Standards of Practice.
- F. Describe any business relationships that you or any of your affiliates have had within the past two years with the Commonwealth of Pennsylvania or with members of PSERS' Board or staff.
- G. State whether you, any of your principals, or any other affiliates have any business involvements that could be viewed as potential conflicts of interest.
- H. Provide a copy of your current Code of Ethics adopted pursuant to 204A-1 of the Advisers Act.
- I. What procedures and written policies do you have to reduce/eliminate any conflict of interest that could occur between investment managers and plan sponsors?

- J. Please state clearly whether your firm has any current tax issues or disputes with the Commonwealth of Pennsylvania (PSERS would be unable to execute a contract with your firm until these circumstances were resolved).
- II-6. References. List five current pension fund clients as references. For each reference, include client name, name of contact person, address, telephone number, asset value of client, services the client uses, and number of years the client retained the firm. The client should have funds of similar size and complexity to PSERS and you should be providing services similar to those proposed for PSERS. PSERS intends to contact the references.
- II-7. Work Plan. Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in Part IV of this RFP as your reference point. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Indicate the number of person hours allocated to each task. Include a Program Evaluation and Review Technique (PERT) or similar type display, time related, showing each event. If more than one approach is apparent, comment on why you chose this approach.
- II-8. Objections and Additions to Standard Contract Terms and Conditions. The Offeror will identify which, if any, of the terms and conditions (contained in Appendix A) it would like to negotiate and what additional terms and conditions the Offeror would like to add to the standard contract terms and conditions. The Offeror's failure to make a submission under this paragraph will result in its waiving its right to do so later, but the Issuing Office may consider late objections and requests for additions if to do so, in the Issuing Office sole discretion, would be in the best interest of the Commonwealth. The Issuing Office may, in its sole discretion, accept or reject any requested changes to the standard contract terms and conditions. The Offeror shall not request changes to the other provisions of the RFP, nor shall the Offeror request to completely substitute its own terms and conditions for Appendix A. All terms and conditions must appear in one integrated contract. The Issuing Office will not accept references to the Offeror's, or any other, online guides or online terms and conditions contained in any proposal. The Board will not consider proposals which contain a limitation of the Offeror liability for services provided. Any proposal containing such a limitation will be rejected.

Regardless of any objections set out in its proposal, the Offeror must submit its proposal, including the cost proposal, on the basis of the terms and conditions set out in Appendix A. The Issuing Office will reject any proposal that is conditioned on the negotiation of the terms and conditions set out in Appendix A or to other provisions of the RFP as specifically identified above.

II-9. Small Diverse Business Participation Submittal.

A. To receive credit for being a Small Diverse Business or for subcontracting with a Small Diverse Business (including purchasing supplies and/or services through a purchase agreement), an Offeror must include proof of Small Diverse Business qualification in the Small Diverse Business participation submittal of the proposal, as indicated below:

A Small Diverse Business verified by BSBO as a Small Diverse Business must provide a photocopy of their verification letter.

- B. In addition to the above verification letter, the Offeror must include in the Small Diverse Business participation submittal of the proposal the following information:
 - 1. All Offerors must include a numerical percentage which represents the total percentage of the work (as a percentage of the total cost in the Cost Submittal) to be performed by the Offeror and not by subcontractors and suppliers.
 - 2. All Offerors must include a numerical percentage which represents the total percentage of the total cost in the Cost Submittal that the Offeror commits to paying to Small Diverse Businesses (SDBs) as subcontractors. To support its total percentage SDB subcontractor commitment, Offeror must also include:
 - a) The percentage and dollar amount of each subcontract commitment to a Small Diverse Business;
 - b) The name of each Small Diverse Business. The Offeror will not receive credit for stating that after the contract is awarded it will find a Small Diverse Business.
 - c) The services or supplies each Small Diverse Business will provide, including the timeframe for providing the services or supplies.
 - d) The location where each Small Diverse Business will perform services.
 - e) The timeframe for each Small Diverse Business to provide or deliver the goods or services.
 - f) A subcontract or letter of intent signed by the Offeror and the Small Diverse Business (SBD) for each SDB identified in the SDB Submittal. The subcontract or letter of intent must identify the specific work, goods or services the SDB will perform and how the work, goods or services relates to the project, and the specific timeframe during the term of the contract and any option/renewal periods when the work, goods or services will be performed or provided. In addition, the subcontract or letter of intent must identify the fixed percentage commitment and associated estimated dollar value that each SDB will receive based on the total value of the initial term of the contract as provided in the Offeror's Cost Submittal. Attached as Appendix D is a letter of intent template which may be used ot satisfy these requirements..
 - g) The name, address and telephone number of the primary contact person for each Small Diverse Business.
 - 3. The total percentages and each SDB subcontractor commitment will become contractual obligations once the contract is fully executed.
 - 4. The name and telephone number of the Offeror's project (contact) person for the Small Diverse Business information.

- C. The Offeror is required to submit two copies of its Small Diverse Business participation submittal. The submittal shall be clearly identified as Small Diverse Business information and sealed in its own envelope, separate from the remainder of the proposal.
- D. A Small Diverse Business can be included as a subcontractor with as many prime contractors as it chooses in separate proposals.
- E. An Offeror that qualifies as a Small Diverse Business and submits a proposal as a prime contractor is not prohibited from being included as a subcontractor in separate proposals submitted by other Offerors.

II-10. Cost Submittal. The information requested in this Part II, Section II-10 shall constitute the Cost Submittal. The Cost Submittal shall be placed in a separate sealed envelope within the sealed proposal, separated from the technical submittal. The total proposed cost shall be broken down into the following components:

Calendar Year	Fee for Consulting Only (2)	Fee for Both P.M. and Consulting (2, 3)
12/01/2013 to 11/30/2014	\$ \$	\$
12/01/2014 to 11/30/2015	\$ \$	\$
12/01/2015 to 11/30/2016	\$ \$	\$
12/01/2016 to 11/30/2017	\$ \$	\$
12/01/2017 to 11/30/2018	\$ \$	\$
Total (5 years)	\$ S	<u> </u>

- (1) fee should include use of analytics software.
- (2) fee should include use of analytics software as well as attendance of up to eight board meetings a year (on average, your attendance would normally only be requested quarterly).
- (3) does not need to be the total of the two individually if discount provided for having both contracts.

In addition, we require that a fee proposal be provided for an annual consulting retainer with a menu of fees for various projects (on a project by project basis) as follows:

Calendar Year	Fee for Annual Retainer*	Fee per Asset/Liability Study	Fee per Asset Allocation Review/Study	Fee per Manager Search	Fee per Comprehensive Manager Review
12/01/13 to 11/30/14	\$	\$	\$	\$	\$
12/01/14 to 11/30/15	\$	\$	\$	\$	\$
12/01/15 to 11/30/16	\$	\$	\$	\$	\$
12/01/16 to 11/30/17	\$	\$	\$	\$	\$
12/01/17 to 11/30/18	\$	\$	\$	\$	\$
Total (5 years)	\$	\$	\$	\$	\$

Offerors should not include any assumptions in their cost submittals. If the Offeror includes assumptions in its cost submittal, the Issuing Office may reject the proposal. Offerors should

direct in writing to the Issuing Office pursuant to Part I, Section I-9, of this RFP any questions about whether a cost or other component is included or applies. All Offerors will then have the benefit of the Issuing Office's written answer so that all proposals are submitted on the same basis.

Itemize transportation, lodging and meals per diem costs separately. Travel and subsistence costs must conform with the requirements of the most current version of Commonwealth Management Directive 230.10, *Travel and Subsistence Allowances*. The Issuing Office may accept higher rates normally paid by an Offeror, if those rates were approved by the Offeror's officials and published prior to submitting this proposal to the Issuing Office.

The Issuing Office will reimburse the selected Offeror for work satisfactorily performed after execution of a written contract and the start of the contract term, in accordance with contract requirements, and only after the Issuing Office has issued a notice to proceed.

II-11. Domestic Workforce Utilization Certification. Complete and sign the Domestic Workforce Utilization Certification contained in Appendix B of this RFP. Offerors who seek consideration for this criterion must submit in hardcopy the signed Domestic Workforce Utilization Certification Form in the same sealed envelope with the Technical Submittal.

PART III

CRITERIA FOR SELECTION

- III-1. Mandatory Responsiveness Requirements. To be eligible for selection, a proposal must be:
 - A. Timely received from an Offeror;
 - B. Properly signed by the Offeror; and
 - C. Meet all the Mandatory Minimum Qualifications and Requirements set forth in Section II-1.
- III-2. Technical Nonconforming Proposals. The three (3) Mandatory Responsiveness Requirements set forth in Section III-1 above (A, B and C) are the only RFP requirements that the Commonwealth will consider to be non-waivable. The Issuing Office reserves the right, in its sole discretion, to (1) waive any other technical or immaterial nonconformities in an Offeror's proposal, (2) allow the Offeror to cure the nonconformity, or (3) consider the nonconformity in the scoring of the Offeror's proposal.
- III-3. Evaluation. The Issuing Office has selected a committee of qualified personnel to review and evaluate timely submitted proposals. Independent of the committee, BSBO will evaluate the Small Diverse Business participation submittal and provide the Issuing Office with a rating for this component of each proposal. The Issuing Office will notify in writing of its selection for negotiation the responsible Offeror whose proposal is determined to be the most advantageous to the Commonwealth as determined by the Issuing Office after taking into consideration all of the evaluation factors.
- III-4. Evaluation Criteria. The following criteria will be used in evaluating each proposal:
 - A. Technical: The Issuing Office has established the weight for the Technical criterion for this RFP as 70% of the total points. Evaluation will be based upon the following in order of importance: Personnel Qualification, Soundness of Approach, Offeror Qualification, Understanding the Problem. The final Technical scores are determined by giving the maximum number of technical points available to the proposal with the highest raw technical score. The remaining proposals are rated by applying the Technical Scoring Formula set forth at the following webpage: http://www.portal.state.pa.us/portal/server.pt/community/rfp scoring formulas overview/20 124.
 - B. Cost: The Issuing Office has established the weight for the Cost criterion for this RFP as 10% of the total points. The cost criterion is rated by giving the proposal with the lowest total cost the maximum number of Cost points available. The remaining proposals are rated by applying the Cost Formula set forth at the following webpage:

http://www.portal.state.pa.us/portal/server.pt/community/rfp_scoring_formulas_overview/20 124.

- C. Small Diverse Business Participation: BSBO has established the weight for the Small Diverse Business (SDB) participation criterion for this RFP as 20 % of the total points. Each SDB participation submittal will be rated for its approach to enhancing the utilization of SDBs in accordance with the below-listed priority ranking and subject to the following requirements:
 - 1. A business submitting a proposal as a prime contractor must perform 60% of the total contract value to receive points for this criterion under any priority ranking.
 - 2. To receive credit for an SDB subcontracting commitment, the SDB subcontractor must perform at least fifty percent (50%) of the work subcontracted to it.
 - 3. A significant subcontracting commitment is a minimum of five percent (5%) of the total contract value.
 - 4.
 - 5. A subcontracting commitment less than five percent (5%) of the total contract value is considered nominal and will receive reduced or no additional SDB points depending on the priority ranking.

<u>Priority Rank 1</u>: Proposals submitted by SDBs as prime offerors will receive 150 points. In addition, SDB prime offerors that have significant subcontracting commitments to additional SDBs may receive up to an additional 50 points (200 points total available).

Subcontracting commitments to additional SDBs are evaluated based on the proposal offering the highest total percentage SDB subcontracting commitment. All other Offerors will be scored in proportion to the highest total percentage SDB subcontracting commitment within this ranking. See formula below.

<u>Priority Rank 2</u>: Proposals submitted by SDBs as prime contractors, with no or nominal subcontracting commitments to additional SDBs, will receive 150 points.

<u>Priority Rank 3</u>: Proposals submitted by non-small diverse businesses as prime contractors, with significant subcontracting commitments to SDBs, will receive up to 100 points. Proposals submitted with nominal subcontracting commitments to SDBs will receive points equal to the percentage level of their total SDB subcontracting commitment.

SDB subcontracting commitments are evaluated based on the proposal offering the highest total percentage SDB subcontracting commitment. All other Offerors will be scored in proportion to the highest total percentage SDB subcontracting commitment within this ranking. See formula below.

<u>Priority Rank 4</u>: Proposals by non-small diverse businesses as prime contractors with no SDB subcontracting commitments shall receive no points under this criterion.

To the extent that there are multiple SDB Participation submittals in Priority Rank 1 and/or Priority Rank 3 that offer significant subcontracting commitments to SDBs, the proposal offering the highest total percentage SDB subcontracting commitment shall receive the highest score (or additional points) available in that Priority Rank category and the other proposal(s) in that category shall be scored in proportion to the highest total percentage SDB subcontracting commitment. Proportional scoring is determined by applying the following formula:

<u>SDB % Being Scored</u> x Points/Additional = Awarded/Additional Highest % SDB Commitment Points Available* SDB Points

Priority Rank 1 = 50 Additional Points Available Priority Rank 3 = 100 Total Points Available

Please refer to the following webpage for an illustrative chart which shows SDB scoring based on a hypothetical situation in which the Commonwealth receives proposals for each Priority Rank:

http://www.portal.state.pa.us/portal/server.pt/community/rfp_scoring_formulas_overview/20124

D. **Domestic Workforce Utilization:** Any points received for the Domestic Workforce Utilization criterion are bonus points in addition to the total points for this RFP. The maximum amount of bonus points available for this criterion is 3% of the total points for this RFP.

To the extent permitted by the laws and treaties of the United States, each proposal will be scored for its commitment to use domestic workforce in the fulfillment of the contract. Maximum consideration will be given to those Offerors who will perform the contracted direct labor exclusively within the geographical boundaries of the United States or within the geographical boundaries of a country that is a party to the World Trade Organization Government Procurement Agreement. Those who propose to perform a portion of the direct labor outside of the United States and not within the geographical boundaries of a party to the World Trade Organization Government Procurement Agreement will receive a correspondingly smaller score for this criterion. See the following webpage for the Domestic Workforce Utilization Formula:

http://www.portal.state.pa.us/portal/server.pt/community/rfp scoring formulas overview /20124. Offerors who seek consideration for this criterion must submit in hardcopy the signed Domestic Workforce Utilization Certification Form in the same sealed envelope with the Technical Submittal. The certification will be included as a contractual obligation when the contract is executed.

III-5. Offeror Responsibility. To be responsible, an Offeror must submit a responsive proposal and possess the capability to fully perform the contract requirements in all respects and the integrity and reliability to assure good faith performance of the contract.

In order for an Offeror to be considered responsible for this RFP and therefore eligible for selection for best and final offers or selection for contract negotiations:

- A. The total score for the technical submittal of the Offeror's proposal must be greater than or equal to 70% of the available technical points; and
- B. The Offeror's financial information must demonstrate that the Offeror possesses the financial capability to assure good faith performance of the contract. The Issuing Office will review the Offeror's previous three financial statements, any additional information received from the Offeror, and any other publicly-available financial information concerning the Offeror, and assess each Offeror's financial capacity based on calculating and analyzing various financial ratios, and comparison with industry standards and trends.

An Offeror which fails to demonstrate sufficient financial capability to assure good faith performance of the contract as specified herein may be considered by the Issuing Office, in its sole discretion, for Best and Final Offers or contract negotiation contingent upon such Offeror providing contract performance security for the first contract year cost proposed by the Offeror in a form acceptable to the Issuing Office. Based on the financial condition of the Offeror, the Issuing Office may require a certified or bank (cashier's) check, letter of credit, or a performance bond conditioned upon the faithful performance of the contract by the Offeror. The required performance security must be issued or executed by a bank or surety company authorized to do business in the Commonwealth. The cost of the required performance security will be the sole responsibility of the Offeror and cannot increase the Offeror's cost proposal or the contract cost to the Commonwealth.

Further, the Issuing Office will award a contract only to an Offeror determined to be responsible in accordance with the most current version of Commonwealth Management Directive 215.9, Contractor Responsibility Program.

III-6. Final Ranking and Award.

- A. After any best and final offer process conducted, the Issuing Office will combine the evaluation committee's final technical scores, BSBO's final small diverse business participation scores, the final cost scores, and (when applicable) the domestic workforce utilization scores, in accordance with the relative weights assigned to these areas as set forth in this Part.
- B. The Issuing Office will rank responsible offerors according to the total overall score assigned to each, in descending order.

- C. The Issuing Office must select for contract negotiations the offeror with the highest overall score; PROVIDED, HOWEVER, THAT AN AWARD WILL NOT BE MADE TO AN OFFEROR WHOSE PROPOSAL RECEIVED THE LOWEST TECHNICAL SCORE AND HAD THE LOWEST COST SCORE OF THE RESPONSIVE PROPOSALS RECEIVED FROM RESPONSIBLE OFFERORS. IN THE EVENT SUCH A PROPOSAL ACHIEVES THE HIGHEST OVERALL SCORE, IT SHALL BE ELIMINATED FROM CONSIDERATION AND AWARD SHALL BE MADE TO THE OFFEROR WITH THE NEXT HIGHEST OVERALL SCORE.
- D. The Issuing Office has the discretion to reject all proposals or cancel the request for proposals, at any time prior to the time a contract is fully executed, when it is in the best interests of the Commonwealth. The reasons for the rejection or cancellation shall be made part of the contract file.

PART IV

WORK STATEMENT

Background.

The Commonwealth of Pennsylvania, Public School Employees' Retirement System (PSERS) is the administrator of a cost-sharing multiple-employer defined benefit retirement system established by the Commonwealth of Pennsylvania to provide pension benefits for employees of the public school system in the Commonwealth. PSERS' funding policy provides for periodic member contributions at statutory rates and periodic employer contributions at actuarially determined rates that are sufficient to accumulate assets to pay defined benefits when due. As provided by statutes, the PSERS' Board of Trustees (Board) has exclusive control and management responsibility of PSERS' fund and full power to invest the fund. In exercising its fiduciary responsibility to PSERS' membership, the Board is governed by the "prudent investor" rule and has adopted an Investment Policy Statement, Objectives and Guidelines to formally document investment objectives and responsibilities. This policy, as well as applicable state law, defines permissible investments for PSERS. The Investment Policy Statement, Objectives, and Guidelines can be obtained on the internet at www.psers.state.pa.us/investment/guide/guide.htm.

The market value of PSERS' net assets totaled approximately \$49.0 billion as of December 31, 2012. Based on this valuation of its assets, PSERS is the 18th largest defined benefit public pension fund in the nation. A copy of the Fund's comprehensive annual financial report for the the internet be obtained on 2012 can ended June 30. year www.psers.state.pa.us/publications/general/cafr.htm. The Board needs investment consulting and performance measurement services to fulfill its fiduciary duties with respect to the PSERS' fund.

IV-1. Requested Services.

The contractor will provide non-discretionary investment consulting and/or performance measurement services for the period December 1, 2013 thru November 30, 2018.

A. In providing Consulting Services for PSERS' Fund, and for all major asset classes, the consultant will:

- 1) conduct a comprehensive review and analysis of investment objectives, policies, asset allocation, and portfolio structure, and recommend changes, if appropriate, by February 28, 2014.
- 2) review the adequacy of the Board's investment staff and resources, and make recommendations on the Board's investment staff and resource changes, if any, by February 28, 2014.
- 3) work with Staff and the actuary to conduct an asset/liability study annually for each calendar year and present the results to the Board in March of the following year starting March 2014.

- 4) work with Staff to develop an appropriate investment management structure for the System and each asset class that considers the role of active versus passive strategies, investment management styles, and separation of alpha from beta under different market conditions.
- 5) recommend appropriate performance benchmarks for individual portfolios, each asset class, and for the total fund.
- 6) review and make recommendations regarding individual portfolio guidelines at least annually.
- 7) recommend suitable investment opportunities and practical implementation methods.
- 8) recommend appropriate investment strategies, tactics, procedures, and practices.
- 9) provide research reports on asset allocation, investment issues, and description and evaluation of alternative approaches.
- 10) provide information on market conditions and explain their impact on PSERS' investments.
- 11) assist PSERS' staff in conducting public market investment manager searches and facilitate the hiring of suitable institutional quality managers, including:
 - a. providing a list of potential institutional quality managers appropriate for the mandate being considered;
 - b. conducting interviews with potential managers at PSERS;
 - c. conducting on-site due diligence meetings with potential managers prior to their selection; and
 - d. providing assistance with the contract/fee negotiations.
- 12) provide on-going monitoring and oversight reports for all of PSERS' public market investment managers, including:
 - a. analysis of the manager's absolute and relative performance in relation to benchmarks, investment objectives, and peer groups;
 - b. an analysis of attribution, holdings, style, and risk;

- updated research on each investment manager in PSERS' portfolio updated at least once every 18 months to include a review of investment performance, process, and the manager's organization;
- d. conduct on-site due diligence meetings with current investment managers a minimum of every three years; and
- e. advice on manager retention/termination and assist in developing a formal manager review process.
- 13) advise staff and the Board about new developments in investment management techniques and portfolio management strategies. Analyze how new techniques might improve the investment program and whether they should be considered for implementation.
- 14) make available all firm research, including proprietary research, and provide consultation with research staff.
- 15) meet with the Board to report on investment matters. Generally, there are seven to eight regularly scheduled Board meetings annually. Special meetings may be scheduled as needed.
- 16) present the performance results to the Board quarterly, including relative results versus established benchmarks, results versus other public defined benefit pension plans, and the returns relative to the risks taken.
- 17) maintain or otherwise provide access to a database of U.S. and non-U.S. investment managers, including their philosophies, processes, organizations, performance, fees, and clients.
- 18) provide a PC-based or Internet-based fund management and consulting tool that allows staff to:
 - a. formulate investment policy and implement strategies;
 - b. monitor and evaluate individual portfolio, asset class, and total fund performance, risk, and attribution analytics;
 - c. formulate investment policy and implement strategies;
 - d. monitor and evaluate individual portfolio, asset class, and total fund performance, risk, and attribution analytics;
 - e. develop asset allocation and rebalancing recommendations;
 - f. select and evaluate public market investment managers (including hedge fund managers), including public market manager research and consultant ratings;

- g. analyze and optimize manager teams; and,
- h. compare the Fund performance at the asset class and total fund levels to various peer groups.

It is expected that at least 10 years of PSERS' historical performance data, by investment portfolio, asset class, and at the total fund level will be included and that the database will be updated on a monthly basis.

- 17) provide training to the Board and staff, as needed, but in no case more than three days in any one calendar year.
- 18) advise Board and staff on risk-related subjects (e.g., risk measurement, risk mitigation).
- 19) carry out other assignments that may be specified by the Board and staff, as required.
- B. In providing Performance Measurement Services for PSERS' Fund, including all major asset classes recognized by PSERS as well as individual portfolios, the consultant will:
 - 1) prepare a written monthly report containing the calculated total return (gross and net of fees) for asset class, portfolio management styles, and individual portfolios, and compare PSERS calculated data with benchmarks determined by PSERS and with data for a similar population of funds by asset class and portfolio management styles for all of the public market portfolios and composites. Returns should be calculated for the following time periods: one-month, three-months, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, 10-year, and since inception.
 - 2) prepare a quarterly written report containing performance measurement attribution and analysis for each asset class and individual portfolio. The report should include a historical return analysis, dollar oriented analysis, return oriented (wealth relative) analysis, excess return analysis, and risk/return analysis. Returns should be calculated for the following time periods: quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, 10year, and since inception.
 - 3) reconcile performance with both individual portfolio managers as well as the custodian bank on a monthly basis.
 - 4) create additional composites with historical returns for those composites as requested by PSERS.

- 5) provide quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, and 10-year quartile ranking report of composite returns by Fund (i.e. total fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes).
- 6) provide consecutive year quartile ranking reports of composite returns by Fund (i.e. total fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes) for the past five years.
- 7) conduct performance attribution analysis to determine the value added by investment policy, asset allocation, and security selection.
- 8) provide reasonable assistance to PSERS in uploading the consultant's performance data to PSERS' own investment system(s).

IV-2. Emergency Preparedness.

To support continuity of operations during an emergency, including a pandemic, the Commonwealth needs a strategy for maintaining operations for an extended period of time. One part of this strategy is to ensure that essential contracts that provide critical business services to the Commonwealth have planned for such an emergency and put contingencies in place to provide needed goods and services.

- 1. Describe how you anticipate such a crisis will impact your operations.
- 2. Describe your emergency response continuity of operations plan. Please attach a copy of your plan, or at a minimum, summarize how your plan addresses the following aspects of pandemic preparedness:
 - a) Employee training (describe your organization's training plan, and how frequently your plan will be shared with employees)
 - b) Identified essential business functions and key employees (within your organization) necessary to carry them out
 - c) Contingency plans for:
 - i.) How your organization will handle staffing issues when a portion of key employees are incapacitated due to illness.
 - ii.) How employees in your organization will carry out the essential functions if contagion control measures prevent them from coming to the primary workplace.

- d) How your organization will communicate with staff and suppliers when primary communications systems are overloaded or otherwise fail, including key contacts, chain of communications (including suppliers), etc.
- e) How and when your emergency plan will be tested, and if the plan will be tested by a third-party.

IV-3. Contract Requirements—Small Diverse Business Participation. All contracts containing Small Diverse Business participation must also include a provision requiring the selected contractor to meet and maintain those commitments made to Small Diverse Businesses at the time of proposal submittal or contract negotiation, unless a change in the commitment is approved by the BSBO. All contracts containing Small Diverse Business participation must include a provision requiring Small Diverse Business subcontractors to perform at least 50% of the subcontracted work.

The selected contractor's commitments to Small Diverse Businesses made at the time of proposal submittal or contract negotiation shall, to the extent so provided in the commitment, be maintained throughout the term of the contract and through any renewal or extension of the contract. Any proposed change must be submitted to BSBO, which will make a recommendation to the Contracting Officer regarding a course of action.

If a contract is assigned to another contractor, the new contractor must maintain the Small Diverse Business participation of the original contract.

The selected contractor shall complete the Prime Contractor's Quarterly Utilization Report (or similar type document containing the same information) and submit it to the contracting officer of the Issuing Office and BSBO within 10 workdays at the end of each quarter the contract is in force. This information will be used to determine the actual dollar amount paid to Small Diverse Business subcontractors and suppliers. Also, this information will serve as a record of fulfillment of the commitment the selected contractor made and for which it received Small Diverse Business participation points. If there was no activity during the quarter then the form must be completed by stating "No activity in this quarter."

NOTE: EQUAL EMPLOYMENT OPPORTUNITY AND CONTRACT COMPLIANCE STATEMENTS REFERRING TO COMPANY EQUAL EMPLOYMENT OPPORTUNITY POLICIES OR PAST CONTRACT COMPLIANCE PRACTICES DO NOT CONSTITUTE PROOF OF SMALL DIVERSE BUSINESS STATUS OR ENTITLE AN OFFEROR TO RECEIVE CREDIT FOR SMALL DIVERSE BUSINESS UTILIZATION.

APPENDIX A

SAMPLE PURCHASE ORDER TERMS AND CONDITIONS INCLUDING STANDARD PURCHASE ORDER TERMS AND CONDITIONS

PURCHASE ORDER TERMS AND CONDITIONS RIDER I

Pursuant to	purchase ord	ler number	("Purchase	Order"),	(the
"CONSULTA	NT") agrees t	o perform the ser	vices set forth th	erein, those s	et forth below, those
set forth in its	Proposal of	XX XX, 2013, wl	nich is attached	to the Purchas	se Order as Rider
					School Employees'
					mployees' Retirment
					ich is attached to the
		and incorporated			

- A. Consulting Services for PSERS' Fund, including all asset classes and investments:
- 1. The CONSULTANT will review investment objectives, policies, and asset allocation, and will submit a written analysis with recommendations (if any) on investment objectives, policies, and asset allocation changes, by February 1, 2014.
- 2. The CONSULTANT will review the adequacy of PSERS") investment staff and resources, and will submit a written analysis with recommendations (if any) on the PSERS's investment staff and resource changes, by February 1, 2014.
- 3. The CONSULTANT will prepare a written Asset/Liability Study annually for each calendar year and present the results to the Board in March of the following year, beginning February 1, 2014. The CONSULTANT will recommend a performance benchmark for the Total Fund as well as each asset class and individual portfolios.
- 4. The CONSULTANT will review and make recommendations regarding individual portfolio guidelines at least annually.
- 5. The CONSULTANT will recommend suitable investment opportunities and practical implementation methods.
- 6. The CONSULTANT will recommend appropriate investment strategies, tactics, procedures and practices.
- 7. The CONSULTANT will provide research reports on asset allocation, investment issues, and description and evaluation of alternative approaches.
- 8. The CONSULTANT will provide information on market conditions and explain their impact on PSERS' investments.

- 9. The CONSULTANT will assist PSERS' staff in conducting public market investment manager searches and facilitate the hiring of suitable managers, including assistance with the contract/fee negotiations.
- 10. The CONSULTANT will provide reports on investment strategies for all of our investment managers as well as the CONSULTANT's research reports on each of PSERS' public market managers, including updates as they are completed for manager visits and/or re-evaluations.
- 11. The CONSULTANT will keep PSERS fully informed on investment subjects.
- 12. The CONSULTANT will meet with the Board to report on investment matters. Generally, there are seven or eight regularly scheduled Board meetings annually. Special meetings may be scheduled as needed.
- 13. The CONSULTANT will present the performance results to the Board quarterly, including relative results versus pre-established benchmarks, results versus other public defined benefit pension plans, and the returns relative to the risks taken.
- 14. The CONSULTANT will provide a PC-based or Internet-based fund management and consulting tool that allows staff to:
 - a. Formulate investment policy and implement strategies;
 - b. Monitor and evaluate asset class and total fund performance and risk;
 - c. Develop asset allocation and rebalancing recommendations;
 - d. Select and evaluate public market investment managers, including public market manager research and consultant ratings;
 - e. Assess investment risks;
 - f. Analyze and optimize manager teams; and,
 - g. Compare the Fund performance at the asset class and total fund levels to various peer groups.

It is expected that at least 10 years of PSERS historical performance data, by investment portfolio, asset class, and at the total fund level will be included and that the database will be updated on a monthly basis.

- 15. The CONSULTANT will provide training to the Board and staff, as needed.
- 16. The CONSULTANT will carry out other assignments that may be specified by PSERS.

- B. Performance Measurement Services for PSERS' Fund, including all asset classes and individual portfolios:
- 1. The CONSULTANT will prepare a monthly report containing calculated total return (before and after fees) for asset class, portfolio management styles, and individual portfolios, and compare PSERS' calculated data with benchmarks and with data for a similar population of funds by asset class and portfolio management styles for all of the public market portfolios and composites. Returns should be calculated for the following time periods: one-month, three-months, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, 10-year, and since inception.
- 2. The CONSULTANT will prepare a quarterly written report containing performance measurement attribution and analysis for each asset class and individual portfolios. The report should include a historical return analysis, dollar oriented analysis, return oriented (wealth relative) analysis, excess return analysis and risk/return analysis. Returns should be calculated for the following time periods: quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, 10-year, and since inception.
- 3. The CONSULTANT will be responsible for reconciling performance with both individual portfolio managers as well as the custodian bank on a monthly basis.
- 4. The CONSULTANT will be responsible for the creation of additional composites with historical returns for those composites as requested by PSERS.
- 5. The CONSULTANT will provide quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, and 10-year quartile ranking reports of composite returns by Fund (i.e. Total Fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes).
- 6. The CONSULTANT will provide consecutive year quartile ranking reports of composite returns by Fund (i.e. Total Fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes) for the past five years.
- 7. The CONSULTANT will provide a performance attribution analysis to determine the value added by investment policy, asset allocation, and security selection.

C. Terms and Conditions

- The CONSULTANT's compensation for performing the above services shall be as set forth in the Purchase OrderThe CONSULTANT acknowledges and agrees that no further fees are payable by PSERS for the services rendered under the Purchase Order.
- 2. The CONSULTANT shall hold the Commonwealth of Pennsylvania, the Board, PSERS and the Fund, their beneficiaries, directors, officers, agents, and employees harmless from and indemnify the Commonwealth of Pennsylvania, the Board, PSERS and the Fund, their beneficiaries, directors, officers, agents, and employees against any and all claims, demands, actions, or liability of any nature,

including attorneys' fees and court costs, based upon or arising out of any services performed, or the failure to perform services, by the CONSULTANT, its directors, officers, employees, and agents under the Purchase Order and shall, at the request of PSERS, defend at the CONSULTANT's expense actions brought against the Commonwealth of Pennsylvania, the Board, PSERS and/or the Fund, based upon any such claims or demands, and the costs of such defense shall be borne by the CONSULTANT and shall not constitute any expense of, nor shall be paid out of, FUND, Board, PSERS or Commonwealth of Pennsylvania assets.

3. PSERS acknowledges that [name of PC-Based or Internet-Based tool] (the "Software") is provided under the Purchase Order solely for PSERS' use. PSERS shall not provide any other organization with access to the Software, or with reports or any other information obtained through it, except that PSERS may provide any asset manager who manages the FUND's assets with copies of reports that relate to the assets under management by that manager. Notwithstanding the foregoing, PSERS shall be authorized to provide access to and copies of the reports and any other information obtained through the Software and the services performed under the Purchase Order to the public and any other organization as may be required under the Right to Know Law and other similar laws.

The Purchase Order entitles PSERS to use as many copies of the Software as it shall reasonably require during the term of the Purchase Order. CONSULTANT retains all title and ownership of the Software, including the original disk copy and all subsequent copies of the Software, regardless of the form or media in or on which the original and other copies may exist. The Purchase Order is not a sale of the original Software or any copy.

CONSULTANT retains all title and ownership of the software and accompanying documentation, including the original disk copy and all subsequent copies of the software and documentation, regardless of the form or media in or on which the original and other copies may exist. PSERS agrees upon termination of the Purchase Order to return to CONSULTANT all software and portions and copies thereof, documentation and other equipment furnished with the service.

All reports prepared under the Purchase Order for PSERS shall become the property of PSERS.

CONSULTANT shall defend, at its expense, any action brought against PSERS arising out of any claim that PSERS' use of the services provided hereunder infringes upon the intellectual property rights of any third party; provided further that CONSULTANT shall indemnify and hold PSERS harmless against any and all damages and costs awarded against PSERS by final court order or fully executed settlement agreement.

The Software and accompanying written materials (the "Documentation") are owned by CONSULTANT and are protected by United States copyright laws and international treaty provisions. Therefore, PSERS must treat the Software and Documentation like any other copyrighted material. Unauthorized copying of the

Software, including Software that has been modified, merged, or included with other software, or the Documentation is expressly forbidden. Subject to these restrictions, PSERS may make a reasonable number of copies of the Software solely for back-up purposes.

PSERS may not distribute copies of the Software or Documentation to others, nor may PSERS rent or lease the Software or the Documentation or transfer control of the Software or Documentation to a third party without CONSULTANT's prior express written consent. In addition, PSERS may not modify, adapt, translate, reverse engineer, decompile, disassemble, or create derivative works based on the Software without CONSULTANT's prior express written consent.

