Attachment C

Engineering Consulting Firms Providing Services to Claimants

Attachment C

| Customer ID 240006 | Customer Name A E S CONSULTANTS LTD |
|--|--|
| Count of Sites For This Consultant: | 36 |
| Customer ID 240025 | Customer Name ADVENT ENV SERVICES INC |
| Count of Sites For This Consultant: | 121 |
| Customer ID 240026 | Customer Name ADVENT ENVIRONMENTAL SERVICES |
| Count of Sites For This Consultant: | 12 |
| Customer ID 240031 | Customer Name AGENDA INTERNATIONAL INC |
| Count of Sites For This Consultant: | 21 |
| Customer ID 240035 | Customer Name AIR ENVIRONMENTAL CO |
| Count of Sites For This Consultant: | 1 |
| Customer ID 240037 | Customer Name AIRES CONSULTING GROUP INC |
| Count of Sites For This Consultant: | 1 |
| Customer ID 244673 | Customer Name ALPHA TERRA SCIENCE INC |
| Count of Sites For This Consultant: | 19 |
| Customer ID 240066 | Customer Name APPLIED ENVIRONMENTAL SCIENCES |
| Count of Sites For This Consultant: | 1 |
| Customer ID 240395 | Customer Name ARCADIS GERAGHTY & MILLER INC |
| Count of Sites For This Consultant: | 8 |
| Count of Sites Town Town | Customer Name ASSURED ENVIRONMENTAL ASSOC INC |
| Count of Sites For This Consultant: | 2 |
| Count of Sites Tax This On the | Customer Name ATC ASSOCIATES INC |
| Count of Sites For This Consultant: | 9 |
| Customer ID 649897 Count of Sites For This Consultant: | Customer Name AXIS ENGINEERING LLC |
| Customer ID 240093 | The state of the s |
| Count of Sites For This Consultant: | Customer Name AYRES & ASSOCIATES INC 2 |
| Customer ID 240094 | |
| Count of Sites For This Consultant: | Customer Name AYRES ASSOCIATES |
| Customer ID 240095 | |
| Count of Sites For This Consultant: | Customer Name AYRES ASSOCIATES 32 |
| Customer ID 255060 | • ''' |
| Count of Sites For This Consultant: | Customer Name B L S ENVIRONMENTAL INC |
| Customer ID 240105 | |
| Count of Sites For This Consultant: | Customer Name BADGER LABORATORIES & ENGINEER 1 |
| Customer ID 240111 | Customer Name BARR ENGINEERING CO |
| Count of Sites For This Consultant: | 3 |
| Customer ID 240117 | Customer Name BAUMGARTNER ENVIRONICS INC |
| | - Commenter Estationing IMC |

240226

Count of Sites For This Consultant:

Count of Sites For This Consultant: **Customer ID** 240120 **Customer Name BAXTER & WOODMAN INC** Count of Sites For This Consultant: 1 Customer ID 240145 **Customer Name BOUC ENV SRVS & TECHNOLOGY** Count of Sites For This Consultant: 6 Customer ID 267330 **Customer Name** BRADBURNE BRILLER & JOHNSON LLC Count of Sites For This Consultant: 2 Customer ID 240147 **Customer Name BRAUN INTERTEC CORP** Count of Sites For This Consultant: 1 Customer ID 240148 **Customer Name BRAUN INTERTEC CORP** Count of Sites For This Consultant: 2 Customer ID 240149 **Customer Name BRAUN INTERTEC CORP** Count of Sites For This Consultant: 4 **Customer ID** 240158 **Customer Name** BT2 INC Count of Sites For This Consultant: 97 Customer ID 246230 **Customer Name BURNS & MCDONNELL** Count of Sites For This Consultant: 2 **Customer ID** 240162 **Customer Name** BURNS AND MCDONNELL WASTE CONSUL Count of Sites For This Consultant: **Customer ID** 240169 CAMP DRESSER & MCKEE INC **Customer Name** Count of Sites For This Consultant: **Customer ID** 240179 **Customer Name** CEDAR CORPORATION Count of Sites For This Consultant: 14 Customer ID 240186 **Customer Name** CENTRAL WISCONSIN ENGINEERS & ARCHITECTS INC Count of Sites For This Consultant: 30 **Customer ID** 240192 **Customer Name** CH2M HILL Count of Sites For This Consultant: 3 Customer ID 240199 **Customer Name COLEMAN ENGINEERING COMPANY** Count of Sites For This Consultant: Customer ID 240209 **Customer Name COOPER ENGINEERING CO INC** Count of Sites For This Consultant: 7 **Customer ID** 240210 **Customer Name COOPER ENV & ENG RESOURCES INC** Count of Sites For This Consultant: Customer ID 240223 **Customer Name DAHL & ASSOCIATES** Count of Sites For This Consultant: **Customer ID**