CONSULTANT warrants that (i) it has the right to provide PSERS with access to the Software in accordance with the Purchase Order, and (ii) the Software shall conform to the written documentation and shall operate in accordance with CONSULTANT's written representations to PSERS.

Neither party shall be liable to the other party for any loss, injury, delay, damages or other casualties suffered by the other due to strikes, riots, storms, fires, or acts of God or government, beyond the reasonable control of such party.

- 4. The CONSULTANT shall not enter into any agreement by or on behalf of PSERS that (i) is binding on PSERS or allows, either expressly or by operation of law, recourse to PSERS, and (ii) creates any actual or potential liability on the part of PSERS that exceeds the scope of authority delegated to the CONSULTANT under the Purchase Order, or (iii) waives any of PSERS' rights, defenses, causes of action, or immunities. Liabilities that are not authorized by PSERS and prohibited by this Section 4 include, without limitation, any obligation on the part of PSERS to indemnify a third party or to pay attorney fees, legal expenses, penalties, or liquidated damages.
- 5. The CONSULTANT shall maintain during the term of the Purchase Order a policy of errors and omissions insurance for the protection of the PSERS' Fund, with a limit of liability of at least \$10,000,000, to cover the CONSULTANT, its officers, and its affiliates to the extent any affiliate performs services under the Purchase Order. Unless otherwise approved by PSERS, the maximum deductible on the errors and omissions policy shall be no greater than \$1,000,000. The CONSULTANT shall submit copies of the actual policies of said insurance as directed by PSERS, and PSERS shall cause to be issued a written determination on compliance. CONSULTANT shall thereafter maintain annual filings of current certificates of insurance with PSERS during the term of the Purchase Order and any extension thereof. If the CONSULTANT changes insurance carriers for insurance required hereunder, CONSULTANT shall submit copies of the actual policies of said insurance as directed by PSERS. The errors and omissions policy shall contain a provision or endorsement that coverage afforded thereunder shall not be canceled or changed until the underwriter has furnished PSERS at least 30 days' prior written notice of any cancellation or change. PSERS may, in its discretion, require such changes with respect to insurance

- coverage as it deems appropriate for the protection of the PSERS' Fund by giving written notice of such changes to the CONSULTANT at least 30 days in advance of the effective date for such changes.
- 6. The CONSULTANT represents and confirms that it is duly registered and in good standing as an investment advisor under the Investment Advisers Act of 1940 or is exempt therefrom (and will maintain such registration or exemption). If registered pursuant to said Act, the CONSULTANT has furnished to PSERA Parts I and II of the CONSULTANT's current Form ADV filed with the Securities and Exchange Commission pursuant to Section 203(c) of the Investment Advisers Act of 1940.
- 7. The CONSULTANT shall perform its services under the Purchase Order as an independent contractor, and CONSULTANT acknowledges that it maintains Workers' Compensation Insurance and shall accept full responsibility for the payments of premiums for Workers' Compensation Insurance and Social Security, as well as all income tax deductions and other taxes or payroll deductions required by law for itself for performing services specified by the Purchase Order.
- 8. The CONSULTANT shall provide immediate written notice toPSERS of any change in the CONSULTANT's status, including, without limitation, change in directors, officers, or employees who consult on PSERS' account; modification of the business organization; material change in SEC or other government or private registration, accreditation, or licensing; material deterioration of financial condition including but not limited to the filing of petition in bankruptcy; the CONSULTANT's awareness that its representations and warranties herein cease to be true; and litigation alleging the CONSULTANT's negligence or fraud.
- 8. The CONSULTANT covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services under the Purchase Order. CONSULTANT further covenants that, in the performance of the Purchase Order, it will not knowingly engage any other person having such interest.
- 9. It is agreed between the parties to the Purchase Order that the Purchase Order contemplates the rendition of expert professional services, and, therefore, neither the Purchase Order, nor any interest therein, nor any claim arising thereunder shall be transferred or assigned by either party to any other party or parties.
- 10. The performance of work under the Purchase Order may be terminated by the BOARD in whole or, from time to time. Any such termination shall be effected by delivery to the CONSULTANT of a written Notice of Termination specifying the extent to which performance of the work under the contract is terminated and the date on which such termination becomes effective. In the event of termination, fees for services shall be prorated and paid or repaid. Such termination shall not relieve CONSULTANT of any liability that may be incurred for its activities in connection with the Purchase Order prior to said termination.

- Likewise, CONSULTANT shall have the right to terminate the Purchase Order with thirty (30) days' written notice to PSERS. Also, under these circumstances, the fees for services shall be prorated and paid or repaid.
- 11. The CONSULTANT shall not publish or otherwise disclose, except to PSERS and except matters of public record, any information or data obtained hereunder from private individuals, organizations, or public agencies, in a publication whereby the information or data furnished by or about any particular person or establishment can be identified as relating to PSERS or its responsibilities, except with the consent of such person or establishment.
- 12. The CONSULTANT agrees that any specific plans, material, records, etc., developed under the Purchase Order remain the property of PSERS, and reproduction or duplication of such materials may be done only with the approval of PSERS.
- 13. No member of the General Assembly of the Commonwealth of Pennsylvania or any individual employed by the Commonwealth shall be admitted to any share or part of the Purchase Order, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to the Purchase Order if made with a corporation for its general benefit.
- 14. The CONSULTANT shall comply with the Standard Contract Terms and Conditions attached to the Purchase Order as Rider ___ and incorporated therein by reference, which provisions may be modified from time to time with written notice to CONSULTANT.
- 15. CONSULTANT shall maintain such records, books, and accounts pertaining to services and payments under the Purchase Order in accordance with generally accepted accounting principles consistently applied. All such records, books, and accounts shall be maintained and preserved during the term of the Purchase Order and any extension thereof and for four years thereafter. During such period, PSERS, or any other department or representative of the Commonwealth of Pennsylvania, from time to time upon reasonable notice, shall have the right to inspect, duplicate, and audit such records, books, and accounts for all purposes authorized and permitted by law. CONSULTANT may preserve such records, books, and accounts in original form or on microfilm, magnetic tape, or any other generally recognized and accepted process.
- 16. Any notice, demand, direction, instruction, or other communication required or permitted hereunder shall be confirmed in writing and shall be sufficiently given for all purposes when sent (a) by certified or registered U.S. mail, postage prepaid, (b) by a nationally recognized courier service that maintains verification of actual delivery, (c) by facsimile, with a copy sent by first class U.S. mail (provided that if the date of dispatch is not a working day, the facsimile shall be deemed to have been received at the opening of business of the addressee on the next working day), or (d) by delivering the same in person to any party at the

following addresses or such other addresses as may be designated in writing from time to time by the parties:

PSERS:	Jeffrey B. Clay, Executive Director Pennsylvania, Public School Employees Retirement System 5 North Fifth Street Harrisburg, Pennsylvania 17101
CONSULTANT:	

- 17. PSERS reserves all immunities, defenses, rights, or actions arising out of its status as a sovereign entity or from the Eleventh Amendment to the United States Constitution. No provision of the Purchase Order shall be construed as a waiver of any such immunities, defenses, rights, or actions.
- 18. Execution of the Purchase Order constitutes certification by CONSULTANT that
 (a) the number appearing on the Purchase Order is CONSULTANT's correct
 taxpayer identification number, and (b) CONSULTANT is not subject to backup
 withholding because (i) CONSULTANT is exempt from backup withholding, (ii)
 CONSULTANT has not been notified by the IRS that it is subject to backup
 withholding as a result of a failure to report all interest or dividends, or (iii), the
 IRS has notified CONSULTANT that it is no longer subject to backup
 withholding.
- 19. The Purchase Order shall be governed by the laws of the Commonwealth of Pennsylvania and, for all purposes, shall be construed in accordance with said laws and the decisions of the courts of the Commonwealth of Pennsylvania therein, and shall be binding upon the successors and assigns of the parties thereto, and constitutes the entire agreement between PSERS and CONSULTANT with respect to the consulting services to be furnished as provided herein. No amendment or modification changing the scope or terms of the Purchase Order shall have any force or effect unless it is in writing and approved by both parties.
- 20. If any one or more of the covenants, agreements, provisions, or terms of the Purchase Order shall be held contrary to any express provision of law, or contrary to the policy of express law though not expressly prohibited, or against public policy, or shall for any reason whatsoever be held invalid, then such covenants, agreements, provisions, or terms shall be deemed severable from the remaining covenants, agreements, provisions, or terms of the Purchase Order and shall in no way affect the validity or enforceability of the remainder of the Purchase Order or the rights of the parties thereto.

- 21. CONSULTANT shall reimburse PSERS for the reasonable travel expenses actually incurred by PSERS, if any, for (i) members of PSERS' professional investment staff to travel to CONSULTANT'S location, and (ii) if the CONSULTANT sponsors investment conferences, training, seminars or similar events, attendance by PSERS' professional investment staff members. Reimbursable expenses shall include airfare, automobile rental, lodging, meals, CONSULTANT-sponsored event registration fees, and other travel-related expenses at maximum allowance rates established by the Commonwealth Management Directive 230.10 as revised, Travel and Subsistence Allowances. The reimbursable expenses for each of (i) and (ii), above, shall not exceed \$10,000 per calendar year. PSERS shall submit a claim for reimbursement of such travel expenses, which the CONSULTANT shall promptly pay.
- 22. CONSULTANT shall perform services under the Purchase Order subject to the exercise of that degree of judgment and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence who are experts in such matters, exercise in the management of like matters, not in regard to speculation but in regard to the permanent disposition of the Fund, considering the probable income to be derived therefrom as well as the probable safety of the invested capital. CONSULTANT acknowledges that it is a "fiduciary" with respect to PSERS and the Fund as that term is defined in the Employee Retirement Income Security Act of 1974 (ERISA), regardless of the applicability of ERISA to the Purchase Order.

RIDER 2

Standard Purchase Order Terms and Conditions

Please refer to this website for Commonwealth Standard Contract Terms and Conditions:

 $\frac{\underline{http://www.portal.state.pa.us/portal/server.pt/community/procurement\ forms/19505}}{BOP-1203}\,,$

APPENDIX B DOMESTIC WORKFORCE UTILIZATION CERTIFICATION

To the extent permitted by the laws and treaties of the United States, each proposal will be scored for its commitment to use the domestic workforce in the fulfillment of the contract. Maximum consideration will be given to those offerors who will perform the contracted direct labor exclusively within the geographical boundaries of the United States or within the geographical boundaries of a country that is a party to the World Trade Organization Government Procurement Agreement. Those who propose to perform a portion of the direct labor outside of the United States and not within the geographical boundaries of a party to the World Trade Organization Government Procurement Agreement will receive a correspondingly smaller score for this criterion. In order to be eligible for any consideration for this criterion, offerors must complete and sign the following certification. This certification will be included as a contractual obligation when the contract is executed. Failure to complete and sign this certification will result in no consideration being given to the offeror for this criterion.

	tion will result in no consideration being given to	
I,		[name of Contractor] a tion or other legal entity, ("Contractor") located at [address], having a Social Security or
Endoral	Identification Number of	
Commo	nwealth of Pennsylvania ("Commonwealth") (Che	ck one of the boxes below):
Commic		
	exclusively within the geographical boundaries of a party to the World Trade Organization Govern Bulgaria, Canada, Chinese Taipei, Cyprus, Czeci Greece, Hong Kong, Hungary, Iceland, Ireland, I	e scope of services under the contract will be performed f the United States or one of the following countries that is ument Procurement Agreement: Aruba, Austria, Belgium, h Republic, Denmark, Estonia, Finland, France, Germany, srael, Italy, Japan, Korea, Latvia, Liechtenstein, Lithuania, Poland, Portugal, Romania, Singapore, Slovak Republic, nited Kingdom
	OR	
	performed within the scope of services under boundaries of the United States or within the ge that is a party to the World Trade Organization direct labor performed under the contract that w	ntractor must specify the percentage] of the direct labor the contract will be performed within the geographical ographical boundaries of one of the countries listed above Government Procurement Agreement. Please identify the vill be performed outside the United States and not within the World Trade Organization Government Procurement where the direct labor will be performed:
	[Use additional sheets if necessary]	
conceal	partment of General Services [or other purchament of the true facts punishable under Section dated Statutes.	asing agency] shall treat any misstatement as fraudulent 4904 of the <i>Pennsylvania Crimes Code</i> , Title 18, of Pa.
Attest o	r Witness:	Corporate or Legal Entity's Name
Signatu	re/Date	Signature/Date
Printed	Name/Title	Printed Name/Title

APPENDIX C - PROPOSAL COVER SHEET COMMONWEALTH OF PENNSYLVANIA RPF # - PSERS RFP 2013-1

Enclosed in three separately sealed submittals is the proposal of the Offeror identified below for the above-referenced RFP:

Offeror Information:			
Offeror Name			
Offeror Mailing Address	· · · · · · · · · · · · · · · · · · ·		
Offeror Website			
Offeror Contact Person			
Contact Person's Phone Number			
Contact Person's Facsimile Number			
Contact Person's E-Mail Address			
Offeror Federal ID Number			
Offeror SAP/SRM Vendor Number			

Submittals Enclosed and Separately Sealed:		
	Technical Submittal	
	Small Diverse Business Participation Submittal	
	Cost Submittal	

Signature	
Signature of an official authorized to bind the Offeror to the provisions contained in the Offeror's	
proposal Printed Name Title	

FAILURE TO COMPLETE, SIGN AND RETURN THIS FORM WITH THE OFFEROR'S PROPOSAL MAY RESULT IN THE REJECTION OF THE OFFEROR'S PROPOSAL

APPENDIX D SMALL DIVERSE BUSINESS LETTER OF INTENT TEMPLATE

[DATE]

[SDB Contact Name Title SDB Company Name Address City, State, Zip]

Dear [SDB Contact Name]:

This letter serves as confirmation of the intent of [Offeror] to utilize [Small Diverse Business (SDB)] on RFP [RFP number and Title] issued by the [Commonwealth agency name].

If [Offeror] is the successful vendor, [SDB] shall provide [identify the specific work, goods or services the SDB will perform, and the specific timeframe during the term of the contract and any option/renewal periods when the work, goods or services will be performed or provided].

These services represent [identify fixed numerical percentage commitment] of the total cost in the [Offeror's] cost submittal for the initial term of the contract. Dependent on final negotiated contract pricing and actual contract usage or volume, it is expected that [SDB] will receive an estimated [identify associated estimated dollar value that the fixed percentage commitment represents] during the initial contract term.

[SDB] represents that it meets the small diverse business requirements set forth in the RFP and all required documentation has been provided to [Offeror] for its SDB submission.

We look forward to the opportunity to serve the [Commonwealth agency name] on this project. If you have any questions concerning our small diverse business commitment, please feel free to contact me at the number below.

Sincerely,

Acknowledged,

Offeror Name Title Company Phone number SDB Name Title Company Phone number

RIDER 3

VENDOR PROPOSAL TO PSERS RFP 2013-1

Technical Submittal Pennsylvania Public School Employees' Retire per 🎉 June 2013 Hewitt ennisknupp An Aon Company

An Aon Company

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An Aon Company

June 26, 2013

Terrianne Mirarchi Pennsylvania Public School Employees' Retirement System 5 North 5th Street Harrisburg, PA 17101

Dear Ms. Mirarchi:

Thank you for giving Hewitt EnnisKnupp (HEK) the opportunity to submit a proposal for investment consulting services to PSERS. We hope our great interest in working with you is apparent from our proposal for General Investment Consulting Services.

This opportunity has captured the attention of the top consultants in our firm and our executive management. As we worked together to create a proposal for you, everyone on the proposed team was very enthusiastic. We can offer a holistic and integrated approach in our advice on your portfolio.

We have enjoyed working in the public sector for over 30 years. Currently we are on retainer for 44 public fund clients and handle special assignments for 10 to 15 other public funds at any given time. Our clients have benefited not only from our public fund experience, but also from our broader experience with large institutional investors such as endowments, foundations, and corporate funds. We serve over 450 clients in North America. No other firm has quite the combination of relevant experience as HEK.

We can manage this volume of work because we have over 270 investment professionals, including dedicated resources for general investment consulting, asset/liability modeling, and traditional and alternative asset class research. We have the capacity to serve PSERS well and, if selected as your consultant, we promise not to take on new clients that would diminish our ability to serve you and meet your expectations.

One of the key advantages to having HEK as your consultant is the thought leadership we provide. We dedicate significant time and resources to research on emerging topics of interest and of benefit to our clients. This research is the backbone of our investment advice and influences all of our recommendations. We are pleased that our research has received widespread recognition and commendations over the years and is frequently published and referenced in financial industry journals.

An Aon Company

Perhaps one of the most distinguishing characteristics of HEK is the way we interact with clients. We take a genuine interest in their success. We know that, as fiduciaries, the best approach is to be a collaborative partner with you as you strive to fulfill your fiduciary responsibilities. Your issues and concerns become our issues and concerns. We strive to understand and appreciate the complexities of the environment in which you operate. Our advice and approach will reflect this.

Enclosed is our response to your RFP. The proposal is signed by our Chief Administrative Officer, David Testore. David is authorized to contractually bind HEK. His contact information is provided below.

David Testore, Chief Administrative Officer Hewitt EnnisKnupp, Inc., an Aon Company 10 South Riverside Plaza, Suite 1600, Chicago, IL 60606

Tel: (312) 715-1700 Fax: (312) 715-1952

Email: david.testore@aonhewitt.com

We have included a copy of Form ADV, Parts 1, 2A and 2B in the Appendix section of this proposal.

All of us at HEK are excited to partner with you and it would be an honor for us to serve PSERS. Should you have any questions with this proposal, or if there is anything we can do to make this proposal more responsive to your needs, please don't hesitate to contact us.

Sincerely,

Satya Kumar, CFA

De 1/

elya Kunaw

Partner

Claire Shaughnessy, CFA

Druguen

Partner

David Testore

Chief Administrative Officer

An Aon Company

Table of Contents

Mandatory Minimum Qualifications and Requirements	1
Offeror's Qualifications	2
Personnel Qualifications	3
Soundness of Approach	4
Miscellaneous	5
References	6
Work Plan	7
Objection and Additions to Standard Contract Terms and Conditions	8
Appendix B – Domestic Workforce Utilization Certification	9
Appendix included under separa	te cover

An Aon Company

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- A. The Offeror must meet all of the following minimum qualifications, and agree to meet each of the following requirements, to be given further consideration. Failure to satisfy each of the minimum qualifications, or agree to meet each of the following requirements, will result in the immediate rejection of the proposal.
 - 1) As of May 31, 2013, the Offeror must have at least five (5) public pension plan clients, of which at least 3 public pension plan clients must have over \$1 billion in assets, for whom it provides investment consulting work at both fund- and asset-class levels. Duties related to each engagement must include asset allocation, asset/liability, and risk analysis.
 - Hewitt EnnisKnupp, Inc. (HEK) has 44 public pension plan clients and provides investment consulting work at both fund- and asset-class levels to these clients. Of those 44 clients, 29 have \$1 billion or more in assets.
 - 2) The Offeror must have been in the business of providing investment consulting services for at least five years, evidenced by a certificate of incorporation or copy of Form ADV as well as documentation of investment consulting clients (including venture capital/private equity/real estate consulting clients) which date back five years.
 - HEK has been providing investment consulting services for 39 years. We have provided our Form ADV, Parts I, 2A and 2B in the Appendix section of this proposal. We have provided venture capital/private equity/real estate consulting services since 1981.
 - 3) The Offeror must be a Registered Investment Advisor with the SEC under the Investment Advisors Act of 1940. Provide a copy of the latest Form ADV Parts I and II.
 - HEK is a Registered Investment Advisor with the SEC under the Investment Advisors Act of 1940. We have provided our Form ADV, Parts I, 2A and 2B in the Appendix section of this proposal.
 - 4) The primary consultant and principal assistant that will be assigned to the PSERS account must each have at least five years' experience analyzing, monitoring, recommending for investment, or investing in, each asset class recognized by PSERS in its Investment Policy Statement, Objectives, and Guidelines, which can be obtained at www.psers.state.pa.us/investment/guide/guide.htm.

Because of the size, complexity and importance of PSERS we have assigned two primary consultants. The primary consultants Satya Kumar, CFA, partner, and Claire Shaughnessy, CFA, partner, have 9 and 12 years of experience, respectively, advising large institutional investors, including public funds, on all aspects of their investment programs. Additionally, Steve Voss, partner, will serve as a back-up lead consultant on the relationship. Steve has 21 years of experience advising large, institutional clients.

The Offeror must have, or have access to, a database sufficient in size and scope to allow an analysis of the risk and returns of investment firms and each of their strategy offerings.

HEK has a database sufficient in size and scope to allow an analysis of the risk and returns of investment firms and each of their strategy offerings. We have a proprietary database and subscribe to many other databases.

The table below shows the number of managers included in our proprietary database.

Asset Class	Managers	Products
Domestic Equity	1,532	2,259
Domestic Fixed Income	970	1,311
International Equity	454	661
Hedge Fund	2,057	8,169
Private Equity	6,847	9,352
Real Estate	1,102	2,983
Total	12,962	24,735

5) The Offeror's primary consultant must not have provided general consulting services to either the Commonwealth of Pennsylvania, State Employees' Retirement System, or the Commonwealth of Pennsylvania, Pennsylvania Municipal Retirement System during the past three years.

The co-primary consultants, Satya Kumar, CFA, partner, and Claire Shaughnessy, CFA, partner, have not provided general consulting services to either the Commonwealth of Pennsylvania, State Employees' Retirement System, or the Commonwealth of Pennsylvania, Pennsylvania Municipal Retirement System during the past three years.

6) The Offeror will be required to reimburse PSERS for the reasonable travel expenses actually incurred by PSERS, if any, for (i) members of PSERS' professional investment staff to travel to Offeror's location and (ii) if the Offeror sponsors investment conferences, training, seminars or similar events, attendance by PSERS' professional investment staff members. Reimbursable expenses will include airfare, automobile rental, lodging, meals, Offeror-sponsored event registration fees, and other travel-related expenses at maximum allowance rates established by the Commonwealth Management Directive 230.10 as revised, Travel and Subsistence Allowances. The reimbursable expenses for each of (i) and (ii), above, will not exceed \$10,000 per calendar year.

HEK confirms and we will abide by the policies and limits.

Offeror will be required to perform services under this agreement subject to the exercise of that degree of judgment and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence who are expert in such matters, exercise in the management of like matters, not in regard to speculation but in regard to the permanent disposition of the Fund, considering the probable income to be derived therefrom as well as the probable safety of the invested capital. Offeror will be required to acknowledge that it is a "fiduciary" with respect to PSERS and the Fund as that term is defined in the Employee Retirement Income Security Act of 1974 (ERISA), regardless of the applicability of ERISA to this agreement.

HEK confirms and we acknowledge our status as a fiduciary.

- 8) Offeror will be required to include in its consulting services staff professionals dedicated to, and expert in, investment risk and investment governance topics.
 - In addition to Satya and Claire, who both have experience with investment risk and governance issues, HEK will involve our subject matter specialists, as needed, with specific projects for PSERS. Specifically as it relates to investment risk, we will involve the resources of our Investment Policy Services team, led by Mike Sebastian. This team advises clients on issues such as asset allocation, risk management, and portfolio structure. With respect to governance, we will involve the resources of our Fiduciary Services team, co-led by Nancy Williams and Jeanna Cullins. Our Fiduciary Services team advises large institutional investors, including large public retirement systems, on issues relating to fiduciary responsibilities and governance.
- B. The Offeror's consulting team must provide written responses to each of the aforementioned mandatory qualifications and requirements substantiating how your firm satisfies each qualification and confirming that your firm will satisfy each requirement. The responses must contain sufficient information as prescribed to assure the Board of its accuracy. Failure to provide complete information will result in the rejection of the proposal.

Please see above for detail.

MANDATORY MINIMUM QUALIFCATIONS AND REQUIREMENTS

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A. Please provide the following information about your firm:

 State the full name, year formed, history, ownership structure, names of owners or partners, subsidiary or affiliate relationships, and the reporting and control structure of the firm.

HEK, an Aon pic company (NYSE: AON), provides investment and fiduciary consulting services to over 450 clients in North America with total client assets of over \$2 trillion. HEK is a full service investment consulting firm that offers a complete suite of solutions to institutional investors. HEK is the largest firm of its type in the world. More than 270 investment consulting professionals advise institutional investors such as corporations, public organizations, union associations, health systems, endowments, and foundations with investments ranging from \$3 million to \$700 billion.

We have been providing investment consulting services since 1974 through our legacy organizations. The firm was formed in 2010 when Hewitt Associates acquired Ennis Knupp & Associates, and subsequently merged with Aon Corporation.

HEK is an indirect, wholly owned subsidiary of Aon, a publicly held company. HEK is an extension of Aon Hewitt's Retirement and Financial Management practice, which focuses solely on investment consulting.

There are no ownership changes planned or anticipated at this time.

2) Do senior executives have ownership interests in the firm? If so, how much?

Stock ownership is included as a component of the compensation plan for select senior executives. A schedule of employee ownership is not available.

3) State the name, title, address and telephone number of the proposal contact person. Will the primary consultant assigned to PSERS account have ownership interest in the firm or is there a specific arrangement for sharing in the profits earned by the enterprise (e.g., salary, bonus, group/individual performance incentives, profit sharing, etc.)? Please describe.

Proposal Contact:

Claire Shaughnessy, CFA, Partner

Hewitt EnnisKnupp, Inc.

45 Glover Ave.

Norwalk, CT 68501

Telephone: (203)852-1100

Email: claire.shaughnessy@aonhewitt.com

Satya Kumar, CFA, Partner Hewitt EnnisKnupp, Inc. 10 South Riverside

Chicago, IL

Telephone:(312)715-1700

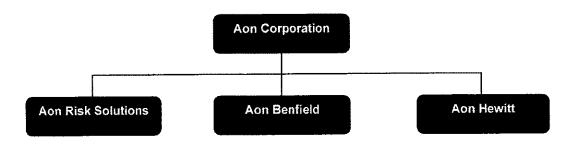
Email: satya.kumar.2@aonhewitt.com

We have taken a sound approach to retaining our key consulting talent by adopting an aggressive pay for performance compensation model that incents employees to perform well over the long term. This plan includes a higher percentage of total compensation tied to performance-driven bonus targets. Stock options with multi-year vesting schedules provide further assistance with employee retention.

4) List services to the investment community (e.g., trading, investment management, database), other than investment consulting services, provided by your firm, and/or any parent, subsidiary, or affiliate.

100% of HEK's services are investment consulting services to institutional investors.

HEK, Inc. is the U.S. Investment Consulting Division of Aon Hewitt and an indirect wholly owned subsidiary of Aon. An organizational chart is shown below that includes other services that Aon provides. None of these interfere with our ability to function independently and provide the best advice to our clients.



- Retail Brokerage
- Risk Assessment and Advisory
- Captive Management
- Affinity Programs
- Premium Finance
- Claims Advocacy and Administration
- · Select Personal Lines

- Treaty reinsurance brokerage
- Facultative reinsurance brokerage
- Capital Markets
- · Financial Advisory
- Analytics and Technical Services
- · Claims Management

- Investment Consulting (HEK)
- Human Capital Consulting
- Employee Benefits
- Executive & Broad-Bases
 Compensation
- Total Rewards
- Employee Communications, Engagement & New Media Solutions
- Human Resource Business
 Processing Outsourcing
- Benefits Administration

- B. Please provide the following financial information:
 - 1) Audited financial statements for the past three (3) years.
 - 2) Any special audit reports concerning internal controls for the past three (3) years.

In our fiscal year 2012, Aon reported total revenues of \$11.5 billion. Due to the large size, we have not included a copy of Aon's quarterly and annual financial statements. The reports can be found in the following website link, http://ir.aon.com/phoenix.zhtml?c=105697&p=irol-sec which is the "Investor Relations – SEC Filings" portion of Aon Corporation's website.

C. Within the past five years, have there been any significant developments (e.g., changes in ownership, personnel reorganization, new business ventures) in your firm? If so, describe these developments in detail.

HEK was formed in 2010 when Hewitt Associates acquired Ennis Knupp & Associates, and subsequently merged with Aon Corporation.

In April, 2012, Aon changed its jurisdiction of incorporation from Delaware to the U.K. via an internal reorganization. Aon is listed on the NYSE and reports earnings and other financial statements in accordance with Securities and Exchange Commission regulations, including dollar denominated financial statements. This change does not impact HEK or our ability to serve our clients as we have over our history. The firm does not anticipate future significant changes in our organization.

D. Do you anticipate any significant changes in your firm? If so, describe these anticipated changes and their impact on clients.

No, the firm does not anticipate any significant future changes.

E. Have any senior executives left the firm in the past five years? Please describe the circumstances of their departure(s).

The firm has had one member of the Senior Management Team, Brad Smith, leave in the past five years. He chose to pursue other opportunities in the investment arena.

- F. Explain your firm's goals for expansion and accepting new client business. How will the firm control the quality of service to clients? Include the following:
 - 1) Total number of accounts that will be accepted.
 - 2) Total assets that will be accepted.
 - 3) Plans for additions to professional staff and approximate timing in relation to growth of accounts and/or assets.

HEK's long-term strategy focuses on growing at a measured pace, both at the client level and the personnel level. In recent periods, we have used our position of financial strength to continue adding resources to our research and consulting areas. We are selective about pursuing growth opportunities because our first priority is to provide quality service to our existing clients.

We do not set specific limits as to the total number of clients or assets the firm will accept. Neither do we set specific limits on the client/consultant ratio, instead we analyze capacity on a consultant-by-consultant basis taking into account the complexity of each consultant's client relationships and ancillary responsibilities. Typically, a lead consultant will work with between 6 and 8 clients. Our focus is to maintain the highest levels of personalized service without sacrificing existing clients for the sake of growth.

It is important to note that we have turned down interesting opportunities in the past because we did not believe we could pursue them without jeopardizing the quality of work for our existing clients. We would not submit this proposal to PSERS unless we were certain we could handle the work.

G. What is the location of firm headquarters and any branch offices? If several locations, what quality controls does the firm use to ensure consistency of services among clients, and how does the firm handle research, information processing and databases?

HEK has offices around the globe. Our corporate headquarters and the Chicago branch office location are provided below. This relationship will be primarily serviced out of our Norwalk, CT and Chicago, IL locations.

Corporate Headquarters: 10 South Riverside Plaza, Suite 1600 Chicago, IL 60606 Norwalk, CT: 45 Glover Ave. Norwalk, CT 06850

Below is a complete listing of our global investment consulting offices.

U.S. Investment Consulting Offices	Canadian Investment Consulting Offices	UK, Europe and Africa Investment Consulting Offices	Asia-Pacific Investment Consulting Offices
Attanta, Georgia Chicago, Illinois* Cincinnati, Ohio Lincolnshire, Illinois Los Angeles, California Newport Beach, California New York, New York Norwalk, Connecticut Radnor, Pennsylvania Raleigh, North Carolina Richmond, Virginia San Francisco, California Seattle, Washington Somerset, New Jersey Tampa, Florida	Calgary, Alberta Edmonton, Manitoba Halifax, Nova Scotia London, Ontario Montreal, Quebec Ottawa, Ontario Quebec City, Québec Regina, Saskatchewan Saskatoon, Saskatchewan Toronto, Ontario Vancouver, British Columbia Winnipeg, Manitoba	Offices Birmingham, UK Bristol, UK Edinburgh, UK Epsom, UK Farnborough, UK Leeds, UK London, UK* St Albans, UK Amsterdam, Netherlands Rotterdam, Netherlands Cork, Ireland Dublin, Ireland Paris, France Frankfurt, Germany Madrid, Spain Nicosia, Cyprus Athens, Greece	Consulting Offices Beijing, China Hong Kong, China* Shanghai, China Sydney, Australia Tokyo, Japan
		Budapest, Hungary Port Louis, Mauritius	

^{*} Global client centers where major clients are serviced

Quality control over HEK's consulting recommendations emanate from the firm's overarching investment philosophies and a common platform of investment policy and manager research. HEK's stance on major investment issues results from the collaborative effort of our investment professionals. A dedicated team of professionals in the Investment Policy Solutions group performs research on investment ideas and strategies. The Global Investment Management (GIM) research team vets investment managers worldwide and their manager ratings are employed by all consultants. Additionally, periodic forums are held at which consultants meet to share ideas, listen to new research ideas, and review research that is in process. The agenda varies, depending upon current events in the economy, markets or the firm.

All of these activities, formal and informal, ensure that the firm's best collective thinking and judgment are consistently delivered to clients.

A peer review process is used firm-wide, whereby clients are selected on a random basis annually for peer review, with the intention of rotating all clients through the process over a multi-year period. The peer review is conducted by a partner of the firm not associated with a specific relationship who independently assesses the advice given to the client and suggests changes and offers perspectives that might be warranted to investment policy, structure, etc. The goal of the peer review process is primarily to ensure that the advice delivered to each client is consistent with the firm's philosophies

and positions, that the quality of work remains high, and that the needs of the client are being met or exceeded. With respect to PSERS, Steve Voss will serve as the peer reviewer.

H. List your firm's lines of business and approximate contributions of each business to your firm's total revenue. If you are an affiliate or subsidiary of another company, what percentage of the firm's total revenue does your division generate? Please describe the organizational structure and your relationship to the parent company and any other subsidiaries.

One hundred percent of HEK's revenue comes from providing investment consulting services to our clients. In fiscal year 2012, Aon reported net revenues of \$11.5 billion. We are not able to provide revenue numbers for the individual practice lines or the individual services within the practice lines as they are beneath the materiality thresholds established by the SEC.

Our organizational structure is set forth in a chart in the Appendix section of this proposal.

I. Over the past five years, has your organization or any officer or principal been involved in any litigation or other legal proceedings relating to your investment or consulting activities? If so, provide a brief explanation and indicate the current status.

No neither HEK or any officer or principal of HEK has been involved in any litigation or other legal proceedings relating to our investment or consulting activities.

- J. Present the previous experience and expertise of the firm providing the services proposed for PSERS.
 - 1) List the names of pension funds your firm has as clients, indicating whether your firm represents these clients on a discretionary or non-discretionary basis.

Below is a complete list of our investment consulting retainer public fund clients. In addition to the clients listed below, we do often do a number of projects for other public fund clients not listed below. In addition, HEK provides investment consulting services for a number of corporate plans and endowments and foundations.

Public Fund Client Name	Representation
Anne Arundel County Public Schools	Non-Discretionary
Arkansas Teacher Retirement System	Non-Discretionary
City of Burbank	Non-Discretionary
City of Gulfport	Non-Discretionary
Colorado Public Employees' Retirement Association	Non-Discretionary
Commonwealth of Puerto Rico	Non-Discretionary
Confidential Public Client	Non-Discretionary

OFFEROR'S QUALIFICATIONS

Public Fund Client Name	Representation
Dallas Area Rapid Transit	Non-Discretionary
District of Columbia Water & Sewer Authority	Non-Discretionary
Employees Retirement System of Texas	Non-Discretionary
Employees' Retirement System of Kansas City, Missouri	Non-Discretionary
Fairfax County Public Schools	Non-Discretionary
Federal Thrift Savings Plan	Non-Discretionary
Florida Department of Financial Services	Non-Discretionary
Harris County Hospital District	Non-Discretionary
Kentucky Teachers' Retirement System	Non-Discretionary
Macon Water Authority Pension Fund	Non-Discretionary
Maryland State Retirement and Pension System	Non-Discretionary
Massachusetts Deferred Comp	Non-Discretionary
Milwaukee County Deferred Compensation Plan	Non-Discretionary
Montgomery County Public Schools Employees' Retirement and Pension System	Non-Discretionary
Nebraska Investment Council	Non-Discretionary
Nevada System of Higher Education	Non-Discretionary
New Jersey Division of Investment	Non-Discretionary
New York State Common Retirement Fund	Non-Discretionary
New York State Teachers' Retirement System	Non-Discretionary
Ohio Public Employees Deferred Compensation Program	Non-Discretionary
Ohio Public Employees Retirement System	Non-Discretionary
San Diego City Employees' Retirement System	Non-Discretionary
Sonoma County Employees' Retirement Association	Non-Discretionary
South Carolina Retirement System	Non-Discretionary
State Board of Administration of Florida	Non-Discretionary
Teacher Retirement System of Texas	Non-Discretionary
Teachers' Retirement System of Louisiana	Non-Discretionary
Texas Prepaid Higher Education Tuition Board	Non-Discretionary

Public Fund Client Name	Representation
The Housing Authority of the City of Atlanta, Georgia	Non-Discretionary
Township of Abington	Non-Discretionary
Tucson Supplemental Retirement	Non-Discretionary
U.S. Treasury	Non-Discretionary
University of California	Non-Discretionary
Ventura County Employees' Retirement Association	Non-Discretionary
Virginia Port Authority	Non-Discretionary
Washington Metropolitan Area Transit Authority	Non-Discretionary

In addition to the investment consulting clients listed above we also consult to between 10 to 20 other public funds through our Fiduciary Services practice.

2) List your five largest public pension plan clients by assets. For each of these pension fund clients, please provide asset value of client by asset class, year client retained your firm, average five year asset mix of client, percent of fund for which you provided consulting services, and the five year annualized total return of the client funds' investment portfolio as of March 31, 2013.

Below are our largest retainer public sector defined benefit pension plan clients. We also consult to the Federal Thrift Savings Plan which at \$310 billion is the largest public fund in the U.S.

Public Fund Client Name	Assets	Year Retained	% of fund we provide consulting services	5 year annualized total return
State Board of Administration of Florida	\$131 billion	1996	100%	4.80%
Teacher Retirement System of Texas	\$118 billion	2002	75%	4.80%
New York State Teachers' Retirement System	\$83 billion	2010	100%	2.41%
New Jersey Division of Investment	\$72 billion	2012	100%	6.12%
Colorado Public Employees' Retirement Association	\$39 billion	2004	100%	4.52%

We have provided the current policy target for these clients in the Appendix section of this proposal.

3) Please complete the following for current clients:

Asset Value of Pension Fund Client	No. of Pension Fund Clients	Average Years Clients Retained the Firm
Less than \$1 billion	356	8 years
\$1 billion—less than \$10 billion	102	9 years
\$10 billion—less than \$30 billion	10	7 years
More than \$30 billion	10	7 years

4) Does your firm operate any funds or other pooled investment vehicles, including, but not limited to, funds of funds? Please identify each.

HEK sponsors the Group Trust exclusively for the investment of assets of trusts meeting certain requirements, one of which is being a discretionary client of HEK (i.e., we serve as a fiduciary under Section 3(38) of ERISA). We provide the advice to this private investment vehicle. Our fees are not affected by the clients' investment selections and we receive no compensation from a client's investment in these funds.

5) Please list the names of pension plan clients that you have added in the last three years, and the assets of each.

Below is a list of clients added in the last three years. This list does not include many other public pension plans that we have added for specialized services, governance, fiduciary audits, strategic planning, policy developments and miscellaneous projects performed by the Fiduciary Services team. We are happy to provide those names if you want more detailed information.

Public Fund Client Name	Assets	
Anne Arundel County Public Schools	\$78 million	
City of Burbank	\$107 million	
Confidential Public Client	\$23 billion	
Fairfax County Public Schools	\$94 million	
Nevada System of Higher Education	\$1 billion	
New Jersey Division of Investment	\$72 billion	
New York State Common Retirement Fund	\$142 billion	
New York State Teachers' Retirement System	\$83 billion	
Ohio Public Employees Retirement System	\$80 billion	

Public Fund Client Name	Assets
San Diego City Employees' Retirement System	\$5 billion
South Carolina Retirement System	\$26 billion
Teachers' Retirement System of Louisiana	\$15 billion
U.S. Treasury	\$700 billion
University of California	\$16 billion
Washington Metropolitan Area Transit Authority	\$330 million

6) Please provide the names of all pension plan clients that you have lost in the last three years, the asset size of each, and why they were lost.

HEK has had client terminations over the past three. In some instances, HEK has declined to renew its contract, while in other instances the client has ended the relationship. Relationship terminations occur for different reasons, such as a client's budgetary constraints, a difference between HEK and the client in investment philosophy, mergers and acquisitions, or the client's desire for a new point of view. Rarely have client terminations resulted from a negative service issue.

While we do not provide the names of specific client terminations, the table below shows the number of clients gained and lost over the last five years. Over time, our client turnover has averaged about 5% annually, which is generally consistent with the industry average.

Year	Clients Gained	Clients Lost	Net Clients Gained
	33	21	12
2012	2012 \$113,091 million \$97,046	\$97,046 million	12
2011 46 \$151,084 million	46	27	19
	million \$119,177 million	19	
45	24	21	
2010	\$1,026,344 million	\$29,898 million	

- K. Describe your research and analysis capabilities.
 - 1) Are your resources internal or external? If any external resources are used, provide a description including the name of vendors providing these resources. How is the information used to inform and advise clients? List investment research reports or studies that you have provided clients in the past 12 months. Describe your capability to carry out special projects requested by PSERS. Provide sample reports that best represent your research capabilities.

While 100% of our research is conducted internally, we combine our original research with exhaustive reviews of both professional and academic bodies of literature. We use externally provided data in our analysis. To bolster our internal research efforts, we maintain relationships with prominent academics in the field of finance. We frequently rely on these contacts to review our work, and these researchers often share with us early drafts of their work. These efforts help to ensure that our advice to clients is supported by both sound finance theory and strong empirical evidence. We also participate in a number of industry seminars such as those sponsored by CFA Institute.

Below are examples of research papers written in the past 12 months.

- Improving DC Plan Investment Governance: A Call to Action
- The Opportunity Allocation: A Tool to Provide Maximum Flexibility with Implementation
- "Long Credit in Liability Driven Investments: A Tragedy of the Commons?"
- Rethinking Fixed Income: Challenging Conventional Wisdom
- Tales from the Downside: Risk Reduction Strategies
- Measuring Success in Fixed Income
- Conviction in Equity Investing
- Are Custom Target Date Funds Right for Your Plan?
- Harvesting the Equity Insurance Risk Premium
- Fiduciary Considerations with Target Date Funds
- The Eurozone Crisis: The Draghi Plan Raises The Stakes
- Global Asset Allocation Team: Euro Break-Up Update
- Pension Investment Implications of Recent Funding Relief Legislation

OFFEROR'S QUALIFICATIONS

- Funding Stabilization and PBGC Premium Increases
- Inflation Risk and Real Return
- Public Funds Can Compete
- Go Big or Go Home: The Case for an Evolution in Risk Taking
- Risk Parity and the Limits of Leverage
- Pension Settlement Trend Accelerates with Verizon Annuity: Purchase Insights Into the Evolving Pension Transfer Environment
- Are Custom Target Date Funds Right for Your Plan?
- 2012 Hot Topics in Retirement
- GM Pension Settlement Actions And Considerations for Plan Sponsors
- Commodities Update
- Murky Waters Clearing Fiduciary Confusion
- Reviewing the Case for Infrastructure
- Spotlight: Governance for Dynamic Investment Policies
- U.S. Small Cap vs. Large Cap: An Update
- With the Eurozone in Crisis and the Japanese Yen Reaching an All Time High, Is It Time to Hedge Non-Dollar Holdings?

In the Appendix section of this proposal we included the following that demonstrate our research capabilities.

- Go Big or Go Home: The Case for an Evolution in Risk Taking
- Rethinking Fixed Income: Challenging Conventional Wisdom
- Conviction in Equity Investing
- Rethinking Fixed Income

We have grown our firm and our staffing very deliberately to meet the current and evolving needs of sophisticated investors, such as PSERS. As one of the largest consulting firms in the world, we have built a deep bench of talented professionals. On a global scale, we have over 600

associates dedicated to providing investment consulting services. Our investment staff includes over 310 associates, fully dedicated to investment consulting services. Our resources in the areas of asset allocation and strategy, global manager research (across both traditional and alternative asset classes), fiduciary services, and risk management and reporting are unrivaled. As such, we can dedicate highly specialized, practitioner-focused resources to support PSERS on special projects as needed.

2) Outline the sources used to obtain data for publication of newsletters or periodicals. Include samples of your publications.

We have access to extensive outside research resources which are used for both raw data (such as Bloomberg and Ibbotson) and qualitative research. Data resources are used for proprietary investment research and client education materials. Qualitative research is regularly circulated among consultants, and the findings and impact are evaluated in light of our consultants' experiences. In combining external resources with internal sources we work to keep abreast of important developments in the financial economies, while avoiding "flavor-of-the-month" investment philosophies and approaches.

We also have access to third-party proprietary software (Style Research and CMS Bond Edge) to perform holdings-based style analysis for equity and fixed income portfolios as well as other risk monitoring tools noted below.

- MeasuRisk. MeasuRisk provides details on the risk exposures of commodity and hedge fund products. The fund's prime broker provides positions to a software system which is able to track the risk exposures of single funds or an entire fund program, allowing users to understand the interaction of different investments on portfolio risk. This system provides our analysts the ability to calculate value-at-risk, as well as understand the risk to the fund during a variety of scenarios from historically extreme market events.
- PerTrac. PerTrac is an analytical tool which calculates performance and risk statistics, separate performance by market conditions, while comparing the fund to relevant benchmarks. The output from PerTrac is used to produce a client-ready report format which includes a variety of information that can be used to analyze the historical risk and returns of fund products.
- EurekaHedge. EurekaHedge is a global database that tracks over 7,500 funds, including 2,400 funds of hedge funds. Users have access to nine different databases of hedge funds based upon strategy and region. Advanced searches can be conducted across many fund characteristics in each of these databases. Users have access to an abundance of quantitative and qualitative data fields. Data is viewable via the web, as well as an option to export all data into excel or PerTrac. Users can access monthly top 10 tables based upon most fund characteristics, as well as monthly commentary and newsletters. EurekaHedge constructs indices based upon strategy, region, and fund size and provides historical data on all of these.

- Investran[™]. Investran[™] is a highly customizable alternative asset class tracking system. It's a system that provides fully integrated investment management, reporting, and client relations. We have 3000+ partnerships in our manager search database, plus ten years of useable performance data.
- Barclays Capital POINT. Barclays Capital POINT ("POINT") is a global multi-asset portfolio holdings analysis platform that provides risk and performance attribution from a top-down portfolio level through to a bottom-up security level. POINT is well known for its extensive coverage of major fixed income markets. Its multi-factor risk model calculates and projects a range of statistics to help better understand the risk in client portfolios e.g. tracking error, duration, value-at-risk statistics. Like Cognity, Point enables us to create sets of scenarios (in single or multiple dimensions) to estimate expected losses if such scenarios were to happen. This can be done for single manager portfolios or by aggregating a client's entire book.
- FinAnalytica's Cognity Risk System. Cognity is a multi-asset multi-factor risk system that focuses on tail risk analysis, both returns and holdings-based. The system allows us to produce traditional in-depth analysis of style such as Value, Growth, Volatility, Size and Momentum for equity portfolios, which can be extended further to incorporate analysis of sensitivity to Regions, Sectors and Economic factors. Cognity's main strength is risk attribution decomposition of risk into a set of pre-defined factors.

While traditional models assume Normal distribution of events, Cognity enables us to take account of the distortions in the distribution. The system, in our view, is therefore able to better capture these extreme (or tail) events and report them in a concise and easy to understand way. In addition, the model is capable of splitting the extreme's into Expected Tail Loss (Worst Case) and Expected Tail Return (Best case) Scenarios. This gives us insight to how portfolios are positioned and gauge the upside potential of a portfolio of assets vs. the downside.

- Enigma (in-house analysis tool). Enigma is a sophisticated manager performance and risk
 analysis tool. It looks at a range of historic performance measures such as standard deviation
 of returns, information ratio, tracking error, sensitivity to market moves, success ratio,
 upside/downside capture, omega ratio, drawdown analysis and many other quantitative
 measures of a manager's return.
- Style Research Portfolio Analyzer (SRPA). The Style Research Portfolio Analyzer (SRPA) provides objective holdings-based Style, Structure, Risk, and Performance insights for any domestic or international equity portfolio, fund or fund of funds investment. Covering around 40,000 stocks in 109 equity markets, SRPA provides both fundamental bottom-up Holdings-based and top-down Returns-based Style Analysis as well as monthly Performance (attribution) Analysis. Providing flexible Excel-based ready-to-print reports, it is ideally suited for the analysis of dynamically changing, international, equity portfolios.

Based on the holdings of a portfolio vs. its benchmark (or cash) at one point in time, this detailed analysis reveals the underlying structure (style exposures; style/size distributions, country/sector/stock active positions; risk analysis and risk decomposition; performance attribution; liquidity; currency hedging; etc.) of the portfolio. An analysis may be in a single country, or in a pre-defined or user-defined region.

In the Appendix section of this proposal we include the following samples of our publications.

- May 2013 Medium Term Views
- March Quarterly Securities Lending Update
- US Quarterly Investment Outlook April 2013
- Describe any other service not included in Part N "Work Statement" that you believe would be beneficial to PSERS and that you are proposing to provide for PSERS.

We believe that the scope of work outlined in the RFP is comprehensive as it relates to the services that are typically performed by a general consultant. However,, the nature of public funds today with complex investment programs is such that other investment-related issues often come up from time-to-time that need to be addressed. We are unique in that we also offer to our major investment consulting clients some resources of our Fiduciary Services team. For other clients they have been available for fiduciary education sessions, policy reviews, new trustee orientations, board self-evaluations, strategic planning and a wide array of related services. For PSERS we would tailor their services to fit your needs.

State what you believe differentiates your consulting services from your competitors.

As a large general investment consulting firm with highly specialized capabilities and teams across the alternative asset classes and fiduciary services, we believe we are the only true "full service" investment consulting firm. We have been and our goal continues to be a trusted advisor to institutional investors with diverse and ever-changing investment programs. We outline below what we believe makes us unique in comparison to our competitors.

Proactive Advice, Investment Thought Leadership: Thorough research forms the backbone for all our positions and advice. In addition to conducting research on new developments across the capital markets and their ramifications on institutional portfolios, we constantly reassess and challenge our existing positions to ensure that they continue to hold merit. Our research, which ultimately forms the basis of our advice on policy and strategies, is well-regarded and widely published. No other firm produces the quality and quantity of valuable research.

Unmatched Depth and Breadth of Resources: Our firm has a global reach. We are one of the largest consulting firms in the world and we have built a deep bench of talented professionals. On a global scale, we have over 430 (600 globally) associates dedicated to providing investment

consulting services. Our investment staff includes over 280 associates, fully dedicated to investment consulting services. Our resources in the areas of asset allocation and strategy, global manager research (across both traditional and alternative asset classes), fiduciary services, and risk management and reporting are unrivaled. HEK's senior professionals have an average of 15 years of investment industry experience.

Public Fund Expertise: Having worked with public funds since our founding, we have developed a genuine appreciation for the unique environments in which they operate as well as for their specific needs, circumstances, and challenges. The collective insights that we have gained over the past three decades, working with well over 100 different public funds has shaped our advice in this area. Within HEK is a "Public Funds Interest Group" that regularly shares information about trends, emerging issues, and the best ways to help public fund clients be successful.

Customized Advice, Client Partnerships: We aim to deliver a high-touch service and engage in the long-lasting partnerships with our clients. Our advice is highly customized and reflects a thorough understanding of each client: their history, their goals and their practical realities. No two clients are alike and so we have no preconceived assumptions about what is best for them. We listen, we learn and we embrace the opportunity to work with forward thinkers on non-traditional approaches to prudent investing. We believe that our decades of experience working with non-standard and forward-thinking clients will serve PSERS well in successfully fulfilling its fiduciary responsibilities.

Alternatives Expertise: We believe we have more depth and breadth in alternatives than any other generalist consultant in the industry. Our dedicated team of over 30 alternatives professionals specializes in private equity, liquid alternatives (i.e., hedge funds) real estate, infrastructure, commodities, timber, and other alternative assets. We have experience building and overseeing both direct and fund-of-funds-oriented alternatives programs. We also believe we add value to clients' alternative investment even when they employ other firms to act as specialist consultants. We are a valuable "second set of eyes and ears".

5) Explain in detail any potential for conflict that would be created by your firm contracting with PSERS, including other client relationships that may inhibit services to PSERS and/or the other clients.

The firm does not have, nor do we foresee any potential for conflict that would be created by our firm contracting with PSERS.

6) How does your firm resolve potential conflicts of interest in recommending or making investments in prospective programs among clients?

In all aspects of our investment consulting practice we seek to avoid any real or potential or even perceived conflicts of interest. We do not accept fees or gratuities from managers. Our ethics policy is very strict in this regard.

Furthermore, all of our manager research ratings are readily available to all clients via our client consultant teams. When a change of rating occurs, all of our consultants and their clients receive the updates at the same time.

HEK selects investments using an established procedure that considers the appropriateness of a potential investment utilizing the client's investment guidelines and objectives, the composition of the client's investment portfolio and the economic and legal terms of the potential investment. Given that each client's investment objectives and risk profile is unique to the client, the opportunities for conflict involving investment opportunities is naturally limited. Our next step is to divide limited investment opportunities pro rata among appropriate clients. As a final step, HEK considers whether the client has an existing relationship with the investment firm and whether the pro rata division fits the client investment profile.

As a general matter, HEK takes conflicts of interest very seriously and it is a consistent focus for our compliance team and senior management. We work very hard to assure the objectivity of the advice we give and the integrity of our research and manager evaluations.

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A. Provide an organization chart showing name, title, function, and area of expertise of pension fund consulting professionals and support staff.

We have provided organizational charts in the Appendix section of this proposal.

B. For proposed primary consultant, principal assistant, and risk professionals, provide the names of all clients and nature of engagement for which these individuals assume a similar role. What are their other duties for the firm?

Satya Kumar, Claire Shaughnessy, Mike Sebastian, and Sudhakar Attaluri have some internal management responsibilities, but none of these interfere with their ability to serve their clients. We put clients first, without exception.

Satya K	lumar's Clients		
Name	Plan Type	Length of Relationship	Client Account Size
CenterPoint Energy, Inc.	Corporate	14years	\$3 billion
Commonwealth of Puerto Rico Retirement Systems	Public	4 years	\$5 billion
Federal Retirement Thrift Investment Board	Public	8 years	\$310 billion
Integrys, Inc.	Corporate	4 years	\$1 billion
Navy Federal Credit Union	Corporate	6 years	\$1 billion
San Diego City Employees' Retirement System	Public	3 years	\$5 billion

Claire Shaughnessy's Clients					
Name	Plan Type	Length of Relationship	Client Account Size		
Connecticut Retirement Plans and Trust Funds	Public	2 years	\$23 billion		
Maryland State Retirement and Pension System	Public	11 years	\$35 billion		
Pitney Bowes	Corporate	2 years	\$1.5 billion		
Stanford University	Corporate	3 years	\$4 billion		
General Chemical (Tata)	Corporate	8 years	\$160 million		
University of Rochester	Corporate	2 years	\$3 billion		

Mike Se	bastian's Clients		
Name	Plan Type	Length of Relationship	Client Account Size
Colorado Public Employees' Retirement Association	Public	9 years	\$39 billion
CFA Institute	Not-For-Profit	1 year	\$200 million
State Board of Administration of Florida	Public	17 years	\$131 billion
Telephone and Data Systems, Inc.	Corporate	14 years	\$791 million

As a member of Investment Policy Services team, Sudhakar Attaluri, PRM, Associate Partner, works with all the firm's clients on Investment Structure related projects.

C. Delineate the proposed management of services to PSERS. Provide names of staff who will serve as primary consultants, principal assistants, and other general contacts with your firm. Specify the role and scope of involvement for each individual. Will the primary consultant be available to attend all Board meetings and assist the Board's investment staff when needed?

Satya Kumar, CFA, partner, and Claire Shaughnessy, CFA, partner, serve as the co-lead consultants to PSERS. In addition, Steve Voss, partner, will serve as the back-up consultant and peer reviewer. Satya and/or Claire will be available to attend all PSERS Board/Committee meetings to present research and recommendations. In addition, they will be available for conference calls and ad hoc meetings with Board/Committee members and Staff,

Besides Satya and Claire, the team would also consist of a Dessy Leintz who is a consulting manager, and performance analyst(s) .. Dessy will provide day-to-day support, be another general contact, and will supervise the production of all research and reports, ensuring the quality of the data provided in our reports. The performance analyst(s) will perform much of the data/analytical work on the relationship.

PSERS will also have direct exposure to dedicated resources within our specialized teams – for instance, the Investment Policy Services team, Global Investment Management, and Fiduciary Services. Different clients engage with us in different ways. Some clients prefer to have direct contact and relationships with our specialist resources, while other clients prefer to work with their primary consultants who, in turn, involve the specialists on specific projects as needed. We can support either approach. It is your choice. Our consultants are very collaborative and work well together for the benefit of the clients.

D. For proposed primary consultant, principal assistant, risk professionals, and other key individuals who will be providing services to PSERS, provide a biographical profile to include education, years and areas of professional investment consulting experience, and years and areas of professional investment consulting experience with your firm.

Brief biographies for the proposed team are provided below.

Client Team

Satya Kumar, CFA

Satya is a partner who, manages consulting assignments for several retainer and project clients. Satya is a member of the firm's client advisory group. Satya's client engagements include public retirement systems, corporate pension funds (DB & DC), and not for profit institutions (endowments and foundations). As a primary consultant, Satya has assisted clients with all aspects of their investment programs – asset allocation, development of implementation structure, selection and monitoring of managers across all major asset classes, and ongoing monitoring and reporting.

Prior to joining EnnisKnupp, the predecessor to Hewitt EnnisKnupp, in 2004, Satya served as a research associate involved in risk management and quantitative strategy development with a proprietary options trading firm.

He holds a B. Comm. degree from the University of Madras, India, and earned an M.S. degree in Finance from the Illinois Institute of Technology. Satya is a CFA charter holder and a member of the CFA Institute and the CFA Society of Chicago. He is also an Associate Member of the Institute of Chartered Accountants of India.

Claire P. Shaughnessy, CFA

Claire is a partner and leader of our investment consulting practice in the Norwalk, Connecticut office. For the past twelve years, she has worked with a focused group of institutional clients including pension funds, participant directed plans, and foundations to build successful investment programs.

As an investment consultant she advises clients on their investment policy, asset allocation, investment structure, risk management and manager selection. She has implemented investments in all major asset classes across the capital structure (cash, fixed-income, equities, hedge funds, private equity and real estate).

She has over 20 years of institutional investment experience. Prior to joining Hewitt EnnisKnupp, Claire was a Managing Director of Investment Consulting at Rogerscasey. Prior to Rogerscasey, she worked with clients at Lazard Asset Management and Scudder Stevens & Clark. She began her investment career at The Equitable.

Claire holds a Masters of Business Administration degree from The Stern School of Business at New York University and graduated magna cum laude from Georgetown University with a Bachelor of Science in Business Administration. She is a holder of the CFA Institute's Chartered Financial Analyst (CFA) designation.

Steve Voss

Steve is a partner and a member of the senior management team.. His client base includes public pension funds, endowments, and corporate plans with aggregate assets in excess of \$130 billion. Steve leads the general consulting operations of the Chicago office and Central West Region.

Steve has assisted one of the nation's largest public pension funds in transitioning its asset allocation to that of a more progressive structure and helped with the implementation of external investment managers. He has also developed opportunistic and real asset components for mega-pension funds, created investment policy, and designed manager structure. Steve is often quoted in the industry press including Money Management Letter, Fund Fire, and Pension & Investments and remains active in speaking at industry conferences.

Steve is a frequent peer reviewer on fiduciary audit projects and has broad exposure to emerging issues and trends in the public sector.

Prior to joining EnnisKnupp (the predecessor of Hewitt EnnisKnupp) in 1994, Steve worked at Ernst & Young as an auditor covering financial services firms and not-for-profit organizations. He also worked at Wurts & Associates for a brief period.

Steve holds a B.A. degree in accounting from Seattle University. .

Dessy Leintz

Dessy Leintz is a senior consultant in the Norwalk, Connecticut office. Dessy works with a select number of complex retainer and project clients, including public retirement systems, corporate defined benefit and defined contribution clients, and not-for-profit plans. Dessy has experience providing equity structure reviews, investment structure design, manager evaluation, due diligence, and selection, and risk analysis. She is also a member of the firm's client advisory group.

Dessy joined the firm in 2004 and has eight years of institutional investment experience. Previously, she had worked as financial advisor intern at Morgan Stanley and a consultant with Municipality of Malko Turnovo/Strandja Nature Park (Bulgaria).

Dessy holds a B.S. degree in finance from DePaul University. She is currently pursuing an MBA degree at the Lake Forest Graduate School of Management.

Risk Professionals

Michael D. Sebastian

Mike, a partner, co-heads the firm's Investment Policy Services group. Additionally, he serves as a primary consultant for a select number of Hewitt EnnisKnupp retainer and project clients.

Mike has co-authored a number of research articles published in the Journal of Portfolio Management, the Journal of Private Equity and the Journal of Investing, two of which received a Bernstein Fabozzi/Jacobs Levy award for cutstanding research. He has spoken before industry groups on topics such as risk budgeting and performance benchmarking. Mike has served as an adjunct faculty member at Northwestern University, and is a member of the board of directors of the Midwest Finance Association.

Prior to joining EnnisKnupp in 1997, he was head teaching assistant for core finance for the Department of Finance at the University of Illinois in Urbana-Champaign.

Mike holds B.S. and M.S. degrees in finance from the University of Illinois at Urbana-Champaign.

Sudhakar Attaluri, PRM

Sudhakar, a senior consultant, assists on consulting assignments for a select number of Hewitt EnnisKnupp retainer and project clients. Sudhakar specializes in risk management and makes significant contributions to the research and analytics area. He is a member of the firm's investment policy services group.

Prior to joining EnnisKnupp (the predecessor of Hewitt EnnisKnupp) in 2003, Sudhakar worked as a consultant at Insignis, Inc./Applied Financial Management, where he developed a real-time portfolio analysis service that generates automated buy/sell/trade signals based on a series of proprietary momentum algorithms to an investment portfolio of stocks, bonds, futures, options and other exchange traded items.

Sudhakar holds an M.Sc degree in Finance from the Birla Institute of Technology & Science (BITS), Pilani, India, and an M.S. degree in Finance from the Illinois Institute of Technology, Stuart Graduate School of Business in Chicago. Sudhakar is a Professional Risk Manager and a member of the Professional Risk Managers' International Association (PRMIA).

Governance Professionals

Jeanna M. Cullins

Jeanna, a partner, serves as the primary consultant and manages consulting assignments for a select number of retainer and project clients. Jeanna co-leads the firm's efforts in the areas of fiduciary audits, strategic planning, trustee education and plan governance matters.

Prior to joining the firm in 2008, Jeanna served as Managing Director and Operational Review Practice Leader at Independent Fiduciary Services. During her 10-year tenure at IFS, she worked on

more than 30 operational reviews (a.k.a. fiduciary audits), advising the leadership of some of the largest pension funds in the country to develop effective, efficient, practical ways to enhance their operations. She served as Executive Director to the District of Columbia Retirement Board from 1993 to 1997, and as the Board's General Counsel from 1985 to 1993.

Jeanna holds a B.A., cum laude, from Brooklyn College, City University of New York and a J.D. from Georgetown University Law Center. She serves on the emeritus board and is an active member of the National Association of Public Pension Attorneys, served as a trustee on the District of Columbia Tobacco Settlement Trust Fund and the National Association Securities Professionals Board, and is secretary of the NASP Foundation. She is a frequent speaker at pension industry conferences specifically on topics including fiduciary audits, "best practices," pension fund processes, investment consultant practices, and risk management.

Nancy A. Williams

Nancy, a partner, co-leads the fiduciary services practice area. Her assignments involve work with both public and private sector clients in the areas of fiduciary audits, operational review, strategic planning, trustee education, policy development, and plan governance matters.

Prior to joining Hewitt EnnisKnupp in 2005, Nancy was the National Governance and Policy Unit Leader at Mercer Investment Consulting, and prior to that, the National Public Sector Practice Leader at Mercer Human Resource Consulting. In addition to her experience at Mercer, Nancy served as the Deputy Director and General Counsel of the Colorado Public Employees' Retirement Association. Before that she was General Counsel at the State Teachers Retirement System of Ohio. Early in her career she was also a trustee on several public retirement boards.

Nancy holds a B.S. degree in business administration from Ohio State University and a J.D. degree from Capital University Law School, where she was an editor of the Law Review. Some of Nancy's current and past affiliations include: Founder and President of the National Association of Public Pension Attorneys, Advisor to the Commissioners on Uniform State Laws Advisor to the CFA Institute, Advisor to the National Association of Corporate Directors, Member of the Public Employees Board of the International Foundation of Employee Benefit Plans, Advisory Board Member of the National Association of State Retirement Administrators, Advisor to the Governmental Accounting Standards Board, and Executive Committee Member of the National Conference of Public Employee Retirement Systems.

E. Provide name and position of pension fund consulting professionals who were added to the firm during the past three years. Provide name and position of pension fund consulting professionals who left the firm during the past three years.

We have had six partner-level employees join the firm over the past three years as detailed in the following chart.

Name & Title	Joined or Left	Date Joined	Date Left	Reason
John Thompson Jr. Partner	Joined	September 2012		Lead Consultant for Investment Advisory Solutions
JJ Wilczewski Partner	Joined	July 2012		Head of Investment Advisory Solutions
John Geissinger, CFA Partner	Joined	June 2012		Lead Consultant for Investment Policy Services
David Kelly Partner	Joined	March 2012		Lead Consultant for Delegated Solutions
John Flagel Partner	Joined	March 2012		Lead Consultant and Head of Atlanta Office
Karen Rode Partner	Joined	September 2010		Head of Global Private Equity

Due to employee confidentiality reasons, we are unable to provide employee-specific departure information other than that one member of the Senior Management Team, Brad Smith, left within the past five years. We are able to disclose that 13 partner-level employees have left the firm over the last three years. Of these 13 partner-level employees that left HEK, approximately 1/3 each relate to retirements, redundancies, and voluntary separations to pursue other opportunities.

HEK is growing. Thus, we anticipate hiring additional employees at all levels over the next 12 months. These additions will supplement our already strong general and specialty consulting practices.

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- A. General Consulting Services (includes all asset classes)
- 1. What is the overall philosophy of the firm regarding an investment consultant's role with respect to the board of trustees, staff, and investment managers?

HEK sees itself as being a trusted advisor to the fiduciaries on the Board and staff. Generally our engagements call for us to work for the Board (as the highest level fiduciary in the organization) and with the staff (as the ones responsible for the day-to-day management). We handle this role well and believe one of our greatest strengths is that we work effectively with both trustees and staff.

Our role with respect to managers is completely different. We are not a fiduciary to them. We have an arm's length, yet cordial relationship with managers. We strive for a good information flow between us because our job is to evaluate and monitor them fairly. Additionally, investment managers provide us up to date and relevant information on their firm and products, and, we in turn, keep them abreast of our clients' needs. We also provide them full transparency on our ratings of them.

2. State as clearly as possible the firm's investment philosophy. Are there any fundamental beliefs about capital markets which underpin the firm's investment advice to its pension plan clients? Include discussion on your views as they pertain to varying investment environments (e.g., inflationary, recessionary), and on the separation of alpha from beta.

Our investment consulting philosophy is grounded in a few core tenets that we believe have a bearing on the success of an investment program.

- Seek broad diversification and global orientation
- Avoid significant and unintended biases
- Take risk efficiently
- De-emphasize strict reliance on quantitative assumptions and optimization
- Emphasize flexibility and opportunistic approaches to benefit from skill
- Control costs

HEK's investment beliefs are outlined below.

- The best investment policy is customized to individual client circumstances, goals and risk tolerance
- The most important decision for long term investment results is asset allocation

- The primary method of targeting a level of portfolio risk is the allocation to and among return seeking and risk reducing assets, and structure within those asset categories, taking into consideration exposures to equity, real interest rate, credit, inflation, liquidity and active risks
 - Return seeking assets are those with the primary purpose of generating returns
 - Risk reducing assets are those with the primary purpose of risk reduction
- A disciplined rebalancing process with narrow ranges around policy targets works best.
- Alternative investments can enhance portfolios if a significant commitment is made to them.
- Alternatives can play a meaningful role for investors with sufficient tolerance for illiquidity, active and other risks;
- Focus your active risk budget on alternative investments
- Investors benefit from having a global orientation
- Investors should avoid material biases toward particular segments within public market asset classes in their long term investment policies
- Active management is a difficult endeavor and, therefore, passive management is preferred across publicly traded asset classes.
- Active risk is rewarded if highly skilled managers are used...
- There are significant variations in efficiency among markets, but also variations in trading costs, market size, and other factors that influence investors' ability to exploit those inefficiencies
 - HEK does not promote active management for any asset category, based solely on a market efficiency argument
 - The client's decision regarding appropriate market exposures should override the implementation decision; that is, asset allocation should not be driven by relative opportunities for active management in various markets
- It is important to understand potential sources of risk in the portfolio and build risk reducing allocations in the portfolio as appropriate
- Reducing investments cost and maintaining sufficient liquidity are also important considerations for investors

While the advice we give clients uniformly reflects these basic beliefs, we do not follow a formulaic approach to the evaluation of investment policies and practices. Instead, we endeavor to understand the particular circumstances of each client and develop our advice accordingly. In short, our focus on developing sound strategy; prudent implementation with a focus on risk control, cost containment and the avoidance of surprises; rigorous monitoring and reporting to ensure performance as planned, results in superior performance for our clients.