Customer Name

DAI ENVIRONMENTAL INC

| Customer ID | 240229 | | Customer Name | e DAMES & MOORE |
|--------------------|--|-----|----------------------|---------------------------------|
| Count of Sites I | For This Consultant: | 5 | i | |
| Customer ID | 270200 | | Customer Name | DAMES & MOORE |
| | or This Consultant: | 4 | | |
| Customer ID | | | Customer Name | DAVY ENGINEERING CO |
| | For This Consultant: | 2 | | |
| Customer ID | | | Customer Name | DELTA ENVIRONMENTAL CONSULTANTS |
| | or This Consultant: | 5 | 1 | |
| Customer ID | | | Customer Name | DOUGLAS ENGINEERING ENV SVCS |
| | or This Consultant: | 8 | | |
| Customer ID | | | Customer Name | DPRA INC |
| Count of Sites F | or This Consultant: | 14 | 4 | |
| Customer ID | and the second s | | Customer Name | DRAKE ENVIRONMENTAL INC |
| Count of Sites F | or This Consultant: | 11 | | |
| Customer ID | 240254 | | Customer Name | DRAKE ENVIRONMENTAL INC |
| Count of Sites F | or This Consultant: | 43 | L | |
| Customer ID | 240266 | | Customer Name | EARTH BURNERS INC |
| Count of Sites Fo | or This Consultant: | 2 | | |
| Customer ID | 240805 | | Customer Name | EARTH TECH INC |
| Count of Sites Fo | or This Consultant: | 1 | | • |
| Customer ID | 240806 | | Customer Name | EARTH TECH INC |
| Count of Sites Fo | or This Consultant: | 17 | | |
| Customer ID | | | Customer Name | EARTH TECHNOLOGY CORPORATION |
| Count of Sites Fo | r This Consultant: | . 1 | | |
| Customer ID | | | Customer Name | ENECO TECH MIDWEST INC |
| Count of Sites Fo | r This Consultant: | 1 | | |
| Customer ID | 240286 | | Customer Name | ENGEL & ASSOCIATES INC |
| Count of Sites Fo | r This Consultant: | 13 | | |
| Customer ID | | | Customer Name | ENSR CORPORATION |
| Count of Sites For | This Consultant: | 1 | | |
| Customer ID | 240372 | • | Customer Name | ENSR CORPORATION |
| Count of Sites For | This Consultant: | 4 | | |
| Customer ID | 240358 | (| Customer Name | ENVIROGEN INC |
| Count of Sites For | This Consultant | 158 | | |
| Customer ID | 247076 | | Sustomer Name | E18/IDOOFN WA |
| | | | oustomer Name | ENVIROGEN INC |
| Count of Sites For | i ilis Consultant: | 99 | | |