We believe optimal investment decisions are made when they are based on a clear understanding of the assets and liabilities of the plan and how they interact. It is because of this conviction that we formed a dedicated team of asset/liability specialists made up of both actuarial and investment consultants, to support pension plans during an asset/liability study. This philosophy has only intensified since the economic recession, as the risks and associated mismatch between pension assets and liabilities were magnified, leaving plan sponsors with a significant pension deficit and rising pension costs at the worst possible time.

We have developed tools that allow clients to understand the implications of the chosen investment strategy/asset allocation on key plan financial metrics (such as funded status, level of contributions) in a range of market and economic environments. We have found that this to be a useful tool to allow decision makers to fully understand and appreciate the sensitivity and expected outcomes of a given strategy.

Over the years we have incorporated several features to our asset/liability modeling capabilities that have enhanced its value to decision makers. Some of these include: scenario analysis and stress testing capabilities to study impact of contribution and funded status in varying economic regimes (for instance, low-growth, high-inflation environment), modeling that recognizes that financial markets are not "normally distributed" and that in reality three-standard deviation events occur more frequently than statistics would indicate. These real-world enhancements to our model allow for a more robust and practical set of solutions based on which clients can determine the appropriate risk posture.

3. What are the most critical issues to consider in establishing investment policy for a public sector pension plan?

One of the primary functions as it relates to setting strategy for a pension fund is to develop an appropriate risk posture. Determining that is as much an art as it is a science and entails both qualitative and quantitative considerations. Our deep and extensive experience with public funds provides us a unique insight into the issues public funds face and the environments within which they operate.

In developing and recommending investment policies, objectives, and guidelines, we work with staff and trustees to ensure a thorough understanding of the context in which the organization is setting policy. By context, we refer to the key factors that are the determinants of policy including:

- Nature of the liabilities that the assets are financing
- Length of the investment horizon
- Participant demographics and characteristics
- Required levels of liquidity
- Ability and desire of the organization to bear risk
- Fiduciary responsibility of those overseeing the funds
- Expertise, experience and "comfort level" of Board and Staff

From a quantitative standpoint, the first step in developing the risk posture is the asset/liability study, which takes into consideration the nature of the liabilities, sensitivity of the liabilities and assets to varying market and economic conditions, plan demographics, need for liquidity, etc. This more quantitatively oriented analysis helps address an organization's ability to bear risk.

The ability to bear risk should not alone be the basis for setting investment strategy. An organization's willingness to bear risk based on careful qualitative considerations should be woven together with its ability to bear risk in order to come up with an investment strategy that is best suited to its needs.

From a qualitative standpoint, we conduct Board surveys to understand both individual Board member and the collective groups' goals, objectives, and risk tolerance. These analyses, coupled with an understanding of the resources available to the organization – both internally and externally, the sponsor's circumstances, the governance structure of the organization, help us blend the right qualitative and quantitative aspects that are critical to setting investment policy. As we describe in the following pages, we have developed tools that will allow the Board to understand the implications of the chosen investment strategy/asset allocation on key plan financial metrics (such as funded status, level of contributions) in a range of market and economic environments. We have found that this to be a useful tool to allow decision makers to fully understand and appreciate the sensitivity and expected outcomes of a given strategy.

Once the appropriate risk posture for the fund is identified as described above, we shift our focus to the asset allocation exercise. The emphasis of the asset allocation exercise is the prudent allocation of assets (and risk) across various asset classes with a goal to improving portfolio efficiency and diversification using a sound risk management framework.

We also develop baseline Foundation Portfolios that are categorized by client type (public fund, corporate fund, etc.) and portfolio type (efficiency portfolio with minimal/no alternatives allocation to a portfolio that makes significant use of alternatives). The Foundation Portfolios are not meant to be the asset allocation solution for any given client, but instead represent the starting point for the asset allocation decision for specific client types. The Foundation Portfolios have been built taking into account client type, size of assets, propensity to bear illiquidity, sensitivity to fees, availability of

experienced resources (internal staff and consultants), Board's comfort and experience with non-traditional strategies, and governance processes.

Using the Foundation Portfolio and reviewing the qualitative consideration would help us identify the range of potential asset allocation choices that would be appropriate for PSERS to consider. Combining this with our quantitative/analytical tools would help the Board review the trade-offs between alternative choices and ultimately select an asset allocation that it believes is appropriate.

Finally, HEK believes that having a well-crafted investment policy statement is one of the most crucial responsibilities of public pension plans. Such a document will provide an outline for overseeing plan assets, making sound decisions, and meeting fiduciary standards. The statement will incorporate guidelines for the operation of the investment program, and address all issues relative to the plan's investments.

The investment policy statement should also address any issues specific to the public fund's circumstances, such as funded status, legislative requirements, or any regulatory issues given to the fund's mandate. Our advice about best practices with regard to investment policy statements has been sought by most of the large public funds in the country.

4. Please summarize, in one page or less, the firm's investment consulting capabilities and expertise. What are the firm's major strengths and limitations? Do you provide any services which are not provided by other investment consultants? Why should PSERS engage you as its investment consultant?

Please see our answer to question 4 on pages 18 and 19 where we emphasize our strengths. Our "limitations' are essentially the challenges that all consulting firms have in attracting and retaining top talent. We know that our employees are our most valuable asset. It is the reason that we continue to put so much effort into ensuring the best-and-brightest of today's financial professionals are recruited, trained, and added to our successful team of consulting professionals. Employee retention is an important, ongoing focus of our leadership team.

While many of our competitors provide some of the services we offer, we believe we are one of only very few firms that has developed the extent and the depth of capabilities to meet a broad spectrum of investment needs for large, sophisticated investors, such as PSERS. Notably, our Fiduciary Services practice provides unique services that other investment consulting firms do not provide.

We believe our strict ethical standards, approach to client service, deep practitioner experience, and world-class research across both policy issues and manager experience, make us the right consultant to effectively meet PSERS needs now and as they evolve. Our clients will attest to the value we bring at reasonable costs. Additionally, no one will work harder for you than we will. We can promise that without any hesitation.

5. How would you suggest that we measure and evaluate the performance of your firm as an investment consultant?

For the relationship to be optimal we believe it is important for our clients to review us on an ongoing basis and provide feedback rather than just at the end of our contract period. We believe an assessment of the following factors are useful when evaluating any investment consultant.

- Trustworthiness and confidence that they are acting in your best interest
- Value-added and performance of portfolios over appropriate measurement periods
- Soundness of policy recommendations
- Access to, knowledge of and thorough insights on managers
- General knowledge of issues that public funds deal with
- Quality of research on important topics and thorough analysis
- Clarity and usefulness of written and verbal advice
- Knowledge of applicable rules and statutes
- Timeliness of work and responsiveness to requests
- Accessibility to them whenever they are needed
- Dependability that they will come through on what they promise to do
- Ability to spot trends and emerging issues and provide proactive assistance and advice
- Meaningful and professional Interaction with the Board and staff
- Courage to provide the best advice even if it is not popular or what the fiduciaries want to hear

We measure our success in a number of ways including relative program performance, manager selection success, problem (or surprise) avoidance, and client satisfaction. We deliver on these ideas by proactively interacting with our clients while providing forward looking, research based investment management and process concepts. We strive to consistently be seen as the trusted expert on issues that plan staff does not have the time or resources to evaluate.

We monitor our success through direct interaction with clients and by using various client satisfaction surveys and independent industry surveys where our clients measure our success in a variety of ways.

6. Describe the process you will use to recommend investment objectives and policies for PSERS. Provide samples of investment objectives and policies you have developed for pension fund clients that demonstrate the types of approaches your firm might recommend to PSERS. Highlight risk management components of the process.

We have outlined below the broad steps we would take in advising PSERS.

Step 1 – Gain a Clear Understanding of Circumstances

The first step of the process would entail gaining a clear understanding of PSERS' current circumstances. HEK would conduct a thorough review of the current status of the PSERS. This would include a review of the most recent asset allocation/liability analysis and policy, the existing arrangements for investment management and custody, staffing and resources, and the governance processes for investment manager oversight and control.

Step 2 - Meet with Key Stakeholders to Define Objectives

After we are thoroughly familiar with the current policies and processes and the current investment status of the Plans, we would meet with the Board or Investment Committee and Staff to discuss investment objectives, policies, and procedures. We would also discuss the current oversight and management processes to help determine if any changes are necessary to improve the PSERS' ability to meet its fiduciary obligations.

Step 3 – Recommended Investment Strategy

We view this as the most critical decision in controlling and managing long-term return and risk. The first step of the process is the asset/liability study, which helps define an appropriate risk posture. This is followed by an asset allocation study, the focus of which is to ensure the prudent allocation of assets (and risk) across various asset classes with a goal to improving portfolio efficiency and diversification using a sound risk management framework.

We have described our asset/liability and asset allocation approach in response to earlier questions in this section of the proposal.

Step 4 – Develop Portfolio Structure

The next step of the process is to develop a strategic plan relating to the implementation of the asset allocation. The goal of asset class or portfolio structure design should be to ensure that the composition of the asset class conforms to the stated objective for the asset class in a fund's overall asset allocation. We outline below our core beliefs as they relate to asset class/portfolio structure:

- Gain exposure to the broad opportunity set across each asset class
 - Eliminate un-intended structural biases

- Recognize risks associated with structural biases and be comfortable with such risks
- Pay little for beta
 - Use active management for alpha; not diversification
- Eliminate style-box approach to portfolio construction
 - Style boxes are a rigid and artificial construct
- Focus manager selection efforts on skill and not style
 - Hire active managers that can add value regardless of their style and capitalization orientation
 - Allow managers with identifiable skill broad latitude to add value
- Utilize active risk budgeting as a risk control and allocation tool
- Seek to keep fees low higher fees do not translate to higher value-added

The structure analysis would include a review and assessment of existing investment managers and determining appropriate allocations that seek to efficiently target risk and maximize information ratio.

Step 5 - Review and Modify, if Appropriate, Investment Policy, Processes and Procedures

The final step would be to make adjustments to the current investment policy, if necessary, based on the outcomes of the first four steps, as well as make recommendations for changes to the Investment Committee's processes and procedures we believe are appropriate in light of market, asset management, or fiduciary factors that may have changed since the development of the current policy and processes.

Included in the Appendix are a sample asset/liability and asset allocation study as well as a portfolio structure review.

7. Describe the process and resources you will use to recommend asset allocations for PSERS. Discuss the possible circumstances and process whereby you might recommend that an asset allocation should be changed. Provide samples of asset allocation plans you have developed for pension fund clients.

Our Investment Policy Services team has developed several proprietary, analytical tools to assist clients with asset allocation. These include our capital markets modeling tool, optimization tools, risk budgeting models, scenario analysis and stress testing tools.

As noted earlier, we believe the primary function as it relates to setting an asset allocation for a pension fund is to develop an appropriate risk posture. From a quantitative standpoint, we conduct an asset/liability study to address the organization's ability to bear risk. Once the appropriate risk posture is determined, we then conduct an asset allocation study to determine the most appropriate mix of assets for an efficient and diversified portfolio that is prudent and appropriate for PSERS' circumstances. Our proprietary Asset/Liability and Asset Allocation Models are described below:

- Asset/Liability Model: We conduct asset/liability modeling using an integrated Monte Carlo simulation. By working closely with a client's actuary and using a client's liability assumptions, we are able to move beyond the basic mean/variance framework that is commonplace with asset allocation studies. The asset/liability simulation allows us to translate these general types of capital market risk and return assumptions into a framework that uses plan cost and/or plan funded status as the key measured variable:
 - Reward, which means lower ultimate cost and/or higher funded ratios
 - Risk, which is the potential for unpleasant surprises in cost or funded status results

We employ a customized approach in which different cost measures and timeframes can be analyzed to fully explore the risk/reward landscape of any specific plan. This asset/liability framework allows our clients to fully understand the inherent risk of their investment program.

Over the years we have modified our asset/liability modeling utilizing the following processes and analysis to overcome some of the short comings of traditional mean/variance modeling:

- Fat tails: our asset returns are not normally distributed they show a higher probability of
 extreme events (mostly bad events) than would happen under a normal distribution, just like we
 see in the real world
- Dynamic correlations: our correlation coefficients are not fixed -- they vary through time in our model depending on simulated market conditions. In particular, correlations "go to one" in bad market scenarios
- Stress testing: as one way of dealing with uncertainty in the expected returns, etc. (as the "robust optimization" does), we run the model with different assumptions for various asset classes,

especially the equity risk premium, to analyze the impact different assumptions have on the results

- Economic scenarios: we examine our modeling results under different regimes of economic growth, inflation, etc. to see the impact on results. We develop asset/liability risk/reward curves under "normal conditions", "high growth, high inflation", etc.
- Lastly, factor analysis we can do asset allocation modeling with factors instead of asset classes if that is what is desired
- Asset Allocation Model: A proprietary model is used in asset allocation studies and evaluates various asset classes and asset mix alternatives from an expected risk/return perspective. This model identifies "efficient portfolios" (i.e., portfolios with the highest expected return for their respective levels of expected risk). Incorporated into the model's analyses are capital market assumptions and efficient frontier analysis parameters. External capital market views can be incorporated into assumptions to complement internal views.

We have also developed baseline Foundation Portfolios that are categorized by client type (public fund, corporate fund, etc.) and portfolio type (efficiency portfolio with minimal/no alternatives allocation to a portfolio that makes significant use of alternatives). The Foundation Portfolios are not meant to be the asset allocation solution for any given client, but instead represent the starting point for the asset allocation decision for specific client types. The Foundation Portfolios have been built taking into account client type, size of assets, propensity to bear illiquidity, sensitivity to fees, availability of experienced resources (internal staff and consultants), Board's comfort and experience with non-traditional strategies, and governance processes.

Using the Foundation Portfolio and reviewing the qualitative consideration would help us identify the alternative asset allocation choices that would be appropriate for PSERS' to consider. Combining this with our quantitative/analytical tools would help the Board review the trade-offs between alternative choices and ultimately select an asset allocation that it believes is appropriate.

We continually review our clients' investment programs to ensure relevance in light of changes in the market environment and liquidity demands. Where composition of markets has changed or where a client is no longer able to tolerate the illiquidity from investing in certain market segments, we suggest changes to structure that are consistent with the prevailing circumstances of the fund.

Further, we believe it is important to test the asset allocation relative to the market environment on an ongoing basis to ensure that the asset allocation performs as we would have expected for it to perform in that environment. This type of analysis is more customized in that it requires a decomposition of returns of the components of the portfolios to ensure that underlying components performed as would have been expected in an environment and that impact on total fund performance and risk is consistent with ex-ante expectations.

Included in the Appendix section of this proposal is a sample asset/liability and asset allocation study.

8. Included in Appendix A of PSERS' Investment Policy Statement, Objectives and Guidelines is a copy of the Fund's current asset allocation plan. What changes, if any, would you recommend?

We have reviewed PSERS' asset allocation. The asset allocation is well diversified among and within the major asset classes that we believe institutions of PSERS' size should consider. The investment strategy broadly is in line with several elements of HEK's best thinking. Some of the major themes include:

- Meaningful commitment to alternatives: PSERS' has an allocation to alternative investments of about 55% (private equity, real estate, absolute return, risk parity, MLPs, and commodities). We believe that private markets and unconstrained mandates offer better odds for investors to generate unique streams of returns (or excess returns) as compared to investments in public markets. We find that, on average, investors do not commit meaningfully to alternatives considering the resources that institutions typically expend in conducting due diligence and managing assets in this space. Small allocations to alternatives generally do not have an impact on investors' returns to the point where we believe that expending resources for small commitments to alternatives is not a worthwhile endeavor. We believe that investors that commit to alternatives should do so with meaningful allocations both in order for such investments to have an impact and to better rationalize the costs associated with these investments. Our white paper titled "Go Big or Go Home" addresses these issues.
- Extensive use of passive management: We favor extensive passive investments across the public markets. Research that we and others have conducted over the years shows that it is extremely challenging for active equity managers to add value on a consistent basis net-of-fees. In a white paper entitled "Conviction in Equity Investing" we find that less than 2% of domestic equity managers have added value net of their fees on a statistically significant basis. It is for this reason that we prefer investors allocate their public market exposure predominantly passively and utilize their active risk budget and fees in areas where we have higher conviction that such active risk and fees will be rewarded across the alternatives space and strategies that are managed on an unconstrained basis (e.g., hedge funds, absolute return strategies).

While we would want to gain a better understanding of PSERS' circumstances and the rationale underlying the current strategy, below are some elements of the current strategy that we would like to explore:

• Inflation sensitivity of liabilities: PSERS' has a meaningful allocation to TIPS (12%), in addition to the allocation to commodities (4%), MLPs (3%), and Gold(2%). Broadly speaking, these assets are categorized under real assets. We favor the use of real assets across client portfolios, especially those with inflation-sensitive liabilities. We would want to explore the rationale for the large allocation to TIPS. An asset/liability study would help us establish the sensitivity of PSERS' liabilities to inflation. Depending on this analysis, and the overall risk/return parameters of the portfolio, we could explore alternative real asset allocations.

- Long Bonds: In a recently published research paper entitled "Rethinking Fixed Income" (we have provided a see the Sample Research paper in the Appendix we discussed how we believe investors (other than those that build fixed income portfolios to hedge specific liabilities) should invest their fixed income. Our research finds that intermediate duration fixed income offers a better diversification of equity (and equity-like) risk than long duration fixed income, and is less volatile. Additionally, we find that the term risk premium associated with longer duration bonds is insufficient to compensate investors for the higher volatility associated with longer duration bonds. As such, recommend that investors eliminate long duration exposure from their fixed income portfolios unless there is the need to hedge specific liabilities. We would want to explore the rationale of utilizing long duration bonds in the PSERS portfolio and analyze whether shortening duration would better meet PSERS' objectives.
- Leverage: PSERS' asset allocation indicates that the portfolio may be levered up to 9% and that leverage can be used across several asset classes. We note the wide ranges associated with the use of leverage (+/-9 percentage points), indicating the discretion that is likely available to the Investment Team to utilize leverage as it deems appropriate. We would like to better understand the rationale for the use of leverage, the criteria that determines how much leverage is used and across which asset classes. Our research indicates that leverage can be useful in improving a portfolio's risk/return profile, but only at higher risk allocations.
- Tail Risk Hedging: The current portfolio asset allocation contains asset classes that can provide tail-hedging attributes (Treasury securities, TIPs, Low Volatility hedge funds), but we would like to better understand how the portfolio may perform in different macro-economic environments and various stress market environments to ensure the portfolio has adequate hedging characteristics.
- Describe the process you will use to recommend a structured investment program that
 includes core versus specialty portfolios, active versus passive portfolios, mix of investment
 management styles, and number of portfolios. Provide a sample structured investment
 program.

Portfolio structure encompasses several elements associated with the implementation of an investment program and includes decisions relating to:

- Use of active and passive management
- Portfolio orientation and types of mandates
- Number and types of active management strategies
- Allocation of active risk budget to and within an asset class

The goal of asset class or portfolio structure design should be to ensure that the composition of the asset class conforms to the stated objective for the asset class in a fund's overall asset allocation. We outline below our core beliefs as they relate to asset class/portfolio structure:

- Gain exposure to the broad opportunity set across each asset class
 - Eliminate un-intended structural biases
 - Recognize risks associated with structural biases and be comfortable with such risks
- Pay little for beta
 - Use active management for alpha; not diversification
- Eliminate style-box approach to portfolio construction
 - Style boxes are a rigid and artificial construct
- Focus manager selection efforts on skill and not style
 - Hire active managers that can add value regardless of their style and capitalization orientation
 - Allow managers with identifiable skill broad latitude to add value
- Utilize active risk budgeting as a risk control and allocation tool
- Seek to keep fees low higher fees do not translate to higher value-added

Portfolio structures within each of the asset classes should embrace the totality of each individual marketplace. The first step in the process is to find a single market index that fully captures (as close as practical) the totality of a capital market, which essentially represents the desired objective or targeted exposure for the asset class. We tend to recommend these indices as asset class benchmarks as they, in theory, represent the most efficient portfolio to own. Once the benchmark is chosen, we work with our clients to structure their portfolios so that their resulting exposures to the various market segments are consistent with the benchmark's exposures (i.e. minimize so called "misfit risk"). Incurring misfit increases risk without a reasonable expectation for earning higher levels of return.

A key component to structuring portfolios is to determine the appropriate mix of active and passive investment strategies. We work with each of our clients to determine their tolerance for incurring active management risk in hopes of outperforming the market. Coloring this decision are discussions on market efficiency and empirical data on active management. We also consider a fund's size relative to the markets in which it invests. Generally speaking, the larger the fund, the more appropriate passive management becomes as large funds are not able to be nimble in their investment strategies, and may not be able to access certain market segments. We have clients that invest all actively and those that invest exclusively in index funds.

Similar to our beliefs in public markets, we believe investing in the private markets/alternatives requires very high conviction. Many funds build overly diversified portfolios across alternative asset classes as means to manage and mitigate the risks of those asset classes. We do not subscribe to this approach — too much time and expense is incurred on conducting due diligence on a large set of opportunities and the end result from a performance standpoint is likely not any better. Instead, we favor an approach where for the core of their private market portfolios, clients make meaningful commitments to a select few top-notch general partners and then invest in niche strategies around the core allocation. Such an approach requires high conviction in our ability to identify and diligence the general partners and build a suitable portfolio structure to meet the client's return needs and risk tolerance. However, it allows for focus on a small number of relationships, which has many benefits, including helping keep costs under control (legal, due diligence, fees, etc.) and building a more efficient portfolio.

10. Describe how you will review the adequacy of PSERS investment staff and resources available to administer PSERS' investment program and invest the Fund's assets. Include in your description how you will assess the appropriateness of staff size and expertise, and the technological tools available to staff.

HEK has significant experience working with clients that manage assets internally. We currently work with 29 clients with over \$750 billion in assets that manage assets internally (this represents total assets of these organizations and not all assets managed internally). We have routinely advised these clients across a broad range of issues relating to their internally managed portfolios, including staffing and resources. Examples of the work we've conducted include:

- Provided assessment on each internal investor at a fund (based on individual interviews with
 each investor, assessment of their performance, etc.) in order to provide a newly-hired CIO an
 assessment of skill and resources. This was used to develop an optimal structure of the
 investment organization.
- Provided recommendations on optimal structuring of an investment organization to most efficiently and effectively utilize internal and external resources.
- Reviewed each internal management team of a fund in order to allow the Board to determine effectiveness of an internal team. This included comparing internal teams with best-in-class external teams for each of the strategies managed internally.

In conducting our assessment of internal teams, we involve members of our Global Investment Management team, which comprises over 70 professionals, many of whom have practitioner experience. These teams assess internal management teams – including the soundness of investment philosophy, robustness in implementation of strategy, skill and adequacy of resources (technology and people), incentive compensation arrangements, and operational aspects – similar to how we assess an external investment management organization. Our team conducts over 1000 manager meetings a year and has wide coverage of investment strategies across the asset classes, including knowledge of and experience of internally managed investment teams. This insight helps

our teams develop a robust, objective assessment of internal teams. In addition, we involve members of our dedicated Operational Due Diligence team conduct a review of investment operations to ensure appropriate risk and compliance controls. As part of our assessment, we would identify and report on potential gaps in resources and/or staff.

Included in the Appendix section of this proposal is a sample of a review of an internal management team that we have conducted for a public fund client recently.

11. Describe your process, and the variables included, in preparing a written Asset/Liability Study, and note the frequency they would be issued. Provide a sample Asset/Liability Study you would submit to PSERS' Board.

An asset/liability study is a critical function in determining the right risk posture for a fund's investments relative to its liabilities. We have been conducting asset/liability studies since 1974 and in the last three years have conducted approximately 100 asset/liability studies for clients with assets in excess of \$1 billion.

Our philosophy to asset-liability modeling centers on integrated asset-liability management framework. We believe optimal decisions regarding pension plan management are made when they are based on a clear understanding of the assets and liabilities of the plan and how they interact. It is because of this conviction that we formed a dedicated team of asset/liability specialists made up of both actuarial and investment consultants, to support pension plans during an asset-liability study. This philosophy has only intensified since the economic recession, as the risks and associated mismatch between pension assets and liabilities were magnified, leaving plan sponsors with a significant pension deficit and rising pension costs at the worst possible time.

Asset Allocation Review Methodology

During an asset allocation review, we examine the policy allocations selected by the fiduciaries and evaluate the expected risk and return characteristics of the selected allocation, the impact changes in policy targets would have on those expectations, and the "efficiency" of different portfolios. We also look at the range of expected returns for different asset mixes. We use our proprietary asset allocation model to do this work. A discussion of investment risks specific to each asset class, as well as market events, is also typically included in an asset allocation review.

An annual asset allocation review serves as an important educational avenue to revisit the investment risks that are present in the portfolio and the steps that have been taken to mitigate those risks. An annual review of asset allocation is also, we believe, part of a prudent process whereby the decision-makers periodically review decisions that have been made in the past and allow for opportunity to make adjustments. On its own, however, we do not believe an asset allocation review is the only input on asset allocation decisions. An asset-liability study, discussed in the following paragraphs, is pivotal to the asset allocation decision.

Asset-Liability Study Methodology

An asset-liability study differs from an asset allocation review in that it considers the liability side of the equation. We believe optimal decisions regarding pension plan management are made when they are based on a clear understanding of the assets and liabilities of the plan and how they interact. It is because of this conviction that we formed a dedicated team of pension risk specialists comprised of both actuarial and investment consultants, to not only support fiduciaries during an asset/liability study but also on an ongoing basis so that pension risks can be managed effectively over time. Our methodology includes four main steps:

Step 1: Determining Risk Tolerance. We assist the client in evaluating its ability to tolerate risk related to its pension plan by examining three key issues:

- Demographic Characteristics: We analyze the demographic characteristics of plan participants and the maturity of plan liabilities.
- Funded Status/Actuarial Assumptions: We examine the funded status and actuarial assumptions of the plan to evaluate the plan's ability to withstand investment losses.
- Financial Characteristics: We discuss the fiduciaries' ability to tolerate volatility in the investment program based on the plan's financial characteristics.

In addition to evaluating the plan's ability to withstand risk, we assist in gauging the organization's willingness to accept risk. Often, this process relates to qualitative preferences, which may diverge from objective measures of risk tolerance.

Step 2: Selecting Asset Portfolios to Model. We use our asset allocation model to evaluate various asset classes and asset mix alternatives from an expected risk/return perspective. This step in the process is very similar to what we do in an asset allocation review, in that we evaluate whether the current portfolio is efficient, whether alternative portfolios are efficient, and how changes to asset allocation will effect the expected risk and return characteristics of the portfolio.

Through this analysis and our discussion of risk posture, we are able to reduce the number of alternative asset mixes examined in the integrated asset-liability simulations. We can examine any number of portfolios in the integrated projections, but we have found groups of five or six portfolios are best compared at one time. This enables a reasonable range of equity exposures to be examined simultaneously. We also typically include the plan's current and/or target asset mix to provide a basis for comparison.

Step 3: Analyzing the Assets and Liabilities. We use our proprietary asset/liability model to generate up to 5,000 economic scenarios over the next ten years using a Monte Carlo simulation process. Key variables we will simulate for the liabilities often include inflation, interest rates, and pay increases, and we also simulate asset class returns. These simulations lead to a projection of assets and liabilities under all economic scenarios for the various portfolios, and allow us to show the expected risk-return tradeoff in terms of:

SOUNDNESS OF APPROACH

- Investment return
- Cash contributions
- Funded status
- "True Economic Cost"

Instead of focusing on individual variables that provide only a partial view of the expected risk-return tradeoffs, we use a concept called "True Economic Cost." This concept combines cash contributions and funded status changes in a single variable. We believe that True Economic Cost can be the most informative variable for making asset allocation decisions. Also, it is important for fiduciaries to know the expected risk-return tradeoffs for each portfolio in scenarios ranging from very optimistic to very pessimistic. HEK's state-of-the-art asset-liability simulation model is the perfect tool for such risk assessment.

Step 4: Analyzing the Goal. An important feature of our asset liability model is its ability to evaluate the probability that various asset allocation policies meet the fiduciaries' goals. Our analysis will help clients pick an asset allocation policy that:

- Meets the stated goals;
- Is consistent with its risk tolerance;
- Is likely to meet liabilities effectively in the long run; and
- Allows pension costs to be managed to the best extent possible.

With respect to conducting the asset/liability study, we will work closely with PSERS' actuary to receive pertinent liability related information (pension benefit payments) annually. We incorporate these into our valuation analysis tool in order to conduct the modeling. Given that we maintain proprietary asset/liability modeling tools, our models are highly customizable to each client's specific circumstance. We will interface closely with PSERS Board and Staff during the course of the study to ensure that the range of analysis and scenarios that is necessary to make prudent decisions are made available. We anticipate doing an annual review of the assets and liabilities.

We have provided a sample Asset/Liability Study in the Appendix section of this proposal.

12. Describe what you will include in the analysis of PSERS results with the Annual Investment Plan.

All of our work and our reports are highly customized to each of our clients' needs. The annual reviews for each client are customized to include the types of analysis and information that they would like to see and is appropriate given their investment programs. The information provided in annual reviews would also change from year-to-year depending on the changes in the economic and market environment, and the evolving risks that institutional investors face. We would work with PSERS' Board and Staff to identity elements that they would like to see in the annual review, as well as provide our suggestions on important topics that we believe are relevant. That said, at a minimum, we would typically include the following information:

- Overview of economic and capital market environment
- Outlook for capital markets and our medium term views
- Comparison of PSERS' asset allocation to peer public funds
- Discussion on trends in asset allocation among public funds
- Modeling the expected returns and risk profile of PSERS' portfolio based on our most recent capital market expectations
- Detailed review of portfolio performance, including attribution at the total fund and the underlying asset class level
- Progress against established work plans
- Discussion on whether any changes are warranted to PSERS' IPS
- 13. Describe the variables and methodology you will consider in recommending performance benchmark(s) for PSERS. Provide samples of benchmarks you have recently recommended for current pension fund clients.

The most critical decision that drives a fund's success is the asset allocation decision and the policy benchmark embodies the asset allocation decision. Comparison of fund returns to the policy benchmark is the best policy-neutral tool to evaluate decisions regarding active managers, program structure, and rebalancing among asset classes.

From time-to-time, we also compare performance of funds compared to peer universes. Each fund's asset allocation is unique to its circumstances and hence it is critical that peer analysis be viewed in the right context. Peer analysis is useful in understanding how other funds invest their assets (the asset allocation decision), understand differences between a fund's and a peer groups asset allocation decision, which ultimately helps re-affirm the asset allocation decision for a fund.

We utilize the **Mellon Analytical Solutions Public Fund Index** to conduct peer analysis. The Mellon Analytical Solutions Public Fund Index is a capitalization-weighted index that represents the average return earned by public pension funds. The Index includes 62 public pension funds with an aggregate market value of \$695.8 billion. This benchmark allows us to evaluate the impact of a fund's investment policy and other decisions on performance relative to similar funds.

At the underlying asset class level, we use qualitative and quantitative methods to select benchmarks for portfolios (individual managers) and asset classes. For the marketable securities managers, the qualitative factors include HEK's knowledge of the managers' mandates and strategies, while the quantitative factors include a statistical measure of the "fit" between the manager's return history and that of the benchmark. This "best benchmark" analysis employs two measures, R-squared and tracking error, to determine from a statistical standpoint which benchmark is the best match for a manager. For non-marketable securities, our knowledge of each manager's approach and opportunity set guide us in selecting an appropriate benchmark. For the asset classes, we prefer a broad representation of the opportunity set.

The Portfolio Structure Review that is included as an Appendix to this report includes discussion on specific benchmarks recommended at each asset class and the rationale underlying that recommendation.

14. Describe how you will identify and evaluate new investment opportunities to recommend to PSERS. Provide samples of reports that would be made available to PSERS which detail the results of your firm's analysis.

HEK is proactive in identifying new investment opportunities by monitoring trends through industry periodicals, frequent meetings with managers, and monitoring industry metrics, such as spreads, capital flows, purchase price multiples, exit activity, cap rates and public market volatility. Our deep and dedicated resources across both our Investment Policy Services team and our Global Investment Management team allow us to be at the forefront of assessing new opportunities, conducting thorough research on opportunities to identify whether such strategies have theoretical merit, conduct exhaustive due diligence on products that may be available for clients to invest. Our teams constantly exchange intelligence/ideas on market opportunities, new products being offered by managers, etc. that allows us to stay abreast of new evolving opportunities.

An example of a new investment opportunity that we identified was based on our research on the dislocation in the credit markets. This initiative brought members of the alternative teams together with the fixed income team to assess investment opportunities resulting from the freezing of the credit markets. At that time, we saw credit spreads on corporate and mortgage debt reached widest levels in record. We recognized this as an opportunity and spoke with managers about designing credit dislocation funds. The strategy for these funds combined each manager's credit analysis skill with their ability to allocate assets across bond sectors, as well as including the possibility of direct lending. We assessed the feasibility of the targeted risk-adjusted returns, compared other investment opportunities, measured the opportunity size and the length of the window of opportunity, and

determined whether any managers were well positioned to exploit the opportunity, and examining the effect it would have on our clients' portfolios.

We have provided the following sample analysis reports in the Appendix section of this proposal.

- Emerging Market Local Currency Debt Taking a Positive View
- US and European Bank Loans Attractive in a Positive Growth, Rising Rate Environment
- 15. Describe the process you will use to conduct investment manager searches and to recommend candidates to PSERS. Identify all criteria that might be taken into account in order to complete your recommendations. Include a description of the size of your manager database and experience negotiating performance-based fees.

Our approach to investment manager searches combines senior consultants that serve client relationships and full-time manager research personnel. This approach balances client perspective, continuity of senior personnel involvement, and rigorous manager analysis. Our Global Investment Management Research Team, comprising over 60 professionals, is dedicated to evaluating managers and helping clients maximize their probability of adding value with active management.

HEK has a proprietary manager database, Global Manager Monitor, which contains information on managers and products that we follow – both on and off our approved list. Global Manager Monitor is a proprietary tool and is designed to capture quantitative and qualitative information, consultants' comments, and ratings on managers across the world followed by our manager research professionals based in the U.S., Canada. GMMD is constantly being updated by our research professionals based on meetings with managers or analysis of manager portfolios.

Our primary means of gathering, verifying, updating, and maintaining manager data for our database is through our annual and quarterly questionnaires and meetings with the managers. Our annual questionnaires are thorough and detailed and cover areas including business management, investment team, strategy and portfolio, investment process, operational risks, and performance. Our quarterly questionnaires allow us to stay more current in our monitoring on key points such as key person departures and compliance with investment guidelines. Our meetings enable us to collect both qualitative and quantitative information as well as perspective on the firm overall. Further, our database is highly customizable. We can screen by asset class, style, capitalization, AUM, fees, social responsibility, and a myriad of other variables to identify an appropriate and customized list of products for an investment manager search.

In addition to our Global Manager Monitor, we also utilize external databases such as eVestment Alliance and Morningstar to gather, summarize and cross-check investment manager data. These sources contain information regarding organizations, ownership, asset histories, thorough product descriptions, return histories, and personnel listings, among many other screenable characteristics, for thousands of investment products.

While each investment manager search is fully customized, there are certain steps that we follow in every case. A typical process for investment manager selection is detailed below:

	Process Steps	Description
1)	Determine Selection Criteria	We work with the client to determine selection criteria such as investment style, experience, performance, fees, size, risk, stability of staff, etc.
2)	Identify Preliminary Candidates	We screen our manager database to identify preliminary candidates that meet the selection criteria. If there are any candidates that the client would like us to consider, we include them on our list.
3)	Update Information/Visit Managers	We review the information in our databases regarding candidate managers, update the information, and visit the managers, as needed.
4)	Select and Profile Finalist Candidates	Based on the preceding analysis, we narrow the field of candidates to three or four firms. We provide an in-depth analysis of the candidates and profile them in a written report.
5)	Discuss Finalist Candidates/Interview Finalists	We discuss the finalist candidates with the client and answer any questions they may have. Additionally, we can help organize presentations by finalist candidates at our client's offices and participate in the interview process.
6)	Select Managers	Following the finalist interviews, the client is in a position to select the manager(s) that best fits its investment structure. We generally provide our clients with our recommendations on a manager to select for a given mandate based not only on a standalone analysis of a specific manager, but also their fit in the overall portfolio.

The table below shows the number of managers included in our proprietary in-house database.

Asset Class	Managers	Products
Domestic Equity	1,532	2,259
Domestic Fixed Income	970	1,311
International Equity	454	661
Hedge Fund	2,057	8,169
Private Equity	6,847	9,352
Real Estate	1,102	2,983
Total	12,962	24,735

As it relates to performance-based fee arrangements, we view linking a manager's compensation to its performance as an appealing idea and are favorably disposed towards it, if structured appropriately. We utilize analytical tools, databases and our knowledge of and experience with investment managers and market trends to assist clients in evaluating alternative fee arrangements to asset-based fees. We review various considerations in ensuring the correct fee structure. For example, we consider fixed rate versus tiered scheduled base fees and alternative fee provisions such as carry, hurdle rates, watermarks and claw backs. Additionally, we have developed a model that utilizes a manager's historical risk/return characteristics to analyze potential outcomes of various alternative fee arrangements, which helps in identifying an appropriate fee structure.

16. Describe your process of reviewing investment manager performance and consistency of investment approach.

We conduct regular monitoring on all managers that are utilized in our clients' portfolios. Our process typically entails quarterly analysis of performance and portfolio characteristics, personal meetings at least annually, and numerous conference calls throughout the year. The goal of this monitoring process is to assess organizational stability, consistency of investment approach, professional turnover, growth in assets under management and other factors that can influence performance.

With respect to analyzing managers' performance, we focus on understanding the drivers of performance relative to the managers' investment style and the environment to ensure that outcomes are in line with expectations. In circumstances where we do not believe that manager performance is reasonably in line with expectations given their approach, we typically conduct detailed risk and attribution analysis to better analyze portfolio outcomes. We use state-of-the-art holdings-based style analysis which compares the financial characteristics of the manager's portfolio versus its benchmark, the broad market, or other managers that utilize a similar approach. This type of analysis helps us measure the consistency of the manager's style and/or its ability to change their style to capture opportunities in the market in a real time fashion. In addition to holdings based style analysis, we also have the ability to conduct returns based style analysis. One of the shortcomings of returns based style analysis is it may take some time for the model to determine that a change in style has occurred whereas holdings based style analysis will detect these changes immediately. As a result, we focus

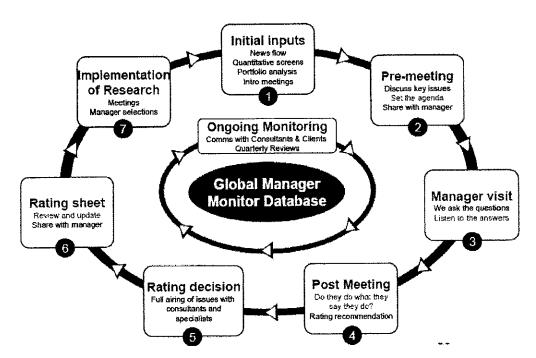
predominantly on the holdings based analysis and supplement that with the returns based analysis to monitor consistency of manager style.

17. Describe your process of performing due diligence review and analysis on the staff and operations of investment managers. Provide samples of reports that would be made available to PSERS which detail the results of your firm's analysis.

HEK's Global Investment Manager (GIM) Research Team focuses the majority of its research budget on qualitative assessment, striving to thoroughly understand the organizations and teams that are responsible for investment performance. Special emphasis is placed on understanding the incentive structure and team dynamic to determine the likelihood of team stability. In addition, HEK's GIM team focuses on obtaining a thorough understanding of the research and investment process. In doing so, we are able to effectively evaluate periods of relative performance deviations thereby allowing for valuable proactive consulting for clients rather than a "chasing performance" mentality that plagues many investors. To truly understand investment management firms, it is the GIM team's belief that time must be spent face to face with the people at these organizations to determine their talent and commitment to client results.

Our researchers also spend a lot of time quantitatively analyzing managers. The quantitative analysis is not performance screening to find "hot" managers. The team utilizes a variety of proprietary and third-party databases to measure risk and performance to better understand how a product performs and if it is in line with the style of management it pursues. The team runs portfolio attribution at the holdings level in an attempt to better understand drivers of results and challenge portfolio managers on their research and portfolio positioning. By evaluating these quantitative measures, the team gains a better understanding of how a manager may perform in a certain environment or how well a manager should fit within a portfolio context. Furthermore, an ongoing evaluation of qualitative and quantitative characteristics helps to evaluate if a manager continues to fit the role for which it was originally hired.

This dual evaluation allows the GIM team to give clients a clear and accurate picture of the investment managers. Five areas of focus are extensively probed: organization, investment teams, investment process, risk considerations, and performance. This is accomplished via a lengthy on-site interview process by multiple researchers



HEK's GIM research team's manager evaluation process is detailed below.

The chart above summarizes the systematic approach the team follows, which is an ongoing process of continually monitoring the fund management marketplace.

Each step in of the global manager research process is detailed below.

Step 1: Initial inputs

- HEK's GIM team will incorporate manager ideas from any possible source in order to arrive at the top managers for clients. On a quarterly basis, the researchers perform quantitative screens for each asset class on a variety of metrics (e.g., employee ownership, consistency of results, etc.) to discover promising investment managers that are unknown to the team.
- HEK maintains an internal proprietary database, Global Manager Monitor Database (GMMD), which includes an extensive list of investment managers across asset classes. Our due diligence notes and manager ratings are maintained within this secure database. Investment managers do not pay any fees to be included in GMMD or to receive consideration in investment manager searches, nor do we sell access to GMMD to any outside organization. Our due diligence is conducted solely for the benefit of our clients.
- The GIM team runs quarterly screens in GMMD to create a priority list of managers that need to be visited within the upcoming quarter, including those where there are client assets, new ideas, and "problem" managers.

Step 2: Pre-meeting

- The team arrives at a due diligence meeting prepared to ask the relevant questions the client cares about rather than hearing a marketing pitch from the manager.
- Managers are required to complete a thorough Due Diligence Questionnaire (DDQ) two weeks
 prior to the meeting, which includes detailed questions about the firm's ownership structure,
 investment team, investment process, and operations (e.g., systems, compliance, trading, etc.).
- Pre-meeting materials are completed and consist of the DDQ, meeting presentation, full performance and analytical analysis, eVestment Alliance (independent database) profile, performance attribution, recent portfolio holdings/transactions, relevant manager news, and prior proprietary due diligence from HEK's GMMD.
- This information is reviewed by the researchers allowing them to be fully prepared to challenge the manager on the pertinent issues. The researchers provide the agenda for the meeting to the manager so that HEK can dictate who attends and what will be discussed.

Step 3: Manager Visit

- An on-site visit with the investment organization is required in order to propose ratings for a firm/product. A minimum of two researchers attend all manager visits.
- Researchers conduct in-depth discussions on several key areas including the overall organization structure, compensation policies, quality of staff and process, and risk considerations.
 Researchers also spend time with individuals from compliance/operations to determine if procedures being followed are adequate.
- Researchers attempt to meet as many individuals as possible to make a determination on culture, team dynamic, and the general level of morale at the firm.

Step 4: Post meeting

Each researcher who attends a manager visit independently writes due diligence notes, attaches supporting documentation, and enters proposed ratings for the firm/product in the internal proprietary database (GMMD). Key criteria that are rated for each manager include: organization, investment team, investment process, risk management, performance, and other (e.g., systems, trading, compliance, client service, fees, etc.).

Step 5: Rating decision

Manager ratings are established through a debrief process which includes a discussion around the proposed ratings and research carried out by those at the meeting. The debrief process is intended to ensure that contrary views are expressed and discussed and that a robust debate of the issues is completed.

- The debriefing consists of the researchers present at the meeting and three independent senior voters. The voters challenge the researchers on their due diligence and proposed ratings. If the researchers cannot convince the voters based on their research, then follow up due diligence is carried out.
- Debrief meetings are recorded and necessary follow ups are assigned and documented.

Step 6: Rating sheet

- Once debriefs and rating are finalized, the notes are recorded in GMMD and proper communication is sent out to consultants and clients (in either quarterly reports or client portals).
- Our written documentation includes InBrief and InTotal reports. These reports communicate our
 evaluation (rating) of the investment product as well as other relevant opinions and advice. The
 InBrief provides a quick, one-page snapshot of our opinion of a product, while the InTotal report
 provides more detailed data.

Step 7: Implementation of Research

- Implementation of manager research is the final step in the manager research process.
 Implementation takes place through a team approach. Senior members of research, IPS and the client's consulting team hold portfolio construction meetings to determine the best portfolio construction and manager lineup given the client's specific goals and limitations.
- Research and the client team work together to produce appropriate deliverables for the client.

The Global Investment Management team meets regularly to discuss investment manager rankings and to determine whether any manager's rating should be modified. Some of the most common general evaluation criteria that we analyze are shown below, broken out into relevant categories.

General Criteria

U.S. Equity	International Equity	U.S. Fixed Income	Real Estate
Geccora acamar dec s'organora e	Courty's contr controller	264: 37 365 \$ 975782374 8	Posenja deter pesarangala
Security selection decizions/ationale	Asset allocation decisions/rationals	Yield curve dccisions/rationalc	Geographicallocation decisions/rationals
Torse document	Scary x deer decs proper	Someric Galler CBC 5 Order SCOPA 8	= -4-5-7
Portfelio bias es due to investment appreach	Currency hedging docisions/mitonalc	Security selection decisions/rationale	Legal structure of fund
Porto o Crancentos	Fortio octor actor from room	Fordo son scon franceronness	Pario de asercia ministren accosar
Market capital cation emphasis	Portfolio biases due to investment approach	Portfolio biases due to investment approach	Acquistion deasion making
Selomanos atricutor	Forde o cranacionalis	Perio e CYNCTES	Teregramment december to the property of the p
Cashreseves	Sectorallocation decisions/milonale	Cash reserves	Divestiture decision making
ngang garan ng mga n	Use of emerging markets	Maturity distribution/emphasis	Portfolio characterístics
	Performance atribution	Use of high-yield bonds	Performance attribution
in an annual service s	Cash reserves	Use of international fixed income	
Marie Paragonal (1980) o resistante de la companya	The company of the control of the co	Performance attribution	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Ranking Process

We aggregate both qualitative and quantitative sources to arrive at manager recommendations. We utilize quantitative information from eVestment Alliance, mpiStylus, and Morningstar to verify and analyze product performance and weaknesses. For all third-party data providers we utilize, we require that they employ well-articulated policies for maintaining data integrity, and we evaluate these policies before deciding to commit to a service provider.

Qualitatively, we leverage our proprietary Global Manager Monitor Database that tracks all researcher comments on manager products. Information included in the database provides unbiased evaluations of the portfolio manager, investment process, firm structure, compensation packages, etc.

Below we describe the criteria which we use to rate fund management organizations and their specific investment products. Each criterion, except for Operational Due Diligence ("ODD"), is individually rated from 1 to 4, where:



Operational due diligence (ODD) is an integral part of our due diligence process. A comprehensive evaluation is done as part of the formal ratings process of a manager and an annual review is conducted. Our process is constructed to be a multi-faceted review of a manager's organizational structure, back-office systems and resources, accounting and valuation methodologies, compliance procedures, legal review, background checks, and disaster recovery/business continuation procedures. While operational due diligence is segmented as its own structured review at the end of our investment due diligence review, aspects related to operational risk are covered by both our dedicated investment analysts and operational due diligence specialists.

Every one of our research team members conducts a high level review of ODD throughout the manager due diligence process. This is because many of the issues covered by an ODD review are inextricably linked to investment-related aspects of our research, and we believe it is beneficial to conduct the research streams in tandem.

Most ODD ratings decisions are reached by consensus through the interaction of our researchers and ODD specialists. Occasionally, if there is anything non-standard around ODD or if there is any difference of opinion amongst researchers, then rating decisions are referred to an independent Global Operational Due Diligence Board, which is comprised of three senior executives from the AonHewitt organization. None of these individuals is actively involved in day-to-day research of managers (i.e., he/she is independent of the overall research process and able to take a fresh perspective), but collectively they have the operational experience and backgrounds to resolve issues and make recommendations. It is also important to note that the Global ODD Board has the power to veto any proposals brought to it by manager researchers and specialists should it see fit.

The ODD factor can be assigned a Pass, Conditional Pass, or Fail rating and can be interpreted as follows:

Pass = Our research indicates that the manager has acceptable operational controls and procedures in place

Conditional Pass – We have specific concerns that the manager needs to address within a reasonable timeframe

Fail = Our research indicates that the manager has critical operational weaknesses, and we recommend that clients formally review the appointment

An overall product rating is then derived from the individual ratings. We do not assign a fixed weight to each criterion to establish the overall rating; instead we consider each case individually.

The overall rating score can be interpreted as follows:

Sell = We recommend termination of the

Hold = We recommend the product be maintained

Buy = We recommend purchase of the product

The overall ratings mentioned above consider numerous factors, but the three main areas include: organization, investment process, and performance. Product ratings are discussed and vetted with the entire research team before an official rating is determined. These "official" ratings are shared with our clients in the form of our InBrief, InProfile, and InTotal reports.

Please see the Appendix for a sample manger research InTotal report and ODD Report.

B. Performance Measurement

- Describe the content, format, and method of delivery of the quarterly performance reports you will prepare for PSERS. Include:
 - a) Data and method used to calculate total return before and after fees. Please identify which criteria in your methodology can be customized by client preference. PSERS, PSERS' custodian bank, investment managers, and/or fund administrators will supply a monthly portfolio asset list with accrual market values for marketable securities. PSERS' will supply quarterly portfolio market values and cash flow data for real estate, venture capital, and private equity investments.

Please indicate whether you use your own pricing sources and describe how you will investigate/resolve pricing errors in the custodian bank's asset list. Describe how you handle pricing for derivative investments. Identify your pricing sources and hierarchy by asset class.

- b) Time periods for which total returns can be calculated.
- c) Standard indices, custom indices, and benchmarks you will use for comparison.
- d) Total population of funds and public pension funds (including a large fund subset) you will use for universe comparisons.
- e) Characteristics you will compare.
- f) Breakdown of PSERS' fund market value.
- g) Market conditions.

For performance reporting, we utilize a combination of proprietary and third party systems. We have the capability to provide net and gross performance at the individual fund level, and we can also aggregate performance for total fund, total asset class composite performance (e.g., total U.S. equity composite performance), or any other custom aggregate a client requests. We can calculate performance for any time period desired. Our typical report includes quarterly, YTD, FYTD, and annualized 1,3,5,7 and 10 year periods. Customized Since Inception and other periods can be calculated as well upon client request.

Our systems are able to receive custodial data feeds from most custodians, incorporating clients' monthly transactions and market values. In addition to client data, our databases include extensive index, mutual fund, separate account, and commingled fund performance and fee information. Our analysts can combine and weight various indices into custom blends, and they can also load external data, such as client performance from prior consultants.

Finally, we are able to provide robust attribution, which we generally include in our quarterly reports. Similar to performance, we are able to aggregate and disaggregate funds for attribution purposes according to each client's needs. Attribution can be run against any benchmark or blend of benchmarks.

With regard to performance measurement, we use the following tools to evaluate total portfolio performance:

Policy Benchmark. The policy benchmark is a passive representation of the fund's policy allocation among broad asset classes. We view this as the best policy-neutral tool to evaluate decisions regarding active managers, program structure, and rebalancing among asset classes. We also use peer universes where applicable.

We use the following tools to evaluate investment manager performance:

- Manager Performance Analysis. For performance evaluation, we utilize both broad market indices (i.e., Dow Jones Wilshire 5000 Index) and style-specific benchmarks (i.e., Russell 1000 Growth Index). We have developed specialized analytics to determine either the single best benchmark or the optimal blend of benchmarks for each manager.
- HEK's primary tool for performance reporting is InvestmentMetrics' PARis system, which includes robust and diverse universe data. Incorporated into the system are automatic data feeds from Lipper, for mutual fund universes, and InvestmentMetrics' system eQuest for separate account and commingled funds. Lipper and eQuest feed performance and fee information into our PARis system. HEK's performance reporting team then compiles and maintains the data, which in turn, are populated into the style or peer group universes used for comparison. Our vendor also provides plan sponsor universes (corporate DB, endowment, public plan, etc.) which are composed of InvestmentMetrics clients' plans, including HEK's, along with data provided by BNY Mellon.

The PARis systems offers pure mutual fund universes broken out by asset class and style. They also offer universes including commingled funds and separate account portfolios. Aside from the mutual fund universes, all others are available on a gross or net-of-fees basis. All universes are generated monthly. They are dynamic, that is, as new data comes into the system, universes are recalculated on the fly when a user submits any type of report that requires percentile rankings. Performance for each client portfolio can be compared to its asset class and/or peers to determine its ranking. A similar procedure is followed to determine plan sponsor portfolio rankings.

The PARis system maintains universes for U.S. and international stock, U.S. and international fixed-income, and balanced funds, including all asset classes, styles and peer groups. Customized universes can be created upon request. InvestmentMetrics regularly reviews their universes to maintain their quality.

We generate and maintain more than 60 universes using our proprietary performance evaluation system. Universes are generated each quarter. Constituents are evaluated based on performance patterns, investment approach, and manager interviews. We constantly review our universes to maintain their quality.

We have included the number of products in our universe by asset class in the Appendix section of this proposal.

Comparisons to Similar Portfolios. HEK routinely provides comparisons of a client's investment manager performance relative to other clients who invest with the same manager in the same approach. This type of analysis is conducted to ensure there are no material unexplainable levels of dispersion between accounts managed with similar mandates. In addition, HEK's research analysts also periodically review externally reported dispersion data through questionnaires and regular investment manager contact.

Formal benchmark objectives are identified using the analytics described above and are agreed upon by the client and manager.

Asset class benchmarks should be the broadest possible measure of that market.

For equities, the DJ Total Stock Market or Russell 3000 Indices are used for U.S. stocks; MSCI All-Country IMI indexes are used for non-U.S. and global equities.

For fixed income, the Barclays Capital Series of Indices are used, such as the BC Aggregate, to reflect the appropriate quality and duration parameters of the fixed income strategy employed.

For private real estate, depending on portfolio construction, the industry commonly uses either the National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index (NPI) or the NCREIF Fund Index Open End Diversified Core Equity (NFI-ODCE) Index to reflect the performance of U.S. Core real estate. For non-core allocations the portfolio benchmark should be weighted to include the higher risk and return expectations of that portion of the portfolio as well. For publicly held equity real estate, depending on portfolio construction, the industry commonly uses either the National Association of Real Estate Investment Trusts (NAREIT)-Equity Index or one of the many sub-REIT indices produced by various firms such as Wilshire and MSCI.

For private equity, use Russell 3000 Index or Dow Jones Total Stock Market Index plus a spread (based on portfolio structure) as the benchmark to reflect the opportunity cost of investing in private equity. Use the Venture Economics performance index as the secondary benchmark.

Our performance reports contain plan rates of return, asset allocation, analytics, and commentary to be delivered to our clients. Our goal is to standardize the performance reporting process in order to contain costs and minimize reporting errors. That said, we have the ability and are willing to provide custom reports based on each client's needs and circumstances. Our plan is to move to a model whereby a custom Executive Summary-type report will contain the "big picture" information

Committee members need and want to see each quarter and serve as the primary deliverable presented at meetings. The performance report will contain a significant amount of data and financial characteristics of the total plan and the underlying managers and will serve as a supplement to the Executive Summary.

Performance reports provide the basis for close portfolio-level monitoring, a crucial fiduciary duty. Each quarter, the client management team will assess a myriad of diversification and performance details. These figures will be compared against the program's strategic goals and discussed in light of future plans with the client. We assess performance against one or more benchmarks to measure program returns and portfolio quality.

Our processes begin by collecting fund portfolio data, which is then recorded in performance systems. For private markets securities, we utilize a customized software system, Investran. For public markets securities, our teams use a combination of proprietary and third party systems. We have the capability to provide net and gross performance at the individual fund level, and we can also aggregate performance for total fund, total asset class composite performance (e.g., total U.S. equity composite performance), or any other custom aggregate a client requests.

We enter cash flow data into the system as it is received directly from the managers, and all data entry is verified by a second team member. Cash flow data is then reconciled with the financial statements produced by the investment managers at the end of each quarter. Any questions or discrepancies are addressed with the managers before reports are produced. This cash flow information is reconciled with custodial reports.

HEK utilizes Investment Metrics' Performance Analysis and Reporting Information System (PARis) as our primary performance reporting tool. PARis is a Windows-based desktop application supporting performance measurement, analysis, and performance. The core functions of the system include performance measurement, performance attribution, portfolio monitoring, and customized client reporting. Based on the custodial transactions, PARis calculates both net and gross performance at the fund level. In addition to PARis, we have access to resources, such as, Bloomberg, eVestment Alliance and Morningstar, to verify returns, index information and other financial data.

We typically deliver performance reports to our clients on a quarterly basis, though many of our clients receive monthly updates as well. The type of analysis included in our clients' performance reports varies significantly from client to client and can be customized. There are, however, certain analyses that are common to most of our performance evaluation reports, including:

- Calculation of the risk and return of each fund, component asset classes, and individual managers (both externally and internally managed).
- Attribution analysis which provides a summary of the relative impact of manager, asset class, benchmark, allocation, and cash flow effects on fund performance relative to the policy or benchmark. This allows us to aggregate and disaggregate total fund performance for any time period requested. Within each asset class, we can measure the specific impact of each manager

and benchmark. Non-standard asset classes and derivative positions can be incorporated into this analysis, so long as performance and market (and/or notional) values are available.

- Comparison of returns to specific agreed-upon index benchmarks—we maintain information on over 500 indices and select the appropriate ones after discussions with the client and the individual manager.
- Comparison of results to an appropriate peer universe of investment funds.
- Commentary and analysis on the reasons for individual manager and total fund performance.
- Portfolio characteristics including: sector weights, Top 10 Holdings, Price/Equity ratio, Price/Book ratio, weighted average market capitalization, yield, duration, etc.

In addition to the above, from an ongoing monitoring perspective, we report to the Board on compliance of the actual portfolio with the investment policy statement. This includes several aspects – compliance with risk budgets, compliance with asset allocation targets, utilization of managers, etc.

We have extensive capabilities with respect to performance reporting and monitoring for the alternative asset classes and have described those capabilities in detail in the alternatives portion of this proposal.

Our typical performance evaluation report includes the following:

Executive Summary

- Capital market overview
- Total fund performance
- Value added of individual managers

Fund Structure

- Asset allocation
- Investment manager structure

Investment Manager Performance and Portfolio Statistics

- Compared to market benchmarks
- Compared to "peer group" managers
- Risk vs. return analysis

- Diversification
- Sector allocation

Detailed Capital Market Environment

Broad asset class performance results (displayed graphically)

Please comment on your ability to provide draft quarterly performance reports within 3 business days following receipt of final quarter-end market values from our custodian and partnerships. Will you be able to issue final reports within 3 business days after receiving comments from PSERS on the draft? What quality control systems and procedures do you use to ensure that reports are prepared accurately and delivered on time?

Our quarterly performance reports are typically available 35-45 days following quarter end, depending on how quickly information with respect to alternative investments is available and how that information is reported (lagged/un-lagged basis). In some cases, we prepare reports earlier than 35 days for clients with earlier review meetings. In these cases, some data such as select universe information is not included as universes typically become available after the 35th calendar day. While we would endeavor to provide you with a monthly performance flash report (performance only) within three business days after the finalization of market values, we would like to have a more detailed discussion on the nature and scope of the report, the level of detail as it relates to underlying investments within each asset class, etc. before we are able to confirm that we will be able to meet the deadline. Ultimately, accuracy and completeness of information is most critical. We want to make sure that we are able to meet that objective in the defined timeframe.

As we noted, accuracy is of paramount importance. As such, we have many quality controls in place to promote and ensure the accuracy of all client data and reports.

The first step is rigorous training of our employees and documentation of our processes related to client reporting. All of our analysts and consulting managers receive thorough training and supervision.

Next, we ensure accuracy in our investment returns calculations in two primary ways. First, for all manager portfolios, we reconcile the returns reported by the manager with those that we calculate or those calculated by the custodian. We also perform a weighted-average return check that serves to make sure that the returns reported for the managers and the asset classes fit with the total fund return. These two processes are done for each month of the year, on a quarterly basis. The data for all client reports goes through a "data check," where an analyst not assigned to the client reviews the data for reasonableness and consistency.

When possible, we use electronic feeds from data providers (custodians, index fund data

providers, Morningstar, etc.) to reduce the possibility of data entry error. When data is uploaded into our systems, either manually or through electronic feeds, we perform a quality assurance review to make sure no mistakes have been made. In addition, all third-party data providers are expected to have well-articulated policies for maintaining data integrity and we evaluate these policies before deciding to commit to a service provider.

After our reports have been generated, they go through an internal quality control process, where a consultant not assigned to the client team reviews the report for accuracy and reasonableness. The consulting manager assigned to each client relationship is ultimately responsible for the quality and accuracy.

Provide sample quarterly pension fund performance reports.

We have provided a sample monthly and quarterly performance report under separate cover.

2. Describe in detail the performance measurement attribution and analysis service you propose to provide for PSERS. Note its usefulness for PSERS. Provide sample reports.

Our reporting platform, Investment Metrics' Performance Analysis and Reporting Information System (PARis), performs attribution at the total fund, asset class, and underlying manager level. This is a traditional attribution analysis that focuses on the impact of asset allocation and security selection decisions on performance. Additionally, we utilize specialized software to assess risk and perform attribution across various asset classes including:

PerTrac

PerTrac is an analytical tool which calculates performance and risk statistics, separate performance by market conditions, while comparing the fund to relevant benchmarks. The output from PerTrac is used to produce a client-ready report format which includes a variety of information that can be used to analyze the historical risk and returns of fund products.

EurekaHedge

EurekaHedge is a global database that tracks over 7,500 funds, including 2,400 funds of hedge funds. Users have access to nine different databases of hedge funds based upon strategy and region. Advanced searches can be conducted across many fund characteristics in each of these databases. Users have access to an abundance of quantitative and qualitative data fields. Data is viewable via the web, as well as an option to export all data into excel or PerTrac. Users can access monthly top 10 tables based upon most fund characteristics, as well as monthly commentary and newsletters. EurekaHedge constructs indices based upon strategy, region, and fund size and provides historical data on all of these.

Investran

Investran™ is a highly customizable alternative asset class tracking system. It's a system that provides fully integrated investment management, reporting, and client relations. We have 3000+ partnerships in our manager search database, plus ten years of useable performance data.

Barclays Capital POINT

Barclays Capital POINT ("POINT") is a global multi-asset portfolio holdings analysis platform that provides risk and performance attribution from a top-down portfolio level through to a bottom-up security level. POINT is well known for its extensive coverage of major fixed income markets. Its multi-factor risk model calculates and projects a range of statistics to help better understand the risk in client portfolios e.g. tracking error, duration, value-at-risk statistics. Point enables us to create sets of scenarios (in single or multiple dimensions) to estimate expected losses if such scenarios were to happen. This can be done for single manager portfolios or by aggregating a client's entire book.

FinAnalytica's Cognity Risk System

Cognity is a multi-asset multi-factor risk system that focuses on tail risk analysis, both returns and holdings-based. The system allows us to produce traditional in-depth analysis of style such as Value, Growth, Volatility, Size and Momentum for equity portfolios, which can be extended further to incorporate analysis of sensitivity to Regions, Sectors and Economic factors. Cognity's main strength is risk attribution – decomposition of risk into a set of pre-defined factors.

While traditional models assume Normal distribution of events, Cognity enables us to take account of the distortions in the distribution. The system, in our view, is therefore able to better capture these extreme (or tail) events and report them in a concise and easy to understand way. In addition, the model is capable of splitting the extreme's into Expected Tail Loss (Worst Case) and Expected Tail Return (Best case) Scenarios. This gives us insight to how portfolios are positioned and gauge the upside potential of a portfolio of assets vs. the downside.

We have included a sample performance report under separate cover.

- Describe the content, format, and method of delivery of the monthly performance reports you
 will prepare for PSERS and its advisors. The monthly reports will include only the public
 market portfolios and composites and will exclude the private market portfolios.
 - a) Data and method used to calculate total return before and after fees. Please identify which criteria in your methodology can be customized by client preference. PSERS' custodian bank, investment managers and/or fund administrators will supply a monthly portfolio asset list with accrual market values for marketable securities.

Please indicate whether you use your own pricing sources and describe how you will investigate/resolve pricing errors in the custodian bank's asset list. Describe how you handle pricing for derivative investments.

- b) Time periods for which total returns can be calculated.
- c) Standard indices, custom indices, and benchmarks you will use for comparison.
- d) Total population of funds and public pension funds (including a large fund subset) you will use for universe comparisons.

e) Characteristics you will compare.

Please comment on your ability to provide draft monthly performance reports within 3 business days following receipt of final month-end market values from our custodian. Will you be able to issue final reports within 3 business days after receiving comments from PSERS on the draft? What quality control systems and procedures do you use to ensure that reports are prepared accurately and delivered on time?

Provide sample monthly pension fund performance reports by asset class.

Please refer to our answer to the previous questions #1 and #2.

We have provided a sample quarterly performance report under separate cover.

 Describe in detail the PC-based or Internet-based fund management and consulting tools that your firm will provide. Provide sample reports. NOTE: PSERS may require a demonstration of such tools.

HEK is currently developing a state of the art client portal that will allow clients to access quarterly performance reports, investment policy statements, research, special client reports, analytical tools and other industry links. This client portal will serve as electronic filing cabinets and fulfill green technology mandates of some of our clients. Meanwhile, it is the role of the client team to fulfill any and all information needs of the PSERS Board and Staff. We can make several of our analytical tools available to clients on their desktops since most of them are excel based tools. We've described below some of the tools that we make available to clients and their features.

Benchmark Risk Model

The Benchmark Risk Model, an analytical tool that allows clients to examine the sources of the risk they take relative to their policy benchmarks, and reconcile those risks with their expectations for value added. The basic output of the model at the total fund level contrasts individual managers' contributions to risk with their allocations within the portfolio. Numerous other analysis modules are available, including comparisons of total benchmark risk with a universe of HEK clients and an interactive capability allowing clients to test the effects of changes to portfolio structure in real time.

Rebalancing Model

The Rebalancing Model is a proprietary tool that we had developed internally to assess a number of alternative rebalancing strategies for their ability to control risk while limiting cost, using a historical simulation analysis. The model is custom-built and will be tailored to suit individual client needs.

Currency Hedge Ratio Model

We continue to work with clients in evaluating their need to establish a hedge ratio. To date, our work in this area has been largely focused on those clients who possess significant non-home currency bias (e.g., non-US based clients). Through these discussions we assist our clients in assessing the merits and costs of hedging (and assessing "regret") to establish an appropriate hedge ratio. Our

work in this area is rapidly expanding as more of our clients adopt a full global equity policy allocation and they are increasing their focus away from a home currency bias.

In addition, the ability to selectively offset foreign currency risk through hedging can be important to any globally diversified investment program. Practically speaking, it is impossible to implement currency hedging without the use of derivatives. Foreign currency forward, futures, options, and swaps contracts can all be valuable tools to a portfolio manager seeking to control currency exposure. In the case of non-exchange-traded (OTC) derivatives, managers should be required to minimize counterparty risk through the use of multiple AAA-rated dealers.

Style Research and BondEdge

We use Style Research for stock portfolios and BondEdge for bond portfolios. These programs allow us to identify managers' active positions at a specific point in time and to understand the size of risk positions risk relative to a market benchmark. BondEdge further allows us to stress-test a fixed income portfolio's performance under a variety of different interest rate and credit spread scenarios.

MeasuRisk

MeasuRisk provides details on the risk exposures of commodity and hedge fund products. The fund's prime broker provides positions to a software system which is able to track the risk exposures of single funds or an entire fund program, allowing users to understand the interaction of different investments on portfolio risk. This system provides the analysts the ability to calculate value-at-risk, as well as understand the risk to the fund during a variety of scenarios from historically extreme market events.

5. Provide sample reports by asset class depicting investment and risk exposures, and note their usefulness for PSERS.

We have provided a sample Risk Dashboard in the Appendix section of this proposal.

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A. Please discuss the appropriate role(s) of risk management in administration of investments for a public pension plan such as PSERS. Specify criteria that should be measured and analyzed, and the appropriate role(s) of the Board, staff, and consultant in measuring and analyzing the risk criteria. How does this relate to your views on the separation of alpha from beta?

There is no single definition of risk with respect to public pension investment programs.

A number of risks will undoubtedly manifest themselves in public pension investment programs. For instance, there are governance and policy issues, risk of an inappropriate asset allocation relative to the underlying liabilities, and operational risks. We divide up the issue of risk management within an investment organization between investment and non-investment risk. Each of these broad categories has more detailed risk issues that are specific to each individual circumstance. A strong risk management orientation permeates all the advice we provide our clients.

With respect to investment risk, we focus on various risks over the short-term, medium-term and the long-term. The primary long-term risk for a pension plan is the risk that assets of the plan do not grow with liabilities. It is important to take risks to generate returns. This risk is primarily addressed through the asset/liability and asset allocation process to ensure that the right level of risk (fund's overall risk posture) and that the right types of risks (investment strategy, risk budgeting and contribution of risk from various asset classes) are taken that will be rewarded and help the plan meet its objectives.

With respect to shorter term investment risks, we refer to issues relating to portfolio structure and implementation. These risks are addressed by the design of the investment strategy within each asset class, the active risk budgeting exercise, asset allocation compliance, etc. Ongoing monitoring and periodic assessment of the continuing suitability of managers, asset allocation, and overall asset/liability relationship all contribute to identifying, quantifying and monitoring risk.