| Customer ID | 240299 | C | ustomer Nam | e ENVIRONMENTAL ASSESSMENTS INC |
|--------------------|-------------------------------|------|--------------|--|
| Count of Sites | For This Consultant: | 20 | | AOSTOSMEN IS NAC |
| Customer ID | 240300 | C | ustomer Nam | ENVIRONMENTAL ASSOC INC |
| Count of Sites | For This Consultant: | 37 | | A COOC INC |
| Customer ID | 240302 | Ci | ustomer Name | ENVIRONMENTAL COMPLIANCE CONSULT |
| Count of Sites | For This Consultant: | 64 | | LIANGE CONSULT |
| Customer ID | 240303 | Ct | stomer Name | ENVIRONMENTAL COMPLIANCE CONSULT |
| Count of Sites | For This Consultant: | 16 | | THE THE COMPLIANCE CONSULT |
| Customer ID | 240304 | Cı | stomer Name | ENVIRONMENTAL COMPLIANCE CONSULT |
| Count of Sites | For This Consultant: | 15 | | TOTAL SOME EININGE COMSULT |
| Customer ID | 240305 | Cı | stomer Name | ENVIRONMENTAL COMPLIANCE CONSULTANTS |
| Count of Sites | For This Consultant: | 13 | | ENNOL CONSCIANTS |
| Customer ID | 240313 | Cu | stomer Name | ENVIRONMENTAL ENGINEERING INC |
| Count of Sites | For This Consultant: | 2 | | THE THE PROPERTY OF THE PROPER |
| Customer ID | 240314 | Cu | stomer Name | ENVIRONMENTAL INNOVATIONS INC EI |
| Count of Sites I | For This Consultant: | 9 | | |
| Customer ID | 240316 | Cu | stomer Name | ENVIRONMENTAL MANAGEMENT COMPANY |
| Count of Sites F | or This Consultant: | 6 | | ,,,,,, |
| Customer ID | 240320 | Cu | stomer Name | ENVIRONMENTAL MGMT CONSULTING |
| Count of Sites F | or This Consultant: | 10 | | ···· · |
| Customer ID | 240323 | Cus | stomer Name | ENVIRONMENTAL MGMT RESOURCES INC |
| Count of Sites F | or This Consultant: | 1 | | |
| Customer ID | 240332 | Cus | tomer Name | ENVIRONMENTAL SYSTEMS CONSULT |
| 化对象电子 有效效应 化有线管 化氯 | or This Consultant: | 2 | | the state of the s |
| Customer ID | · · | | tomer Name | ENVIRONMENTAL TROUBLESHOOTERS |
| | or This Consultant: | 1 | | |
| Customer ID | 240338 | | tomer Name | ERM ENVIROCLEAN NORTH CENTRAL |
| | or This Consultant: | 1 | | |
| Count of Sites E | 240339 or This Consultant: | | tomer Name | ERM ENVIROCLEAN NORTH CENTRAL |
| | | 1 | | |
| Count of Sites Fo | 240340 or This Consultant: | | tomer Name | ERM NORTH CENTRAL INC |
| Customer ID | | 2 | | |
| | 240355 or This Consultant: | | omer Name | FISCHER ENVIRONMENTAL CONSULTING |
| Customer ID | | 16 | | |
| | 240356 | | omer Name | FISCHER ENVIRONMENTAL INC |
| | r This Consultant: | 54 | | |
| Customer ID | 240359 | Cust | omer Name | FOTH & VAN DYKE AND ASSOC. INC. |
| | | | | |

Count of Sites For This Consultant:

Customer ID 240364 **Customer Name** FOX ENVIRONMENTAL SERVICES INC

Count of Sites For This Consultant:

Customer ID 240279 **Customer Name GANNETT FLEMING INC**

8

2

Count of Sites For This Consultant: 27

Customer ID 240386 **Customer Name** GEO MANAGEMENT CONSULTANTS INC

Count of Sites For This Consultant:

Customer ID 240396 **Customer Name GERAGHTY & MILLER INC**

Count of Sites For This Consultant: 1

Customer ID 240398 **Customer Name** GHD INC

Count of Sites For This Consultant: 10

Customer ID 240400 **Customer Name** GILES ENGINEERING ASSOC INC

Count of Sites For This Consultant:

Customer ID 240405 **Customer Name GME CONSULTANTS INC**

Count of Sites For This Consultant:

Customer ID 240407 **Customer Name GME CONSULTANTS INC**

Count of Sites For This Consultant:

Customer ID 240411

Customer Name **GRAEF ANHALT SCHLOEMER & ASSOC**

Count of Sites For This Consultant:

Customer ID 269097 **Customer Name GRAEF ANHALT SCHLOEMER & ASSOC**

Count of Sites For This Consultant:

Customer ID 240413 **Customer Name** GRAEF ANHALT SCHLOEMER & ASSOCIATES INC

Count of Sites For This Consultant:

Customer ID 240423 **Customer Name GROUNDWATER TECHNOLOGY INC**

Count of Sites For This Consultant:

Customer ID 240433 **Customer Name GZA GEOENVIRONMENTAL INC**

Count of Sites For This Consultant: 8

Customer ID 240438 **Customer Name** HANDEX OF ILLINOIS INC

Count of Sites For This Consultant:

240444 Customer ID **Customer Name** HARENDA ENTERPRISES INC

Count of Sites For This Consultant:

Customer ID 240453 **Customer Name HNTB CORPORATION**

Count of Sites For This Consultant:

Customer ID 240464 **Customer Name HSI GEOTRANS INC**

Count of Sites For This Consultant:

Customer ID 240478 **Customer Name** INTERNATIONAL ENVIRONMENTAL CORP

Count of Sites For This Consultant: 11

| Customer ID | 240518 | | Customer Name | K SINGH & ASSOC INC |
|--------------------|-------------------------------|----|-----------------------|--|
| Count of Sites F | or This Consultant: | ç |)2 | |
| Customer ID | 240520 | | Customer Name | KAPUR & ASSOCIATES INC |
| Count of Sites F | or This Consultant: | 7 | | |
| Customer ID | 240533 | | Customer Name | KEY ENGINEERING GROUP LTD |
| Count of Sites F | or This Consultant: | 6 | 6 | |
| Customer ID | 240550 | | Customer Name | LAMPERT LEE & ASSOC |
| Count of Sites F | or This Consultant: | 8 | l . | |
| Customer ID | 240551 | | Customer Name | LANDMARK TECHNOLOGIES INC |
| Count of Sites F | or This Consultant: | 1 | | |
| Customer ID | 240558 | | Customer Name | LAW ENGINEERING INC |
| | or This Consultant: | 1 | | |
| Customer ID | | | Customer Name | LEGGETTE, BRASHEARS & GRAHAM INC |
| | or This Consultant: | 9 | | |
| Customer ID | | | Customer Name | LEVEL ONE INC |
| | or This Consultant: | 1 | | |
| Count of Sitos E | 240569 or This Consultant: | • | Customer Name | LIESCH ENVIRONMENTAL SERVICES INC |
| Customer ID | | 2' | | |
| | 240591 or This Consultant: | 2 | Customer Name | MAXIM TECHNOLOGIES INC |
| Customer ID | 240592 | 4 | Cuntum an Name | AND A SOURCE SHARE |
| | This Consultant: | 1 | Customer Name | MAXIM TECHNOLOGIES INC |
| Customer ID | 240593 | • | Customer Name | BEAVISE TECLISION COMES INC. |
| Count of Sites Fo | r This Consultant: | 6 | and the second second | MAXIM TECHNOLOGIES INC |
| Customer ID | 240597 | | Customer Name | MCDONALD & ASSOCIATES LTD |
| Count of Sites Fo | r This Consultant: | 5 | | MODOLINES & ACCOUNTED LID |
| Customer ID | 240601 | | Customer Name | MCLAREN/HART ENV ENG CORP |
| Count of Sites Fo | This Consultant: | 2 | | |
| Customer ID | 240602 | | Customer Name | MCMAHON ASSOCIATES INC |
| Count of Sites For | This Consultant: | 23 | | |
| Customer ID | 240043 | | Customer Name | MERIDIAN ALLIANCE GROUP, LLC |
| Count of Sites For | This Consultant: | 10 | | |
| Customer ID | 240609 | | Customer Name | METCO |
| Count of Sites For | This Consultant: | 42 | | |
| Customer ID | 240613 | | Customer Name | MICHAELS ENGINEERING INC |
| Count of Sites For | This Consultant: | 18 | | |