The table below lists the key risks applicable to public pension funds and ways to manage or control for these risks.

Types of Risk	Time Horizon	Risk Management Tools and Controls
Return Shortfall	Long Term	Investment policy
 Assets do not grow with liabilities 	(10+ years)	
 Investment return & contribution 		
less than liability growth		
Liquidity	Short to	Funding policy
Cannot liquidate assets efficiently	Medium Term	Benefit accruals
to meet needs	(<5 years)	Use of Illiquid investments
Lose control of asset allocation		Scenario analysis
[기를 통신하는 이 조토를 모든 11] 기계인		Monitoring

nvestment	Short to	Investment policy statement
Asset allocation (policy)	Medium	static/dynamic
Investment structure	Term	- asset allocation
Manager selection	(<5 years)	rebalancing
Rebalancing		 manager guidelines
Scenario (or path risk)		- monitoring/roles &
Factor		responsibilities
		Risk budgeting
		 Monitoring/dashboards
		Medium term views
		 Regression and scenario analysis

With respect to non-investment risks, we focus on aspects such as fiduciary and governance processes. HEK is the <u>only</u> investment consulting firm with a dedicated Fiduciary Services practice. The Fiduciary Services practice is co-led by Nancy Williams and Jeanna Cullins, who are both attorneys. Our dedicated fiduciary services team assists our clients on fiduciary audits and governance reviews and has experience with state investment boards, public retirement systems, and sovereign wealth funds in the U.S. and abroad.

In assessing risk, HEK evaluates the entire risk spectrum across an investment program ranging from the total portfolio to the underlying investment managers.

Total Fund

At the aggregate portfolio level, the asset allocation outlines the fund's overall risk posture. We believe it is important to test the asset allocation relative to the market environment on an ongoing basis to ensure that the asset allocation performs as we would have expected for it to perform in that environment. This type of analysis is more customized in that it requires a decomposition of returns of the components of the portfolios to ensure that underlying components performed as would have been expected in an environment and that impact on total fund performance and risk is consistent with ex-ante expectations.

With respect to both the asset allocation and implementation of the asset allocation, we analyze the realized risk/return profile of the fund relative to its benchmark and compare them to ex-ante expectations.

At the aggregate portfolio level, we also conduct factor risk analysis, which is an alternative to traditional asset allocation and risk analysis. Factor risk analysis allows attribution of risk to common factors and allows funds to adjust exposures in response to investment objectives. Exposures to underlying economic factors can be identified both on absolute and benchmark-relative basis. Factor risk analysis provides the ability to take control of the portfolio's exposure to economic factors and adjust exposures depending on both long- and medium-term views. Such analysis can also be conducted at the asset class level and the underlying investment manager level.

Asset Class

At the asset class level, we believe that a portfolio structure that focuses on diversification of assets, result in unbiased investment characteristics relative to their respective markets, and is cost efficient, increasing the likelihood of attaining a fund's investment objectives and mitigates risk.

On an ongoing basis we review clients' portfolio structure to ensure that implementation remains true to stated goals. For instance, does an equity portfolio have an unintended bias to emerging markets, what is the risk of this position, what corrective actions should be taken, etc. We seek to ensure that the risks being taken in implementation are deliberate (or intended) and measure and manage those risks.

We continually monitor portfolio structure in the context of the market environment and provide guidance on risk management and opportunities. For instance, in late 2008 when credit spreads widened by historical levels, for clients implementing long duration fixed income strategies, we recommended overweighting credit at the expense of Treasuries, which was implemented by their fixed income managers.

Additionally, we utilize our active risk modeling process. Our active risk model allows clients to evaluate the portfolio and its components with traditional risk measurements, including standard deviation and tracking error. This analytical tool allows clients to examine the sources of the risk they take relative to their policy benchmarks, and reconcile those risks with their expectations for value added. The objective of the model is to derive a point-in-time estimate of risk exposure, and then to make forward-looking decisions accordingly.

Below, we describe some of our tools that underlie our approaches to examining risk at the total fund and asset class level:

- Asset/Liability Model: We conduct asset/liability modeling using an integrated Monte Carlo simulation. By working closely with a client's actuary and using a client's flability assumptions, we are able to move beyond the basic mean/variance framework that is commonplace with asset allocation studies. The asset/liability simulation allows us to translate these general types of capital market risk and return assumptions into a framework that uses plan cost and/or plan funded status as the key measured variable:
 - Reward, which means lower ultimate cost and/or higher funded ratios
 - Risk, which is the potential for unpleasant surprises in cost or funded status results

We employ a customized approach in which different cost measures and timeframes can be analyzed to fully explore the risk/reward landscape of any specific plan. This asset/liability framework allows our clients to fully understand the inherent risk of their investment program.

Asset Allocation Model: A proprietary model is used in asset allocation studies and evaluates
various asset classes and asset mix alternatives from an expected risk/return perspective. This

model identifies "efficient portfolios" (i.e., portfolios with the highest expected return for their respective levels of expected risk). Incorporated into the model's analyses are capital market assumptions and efficient frontier analysis parameters. External capital market views can be incorporated into assumptions to complement internal views.

HEK Active Risk Model: This is an analytical tool that allows clients to examine the sources of the risk they take relative to their policy benchmarks, and reconcile those risks with their expectations for value added. The objective of the model is to derive a point-in-time estimate of risk exposure, and then to make forward-looking decisions accordingly. The model is forwardlooking and focuses on "implementation" risk. In other words, the model assumes that asset allocation policy is set and given.

Investment Manager

At the investment manager level, we monitor risk by reviewing manager performance on a quarterly basis, which includes analyzing the consistency of track record with the manager's investment approach and manager performance during different market environments. We also use a variety of statistical measures to monitor manager risk including rolling tracking error calculations, absolute and relative performance comparisons, upside and downside capture ratios, understanding the manager's portfolio construction and risk control methodologies, and reviewing historical attribution. Our performance analysis also includes reviewing data from the investment manager on holdings and transactions information. This allows the research analysts to track and analyze portfolio management decisions and the consistency of the investment approach. The Global Investment Management team utilizes both external and internal (proprietary) systems when analyzing performance data.

We use returns and holdings-based style analysis to attribute manager performance to combinations of market factors and security selection. Because we believe attribution to be a useful performance evaluation tool, we include total fund and asset class attribution data in our quarterly performance reports. We present this information in graphical form that makes its interpretation extremely straightforward.

We also have access to third-party proprietary software (Style Research and CMS Bond Edge) to perform holdings-based style analysis for equity and fixed income portfolios as well as other risk monitoring tools noted below.

- MeasuRisk. MeasuRisk provides details on the risk exposures of commodity and hedge fund products. The fund's prime broker provides positions to a software system which is able to track the risk exposures of single funds or an entire fund program, allowing users to understand the interaction of different investments on portfolio risk. This system provides HEK analysts the ability to calculate value-at-risk, as well as understand the risk to the fund during a variety of scenarios from historically extreme market events.
- PerTrac. PerTrac is an analytical tool which calculates performance and risk statistics, separate
 performance by market conditions, while comparing the fund to relevant benchmarks. The output

from PerTrac is used to produce a client-ready report format which includes a variety of information that can be used to analyze the historical risk and returns of fund products.

- EurekaHedge. EurekaHedge is a global database that tracks over 7,500 funds, including 2,400 funds of hedge funds. Users have access to nine different databases of hedge funds based upon strategy and region. Advanced searches can be conducted across many fund characteristics in each of these databases. Users have access to an abundance of quantitative and qualitative data fields. Data is viewable via the web, as well as an option to export all data into excel or PerTrac. Users can access monthly top 10 tables based upon most fund characteristics, as well as monthly commentary and newsletters. EurekaHedge constructs indices based upon strategy, region, and fund size and provides historical data on all of these.
- Investran. Investran™ is a highly customizable alternative asset class tracking system. It's a system that provides fully integrated investment management, reporting, and client relations. We have 3000+ partnerships in our manager search database, plus ten years of useable performance data.

In addition to standard risk metrics, some of those specific other risk analysis we conduct on alternative portfolios include:

- Beta: We carefully monitor hedge fund exposure to a number of market "betas" notably, S&P 500, Barclays Aggregate, VIX as we do not want a hedge fund to exhibit consistent long-biased market exposure because we do not want our clients to pay hedge fund fees for beta.
- Correlation: The focus is on correlations to indices of broad asset classes, market segments, and other managers within a total fund portfolio.
- Value-at Risk: We look to Value-at-Risk (VaR) as one measure of the risk of loss. We typically look at 95% VaR as a starting point, but we are able to modify to any custom confidence level instantaneously. We also view Modified VaR, which is the diversification benefit given by the change in VaR as a result of an additional allocation of funds to a particular portfolio component, component VaR, which is the contribution to total risk where the portfolio components sum to 100%, and conditional VaR, which encompasses tail risk beyond the specified confidence level, as essential to a comprehensive risk budgeting approach to portfolio construction.
- Skewness & Kurtosis: Skewness & Kurtosis are measures of return distributions. Many hedge
 funds exhibit negative skewness and high kurtosis which is an unfavorable return profile because
 it means that the probability and speed of losses is higher than when returns are normally
 distributed.

We have included a sample of a risk report in the Appendix to this proposal.

B. Please discuss your views on the appropriateness of either passively managed portfolios, actively managed portfolios, or a combination of both actively and passively managed portfolios, by asset class. What important factors must be considered by a pension fund such as PSERS in order to determine which of these approaches is likely to be most beneficial?

Active Versus Passive

We believe that the relative efficiency of markets, cost, and risk control considerations should determine the role of passive management in an investment program. The use of any active management within an investment program introduces benchmark risk (risk that performance of the fund/asset class may fall short of the stated benchmark). Our philosophy is that the degree of benchmark risk that an investor assumes should be directly proportional to one's level of confidence that this risk will be compensated for in the form of excess returns relative to the benchmark. Clients have varying degrees of risk tolerance and so varying allocations to passive management. We believe that risk control is important in all aspects of an investment program, but especially so in those markets that exhibit a high degree of operational efficiency.

The U.S. equity market offers perhaps the most striking example of an operationally efficient market. Because strong evidence exists that on average active management in this asset class is unlikely to result in value added, we recommend that a significant portion of a client's U.S. equity portfolio be indexed with a broad market. Clients that establish a core passive position in the U.S. equity market can then seek out exceptional active managers to complete the portfolio. This results in a cost-effective, risk controlled portfolio that allows for potential value added.

Similar to U.S. active management, we believe non-U.S. managers must be of an excellent caliber in order to consistently add value. Historically, it appeared that astute active managers were able to create portfolios that exhibited greater risk/return efficiency than a passive index. However, more recently, with the reconstruction of international indexes, passive benchmarks have proven to be a tougher bogey to beat. A number of our clients have chosen to allocate a portion of their non-U.S. equity assets to index funds in order to provide both risk control and cost reduction. Similar to building U.S. equity portfolios, several of our clients seek to build core passive positions, supplemented by unique, compelling active managers that provide the potential for value added.

When speaking of the bond market, we consider the role that fixed income plays within a total fund context: total return on liability support. Total return institutional investors tend to fall into two camps: those that view bonds merely as a way of reducing common stock risk and those that view bonds as a potential source of added value relative to a benchmark. Our recent research has indicated that it is difficult for active bond managers to add value over time. However, there are two arguments that support active management of bonds. First, not all segments of the bond market are included in the major bond indexes; and secondly, fixed income markets tend to be somewhat segmented and no market index adequately captures the full range of opportunities available to active managers. Therefore, active managers, and particularly "core-plus" managers, can add value.

C. For each asset class specified below, identify the role you see it playing in a large pension fund today and in the future, and identify form (e.g, separate account, derivative) of investments (if any) you feel are prudent.

Broadly speaking, the decision of how much risk to take in an investment program defines the allocation between what we consider to be return-seeking or growth assets and risk-mitigating or safety assets. Within this construct, the asset allocation exercise focuses on allocating optimally within the two broad components. The table below outlines the broad asset allocation tool-kit we utilize and the characteristics associated with different asset classes.

Asset Allocation Toolkit

Growth				Safety
Equity Returns	Diversifying Returns	Skill		Part 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Public Equity ■ Global Public Equity	Diversifying Assets Credit - High Yield - EMD - Bank Loans Commodities Public Real Estate Core Private Real Estate	Long-Term Assets Non-Core Private Real Estate Private Equity Infrastructure Timberland Farmland	Liquid Alternatives Hedge Funds Credit Basket	Risk Reducing Assets Investment Grade Fixed Income Cash

1) Real Estate

We recommend allocating real estate across both public and private markets and within the private markets across both core and non-core investments. In addition to the ability for core real estate to provide a degree of inflation hedging, it typically serves as a diversifier to other major asset classes within the growth or return-seeking portfolio. Core real estate provides the beta of the real estate asset class. We consider non-core real estate investments, including opportunistic real estate, as a long-term, skill-based investment focused on generating excess return. The vehicle type ultimately depends on the size of the allocation. Given the size of PSERS' portfolio and the allocation to real estate, we believe that real estate could be implemented through a combination of separate accounts and funds.

2) Commodities

Commodities have historically had a low correlation of returns as compared to stocks and bonds and offer a hedge against inflation. We utilize commodities as a diversifying allocation within the return-seeking/growth portion of the portfolio. We tend to favor unconstrained strategies that have the ability to take long and short positions across the broad commodities complex. A vast majority of managers that we utilize tend to utilize derivatives to implement their strategies, although a select few will opportunistically also hold/trade physical commodities. A vast majority of commodity strategies are offered in commingled fund formats, although separate accounts can be utilized for larger mandates.

3) Infrastructure

We consider infrastructure to be a long-term, skill-based asset class. Depending on the geography and type of infrastructure investments, we see infrastructure providing a range of attributes to a portfolio, such as, inflation hedging, attractive return stream. A vast majority of infrastructure investments are available in a commingled fund formats (limited partnership vehicles similar to private equity), although separate accounts can be utilize for large allocations or in the case of co-investments.

4) Hedge Funds

We consider hedge funds to be a liquid, skill-based investment. The hedge fund allocation can provide various attributes to an investment portfolio depending on the composition of underlying strategies. These include: diversification; steady, absolute return stream, uncorrelated return stream to traditional investments, etc.

5) Alternative (e.g., venture capital, private equity, private debt)

We consider the broad spectrum of private investments – across venture capital, growth capital, private equity, and debt – to be long-term, skill-based asset classes focused on generating an attractive return profile to meet a fund's long-term objectives. A vast majority of infrastructure investments are available in a commingled fund formats (limited partnership vehicles similar), although separate accounts can be utilize for very large allocations or in the case of co-investments.

6) Risk Parity

Risk Parity strategies offer a potential diversifier to a traditional portfolio, to the extent that their performance is driven mostly by factors that are less emphasized in the remainder of a fund's total asset allocation strategy. Their equity risk-light approach may appeal to those skeptical about stocks. They offer a way to access skill in risk analysis and forecasting from some leading investment managers—and increasingly, they simply offer those firms' traditional active management skill. And they are generally still available at reasonable fee levels. Such strategies

are typically implemented utilizing derivatives. We view risk-parity strategies as a skill-based, liquid alternative within the overall growth portfolio.

7) Master Limited Partnerships

We consider MLPs to be a diversifying asset within the return-seeking portfolio that offers inflation hedging and an attractive return stream with a high degree of current income. The allocation can be implemented utilizing both separate accounts and fund vehicles.

D. What do you see as being the most significant changes that will be occurring in asset allocation for pension funds over the next 10 years? Please comment.

HEK believes that we will continue to experience the volatile capital market environment that we have experienced recently over the foreseeable future primarily attributable to the global, macro-economic environment. Risks include: uncertainty around monetary and fiscal policy; cleansing of the financial and banking system, especially in Europe; continued de-leveraging both at the consumer and the national level; risk of inflation in emerging economies and uncertainty surrounding whether emerging economies can support global growth.

But with risks also come opportunities. We believe that investors that have maintained a disciplined investment strategy and a robust risk orientation, but are also nimble to take advantage of these opportunities will be more successful. Creating a framework to take advantage of market opportunities – for instance, distressed credit opportunities in Europe – and/or hedging market risks – for instance, hedging against the risk of rising rates with floating rate strategies or shortening duration – would be one way to be nimble and pursue opportunities that do not fit neatly within a stated asset allocation. Many of our clients have created Opportunity Funds for this reason.

We believe that alternatives can play a meaningful role in enhancing returns and/or improving diversification. However, modest allocation to alternative asset classes is unlikely to add value. We believe that investors that seek to pursue alternatives should do so with conviction and allocate a meaningful portion of their assets to these categories in order for such categories to have a meaningful impact.

We believe being thoughtful about how investors spend their active management risk and fees will be a key driver of success. Active management in traditional asset classes, especially equities, can be challenging and is not often justified by fees paid. We focus our attention on taking active risk in areas we believe will be best rewarded and focusing fee dollars incurred in such areas.

With respect to alternative investments, from a risk standpoint, we believe investors are focusing on a greater understanding of cross-asset class exposures. In the past it was common to structure asset class "silos" without regards to any cross exposures. Today, ignoring the stock and bond exposures inherent in your hedge fund (and, potentially, private equity and real estate) asset classes will result in poor risk management. Similarly, not realizing that investments such as "distressed debt" plays into several asset classes, will result in a portfolio that can be materially biased towards such exposures.

Along these lines, clearer recognition of what is alpha and what is beta is going to be critical. Hedge funds have made good money historically passing beta off as alpha. We see better recognition of these two as an asset allocation trend.

E. Disclose all services provided and compensation received (including the sources of such compensation, whether direct or indirect) between your firm and investment managers, plan officials, beneficiaries, sponsors, and/or others as required by Standard 2b of the Investment Management Consultants Association Standards of Practice.

None.

F. Describe any business relationships that you or any of your affiliates have had within the past two years with the Commonwealth of Pennsylvania or with members of PSERS' Board or staff.

None.

G. State whether you, any of your principals, or any other affiliates have any business involvements that could be viewed as potential conflicts of interest.

None.

H. Provide a copy of your current Code of Ethics adopted pursuant to 204A-1 of the Advisers Act.

We have provided a copy of the firm's Code of Ethics in the Appendix section of this proposal.

I. What procedures and written policies do you have to reduce/eliminate any conflict of interest that could occur between investment managers and plan sponsors?

A key focus of our investment manager due diligence is independence. Our reviews include a thorough analysis of revenue sources, lines of business, and affiliates to determine if there are influences on an investment management team's decision making processes that would work against our clients' interests. HEK's reviews and strategy rankings take these findings into account, and we will not recommend funds or firms where we are not confident of the alignment of a firm and investment management team's goals and the goals of our clients.

J. Please state clearly whether your firm has any current tax issues or disputes with the Commonwealth of Pennsylvania (PSERS would be unable to execute a contract with your firm until these circumstances were resolved).

The firm does not have any current tax issues or disputes with the Commonwealth of Pennsylvania.

References. List five current pension fund clients as references. For each reference, include client name, name of contact person, address, telephone number, asset value of client, services the client uses, and number of years the client retained the firm. The client should have funds of similar size and complexity to PSERS and you should be providing services similar to those proposed for PSERS. PSERS intends to contact the references.

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Work Plan. Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in Part IV of this RFP as your reference point. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Indicate the number of person hours allocated to each task. Include a Program Evaluation and Review Technique (PERT) or similar type display, time related, showing each event. If more than one approach is apparent, comment on why you chose this approach.

HEK will provide all the consulting services outlined in Part IV of the RFP. Below is a description of the tasks we anticipate completing as part of the engagement. We have also included a Gant chart depicting all of the tasks outlined in Part IV which is included after our narrative response.

- A. In providing Consulting Services for PSERS' Fund, and for all major asset classes, the consultant will:
 - conduct a comprehensive review and analysis of investment objectives, policies, asset allocation, and portfolio structure, and recommend changes, if appropriate, by February 28, 2014.

At the beginning of our engagement, HEK will conduct an investment policy and structure review of the PSERS program. This analysis is separate from an evaluation of the asset allocation policy which will be evaluated as part of the asset liability study outlined below in item 3. As part of this analysis we will review each major asset class investment structure with a focus on asset class coverage, overlap of investment managers, active risk employed in each composite. As part of this analysis we will conduct holdings based analysis on all public equity portions of the portfolio as well as an analysis of the portfolio risk of each composite and the total PSERS portfolio.

As part of this review we will identify any potential manager issues that may need further evaluation as well as evaluate the active/passive allocation and provide a benchmark evaluation for both the composites and the individual mangers. Lastly, we will provide a thorough review of the current PSERS Investment Policy statement.

An estimate of the total person hours is 400 hours.

 review the adequacy of the Board's investment staff and resources, and make recommendations on the Board's investment staff and resource changes, if any, by February 28, 2014.

We will begin our review of the Board's investment staff and resources by conducting a series of in person interview of all the staff to determine their roles, responsibilities and processes. We will leverage members of both our Fiduciary Services team and Global Investment Manger Research team (GIM) to conduct these interviews and evaluations. Once these interviews are complete, we will prepare our report with recommendations that will highlight any potential areas of potential risk in such areas as the size of staff, skill of staff, and strength of processes.

An estimate of the total person hours is 160 hours.

 work with Staff and the actuary to conduct an asset/liability study annually for each calendar year and present the results to the Board in March of the following year starting March 2014.

At the outset of our engagement with PSERS, we will undergo a thorough review of the asset allocation policy as part of a full asset liability study. As part of this study we will work with PSERS' actuary Buck Consultants to obtain all of the necessary actuarial information utilized in their annual valuation. We will load this information into our actuarial modeling soft-ware and conduct a complete asset/liability study as described in our technical proposal.

An estimate of the total person hours is 150 hours.

4) work with Staff to develop an appropriate investment management structure for the System and each asset class that considers the role of active versus passive strategies, investment management styles, and separation of alpha from beta under different market conditions.

This analysis will be conducted as part of the investment structure review outlined in item 1.

5) recommend appropriate performance benchmarks for individual portfolios, each asset class, and for the total fund.

This analysis will be conducted as part of the investment structure review outlined in item 1.

 review and make recommendations regarding individual portfolio guidelines at least annually.

HEK will conduct a review of all the individual portfolio guidelines as part of our initial review of the PSERS investment structure. We will complete this first review by February 28, 2014 as requested. As part of this review, we will review the appropriateness of benchmarks, investment expectations and specific guideline constraints to ensure consistency with the investment mandate, our understanding of the manger's capabilities, risk tolerance and industry standards. This review will exclude all alternative (hedge fund, private equity and real estate) investment mandates.

An estimate of the total person hours is 180 hours.

- 7) recommend suitable investment opportunities and practical implementation methods.
- 8) recommend appropriate investment strategies, tactics, procedures, and practices.
- 9) provide research reports on asset allocation, investment issues, and description and evaluation of alternative approaches.
- 10) provide information on market conditions and explain their impact on PSERS' investments.

Items 7-10 listed above are included as part of on-going retainer relationship. HEK will provide staff and the Board with our best thinking on new investment opportunities as they are identifies as well as provide advice on the best way to implement these investment ideas.

PSERS will receive all of our research reports on asset allocation, capital market assumptions, new investment ideas, etc. In addition, HEK provides insights regarding the current market conditions on a regular basis. PSERS will receive all HEK's research pieces on the market environment.

Access to this research is continuous and ongoing, therefore we are unable to provide an estimate as to the person hours associated with these items.

- 11) assist PSERS' staff in conducting public market investment manager searches and facilitate the hiring of suitable institutional quality managers, including:
 - a. providing a list of potential institutional quality managers appropriate for the mandate being considered;
 - b. conducting interviews with potential managers at PSERS;
 - c. conducting on-site due diligence meetings with potential managers prior to their selection; and
 - d. providing assistance with the contract/fee negotiations.

HEK will provide the PSERS' staff with assistance in conducting public market investment managers searches as outlined above. As part of our search process we the investment consulting team with work with HEK's GIM team to identify potential investment manager candidates for either new public market investment mandates or as replacements to existing investment mandates. As part of our manager research and rating process, GIM conducts on-site due diligence meetings. Our GIM and investment consulting team will assist PSERS staff with the interviewing and contract/fee negotiations of the firms identifies as finalist candidates for a search.

Manager searches are an on-going service HEK anticipates conducting with PSERS staff throughout the term of the investment consulting contract. An estimate of the total person hours associated with a typical investment manager search is 50-75 hours.

- 12) provide on-going monitoring and oversight reports for all of PSERS' public market investment managers, including:
 - analysis of the manager's absolute and relative performance in relation to benchmarks, investment objectives, and peer groups;
 - b. an analysis of attribution, holdings, style, and risk;
 - updated research on each investment manager in PSERS' portfolio updated at least once every 18 months to include a review of investment performance, process, and the manager's organization;
 - d. conduct on-site due diligence meetings with current investment managers a minimum of every three years; and
 - e. advice on manager retention/termination and assist in developing a formal manager review process.

HEK will provide on-going monitoring and manager due diligence on all of PSERS public market investment managers. On a quarterly basis, HEK conducts performance analysis of all current investment managers which includes performance comparisons versus peers and benchmarks. As part of our manager due diligence process we do conduct performance attribution analysis and holdings based analytics. HEK will provide PSERS with our manager due diligence InTotal report on all investment managers. These reports are updated every 18 months and include HEK's research opinions of the investment product on the following factors (organization, investment team, investment process, operational due diligence, performance and terms and conditions). Meetings with the investment team are conducted as part of this In-Total report and on-site meetings are conducted at least every three years.

We are constantly updating our ratings of investment products based on our evaluations and any changes to the firm, team or investment process. The PSERS investment team will provide advice on retention/termination of a particular investment manager as part of our retainer and our on-going manager due diligence.

Investment manager due-diligence is continuous and ongoing, therefore we are unable to provide an estimate as to the person hours associated with these items.

- 13) advise staff and the Board about new developments in investment management techniques and portfolio management strategies. Analyze how new techniques might improve the investment program and whether they should be considered for implementation.
- 14) make available all firm research, including proprietary research, and provide consultation with research staff.

Items 13 and 14 listed above are included as part of on-going retainer relationship. HEK will provide staff and the Board with our best thinking on new investment management techniques and portfolio management strategies as they are identifies as well as provide advice on the best way to implement these investment ideas.

PSERS will receive all of our research reports including access to proprietary research. PSERS will receive all HEK's research pieces including our many white papers.

Access to this research is continuous and ongoing, therefore we are unable to provide an estimate as to the person hours associated with these items.

15) meet with the Board to report on investment matters. Generally, there are seven to eight regularly scheduled Board meetings annually. Special meetings may be scheduled as needed.

The consulting team led by Satya and Claire will meet with the Board to report on investment managers at all regularly scheduled Board meetings.

16) present the performance results to the Board quarterly, including relative results versus established benchmarks, results versus other public defined benefit pension plans, and the returns relative to the risks taken.

HEK will present the performance reports at the quarterly Board meetings.

- 17) maintain or otherwise provide access to a database of U.S. and non-U.S. investment managers, including their philosophies, processes, organizations, performance, fees, and clients.
- 18) provide a PC-based or Internet-based fund management and consulting tool that allows staff to:
 - a. formulate investment policy and implement strategies;
 - monitor and evaluate individual portfolio, asset class, and total fund performance, risk, and attribution analytics;
 - c. develop asset allocation and rebalancing recommendations;

- d. select and evaluate public market investment managers (including hedge fund managers), including public market manager research and consultant ratings;
- e. analyze and optimize manager teams; and,
- compare the Fund performance at the asset class and total fund levels to various peer groups.

HEK will provide PSERS access to several PC-Based investment tools which can assist the PSERs staff with the evaluation of the portfolio as well as access to a client portal as described in our technical proposal.

The access to these tools will be on-going as part of our full retainer relationship.

19) provide training to the Board and staff, as needed, but in no case more than three days in any one calendar year.

HEK will provide training to the Board and staff as necessary. In addition, HEK offers several opportunities for Board and staff training annually including our client conference which is held in Chicago every two years, regional client conferences held annually on specific investment topics and our HEK University held in our Chicago offices 2-4 times per year.

- 20) advise Board and staff on risk-related subjects (e.g., risk measurement, risk mitigation).
- 21) carry out other assignments that may be specified by the Board and staff, as required.

As part of our retainer relationship, HEK will provide the Board and staff with advice on risk management as well as access to our many risk tools. We would be happy to conduct any other projects the Board and/or staff would like to discuss.

- B. In providing Performance Measurement Services for PSERS' Fund, including all major asset classes recognized by PSERS as well as individual portfolios, the consultant will:
- 1) prepare a written monthly report containing the calculated total return (gross and net of fees) for asset class, portfolio management styles, and individual portfolios, and compare PSERS calculated data with benchmarks determined by PSERS and with data for a similar population of funds by asset class and portfolio management styles for all of the public market portfolios and composites. Returns should be calculated for the following time periods: one-month, three-months, fiscal and calendar year-to-date, 1year, 3-year, 5-year, 10-year, and since inception.
- 2) prepare a quarterly written report containing performance measurement attribution and analysis for each asset class and individual portfolio. The report should include a historical return analysis, dollar oriented analysis, return oriented (wealth relative) analysis, excess return analysis, and risk/return analysis. Returns should be

calculated for the following time periods: quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, 10-year, and since inception.

- reconcile performance with both individual portfolio managers as well as the custodian bank on a monthly basis.
- create additional composites with historical returns for those composites as requested by PSERS.
- 5) provide quarter, fiscal and calendar year-to-date, 1-year, 3-year, 5-year, and 10-year quartile ranking report of composite returns by Fund (i.e. total fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes).
- 6) provide consecutive year quartile ranking reports of composite returns by Fund (i.e. total fund, U.S. Equity Composite, etc.) as well as manager composite returns (for all asset classes) for the past five years.
- conduct performance attribution analysis to determine the value added by investment policy, asset allocation, and security selection.
- 8) provide reasonable assistance to PSERS in uploading the consultant's performance data to PSERS' own investment system(s).

HEK will provide performance reporting including monthly performance flash reports and detailed quarterly performance reports. We have included samples of our performance reports in the Appendix. Our performance reporting system and reports can provide all of the functionality outlined in Item B. 1-8.

An estimate of the person hours required to conduct the monthly and quarterly performance reports outlined above is 50–100 hours per quarter.

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Prepare Report/Recommendations Deliver Report	是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个
2. Review Adequacy of Staff —Conduct interviews with Staff	
Prepare ReportDeliver Report	
3. Asset Liability Study —Gather Liability Info	Making the professional and the second control of the control of t
—Conduct Analysis/Prepare Report	等此是大学的特殊和学生的特别,但是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个
Deliver Report to Board 4. Active/Passive Analysis	
5. Benchmark Review/Recommendations	
6. Portfolio Guidelines Review	
7. Recommend New Investment Opportunities	
8. Recommend Appropriate Investment Strategies	
9. Provide ongoing Research repons 10. Provide info on Market Conditions	
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11. a. Provice a list of potential managers to be considered b. Conduct interviews	
c. Conduct on-sile due diligence meetings	# 1
d. Assist with contractifiee negotiation A. Phasania Wandada Sun Gillagada	
12. a. Analyze manager performance vs. benchmark and peers	
 Conduct performance attribution and holdings analysis Provide redealed intent or manager of least area; 18 months 	
d. Conduct on-site due diligence meetings at least every 3 years	
e. Provide recommendations for manager changes	
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14. Provide HEK research	
15. Attend up to 7-8 Board regularly scheduled Board Meelings	
16. Present Qualitary Performance report to the country	
17. Maintain/provide access to client portal 18. Provide acress to PC-Based or Internet Based Tools:	
a, assist in developing investment policy	
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Objections and Additions to Standard Contract Terms and Conditions. The Offeror will identify which, if any, of the terms and conditions (contained in Appendix A) it would like to negotiate and what additional terms and conditions the Offeror would like to add to the standard contract terms and conditions. The Offeror's failure to make a submission under this paragraph will result in its waiving its right to do so later, but the Issuing Office may consider late objections and requests for additions if to do so, in the Issuing Office's sole discretion, would be in the best interest of the Commonwealth. The Issuing Office may, in its sole discretion, accept or reject any requested changes to the standard contract terms and conditions. The Offeror shall not request changes to the other provisions of the RFP, nor shall the Offeror request to completely substitute its own terms and conditions for Appendix A. All terms and conditions must appear in one integrated contract. The Issuing Office will not accept references to the Offeror's, or any other, online guides or online terms and conditions contained in any proposal. The Board will not consider proposals which contain a limitation of the Offeror liability for services provided. Any proposal containing such a limitation will be rejected.

Regardless of any objections set out in its proposal, the Offeror must submit its proposal, including the cost proposal, on the basis of the terms and conditions set out in Appendix A. The Issuing Office will reject any proposal that is conditioned on the negotiation of the terms and conditions set out in Appendix A or to other provisions of the RFP as specifically identified above.

We can accept substantially all of the terms and conditions but would like to reserve the right to negotiate finer points if we are selected as the successful bidder. In our experience we have not had problems in reaching a mutual agreement on contract terms with any other client and we are confident that our experience with PSERS will be the same.

OBJECTIONS AND ADDITIONS TO STANDARD CONTRACT TERMS AND CONDITIONS

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APPENDIX B DOMESTIC WORKFORCE UTILIZATION CERTIFICATION

To the extent permitted by the laws and treaties of the United States, each proposal will be scored for its commitment to use the domestic workforce in the fulfillment of the contract. Maximum consideration will be given to those offerors who will perform the contracted direct labor exclusively within the geographical boundaries of the United States or within the geographical boundaries of a country that is a party to the World Trade Organization Government Procurement Agreement. Those who propose to perform a portion of the direct labor outside of the United States and not within the geographical boundaries of a party to the World Trade Organization Government Procurement Agreement will receive a correspondingly smaller score for this criterion. In order to be eligible for any consideration for this criterion, offerors must complete and sign the following certification. This certification will be included as a contractual obligation when the contract is executed. Failure to complete and sign this certification will result in no consideration being given to the offeror for this criterion.

I, Chief Administrative Officer [title] of Hewitt EnnisKnupp, Inc. [name of Contractor] a

Illinois [place of incorporation] corporation or other legal entity, ("Contractor") located at

10 South Riverside Plaza, Suite 1600, Chicago, IL 60606 [address], having a Social Security or

Federal Identification Number of 36-3109431, do hereby certify and represent to the

Commonwealth of Pennsylvania ("Commonwealth") (Check one of the boxes below):

All of the direct labor performed within the scope of services under the contract will be performed exclusively within the geographical boundaries of the United States or one of the following countries that is a party to the World Trade Organization Government Procurement Agreement: Aruba, Austria, Belgium, Bulgaria, Canada, Chinese Taipei, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Liechtenstein, Lithuania, Luxemburg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom

OR

percent (%)[Contractor must specify the percentage] of the direct labor performed within the scope of services under the contract will be performed within the geographical boundaries of the United States or within the geographical boundaries of one of the countries listed above that is a party to the World Trade Organization Government Procurement Agreement. Please identify the direct labor performed under the contract that will be performed outside the United States and not within the geographical boundaries of a party to the World Trade Organization Government Procurement Agreement and identify the country where the direct labor will be performed:

DOMESTIC WORKFORCE UTILIZATION CERTIFICATION

Use additional sheets if necessary]

The Department of General Services [or other purchasing agency] shall treat any misstatement as fraudulent concealment of the true facts punishable under Section 4904 of the Pennsylvania Crimes Code, Title 18, of Pa. Consolidated Statutes.