| Customer ID | 240614 | | Customer Name | MICHAELS ENGINEERING INC |
|--------------------|---------------------|----|----------------------|--|
| Count of Sites F | or This Consultant: | 2 | | |
| Customer ID | 240618 | | Customer Name | MID STATE ASSOCIATES INC |
| Count of Sites F | or This Consultant: | 1 | 4 | |
| Customer ID | 240622 | | Customer Name | MIDWEST ENGINEERING SERVICES INC |
| Count of Sites F | or This Consultant: | 9 | | |
| Customer ID | 240624 | | Customer Name | MIDWEST ENVIRO-SCIENCES INC |
| Count of Sites F | or This Consultant: | 2 | | |
| Customer ID | 240625 | | Customer Name | MIDWEST ENVIRONMENTAL MGMT CO |
| Count of Sites F | or This Consultant: | 5 | | |
| Customer ID | 240636 | | Customer Name | MILLER ENGINEERS & SCIENTISTS |
| Count of Sites F | or This Consultant: | 1 | 2 | |
| Customer ID | 240637 | | Customer Name | MILLER ENGINEERS & SCIENTISTS |
| Count of Sites Fo | or This Consultant: | 2 | 2 | |
| Customer ID | 240638 | | Customer Name | MILLER ENVIRONMENTAL MGMT |
| Count of Sites Fo | or This Consultant: | 1 | | |
| Customer ID | 240642 | | Customer Name | MJ ENV CONSULTANTS INC |
| Count of Sites Fo | or This Consultant: | 1 | | |
| Customer ID | 240644 | | Customer Name | MJ ENVIRONMENTAL CONSULTANTS INC |
| Count of Sites Fo | or This Consultant: | 2 | | |
| Customer ID | 240645 | | Customer Name | MJ ENVIRONMENTAL CONSULTANTS INC |
| Count of Sites Fo | r This Consultant: | 4 | | |
| Customer ID | 240647 | | Customer Name | MMA INC |
| Count of Sites Fo | r This Consultant: | 14 | | The state of the s |
| Customer ID | 240649 | | Customer Name | MONTGOMERY WATSON |
| Count of Sites Fo | r This Consultant: | 27 | | |
| Customer ID | 240648 | | Customer Name | MONTGOMERY WATSON - MILWAUKEE |
| Count of Sites Fo | r This Consultant: | 4 | | |
| Customer ID | 240652 | | Customer Name | MONTGOMERY WATSON CONSTRUCTORS |
| Count of Sites For | This Consultant: | 1 | | |
| Customer ID | 240653 | | Customer Name | MORAINE ENVIRONMENTAL INC |
| Count of Sites For | This Consultant: | 64 | | |
| Customer ID | 240617 | | Customer Name | MSA PROFESSIONAL SERVICES |
| Count of Sites For | This Consultant: | 11 | | |
| Customer ID | 240619 | | Customer Name | MSA PROFESSIONAL SERVICES |
| Count of Sites For | This Consultant: | 25 | | |
| Customer ID | 240660 | | Customer Name | NATURAL RESOURCE TECHNOLOGY |
| | | | | |

| Count of Sites F | or This Consultant: | 8 | | |
|--------------------|---------------------|----|--------------------|--|
| Customer ID | 240663 | | Customer Name | NINE SPRINGS ENVIRO CONSULT |
| Count of Sites F | or This Consultant: | 20 | | TIME OF TOROGS ENVIRO CONSULT |
| Customer ID | 240672 | | Customer Name | NORTHERN ENV TECHNOLOGIES INC |
| Count of Sites F | or This Consultant: | 20 | | TOTAL LIVE FECHNOLOGIES INC |
| Customer ID | 240674 | | Customer Name | NORTHERN ENVIRONMENTAL TECH |
| Count of Sites Fo | or This Consultant: | 95 | 5 | |
| Customer ID | 240675 | | Customer Name | NORTHERN ENVIRONMENTAL TECH INCO |
| Count of Sites Fo | or This Consultant: | 68 | 3 | The state of the s |
| Customer ID | 240669 | | Customer Name | NORTHEDM ENGIDONMENTAL TOTAL |
| Count of Sites Fo | or This Consultant: | 27 | | NORTHERN ENVIRONMENTAL TECHNOLOGIES INC |
| Customer ID | 240677 | | Customer Name | NORTHLAND ENVIRONMENTAL INC |
| Count of Sites Fo | or This Consultant: | 1 | | HORTHEAND ENVIRONMENTAL INC |
| Customer ID | 240685 | | Customer Name | NRP ENVIRONMENTAL CONSULTANTS |
| Count of Sites Fo | r This Consultant: | 20 | | TANTONNICHTAL CONSULTANTS |
| Customer ID | 240695 | | Customer Name | OMNI ENVIRONMENTAL INC |
| Count of Sites Fo | r This Consultant: | 3 | | THE PROPERTY OF THE PROPERTY O |
| Customer ID | 240696 | | Customer Name | OMNNI ASSOCIATES |
| Count of Sites For | r This Consultant: | 39 | | |
| Customer ID | 240738 | | Customer Name | PINNACLE ENGINEERING INC |
| Count of Sites For | This Consultant: | 1 | | The state of the s |
| Customer ID | 240744 | | Customer Name | PRAIRIE ENVIRONMENTAL SPEC |
| Count of Sites For | This Consultant: | 1 | Tila volt Battille | |
| | 240749 | | Customer Name | PROFESSIONAL SERVICE INDUSTRIES |
| Count of Sites For | This Consultant: | 7 | | |
| Customer ID | 240765 | (| Customer Name | RAMAKER & ASSOCIATES INC |
| Count of Sites For | This Consultant: | 35 | | |
| Customer ID | 240774 | (| Customer Name | REMEDIAL ENGINEERING INC |
| Count of Sites For | This Consultant: | 69 | | |
| | 240778 | C | Customer Name | RESOURCE ENGINEERING ASSOC |
| Count of Sites For | This Consultant: | 1 | | |
| Customer ID | 240779 | C | Sustomer Name | RESOURCE ENGINEERING ASSOC INC |
| Count of Sites For | This Consultant: | 19 | | |
| | 240789 | C | ustomer Name | RMT INC |
| Count of Sites For | This Consultant: | 6 | | · |
| Customer ID 2 | 240790 | С | ustomer Name | RMT INC |
| | | | | |

240863

Count of Sites For This Consultant: 27 Customer ID 240791 **Customer Name** ROBERT E LEE & ASSOC INC Count of Sites For This Consultant: 30 Customer ID 240306 **Customer Name** RREM Count of Sites For This Consultant: 4 Customer ID 240307 **Customer Name** RREM Count of Sites For This Consultant: 1 Customer ID 240308 **Customer Name RREM** Count of Sites For This Consultant: 1 **Customer ID** 240801 **Customer Name RREM-MSA DIVISION** Count of Sites For This Consultant: 1 Customer ID 240802 **Customer Name RSV ENGINEERING INC** Count of Sites For This Consultant: **Customer ID** 242125 **Customer Name RSV ENGINEERING INC** Count of Sites For This Consultant: 1 Customer ID 240809 **Customer Name** S A G ENVIRONMENTAL INC Count of Sites For This Consultant: 3 Customer ID 240813 **Customer Name** SAND CREEK CONSULTANTS INC Count of Sites For This Consultant: 29 Customer ID 240829 **Customer Name** SERVICE ENVIRONMENTAL ENG CORP Count of Sites For This Consultant: 2 Customer ID 240831 **Customer Name** SEYMOUR ENVIRONMENTAL SERVICES INC Count of Sites For This Consultant: Customer ID 240839 **Customer Name** SHORT ELLIOTT HENDRICKSON INC Count of Sites For This Consultant: **Customer ID** 240840 **Customer Name** SHORT ELLIOTT HENDRICKSON INC Count of Sites For This Consultant: Customer iD 240841 **Customer Name** SIGMA ENVIRONMENTAL SERVICES INC Count of Sites For This Consultant: 145 **Customer ID** 240847 SOILS & ENGINEERING SERVICES INC **Customer Name** Count of Sites For This Consultant: Customer ID 240860 **Customer Name** STILES ENVIRONMENTAL INC Count of Sites For This Consultant: Customer ID 240861 **Customer Name** STILES ENVIRONMENTAL INC Count of Sites For This Consultant: 21 **Customer ID**

Customer Name STRAND ASSOCIATES INC

Count of Sites For This Consultant:

240864 **Customer Name** STRAND ASSOCIATES INC

Count of Sites For This Consultant: 1

Customer ID

Customer ID 240869 **Customer Name** STS CONSULTANTS LTD

Count of Sites For This Consultant: 25

Customer ID 240870 **Customer Name** STS CONSULTANTS LTD

Count of Sites For This Consultant: 19

Customer ID 253077 **Customer Name** STS CONSULTANTS LTD

Count of Sites For This Consultant: ŧ

Customer ID 240872 **Customer Name** SUMMIT ENVIROSOLUTIONS INC

Count of Sites For This Consultant: 4

Customer ID 240874 **Customer Name** SUNDBERG CARLSON & ASSOC INC

Count of Sites For This Consultant: 1

Customer ID 240877 **Customer Name** SUPERIOR ENVIRONMENTAL CORP

Count of Sites For This Consultant: 2

Customer ID 240900 **Customer Name TERRACON**

Count of Sites For This Consultant: 3

Customer ID 253923 **Customer Name TERRACON**

Count of Sites For This Consultant: 1

Customer ID 240905 **Customer Name** THREE BEARS OIL & GAS INC

Count of Sites For This Consultant: 3

Customer ID 240917 **Customer Name** TRIAD ENGINEERING INC

Count of Sites For This Consultant: 2

Customer ID 247942 **Customer Name** UNITED ENGINEERING CONSULTANTS INC Count of Sites For This Consultant:

Customer ID 240944 **Customer Name** VIERBICHER ASSOCIATES INC Count of Sites For This Consultant:

Customer ID 240945

Customer Name VIERBICHER ASSOCIATES INC Count of Sites For This Consultant:

Customer ID 240946 **Customer Name** VIJAY AND ASSOCIATES INC

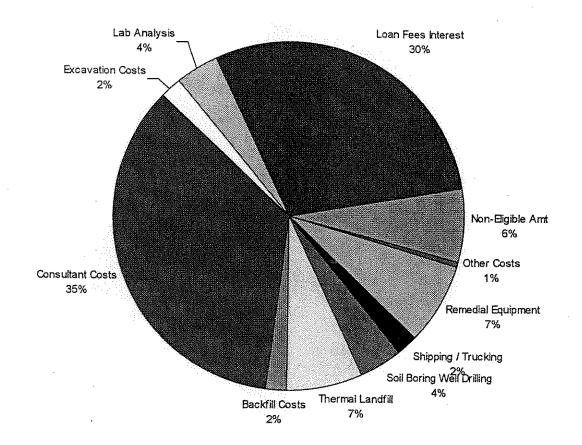
Count of Sites For This Consultant: 2

Customer ID 240981 **Customer Name WOODWARD-CLYDE CONSULTANTS**

Count of Sites For This Consultant:

Attachment D

Breakdown of Charges to the PECFA Program

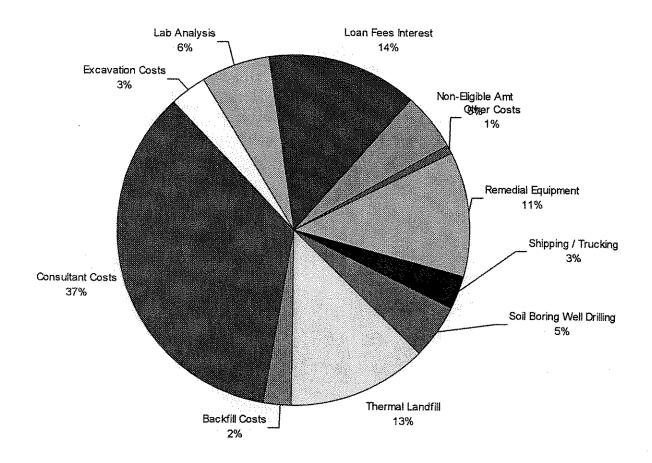


Cost Breakdown for PECFA Claims

Completed between 01/01/00 and 06/30/00

| Category | Claim Amount |
|---------------------------|-----------------|
| Backfill Costs | \$1,430,912.53 |
| Consultant Costs | \$27,181,942.27 |
| Excavation Costs | \$1,661,858.22 |
| Lab Analysis | \$2,853,119.20 |
| Loan Fees Interest | \$22,873,575.84 |
| Non-Eligible Amt | \$4,955,643.77 |
| Other Costs | \$526,471.26 |
| Remedial Equipment | \$5,673,905.02 |
| Shipping / Trucking | \$1,626,888.36 |
| Soil Boring Well Drilling | \$3,011,469.96 |
| Thermal Landfüll | \$5,300,570.17 |
| Grand Total: | \$77,096,356.60 |
| Non-Eligible: | \$4,955,643.77 |
| Eligible Total: | \$72,140,712.83 |
| Number of Claims | 1349 |

Thursday, July 20, 2000



Cost Breakdown for PECFA Claims

Completed between 01/01/89 and 06/30/00

| Category | Claim Amount |
|----------------------------|------------------|
| Backfill Costs | \$21,236,810.44 |
| Consultant Costs | \$319,116,401.87 |
| Excavation Costs | \$29,863,114.52 |
| Lab Analysis | \$56,750,630.98 |
| Loan Fees Interest | \$125,951,421.39 |
| Non-Eligible Amt | \$47,111,791.56 |
| Other Costs | \$6,583,261.50 |
| Remedial Equipment | \$102,643,624.56 |
| Shipping / Trucking | \$26,273,797.33 |
| Soil Boring Well Drilling | \$46,805,933.05 |
| Thermal Landfill | \$113,501,071.56 |
| Grand Total: | \$895,837,858.76 |
| Non-Eligible: | \$47,111,791.56 |
| Eligible Total: | \$848,726,067.20 |
| Number of Claims | 17153 |
| Wednesday, August 23, 2000 | |

THE STATE OF WISCONSIN

SENATE CHAIR BRIAN BURKE

316-S Capitol P.O. Box 7882 Madison, WI 53707-7882 Phone: (608) 266-8535



ASSEMBLY CHAIR

JOHN GARD

315-N Capitol P.O. Box 8952 Madison, WI 53708-8952 Phone: (608) 266-2343

JOINT COMMITTEE ON FINANCE

MEMORANDUM

To:

Members

Joint Committee on Finance

From:

Senator Brian Burke

Representative John Gard

Date:

September 22, 2000

Re:

Transportation Revenue Bonds, 2000 Series A

Attached is a copy of a report from the Department of Administration, pursuant to s. 18.64 (7), Stats. The report specifies the reason for not complying with subsections (2) to (5) of the same section for a specific issue of debt.