Attest or Witness:	
	Hewitt EnnisKnupp, Inc.
	Corporate or Legal Entity's Name
	DITT 6/26/2013
Signature/Date	Signature/Date
	David Testore, Chief Administrative Officer
Printed Name/Title	Printed Name/Title

RIDER 4

COMMONWEALTH TERMS AND CONDITIONS

Case ID: 210601197

STANDARD PURCHASE ORDER TERMS AND CONDITIONS - ELECTRONIC PURCHASE ORDER

1. TERM OF PURCHASE ORDER

The term of the Contract created by the issuance of the Purchase Order shall commence on the Issue Date printed on the Purchase Order after the Purchase Order has been fully executed by the Commonwealth (signed and approved as required by Commonwealth contracting procedures and sent to the Contractor). If the Purchase Order output form does not have "Fully Executed" at the top of the first page, does not have a printed date in the "Issue Date" box and does not have the name of the Purchasing Agent printed in the appropriate box, the Purchase Order has not been fully executed. Subject to the other provisions of the Contract, the Contract shall end on the later of: a) complete delivery and acceptance of the awarded item(s); b) the expiration of any specified warranty and maintenance period; c) payment by the Commonwealth for the item(s) received; or d) any Expiration Date identified in the Purchase Order.

2. EXTENSION OF CONTRACT TERM

The Commonwealth reserves the right, upon notice to the Contractor, to extend the term of the Contract for up to three (3) months upon the same terms and conditions.

3. SIGNATURES

The Contract shall not be a legally binding contract until the fully-executed Purchase Order has been sent to the Contractor. No Commonwealth employee has the authority to verbally direct the commencement of any work or delivery of any supply under this Purchase Order prior to the Issue Date. The Contractor hereby waives any claim or cause of action for any service or work performed prior to the Issue Date.

The Purchase Order will not include an "ink" signature by the Commonwealth. The electronically-printed name of the Purchasing Agent represents the signature of that individual who has the authority, on behalf of the Commonwealth, to bind the Commonwealth to the terms of the Contract. If the Purchase Order output form does not have "Fully Executed" at the top of the first page and does not have the name of the Purchasing Agent printed in the appropriate box, the Contract has not been fully executed.

The fully-executed Purchase Order may be sent to the Contractor electronically or through facsimile equipment. The electronic transmission of a Purchase Order shall require acknowledgement of receipt of the transmission by the Contractor. Receipt of the electronic or facsimile transmission of the Purchase Order shall constitute receipt of the fully-executed Purchase Order.

The Commonwealth and the Contractor specifically agree as follows:

a. No handwritten signature shall be required in order for the Purchase Order to be legally enforceable.

BOP-1203
Publish Date: 04 05 2013

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- The parties agree that no writing shall be required in order to make the b. Purchase Order legally binding, notwithstanding contrary requirements in any law. The parties hereby agree not to contest the validity or enforceability of a genuine Purchase Order or acknowledgement issued electronically under the provisions of a statute of frauds or any other applicable law relating to whether certain agreements be in writing and signed by the party bound Any genuine Purchase Order or acknowledgement issued electronically, if introduced as evidence on paper in any judicial, arbitration, mediation, or administrative proceedings, will be admissible as between the parties to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither party shall contest the admissibility of copies of a genuine Purchase Order or acknowledgements under either the business records exception to the hearsay rule or the best evidence rule on the basis that the Purchase Order or acknowledgement were not in writing or signed by the parties. A Purchase Order or acknowledgment shall be deemed to be genuine for all purposes if it is transmitted to the location designated for such documents.
- c. Each party will immediately take steps to verify any document that appears to be obviously garbled in transmission or improperly formatted to include retransmission of any such document if necessary.

4. **DEFINITIONS**

As used in this Contract, these words shall have the following meanings:

- a. Agency: The department, board, commission or other agency of the Commonwealth of Pennsylvania listed as the Purchasing Agency. If a COSTARS entity or external procurement activity has issued an order against this contract, that entity shall also be identified as "Agency".
- b. Contracting Officer: The person authorized to administer this Contract for the Commonwealth and to make written determinations with respect to the Contract.
- c. Days: Unless specifically indicated otherwise, days mean calendar days.
- d. Developed Works or Developed Materials: All documents, sketches, drawings, designs, works, papers, files, reports, computer programs, computer documentation, data, records, software, samples or any other tangible material without limitation authored or prepared by Contractor as the work product covered in the scope of work for the Project.
- e. Documentation: All materials required to support and convey information about the services required by this Contract. It includes, but is not necessarily restricted to, written reports and analyses, diagrams, maps, logical and physical designs, system designs, computer programs, flow charts, disks, and/or other machine-readable storage media.
- f. Services: All Contractor activity necessary to satisfy the Contract.

5. INDEPENDENT CONTRACTOR

BOP-1203 Publish Date: 04 05 2013 In performing its obligations under the Contract, the Contractor will act as an independent contractor and not as an employee or agent of the Commonwealth. The Contractor will be responsible for all services in this Contract whether or not Contractor provides them directly. Further, the Contractor is the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from the Contract.

6. DELIVERY

- a. **Supplies Delivery:** All item(s) shall be delivered F.O.B. Destination. The Contractor agrees to bear the risk of loss, injury, or destruction of the item(s) ordered prior to receipt of the items by the Commonwealth. Such loss, injury, or destruction shall not release the Contractor from any contractual obligations. Except as otherwise provided in this contract, all item(s) must be delivered within the time period specified. Time is of the essence and, in addition to any other remedies, the Contract is subject to termination for failure to deliver as specified. Unless otherwise stated in this Contract, delivery must be made within thirty (30) days after the Effective Date.
- b. **Delivery of Services:** The Contractor shall proceed with all due diligence in the performance of the services with qualified personnel, in accordance with the completion criteria set forth in the Contract.

7. WARRANTY

The Contractor warrants that all item(s) furnished and all services performed by the Contractor, its agents and subcontractors shall be free and clear of any defects in workmanship or materials. Unless otherwise stated in the Contract, all item(s) are warranted for a period of one year following delivery by the Contractor and acceptance by the Commonwealth. The Contractor shall repair, replace or otherwise correct any problem with the delivered item. When an item is replaced, it shall be replaced with an item of equivalent or superior quality without any additional cost to the Commonwealth.

8. PATENT, COPYRIGHT, AND TRADEMARK INDEMNITY

The Contractor warrants that it is the sole owner or author of, or has entered into a suitable legal agreement concerning either: a) the design of any product or process provided or used in the performance of the Contract which is covered by a patent, copyright, or trademark registration or other right duly authorized by state or federal law or b) any copyrighted matter in any report document or other material provided to the commonwealth under the contract. The Contractor shall defend any suit or proceeding brought against the Commonwealth on account of any alleged patent, copyright or trademark infringement in the United States of any of the products provided or used in the performance of the Contract. This is upon condition that the Commonwealth shall provide prompt notification in writing of such suit or proceeding; full right, authorization and opportunity to conduct the defense thereof; and full information and all reasonable cooperation for the defense of same. As principles of governmental or public law are involved, the Commonwealth may participate in or choose to conduct, in its sole discretion, the defense of any such action. If information and assistance are furnished by the Commonwealth at the Contractor's written request, it shall be at the Contractor's expense, but the responsibility for such expense shall be only that within the Contractor's written

BOP-1203
Publish Date: 04 05 2013

Const

authorization. The Contractor shall indemnify and hold the Commonwealth harmless from all damages, costs, and expenses, including attorney's fees that the Contractor or the Commonwealth may pay or incur by reason of any infringement or violation of the rights occurring to any holder of copyright, trademark, or patent interests and rights in any products provided or used in the performance of the Contract. If any of the products provided by the Contractor in such suit or proceeding are held to constitute infringement and the use is enjoined, the Contractor shall, at its own expense and at its option, either procure the right to continue use of such infringement products, replace them with non-infringement equal performance products or modify them so that they are no longer infringing. If the Contractor is unable to do any of the preceding, the Contractor agrees to remove all the equipment or software which are obtained contemporaneously with the infringing product, or, at the option of the Commonwealth, only those items of equipment or software which are held to be infringing, and to pay the Commonwealth: 1) any amounts paid by the Commonwealth towards the purchase of the product, less straight line depreciation; 2) any license fee paid by the Commonwealth for the use of any software, less an amount for the period of usage; and 3) the pro rata portion of any maintenance fee representing the time remaining in any period of maintenance paid for. The obligations of the Contractor under this paragraph continue without time limit. No costs or expenses shall be incurred for the account of the Contractor without its written consent.

9. OWNERSHIP RIGHTS

The Commonwealth shall have unrestricted authority to reproduce, distribute, and use any submitted report, data, or material, and any software or modifications and any associated documentation that is designed or developed and delivered to the Commonwealth as part of the performance of the Contract.

10. ACCEPTANCE

No item(s) received by the Commonwealth shall be deemed accepted until the Commonwealth has had a reasonable opportunity to inspect the item(s). item(s) which is discovered to be defective or fails to conform to the specifications may be rejected upon initial inspection or at any later time if the defects contained in the item(s) or the noncompliance with the specifications were not reasonably ascertainable upon the initial inspection. It shall thereupon become the duty of the Contractor to remove rejected item(s) from the premises without expense to the Commonwealth within fifteen (15) days after notification. Rejected item(s) left longer than fifteen (15) days will be regarded as abandoned, and the Commonwealth shall have the right to dispose of them as its own property and shall retain that portion of the proceeds of any sale which represents the Commonwealth's costs and expenses in regard to the storage and sale of the item(s). Upon notice of rejection, the Contractor shall immediately replace all such rejected item(s) with others conforming to the specifications and which are not defective. If the Contractor fails, neglects or refuses to do so, the Commonwealth shall then have the right to procure a corresponding quantity of such item(s), and deduct from any monies due or that may thereafter become due to the Contractor, the difference between the price stated in the Contract and the cost thereof to the Commonwealth.

11. PRODUCT CONFORMANCE

The Commonwealth reserves the right to require any and all Contractors to:

BOP-1203 PAGE 4 of 28
Publish Date: 04 05 2013

- a. Provide certified data from laboratory testing performed by the Contractor, or performed by an independent laboratory, as specified by the Commonwealth.
- Supply published manufacturer product documentation.
- c. Permit a Commonwealth representative to witness testing at the Contractor's location or at an independent laboratory.
- d. Complete a survey/questionnaire relating to the bid requirements and specifications.
- e. Provide customer references.
- f. Provide a product demonstration at a location near Harrisburg or the using agency location.

12. REJECTED MATERIAL NOT CONSIDERED ABANDONED

The Commonwealth shall have the right to not regard any rejected material as abandoned and to demand that the Contractor remove the rejected material from the premises within thirty (30) days of notification. The Contractor shall be responsible for removal of the rejected material as well as proper clean-up. If the Contractor fails or refuses to remove the rejected material as demanded by the Commonwealth, the Commonwealth may seek payment from, or set-off from any payments due to the Contractor under this or any other Contract with the Commonwealth, the costs of removal and clean-up. This is in addition to all other rights to recover costs incurred by the Commonwealth.

13. COMPLIANCE WITH LAW

The Contractor shall comply with all applicable federal and state laws and regulations and local ordinances in performing its obligations under the Purchase Order.

14. ENVIRONMENTAL PROVISIONS

In the performance of the Contract, the Contractor shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations, including, but not limited to, the Clean Streams Law Act of June 22, 1937 (P.L. 1987, No. 394), as amended 35 P.S. § 691.601 et seq.; the Pennsylvania Solid Waste Management Act, Act of July 7, 1980 (P.L. 380, No. 97), as amended, 35 P.S. § 6018.101 et seq.; and the Dam Safety and Encroachment Act, Act of November 26, 1978 (P.L. 1375, No. 325), as amended, 32 P.S. § 693.1.

15. POST-CONSUMER RECYCLED CONTENT

a. Except as specifically waived by the Department of General Services in writing, any products which are provided to the Commonwealth as a part of the performance of the Contract must meet the minimum percentage levels for total recycled content as specified on the Department of General Services website at www.dgs.state.pa.us on the date of submission of the bid, proposal or contract offer.

BOP-1203 PAGE 5 of 28
Publish Date: 04 05 2013

b. **Recycled Content Enforcement:** The Contractor may be required, after delivery of the Contract item(s), to provide the Commonwealth with documentary evidence that the item(s) was in fact produced with the required minimum percentage of post-consumer and recovered material content.

16. COMPENSATION

- a. **Compensation for Supplies:** The Contractor shall be required to furnish the awarded item(s) at the price(s) quoted in the Purchase Order. All item(s) shall be delivered within the time period(s) specified in the Purchase Order. The Contractor shall be compensated only for item(s) that are delivered and accepted by the Commonwealth.
- b. **Compensation for Services:** The Contractor shall be required to perform the specified services at the price(s) quoted in the Purchase Order. All services shall be performed within the time period(s) specified in the Purchase Order. The Contractor shall be compensated only for work performed to the satisfaction of the Commonwealth. The Contractor shall not be allowed or paid travel or per diem expenses except as specifically set forth in the Purchase Order.

17. BILLING REQUIREMENTS

Unless the Contractor has been authorized by the Commonwealth for Evaluated Receipt Settlement or Vendor Self-Invoicing, the Contractor shall include in all of its invoices the following minimum information:

- a. Vendor name and "Remit to" address, including SAP Vendor number;
- Bank routing information, if ACH;
- c. SAP Purchase Order number;
- d. Delivery Address, including name of Commonwealth agency;
- e. Description of the supplies/services delivered in accordance with SAP Purchase Order (include purchase order line number if possible);
- f. Quantity provided;
- g. Until price;
- Price extension;
- Total price; and
- Delivery date of supplies or services.

If an invoice does not contain the minimum information set forth in this paragraph, the Commonwealth may return the invoice as improper. If the Commonwealth returns an invoice as improper, the time for processing a payment will be suspended until the Commonwealth receives a correct invoice. The Contractor may not receive payment until the Commonwealth has received a correct invoice.

BOP-1203 PAGE 6 of 28 Publish Date: 04 05 2013

Contractors are required to establish separate billing accounts with each using agency and invoice them directly. Each invoice shall be itemized with adequate detail and match the line item on the Purchase Order. In no instance shall any payment be made for services to the Contractor that are not in accordance with the prices on the Purchase Order, the Contract, updated price lists or any discounts negotiated by the purchasing agency.

18. PAYMENT

- The Commonwealth shall put forth reasonable efforts to make payment by the required payment date. The required payment date is: (a) the date on which payment is due under the terms of the Purchase Order; (b) thirty (30) days after a proper invoice actually is received at the "Bill To" address. If a date on which payment is due is not specified in the Purchase Order [a "proper" invoice is not received until the Commonwealth accepts the item(s)]; or (c) the payment date specified on the invoice if later than the dates established by (a) and (b) above. Payment may be delayed if the payment amount on an invoice is not based upon the price(s) as stated in the purchase order. If any payment is not made within fifteen (15) days after the required payment date, the Commonwealth may pay interest as determined by the Secretary of Budget in accordance with Act No. 266 of 1982 and regulations promulgated pursuant thereto. Payment should not be construed by the Contractor as acceptance of the items furnished by the Contractor. The Commonwealth reserves the right to conduct further testing and inspection after payment, but within a reasonable time after delivery, and to reject the item(s) if such post payment testing or inspection discloses a defect or a failure to meet specifications. The Contractor agrees that the Commonwealth may set off the amount of any state tax liability or other obligation of the Contractor or its subsidiaries to the Commonwealth against any payments due the Contractor under any contract with the Commonwealth.
- b. The Commonwealth shall have the option of using the Commonwealth purchasing card to pay for the items purchased under the Purchase Order. The Commonwealth's purchasing card is similar to a credit card in that there will be a small fee which the Contractor will be required to pay and the Contractor will receive payment directly from the card issuer rather than the Commonwealth. Any and all fees related to this type of payment are the responsibility of the Contractor. In no case will the Commonwealth allow increases in prices to offset credit card fees paid by the Contractor or any other charges incurred by the Contractor, unless specifically stated in the terms of the Purchase Order.
- c. The Commonwealth will make contract payments through Automated Clearing House (ACH).
 - 1) Within 10 days of award of the contract or purchase order, the contractor must submit or must have already submitted their ACH information within their user profile in the Commonwealth's procurement system (SRM).
 - 2) The contractor must submit a unique invoice number with each invoice submitted. The unique invoice number will be listed on the

BOP-1203
Publish Date: 04 05 2013
PAGE 7 of 28

Commonwealth of Pennsylvania's ACH remittance advice to enable the contractor to properly apply the state agency's payment to the invoice submitted.

3) It is the responsibility of the contractor to ensure that the ACH information contained in SRM is accurate and complete. Failure to maintain accurate and complete information may result in delays in payments.

19. TAXES

The Commonwealth is exempt from all excise taxes imposed by the Internal Revenue Service and has accordingly registered with the Internal Revenue Service to make tax free purchases under Registration No. 23740001-K. With the exception of purchases of the following items, no exemption certificates are required by Department of Revenue regulations and none will be issued: undyed diesel fuel, tires, trucks, gas guzzler emergency vehicles, and sports fishing equipment. The Commonwealth is also exempt from Pennsylvania state sales tax, local sales tax, public transportation assistance taxes and fees and vehicle rental tax. Nothing in this paragraph is meant to exempt a construction contractor from the payment of any of these taxes or fees which are required to be paid with respect to the purchase, use, rental, or lease of tangible personal property or taxable services used or transferred in connection with the performance of a construction contract.

20. ASSIGNMENT OF ANTITRUST CLAIMS

The Contractor and the Commonwealth recognize that in actual economic practice, overcharges by the Contractor's suppliers resulting from violations of state or federal antitrust laws are in fact borne by the Commonwealth. As part of the consideration for the award of the Contract, and intending to be legally bound, the Contractor assigns to the Commonwealth all right, title and interest in and to any claims the Contractor now has, or may acquire, under state or federal antitrust laws relating to the products and services which are the subject of this Contract.

21. HOLD HARMLESS PROVISION

- a. The Contractor shall hold the Commonwealth harmless from and indemnify the Commonwealth against any and all third party claims, demands and actions based upon or arising out of any activities performed by the Contractor and its employees and agents under this Contract, provided the Commonwealth gives Contractor prompt notice of any such claim of which it learns. Pursuant to the Commonwealth Attorneys Act (71 P.S. Section 732-101, et seq.), the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under such terms as it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of such suits.
- b. Notwithstanding the above, neither party shall enter into any settlement without the other party's written consent, which shall not be unreasonably withheld. The Commonwealth may, in its sole discretion, allow the Contractor to control the defense and any related settlement negotiations.

Publish Date: 04 05 2013

BOP-1203

22. AUDIT PROVISIONS

The Commonwealth shall have the right, at reasonable times and at a site designated by the Commonwealth, to audit the books, documents and records of the Contractor to the extent that the books, documents and records relate to costs or pricing data for the Contract. The Contractor agrees to maintain records which will support the prices charged and costs incurred for the Contract. The Contractor shall preserve books, documents, and records that relate to costs or pricing data for the Contract for a period of three (3) years from date of final payment. The Contractor shall give full and free access to all records to the Commonwealth and/or their authorized representatives.

23. DEFAULT

Publish Date: 04 05 2013

- a. The Commonwealth may, subject to the Force Majeure provisions of this Contract, and in addition to its other rights under the Contract, declare the Contractor in default by written notice thereof to the Contractor, and terminate (as provided in the Termination Provisions of this Contract) the whole or any part of this Contract or any Purchase Order for any of the following reasons:
 - 1) Failure to begin work within the time specified in the Contract or Purchase Order or as otherwise specified;
 - Failure to perform the work with sufficient labor, equipment, or material to insure the completion of the specified work in accordance with the Contract or Purchase Order terms;
 - Unsatisfactory performance of the work;
 - 4) Failure to deliver the awarded item(s) within the time specified in the Contract or Purchase Order or as otherwise specified;
 - 5) Improper delivery;
 - 6) Failure to provide an item(s) which is in conformance with the specifications referenced in the Contract or Purchase Order;
 - 7) Delivery of a defective item;
 - Failure or refusal to remove material, or remove and replace any work rejected as defective or unsatisfactory;
 - Discontinuance of work without approval;
 - 10) Failure to resume work, which has been discontinued, within a reasonable time after notice to do so;
 - 11) Insolvency or bankruptcy;
 - Assignment made for the benefit of creditors;

BOP-1203 PAGE 9 of 28

- 13) Failure or refusal within 10 days after written notice by the Contracting Officer, to make payment or show cause why payment should not be made, of any amounts due for materials furnished, labor supplied or performed, for equipment rentals, or for utility services rendered;
- 14) Failure to protect, to repair, or to make good any damage or injury to property;
- 15) Breach of any provision of the Contract;
- 16) Failure to comply with representations made in the Contractor's bid/proposal; or
- 17) Failure to comply with applicable industry standards, customs, and practice.
- b. In the event that the Commonwealth terminates this Contract or any Purchase Order in whole or in part as provided in Subparagraph a. above, the Commonwealth may procure, upon such terms and in such manner as it determines, items similar or identical to those so terminated, and the Contractor shall be liable to the Commonwealth for any reasonable excess costs for such similar or identical items included within the terminated part of the Contract or Purchase Order.
- If the Contract or a Purchase Order is terminated as provided in C. Subparagraph a. above, the Commonwealth, in addition to any other rights provided in this paragraph, may require the Contractor to transfer title and deliver immediately to the Commonwealth in the manner and to the extent directed by the Contracting Officer, such partially completed items, including, where applicable, reports, working papers and other documentation, as the Contractor has specifically produced or specifically acquired for the performance of such part of the Contract or Purchase Order as has been terminated. Except as provided below, payment for completed work accepted by the Commonwealth shall be at the Contract price. Except as provided below, payment for partially completed items including, where applicable, reports and working papers, delivered to and accepted by the Commonwealth shall be in an amount agreed upon by the Contractor and Contracting Officer. The Commonwealth may withhold from amounts otherwise due the Contractor for such completed or partially completed works, such sum as the Contracting Officer determines to be necessary to protect the Commonwealth against loss.
- d. The rights and remedies of the Commonwealth provided in this paragraph shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.
- e. The Commonwealth's failure to exercise any rights or remedies provided in this paragraph shall not be construed to be a waiver by the Commonwealth of its rights and remedies in regard to the event of default or any succeeding event of default.

BOP-1203 PAGE 10 of 28
Publish Date: 04 05 2013

f. Following exhaustion of the Contractor's administrative remedies as set forth in the Contract Controversies Provision of the Contract, the Contractor's exclusive remedy shall be to seek damages in the Board of Claims.

24. FORCE MAJEURE

Neither party will incur any liability to the other if its performance of any obligation under this Contract is prevented or delayed by causes beyond its control and without the fault or negligence of either party. Causes beyond a party's control may include, but aren't limited to, acts of God or war, changes in controlling law, regulations, orders or the requirements of any governmental entity, severe weather conditions, civil disorders, natural disasters, fire, epidemics and quarantines, general strikes throughout the trade, and freight embargoes.

The Contractor shall notify the Commonwealth orally within five (5) days and in writing within ten (10) days of the date on which the Contractor becomes aware, or should have reasonably become aware, that such cause would prevent or delay its performance. Such notification shall (i) describe fully such cause(s) and its effect on performance, (ii) state whether performance under the contract is prevented or delayed and (iii) if performance is delayed, state a reasonable estimate of the duration of the delay. The Contractor shall have the burden of proving that such cause(s) delayed or prevented its performance despite its diligent efforts to perform and shall produce such supporting documentation as the Commonwealth may reasonably request. After receipt of such notification, the Commonwealth may elect to cancel the Contract, cancel the Purchase Order, or to extend the time for performance as reasonably necessary to compensate for the Contractor's delay.

In the event of a declared emergency by competent governmental authorities, the Commonwealth by notice to the Contractor, may suspend all or a portion of the Contract or Purchase Order.

25. TERMINATION PROVISIONS

The Commonwealth has the right to terminate this Contract or any Purchase Order for any of the following reasons. Termination shall be effective upon written notice to the Contractor.

- a. **TERMINATION FOR CONVENIENCE**: The Commonwealth shall have the right to terminate the Contract or a Purchase Order for its convenience if the Commonwealth determines termination to be in its best interest. The Contractor shall be paid for work satisfactorily completed prior to the effective date of the termination, but in no event shall the Contractor be entitled to recover loss of profits.
- b. **NON-APPROPRIATION**: The Commonwealth's obligation to make payments during any Commonwealth fiscal year succeeding the current fiscal year shall be subject to availability and appropriation of funds. When funds (state and/or federal) are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal year period, the Commonwealth shall have the right to terminate the Contract or a Purchase Order. The Contractor shall be reimbursed for the reasonable value of any nonrecurring costs incurred but not amortized in the price of the supplies or services delivered under the Contract. Such reimbursement shall not include

BOP-1203
Publish Date: 04 05 2013
PAGE 11 of 28

loss of profit, loss of use of money, or administrative or overhead costs. The reimbursement amount may be paid from any appropriations available for that purpose

c. **TERMINATION FOR CAUSE**: The Commonwealth shall have the right to terminate the Contract or a Purchase Order for Contractor default under the Default Clause upon written notice to the Contractor. The Commonwealth shall also have the right, upon written notice to the Contractor, to terminate the Contract or a Purchase Order for other cause as specified in the Contract or by law. If it is later determined that the Commonwealth erred in terminating the Contract or a Purchase Order for cause, then, at the Commonwealth's discretion, the Contract or Purchase Order shall be deemed to have been terminated for convenience under Subparagraph a.

26. CONTRACT CONTROVERSIES

- a. In the event of a controversy or claim arising from the Contract, the Contractor must, within six months after the cause of action accrues, file a written claim with the contracting officer for a determination. The claim shall state all grounds upon which the Contractor asserts a controversy exists. If the Contractor fails to file a claim or files an untimely claim, the Contractor is deemed to have waived its right to assert a claim in any forum. At the time the claim is filed, or within sixty (60) days thereafter, either party may request mediation through the Commonwealth Office of General Counsel Dispute Resolution Program.
- b. If the Contractor or the contracting officer requests mediation and the other party agrees, the contracting officer shall promptly make arrangements for mediation. Mediation shall be scheduled so as to not delay the issuance of the final determination beyond the required 120 days after receipt of the claim if mediation is unsuccessful. If mediation is not agreed to or if resolution is not reached through mediation, the contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contracting officer and the Contractor. The contracting officer shall send his/her written determination to the Contractor. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing agency.
- c. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing a claim if, no extension is agreed to by the parties, whichever occurs first, the Contractor may file a statement of claim with the Commonwealth Board of Claims. Pending a final judicial resolution of a controversy or claim, the Contractor shall proceed diligently with the performance of the Contract in a manner consistent with the determination of the contracting officer and the Commonwealth shall compensate the Contractor pursuant to the terms of the Contract.

BOP-1203 PAGE 12 of 28
Publish Date: 04 05 2013

27. ASSIGNABILITY AND SUBCONTRACTING

- a. Subject to the terms and conditions of this paragraph, this Contract shall be binding upon the parties and their respective successors and assigns.
- b. The Contractor shall not subcontract with any person or entity to perform all or any part of the work to be performed under this Contract without the prior written consent of the Contracting Officer, which consent maybe withheld at the sole and absolute discretion of the Contracting Officer.
- c. The Contractor may not assign, in whole or in part, this Contract or its rights, duties, obligations, or responsibilities hereunder without the prior written consent of the Contracting Officer, which consent may b withheld at the sole and absolute discretion of the Contracting Officer.
- d. Notwithstanding the foregoing, the Contractor may, without the consent of the Contracting Officer, assign its rights to payment to be received under the Contract, provided that the Contractor provides written notice of such assignment to the Contracting Officer together with a written acknowledgement from the assignee that any such payments are subject to all of the terms and conditions of this Contract.
- e. For the purposes of this Contract, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Contractor provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.
- f. Any assignment consented to by the Contracting Officer shall be evidenced by a written assignment agreement executed by the Contractor and its assignee in which the assignee agrees to be legally bound by all of the terms and conditions of the Contract and to assume the duties, obligations, and responsibilities being assigned.
- g. A change of name by the Contractor, following which the Contractor's federal identification number remains unchanged, shall not be considered to be an assignment hereunder. The Contractor shall give the Contracting Officer written notice of any such change of name.

28. OTHER CONTRACTORS

The Commonwealth may undertake or award other contracts for additional or related work, and the Contractor shall fully cooperate with other contractors and Commonwealth employees, and coordinate its work with such additional work as may be required. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Commonwealth employees. This paragraph shall be included in the Contracts of all contractors with which this Contractor will be required to cooperate. The Commonwealth shall equitably enforce this paragraph as to all contractors to prevent the imposition of unreasonable burdens on any contractor.

BOP-1203 PAGE 13 of 28
Publish Date: 04 05 2013

29. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

The Contractor agrees:

- a. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not, by reason of gender, race, creed, or color, discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
- b. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract on account of gender, race, creed, or color.
- c. The Contractor and each subcontractor shall establish and maintain a written sexual harassment policy and shall inform their employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.
- d. The Contractor and each subcontractor shall not discriminate by reason of gender, race, creed, or color against any subcontractor or supplier who is qualified to perform the work to which the contract relates.
- The Contractor and each subcontractor shall, within the time periods requested by the Commonwealth, furnish all necessary employment documents and records and permit access to their books, records, and accounts by the contracting agency and the Bureau of Small Business Opportunities (BSBO), for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause. Within fifteen (15) days after award of any contract, the Contractor shall be required to complete, sign and submit Form STD-21, the "Initial Contract Compliance Data" form. If the contract is a construction contract, then the Contractor shall be required to complete, sign and submit Form STD-28, the "Monthly Contract Compliance Report for Construction Contractors", each month no later than the 15th of the month following the reporting period beginning with the initial job conference and continuing through the completion of the project. Those contractors who have fewer than five employees or whose employees are all from the same family or who have completed the Form STD-21 within the past 12 months may, within the 15 days, request an exemption from the Form STD-21 submission requirement from the contracting agency.
- f. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.
- g. The Commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may. place the Contractor in the Contractor Responsibility File.

BOP-1203 PAGE 14 of 28
Publish Date: 04 05 2013

30. CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth procurement process.

In furtherance of this policy, Contractor agrees to the following:

- a. Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting with the Commonwealth.
- b. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to Contractor employee activity with the Commonwealth and Commonwealth employees, and which is distributed and made known to all Contractor employees.
- c. Contractor, its affiliates, agents and employees shall not influence, or attempt to influence, any Commonwealth employee to breach the standards of ethical conduct for Commonwealth employees set forth in the *Public Official and Employees Ethics Act*, 65 Pa.C.S. §§1101 et seq.; the State Adverse Interest Act, 71 P.S. §776.1 et seq.; and the <u>Governor's Code of Conduct, Executive Order 1980-18</u>, 4 Pa. Code §7.151 et seq., or to breach any other state or federal law or regulation.
- d. Contractor, its affiliates, agents and employees shall not offer, give, or agree or promise to give any gratuity to a Commonwealth official or employee or to any other person at the direction or request of any Commonwealth official or employee.
- e. Contractor, its affiliates, agents and employees shall not offer, give, or agree or promise to give any gratuity to a Commonwealth official or employee or to any other person, the acceptance of which would violate the <u>Governor's Code of Conduct, Executive Order 1980-18</u>, 4 Pa. Code §7.151 et seq. or any statute, regulation, statement of policy, management directive or any other published standard of the Commonwealth.
- f. Contractor, its affiliates, agents and employees shall not, directly or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any Commonwealth official or employee.
- g. Contractor, its affiliates, agents, employees, or anyone in privity with him or her shall not accept or agree to accept from any person, any gratuity in connection with the performance of work under the contract, except as provided in the contract.

BOP-1203 PAGE 15 of 28
Publish Date: 04 05 2013

- h. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material on this project, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.
- i. Contractor, its affiliates, agents and employees shall not disclose to others any information, documents, reports, data, or records provided to, or prepared by, Contractor under this contract without the prior written approval of the Commonwealth, except as required by the *Pennsylvania Right-to-Know Law*, 65 P.S. §§ 67.101-3104, or other applicable law or as otherwise provided in this contract. Any information, documents, reports, data, or records secured by Contractor from the Commonwealth or a third party in connection with the performance of this contract shall be kept confidential unless disclosure of such information is:
 - 1) Approved in writing by the Commonwealth prior to its disclosure; or
 - 2) Directed by a court or other tribunal of competent jurisdiction unless the contract requires prior Commonwealth approval; or
 - 3) Required for compliance with federal or state securities laws or the requirements of national securities exchanges; or
 - 4) Necessary for purposes of Contractor's internal assessment and review; or
 - 5) Deemed necessary by Contractor in any action to enforce the provisions of this contract or to defend or prosecute claims by or against parties other than the Commonwealth; or
 - 6) Permitted by the valid authorization of a third party to whom the information, documents, reports, data, or records pertain: or
 - 7) Otherwise required by law.
- j. Contractor certifies that neither it nor any of its officers, directors, associates, partners, limited partners or individual owners has been officially notified of, charged with, or convicted of any of the following and agrees to immediately notify the Commonwealth agency contracting officer in writing if and when it or any officer, director, associate, partner, limited partner or individual owner has been officially notified of, charged with, convicted of, or officially notified of a governmental determination of any of the following:
 - 1) Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property.
 - Commission of fraud or a criminal offense or other improper conduct or knowledge of, approval of or acquiescence in such activities by

BOP-1203 PAGE 16 of 28
Publish Date: 04 05 2013

Contractor or any affiliate, officer, director, associate, partner, limited partner, individual owner, or employee or other individual or entity associated with:

- a) obtaining;
- b) attempting to obtain; or
- c) performing a public contract or subcontract.

Contractor's acceptance of the benefits derived from the conduct shall be deemed evidence of such knowledge, approval or acquiescence.

- 3) Violation of federal or state antitrust statutes.
- 4) Violation of any federal or state law regulating campaign contributions.
- 5) Violation of any federal or state environmental law.
- 6) Violation of any federal or state law regulating hours of labor, minimum wage standards or prevailing wage standards; discrimination in wages; or child labor violations.
- 7) Violation of the Act of June 2, 1915 (P.L.736, No. 338), known as the Workers' Compensation Act, 77 P.S. 1 et seq.
- 8) Violation of any federal or state law prohibiting discrimination in employment.
- Debarment by any agency or department of the federal government or by any other state.
- 10) Any other crime involving moral turpitude or business honesty or integrity.

Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause upon such notification or when the Commonwealth otherwise learns that Contractor has been officially notified, charged, or convicted.

- k. If this contract was awarded to Contractor on a non-bid basis, Contractor must, (as required by Section 1641 of the Pennsylvania Election Code) file a report of political contributions with the Secretary of the Commonwealth on or before February 15 of the next calendar year. The report must include an itemized list of all political contributions known to Contractor by virtue of the knowledge possessed by every officer, director, associate, partner, limited partner, or individual owner that has been made by:
 - 1) Any officer, director, associate, partner, limited partner, individual owner or members of the immediate family when the contributions exceed an aggregate of one thousand dollars (\$1,000) by any individual during the preceding year; or

BOP-1203 PAGE 17 of 28 Publish Date: 04 05 2013

2) Any employee or members of his immediate family whose political contribution exceeded one thousand dollars (\$1,000) during the preceding year.

To obtain a copy of the reporting form, Contractor shall contact the Bureau of Commissions, Elections and Legislation, Division of Campaign Finance and Lobbying Disclosure, Room 210, North Office Building, Harrisburg, PA 17120.

- I. Contractor shall comply with requirements of the Lobbying Disclosure Act, 65 Pa.C.S. § 13A01 et seq., and the regulations promulgated pursuant to that law. Contractor employee activities prior to or outside of formal Commonwealth procurement communication protocol are considered lobbying and subjects the Contractor employees to the registration and reporting requirements of the law. Actions by outside lobbyists on Contractor's behalf, no matter the procurement stage, are not exempt and must be reported.
- m. When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or in these provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or Commonwealth Inspector General in writing.
- n. Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these contractor integrity provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract.
- o. Contractor shall cooperate with the Office of Inspector General in its investigation of any alleged Commonwealth employee breach of ethical standards and any alleged Contractor non-compliance with these provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of the Office of Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refers to or concern this contract.
- p. For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

BOP-1203 PAGE 18 of 28
Publish Date: 04 05 2013

- q. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Subparagraph.
 - "Confidential information" means information that a) is not already in the public domain; b) is not available to the public upon request; c) is not or does not become generally known to Contractor from a third party without an obligation to maintain its confidentiality; d) has not become generally known to the public through an act or omission of Contractor; or e) has not been independently developed by Contractor without the use of confidential information of the Commonwealth.
 - 2) "Consent" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by pre-qualification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of execution of this contract.
 - "Contractor" means the individual or entity that has entered into this contract with the Commonwealth, including those directors, officers, partners, managers, and owners having more than a five percent interest in Contractor.
 - 4) "Financial interest" means:
 - Ownership of more than a five percent interest in any business;
 or
 - b) Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.
 - "Gratuity" means tendering, giving or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the <u>Governor's Code of Conduct, Executive Order 1980-18</u>, the 4 Pa. Code §7.153(b), shall apply.
 - 6) "Immediate family" means a spouse and any unemancipated child.
 - 7) "Non-bid basis" means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.
 - 8) "Political contribution" means any payment, gift, subscription, assessment, contract, payment for services, dues, loan, forbearance, advance or deposit of money or any valuable thing, to a candidate for public office or to a political committee, including but not limited to a political action committee, made for the purpose of influencing any election in the Commonwealth of Pennsylvania or for paying debts incurred by or for a candidate or committee before or after any election.

BOP-1203 PAGE 19 of 28
Publish Date: 04 05 2013

31. CONTRACTOR RESPONSIBILITY PROVISIONS

For the purpose of these provisions, the term contractor is defined as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth of Pennsylvania (Commonwealth). The term contractor includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.

- a. The Contractor certifies, in writing, for itself and its subcontractors required to be disclosed or approved by the Commonwealth, that as of the date of its execution of this Bid/Contract, that neither the Contractor, nor any such subcontractors, are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid/Contract, a written explanation of why such certification cannot be made.
- b. The Contractor also certifies, in writing, that as of the date of its execution of this Bid/Contract it has no tax liabilities or other Commonwealth obligations, or has filed a timely administrative or judicial appeal if such liabilities or obligations exist, or is subject to a duly approved deferred payment plan if such liabilities exist.
- c. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the Contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or, to the best knowledge of the Contractor, any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.
- d. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.
- e. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.
- f. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the Internet at http://www.dgs.state.pa.us/ or contacting the:

BOP-1203 PAGE 20 of 28 Publish Date: 04 05 2013

Department of General Services Office of Chief Counsel 603 North Office Building Harrisburg, PA 17125 Telephone No: (717) 783-6472 FAX No: (717) 787-9138

32. AMERICANS WITH DISABILITIES ACT

- a. Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. § 35.101 et seq., the Contractor understands and agrees that it shall not cause any individual with a disability to be excluded from participation in the Purchase Order or from activities provided for under the Purchase Order on the basis of the disability. As a condition of accepting this contract, the Contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts with outside contractors.
- b. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of subparagraph a above.

33. HAZARDOUS SUBSTANCES

The Contractor shall provide information to the Commonwealth about the identity and hazards of hazardous substances supplied or used by the Contractor in the performance of the Purchase Order. The Contractor must comply with Act 159 of October 5, 1984, known as the "Worker and Community Right to Know Act" (the "Act") and the regulations promulgated pursuant thereto at 4 Pa. Code Section 301.1 et seq.

- a. Labeling. The Contractor shall insure that each individual product (as well as the carton, container or package in which the product is shipped) of any of the following substances (as defined by the Act and the regulations) supplied by the Contractor is clearly labeled, tagged or marked with the information listed in Paragraph (1) through (4):
 - Hazardous substances:
 - a) The chemical name or common name,
 - b) A hazard warning, and
 - c) The name, address, and telephone number of the manufacturer.
 - 2) Hazardous mixtures:

Publish Date: 04 05 2013

BOP-1203 PAGE 21 of 28

- a) The common name, but if none exists, then the trade name,
- b) The chemical or common name of special hazardous substances comprising .01% or more of the mixture,
- c) The chemical or common name of hazardous substances consisting 1.0% or more of the mixture,
- d) A hazard warning, and
- e) The name, address, and telephone number of the manufacturer.

3) Single chemicals:

- a) The chemical name or the common name,
- b) A hazard warning, if appropriate, and
- c) The name, address, and telephone number of the manufacturer.

4) Chemical Mixtures:

- a) The common name, but if none exists, then the trade name,
- b) A hazard warning, if appropriate,
- c) The name, address, and telephone number of the manufacturer, and
- d) The chemical name or common name of either the top five substances by volume or those substances consisting of 5.0% or more of the mixture.

A common name or trade name may be used only if the use of the name more easily or readily identifies the true nature of the hazardous substance, hazardous mixture, single chemical, or mixture involved.

Container labels shall provide a warning as to the specific nature of the hazard arising from the substance in the container.

The hazard warning shall be given in conformity with one of the nationally recognized and accepted systems of providing warnings, and hazard warnings shall be consistent with one or more of the recognized systems throughout the workplace. Examples are:

- NFPA 704, Identification of the Fire Hazards of Materials.
- National Paint and Coatings Association: Hazardous Materials Identification System.

BOP-1203 Publish Date: 04 05 2013

- American Society for Testing and Materials, Safety Alert Pictorial Chart.
- American National Standard Institute, Inc., for the Precautionary Labeling of Hazardous Industrial Chemicals.

Labels must be legible and prominently affixed to and displayed on the product and the carton, container, or package so that employees can easily identify the substance or mixture present therein.

b. Material Safety Data Sheet. The Contractor shall provide Material Safety Data Sheets (MSDS) with the information required by the Act and the regulations for each hazardous substance or hazardous mixture. The Commonwealth must be provided an appropriate MSDS with the initial shipment and with the first shipment after an MSDS is updated or product changed. For any other chemical, the contractor shall provide an appropriate MSDS, if the manufacturer, importer, or supplier produces or possesses the MSDS. The Contractor shall also notify the Commonwealth when a substance or mixture is subject to the provisions of the Act. Material Safety Data Sheets may be attached to the carton, container, or package mailed to the Commonwealth at the time of shipment.

34. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure the Purchase Order upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the Commonwealth shall have the right to terminate the Purchase Order without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

35. APPLICABLE LAW

This Contract shall be governed by and interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania, waiving any claim or defense that such forum is not convenient or proper. The Contractor agrees that any such court shall have in personam jurisdiction over it, and consents to service of process in any manner authorized by Pennsylvania law.

36. INTEGRATION

This Purchase Order, including all referenced documents, constitutes the entire agreement between the parties. No agent, representative, employee or officer of either the Commonwealth or the Contractor has authority to make, or has made, any statement, agreement or representation, oral or written, in connection with the Contract, which in any way can be deemed to modify, add to or detract from, or otherwise change or alter its terms and conditions. No negotiations between the

ROP-1203 PAGE 23 of 28

Publish Date: 04 05 2013

parties, nor any custom or usage, shall be permitted to modify or contradict any of the terms and conditions of the Contract. No modifications, alterations, changes, or waiver to the Contract or any of its terms shall be valid or binding unless accomplished by a written amendment signed by both parties.

37. ORDER OF PRECEDENCE

In the event there is a conflict among the documents comprising this Contract, the Commonwealth and the Contractor agree on the following order of precedence: the Contract; the solicitation; and the Contractor's response to the solicitation.

38. CONTROLLING TERMS AND CONDITIONS

The terms and conditions of this Contract shall be the exclusive terms of agreement between the Contractor and the Commonwealth. All quotations requested and received from the Contractor are for obtaining firm pricing only. Other terms and conditions or additional terms and conditions included or referenced in the Contractor's quotations, invoices, business forms, or other documentation shall not become part of the parties' agreement and shall be disregarded by the parties, unenforceable by the Contractor and not binding on the Commonwealth.

39. CHANGES

The Commonwealth reserves the right to make changes at any time during the term of the Contract or any renewals or extensions thereof: 1) to increase or decrease the quantities resulting from variations between any estimated quantities in the Contract and actual quantities; 2) to make changes to the services within the scope of the Contract; 3) to notify the Contractor that the Commonwealth is exercising any Contract renewal or extension option; or 4) to modify the time of performance that does not alter the scope of the Contract to extend the completion date beyond the Expiration Date of the Contract or any renewals or extensions thereof. Any such change shall be made by the Contracting Officer by notifying the Contractor in writing. The change shall be effective as of the date of the change, unless the notification of change specifies a later effective date. Such increases, decreases, changes, or modifications will not invalidate the Contract, nor, if performance security is being furnished in conjunction with the Contract, release the security obligation. The Contractor agrees to provide the service in accordance with the change order. Any dispute by the Contractor in regard to the performance required by any notification of change shall be handled through Contract Controversies Provision.

40. BACKGROUND CHECKS

- a. The Contractor must, at its expense, arrange for a background check for each of its employees, as well as the employees of any of its subcontractors, who will have access to Commonwealth facilities, either through on-site access or through remote access. Background checks are to be conducted via the Request for Criminal Record Check form and procedure found at http://www.psp.state.pa.us/psp/lib/psp/sp4-164.pdf. The background check must be conducted prior to initial access and on an annual basis thereafter.
- b. Before the Commonwealth will permit access to the Contractor, the Contractor must provide written confirmation that the background checks

P-1203 PAGE 24 of 28

Publish Date: 04 05 2013

have been conducted. If, at any time, it is discovered that a Contractor employee has a criminal record that includes a felony or misdemeanor involving terroristic behavior, violence, use of a lethal weapon, or breach of trust/fiduciary responsibility or which raises concerns about building, system or personal security or is otherwise job-related, the Contractor shall not assign that employee to any Commonwealth facilities, shall remove any access privileges already given to the employee and shall not permit that employee remote access unless the Commonwealth consents to the access, in writing, prior to the access. The Commonwealth may withhold its consent in its sole discretion. Failure of the Contractor to comply with the terms of this Section on more than one occasion or Contractor's failure to appropriately address any single failure to the satisfaction of the Commonwealth may result in the Contractor being deemed in default of its Contract.

- c. The Commonwealth specifically reserves the right of the Commonwealth to conduct background checks over and above that described herein.
- d. Access to certain Capitol Complex buildings and other state office buildings is controlled by means of card readers and secured visitors' entrances. Commonwealth contracted personnel who have regular and routine business in Commonwealth worksites may be issued a photo identification or access badge subject to the requirements of the contracting agency and DGS set forth in Enclosure 3 of Commonwealth Management Directive 625.10 Amended (January 30, 2008) Card Reader and Emergency Response Access to Certain Capitol Complex Buildings and Other State Office Buildings. The requirements, policy and procedures include a processing fee payable by the Contractor for contracted personnel photo identification or access badges.

41. CONFIDENTIALITY

- The Contractor agrees to guard the confidentiality of the Commonwealth's a. confidential information with the same diligence with which it guards its own proprietary information. If the Contractor needs to disclose all or part of project materials to third parties to assist in the work or service performed for the Commonwealth, it may do so only if such third parties sign agreements containing substantially the same provisions as contained in this Section. The Commonwealth agrees to protect the confidentiality of Contractor's confidential information. In order for information to be deemed to be confidential, the party claiming confidentiality must designate the information as "confidential" in such a way as to give notice to the other party. The parties agree that such confidential information shall not be copied, in whole or in part, except when essential for authorized use under this Contract. Each copy of such confidential information shall be marked by the party making the copy with all confidentiality notices appearing in the original. Upon termination or cancellation of this Contract or any license granted hereunder, the receiving party will return to the disclosing party all copies of the confidential information in the receiving party's possession, other than one copy, which may be maintained for archival purposes only. Both parties agree that a material breach of these requirements may, after failure to cure within the time frame specified in this Contract, and at the discretion of the nonbreaching party, result in termination for default.
- b. The obligations stated in this Section do not apply to information:

BOP-1203 Publish Date: 04 05 2013

- 1) already known to the recipient at the time of disclosure other than through the contractual relationship;
- 2) independently generated by the recipient and not derived from the information supplied by the disclosing party;
- known or available to the public, except where such knowledge or availability is the result of unauthorized disclosure by the recipient of the proprietary information;
- 4) disclosed to the recipient without a similar restriction by a third party who has the right to make such disclosure; or
- 5) required to be disclosed by the recipient by law, regulation, court order, or other legal process.
- c. There shall be no restriction with respect to the use or disclosure of any ideas, concepts, know-how, or data processing techniques developed alone or jointly with the Commonwealth in connection with services provided to the Commonwealth under this Contract.

42. MANUFACTURER'S PRICE REDUCTION

If, prior to the delivery of the awarded item(s) by the Contractor, a price reduction is announced by the original equipment manufacturer, a comparative price reduction will be given to the Commonwealth by the Contractor.

43. NOTICE

Any written notice to any party under this Contract shall be deemed sufficient if delivered personally, or by facsimile, telecopy, electronic or digital transmission (provided such delivery is confirmed), or by a recognized overnight courier service (e.g., DHL, Federal Express, etc.) with confirmed receipt, or by certified or registered United States mail, postage prepaid, return receipt requested, and sent to following:

- a. If to the Contractor: the Contractor's address as recorded in the Commonwealth's Supplier Registration system.
- b. If to the Commonwealth: the address of the Issuing Office as set forth on the Contract.

44. RIGHT TO KNOW LAW

- a. The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL") applies to this Contract. For the purpose of these provisions, the term "the Commonwealth" shall refer to the contracting Commonwealth agency.
- b. If the Commonwealth needs the Contractor's assistance in any matter arising out of the RTKL related to this Contract, it shall notify the Contractor using the legal contact information provided in this Contract. The Contractor, at any time, may designate a different contact for such purpose upon reasonable prior written notice to the Commonwealth.

BOP-1203 PAGE 26 of 28 Publish Date: 04 05 2013

- c. Upon written notification from the Commonwealth that it requires the Contractor's assistance in responding to a request under the RTKL for information related to this Contract that may be in the Contractor's possession, constituting, or alleged to constitute, a public record in accordance with the RTKL ("Requested Information"), the Contractor shall:
 - 1) Provide the Commonwealth, within ten (10) calendar days after receipt of written notification, access to, and copies of, any document or information in the Contractor's possession arising out of this Contract that the Commonwealth reasonably believes is Requested Information and may be a public record under the RTKL; and
 - 2) Provide such other assistance as the Commonwealth may reasonably request, in order to comply with the RTKL with respect to this Contract.
- d. If the Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, or other information that the Contractor considers exempt from production under the RTKL, the Contractor must notify the Commonwealth and provide, within seven (7) calendar days of receiving the written notification, a written statement signed by a representative of the Contractor explaining why the requested material is exempt from public disclosure under the RTKL.
- e. The Commonwealth will rely upon the written statement from the Contractor in denying a RTKL request for the Requested Information unless the Commonwealth determines that the Requested Information is clearly not protected from disclosure under the RTKL. Should the Commonwealth determine that the Requested Information is clearly not exempt from disclosure, the Contractor shall provide the Requested Information within five (5) business days of receipt of written notification of the Commonwealth's determination.
- f. If the Contractor fails to provide the Requested Information within the time period required by these provisions, the Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth.
- g. The Commonwealth will reimburse the Contractor for any costs associated with complying with these provisions only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.
- h. The Contractor may file a legal challenge to any Commonwealth decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts, however, the Contractor shall indemnify the Commonwealth for any legal expenses incurred by the Commonwealth as a result of such a challenge and shall hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may

BOP-1203 PAGE 27 of 28 Publish Date: 04 05 2013

incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth, regardless of the outcome of such legal challenge. As between the parties, the Contractor agrees to waive all rights or remedies that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to the RTKL.

i. The Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Contractor has Requested Information in its possession.

BOP-1203 Publish Date: 04 05 2013 PAGE 28 of 28

License Agreement for Manager Database

This License Agreement (this "License Agreement"), effective the // 2/ day of 20/6 (the "Effective Date"), sets forth the understanding between Public School Employees' Retirement System ("PSERS") and Aon Hewitt Investment Consulting, Inc. ("Aon Hewitt") relating to the license of Aon Hewitt's online manager database (the "Database"). This License Agreement is entered into pursuant to, and shall be appended to, Purchase Order No: 4300389350 between PSERS and Aon Hewitt dated December 6, 2013 (the "Agreement").

In the event of a conflict between the terms of this License Agreement and the Agreement, this License Agreement shall control. Capitalized terms used herein but not otherwise defined shall have the respective meanings ascribed to such terms in the Agreement.

The parties hereto agree as follows:

License

- (a) Subject to the terms of this License Agreement, Aon Hewitt hereby grants PSERS a worldwide, non-transferable, and non-exclusive right and license to use Database and access the Database Website (as defined herein) only in accordance with this License Agreement for the limited purpose provided under the Agreement and this License Agreement. The Database and the Database Website shall constitute Software under the Agreement.
- (b) Subject to paragraph 1(c), PSERS is permitted to view and print extracts from the Website as follows: (a) without modification to any documents or related graphics on the Website; (b) without use of graphics separately from accompanying text; and (c) and with acknowledgement that the Website contains copyrighted materials as well as trademarks and service marks that are owned by Aon Hewitt, its related entities and affiliates, and/or third parties.
- (c) Subject to paragraphs 1(a) and 1(b) no part of the Website may be reproduced or stored in any other website, included in any public or private electronic retrieval system or service.
- (d) Any rights not expressly granted in these terms are reserved.

2. Term and Termination

- (a) This License Agreement is effective on the Effective Date and its initial term will terminate on the earlier of the expiration or termination of the Agreement.
- (b) This License Agreement may be terminated at any time upon written notice by either party to the other party if the other party commits a material breach of any of the material terms contained in this License Agreement.
- (c) This License Agreement may be terminated at any time upon thirty (30) days written notice to the other party.
- (d) Upon termination or expiration of this License Agreement for any reason, PSERS's right and license to use Database will terminate immediately, as will PSERS's access and use of

Database and the Website.

3. Access and Usage

- (a) Database is currently located at the following URL address: [link] ("Website"). This URL address is subject to change at Aon Hewitt's sole discretion and PSERS will be given notice of any such change. Accessing Website subjects PSERS to all Terms and Conditions of this License Agreement.
- (b) PSERS will be provided with usernames and passwords for access to, and use of, Database by certain PSERS employees, officers, and other individuals authorized by PSERS ("Authorized Users"). Each Authorized User will be assigned a unique username and password. PSERS will provide Aon Hewitt with a list of Authorized Users so that Aon Hewitt may generate such passwords. Upon PSERS's request, Aon Hewitt will disable the password of any current Authorized User and issue a new password for a replacement Authorized User.
- (c) PSERS will not provide access to, or use of, Database to any individuals or third parties not employed by or directly controlled by PSERS without the prior written consent of Aon Hewitt. In the event PSERS requests that a third party be included as an Authorized User under this License Agreement, such request may be granted only at the sole discretion of Aon Hewitt and may be conditioned on such third party executing a confidentiality and/or license agreement acceptable to Aon Hewitt, or amendment of this License Agreement, including the Annual Fee, as described herein. PSERS shall promptly notify Aon Hewitt in the event an Authorized User is no longer employed or engaged by PSERS so that Aon Hewitt may deactivate such Authorized User's access. PSERS will not disclose any information obtained from the Database to any third party, except PSERS may disclose such information pursuant to Section 5(b)(v) of the Agreement.
- (d) Database will be available to Authorized Users 24 hours per day, 7 days per week, except during periods of scheduled or emergency maintenance or as otherwise limited in a manner described in this License Agreement.
- (e) PSERS agrees that it will not download the software executable code in Database to any hard drive or remove, alter, cover, or obfuscate any copyright or trademark notice appearing in Database.
- (f) Any analysis or information included in the Database is not intended to be for, and should not be used for, implementation of any investment strategy and is not intended to be investment advice. Decisions regarding the implementation of any strategy require additional information, more precise analysis and review of PSERS data and strategy, along with the consideration of other factors not included in the Database.
- (g) PSERS understands that the Database includes information that is highly technical and sophisticated in nature, and that Aon Hewitt recommends PSERS consult with a qualified professional when reviewing any information obtained from Database.
- (h) PSERS agrees that it will not make references to Aon Hewitt with respect to information obtained from Database in communications with third parties.

- (i) PSERS acknowledges that information included in Database includes historical information and data, which may not be accurate as of the date accessed by PSERS. PSERS acknowledges that Aon Hewitt has no responsibility to inform PSERS of any updates, changes, corrections or supplementation to information included in Database.
- (j) PSERS's failure to comply with Sections 3(c), (e) or (h) shall constitute a material breach of this License Agreement for which Aon Hewitt may immediately suspend access to the Database and/or terminate this License Agreement.
- (k) Appendix A to this License Agreement provides Aon Hewitt's privacy policy pertaining to PSERS's usage and access to the Website and Database. Appendix A is subject to change from time to time, and Aon Hewitt shall provide PSERS with timely written notice of any such change.

4. Fees and Payment

PSERS will be responsible for an annual fee ("Annual Fee") to access and use Database, which is included in the fee that PSERS pays under the Agreement.

5. Limited Liability

The terms of this Section 5 shall only apply to PSERS access to, use of or reliance upon any manager meeting notes, manager diligence and other raw data related to manager research that is made available to PSERS through the Database or Website (the "Internal Notes"). With respect to all other services provided pursuant to the Agreement by Aon Hewitt, the liability terms of the Agreement shall apply.

- (a) Aon Hewitt, any Aon Hewitt affiliates, any other party (whether or not involved in affiliates creating, producing, maintaining or delivering the Website), and any of Aon Hewitt's and the officers, directors, employees, shareholders or agents of any of them, are excluded from all liability and responsibility for any loss or damage that may result in connection with PSERS's use of Database and the use of the Website in any way, or in connection with the use, inability to use or the results of use of the Website, except for liability arising out of the intentional misconduct on the part of said party.
- (b) Nothing in this License Agreement, nor PSERS's use of Database or the Website shall constitute investment advice, legal advice, or any other professional advice. PSERS assumes all risks in acting upon any of the information obtained by PSERS from Database or the Website and neither Aon Hewitt or any of its affiliates or third parties shall have any liability to PSERS, its employees, officers, directors, affiliates, plan participants, or any related third parties under this License Agreement, except for liability arising out of the intentional misconduct of Aon Hewitt or any of its affiliates.
- (c) In no event will Aon Hewitt or third party suppliers providing portions of Database be liable for any indirect, consequential, incidental, special or punitive damages in connection with this License Agreement.
- (d) Client agrees that Aon Hewitt's sole responsibility is to Client as set forth herein.

- (e) Without regard to the limitation of Section 5(a), Aon Hewitt agrees to indemnify, defend, and hold PSERS harmless from and against any and all claims, actions, damages, losses, and expenses of any nature (including reasonable attorneys' fees and expenses) pertaining to patent, trademark, or copyright infringement or to a violation of trade secret, license, or proprietary rights arising from PSERS's use of Database in accordance with this License Agreement.
- (f) Aon Hewitt shall not be liable, if, for any reason the Website is unavailable at any time or for any period. Access to the Website may be suspended temporarily and without notice in the case of system failure, maintenance, and repair or for reasons beyond Aon Hewitt's control. The Website may not perform as intended at all times. PSERS agrees that Aon Hewitt is not responsible for any error, omission, interruption or delay in operation of or transmission through the Website, communication line failure, system failure, or other circumstance beyond their control.
- (g) Aon Hewitt does not warrant the security of any information transmitted over the internet. Any document or information transmitted, is transmitted at PSERS's own risk.
- (h) Notwithstanding anything to the contrary in the Agreement, Aon Hewitt's liability to PSERS with respect to the Internal Notes shall not exceed \$500,000. Aon Hewitt's liability to PSERS with respect to all other aspects of this License Agreement shall not exceed the actual damages incurred by PSERS.
- (i) EXCEPT AS EXPRESSLY SET FORTH IN THIS LICENSE AGREEMENT, AON HEWITT MAKES NO REPRESENTATION OR WARRANTY TO PSERS OR ANY OTHER PERSON OR ENTITY REGARDING DATABASE OR RELATED SERVICES OR MATERIALS PROVIDED BY AON HEWITT UNDER THIS LICENSE AGREEMENT AND EXPRESSLY DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

6. Assignment

Neither party may assign its rights or obligations hereunder without the prior written consent of the other party.

7. Miscellaneous

- (a) This License Agreement and the Agreement sets forth the entire agreement of the parties regarding Database and supersedes all prior written and oral communications, negotiations, and agreements regarding Database.
- (b) It is expressly understood and agreed that the obligations of Sections 2(c), 3(e) − (i), 5 and 7, as well as all payment obligations arising on or before the date of termination or expiration of the term of this License Agreement, will survive the termination of this License Agreement.

Authorized representatives of the parties have exe	ecuted this Database License Agreement as of the
Effective Date.	_
Aon Hewitt Investment Consulting, Inc.	
Aon Hewitt Investment Consulting, Inc.	Public School Employees' Retirement System
Ву:	By: <u>see next page</u>
Name of Tohu A Mikarso	Name:
Title: W-Leges	Title:
Date: 22/b	Date:

License Agreement for Manager Database between Public School Employees' Retirement System and Aon Hewitt Investment Consulting, Inc.

COMMONWEALTH OF PENNSYLVANIA, PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

James H. Grossman, Jr. Chief Investment Officer

Glen R. Grell
Executive Director

Approved for form and legality:

Charles K. Serine, Chief Counsel
Public School Employees'
Retirement System

Appendix - A

Aon Hewitt Privacy Statement

This Privacy Statement describes how Aon Hewitt collects, uses, and protects personal information it receives in the course of providing its services. At Aon Hewitt, your privacy is very important. We strive to protect the personal information under our control and to maintain the security and integrity of that information.

How Aon Hewitt Receives Personal Information

Generally, "personal information" is information that can be used to identify you. Most of the personal information we receive relates to your participation in the compensation and benefits programs offered by your employer. There are several ways that we could receive personal information:

- You might provide the information directly as a benefit plan participant by methods such as visiting our Web sites, telephoning our call center, or sending mail to our offices.
- Your employer might provide the information to us.
- Another service provider engaged by your employer (such as payroll processors, health plans, or mutual funds) that have a part in administering your employer's plans or programs might provide the information to us.

The types of personal information we receive may include:

- Contact information, such as name, address, phone number, email address;
- Other personal information, such as a Social Security number or other governmentassigned identifier, date of birth, gender, and marital status;
- Employment information, such as date of hire, employment status, pay history, tax withholding information, performance records, and date of termination; and
- Benefit program participation and coverage information, such as benefit elections, beneficiary information, claims information, benefit plan account numbers and balances, and date of retirement.

Aon Hewitt's Commitment to Protecting Personal Information

We understand the responsibility that comes with being trusted with your personal information. We have implemented various security measures to protect the confidentiality of all the personal information we process, in both electronic and paper formats. We have policies, procedures, and controls to reduce the risk of unauthorized or accidental use, disclosure, or destruction of your personal information, and we train our employees on data security. Employees who have a job-related need to access your personal information are authorized to do so. In addition to these employees, Aon Hewitt limits access to your personal information to your employer and authorized

service providers. We also require that our service providers enter into confidentiality agreements intended to protect your personal information

Our commitment to protecting personally identifiable information also means that:

- · We won't sell your personal information to any third party; and
- We won't use, transfer, or disclose your personal information to anyone outside of Aon Hewitt, unless authorized by you or your employer, except in connection with your employer's plans and programs, as required by law or legal process, in response to law enforcement requests, and as necessary to protect the property, interests, and rights of Aon Hewitt and/or your employer.
- If we process your "protected health information" as a business associate to your employer's health plan, we will also comply with the requirements of the HIPAA Privacy and Security Rules.

Access and Corrections

Aon Hewitt is committed to respecting your rights to access your personal information. In many cases, you can access and update your personal information via our self-service Web sites or by telephoning our call center. Aon Hewitt is also committed to maintaining the accuracy of your personal information. In most cases, we rely on you and your employer to keep your personal information updated. If you need to update or correct your personal information, contact dataprivacy@hewitt.com. Please understand that, in some circumstances, only your employer, and not Aon Hewitt, may have the authority to update or correct your personal information. If this information is the type that only your employer can update or correct, we'll forward your request to your employer.

Cookies

Aon Hewitt tracks content usage and traffic on its Web sites by using "cookies" a feature of your browser. A cookie is a text file that is placed on your hard disk by a Web server. Aon Hewitt uses cookies to help it compile aggregate statistics about usage of its Web sites, such as how many users visit the Web site, how long users spend viewing the Web site, what pages are viewed most often, and to secure your session. This information is used to improve our Web sites, for transaction auditing, and for other everyday business purposes; it is not shared with any other party for any commercial purposes. You can set your browser to notify you when you are sent a cookie. This gives you the chance to decide whether or not to accept it. If you disable cookies, however, you may not be able to take advantage of all the features of our Web sites.

Notification of Updates

Aon Hewitt may update this Privacy Statement. If the changes are not material or do not affect previously-provided information, we will simply post the revised Privacy Statement on our Web sites. If the changes are material in the way we treat your personal information, we will provide notice on this Web site before we make such a change. We encourage you to periodically review our Privacy Statement so that you'll always know how we protect your personal information.

Contact Information

If you have any questions or concerns about Aon Hewitt's use of your personal information or about this Privacy Statement, please send an email to: dataprivacy@hewitt.com.

Rider 5

Pursuant to purchase order number 4300389350 including Riders 1, 2, 3, and 4 (the "Purchase Order")
Aon Hewitt Investment Consulting, Inc. (the "CONSULTANT") has agreed to perform services as set
forth therein.

This Rider 5 is hereby made and entered into as of the ______ day of ______, by and between the Commonwealth of Pennsylvania, Public School Employees' Retirement System ("PSERS") and CONSULTANT, which shall be attached to the Purchase Order as Rider 5 and incorporated therein by reference.

A. CONSULTANT agrees to perform the following Fiduciary and Governance services as may be periodically requested by PSERS, at the fees described in paragraph B below.

Such services will focus primarily on PSERS' investment program; but may also be associated with the education and training of the Board on other topics of interest.

- 1. Fiduciary and Governance training for the Board and staff.
- 2. Provide advice and insights, as may be requested by PSERS, on public pension fund industry common and best practices.
- 3. Assist with the development of new Board member orientation materials.
- 4. Review and make recommendations, consistent with industry best practices, regarding clarity and documentation of the Board's governance framework, including the IPS, Board and Committee Charters, Delegations of Authority, investment implementation policies and procedures, etc.
- 5. Assist with the development of a Board authority and delegation matrix, including:
 - a. Clarification of what authority the Board has retained, what authority has been delegated, and to whom, and
 - b. Delegations to staff from the Board and/or CIO.
- 6. Assist, as may be requested by PSERS, with strategic planning.
- Develop and administer, as may be requested by PSERS, a Board annual self-evaluation process.
- B. The CONSULTANT will provide:
- 1. (a) two, one-day, or (b) one, two-day, on-site, Fiduciary and Governance training sessions per year, which can be new member training, Board member training, staff training, or some combination thereof, at a cost of \$26,000.
- 2. Any additional Fiduciary and Governance training sessions, in any one year, beyond those provided for in B1 above will be invoiced and paid quarterly in arrears at \$15,500 per session.
- 3. Fiduciary and Governance consulting services, at a cost of \$600 per hour invoiced and paid quarterly in arrears.

- 4. Any additional Fiduciary and Governance consulting services, including on-site meetings, beyond those provided for in B3 above will be invoiced and paid quarterly in arrears at the combined hourly rate of \$600 per hour.
- As a condition of payment of the fees, CONSULTANT shall provide PSERS with invoices specifying sufficient detail to substantiate said fees.
- C. The term of this Rider 5 shall begin January 1, 2018 and continue until the expiration of the Purchase Order unless either the Purchase Order or this Rider 5 are terminated earlier in accordance with the terms of the Purchase Order.
- D. During the term of this Rider 5, Jeanna Cullins shall be primarily responsible for the provision of Fiduciary and Governance services pursuant hereto. In the event that Jeanna Cullins ceases to be employed by the CONSULTANT or ceases to be primarily responsible for CONSULTANT'S activities hereunder, PSERS shall have the right to immediately terminate this Rider 5, or approve a recommended successor.
- E. Except as set forth in this Rider 5, the Purchase Order shall continue in full force and effect in accordance with its terms.

Main Contacts at CLIENT and AHIC

Client:

John Kemp, CTP

Managing Director, Operations and Risk

Pennsylvania Public School Employees' Retirement System

5 North Fifth Street

Harrisburg, PA 17101-1905

johkemp@pa.gov 717-720-4705

AHIC:





Commonwealth of Pennsylvania, Public School Employees' Retirement System	Aon Hewitt Investment Consulting, Inc.
By: James H. Grossman, Jr.	By: Jennifer Henrikson
Title: Chief Investment Officer	Title: VP-Legal
Date:	Date: February 6, 2018
BY: GLRGUR	
Name: Glen R. Grell	
Title: Executive Director	
Date: 2 16 2018	