The report is being provided for your information only. No formal action is required by the Committee. Please feel free to contact us if you have any questions.

Attachment

BB:JG:dh

STATE OF WISCONSIN DEPARTMENT OF ADMINISTRATION

101 East Wilson Street, Madison, Wisconsin

TOMMY G. THOMPSON **GOVERNOR**

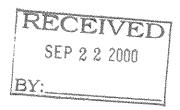
GEORGE LIGHTBOURN SECRETARY



Office of the Secretary Post Office Box 7864 Madison, WI 53707-7864 Voice (608) 266-1741 Fax (608) 267-3842 TTY (608) 267-9629

September 22, 2000

The Honorable Brian Burke, Co-Chair The Honorable John Gard, Co-Chair Joint Committee on Finance Madison, WI 53702



Dear Senator Burke, Representative Gard and Members:

This report is required by subsection (7) of 18.64 of the Wisconsin Statutes and specifies the reason for not complying with subsections (2) to (5) of the same section for a specific issue of debt.

On June 28, 2000, the Building Commission authorized the sale of \$123,700,000 State of Wisconsin Transportation Revenue Bonds, 2000 Series A (the "Bonds"). Pursuant to this authorization, on September 12, 2000, the Capital Finance Director conducted a public sale for and awarded the Bonds. This was a public sale conducted pursuant to Subchapter II of Chapter 18. The attached Official Notice of Sale, dated August 31, 2000, set the terms and conditions of the sale and was available to all potential bidders. The State received five bids for the Bonds.

The award was based on the lowest true interest cost rate to the State. The successful underwriters were a syndicate managed by Morgan Stanley & Co., Incorporated. A list of the syndicate members is attached. There are no firms in the syndicate that are certified by the Department of Commerce as minority owned.

Underwriting participation by minority owned firms is encouraged. There is a section "Minority Participation" in the Official Notice of Sale and the attached list of the certified minority owned firms, which includes address, phone number, and contact person, was included in the bidding materials made available to each prospective bidder.

Sincerely,

George Lightbourn

Secretary

Enc.

\$123,700,000 State of Wisconsin Transportation Revenue Bonds, 2000 Series A

Underwriting Syndicate

Underwriters:

Book Running Manager:

Morgan Stanley & Co., Incorporated

Members:

J.P. Morgan Securities Inc.

Lehman Brothers

Banc of America Securities LLC

Advest, Inc.

A.G. Edwards & Sons, Inc.

Ferris, Baker Watts Inc.

Griffin, Kubik, Stephens & Thompson, Inc.

Charles Schwab

Wachovia Securities, Inc.

OFFICIAL NOTICE OF SALE

\$123,700,000

STATE OF WISCONSIN TRANSPORTATION REVENUE BONDS, 2000 SERIES A

SEALED AND ELECTRONIC PROPOSALS will be received by the Capital Finance Director, acting on behalf of the State of Wisconsin Building Commission (Commission), at the Reception Area, Administration Building, 101 East Wilson Street – 10th Floor, Madison, Wisconsin, until 10:00 a.m. (CDT) on September 12, 2000, when they will be publicly opened and read, for the purchase of \$123,700,000 State of Wisconsin Transportation Revenue Bonds, 2000 Series A (2000 Series A Bonds) on the terms and conditions stated below. Sealed proposals must be delivered to the Reception Area. Electronic proposals must be submitted through Bloomberg Services, Dalcomp/Parity, or MuniAuction (Approved Providers). Sealed proposals will be opened, electronic proposals retrieved, and all proposals publicly announced in the Reception Area shortly after the deadline for proposals.

Terms of 2000 Series A Bonds. The 2000 Series A Bonds will be dated September 15, 2000, and will be payable as to principal either through serial maturities or redemption from mandatory sinking fund payments (as specified by the successful bidder) on July 1 of each year, in the years and principal amounts as follows:

| | Principal | | |
|------|------------|------------|--|
| Year | ********** | Amount | |
| 2012 | \$ | 9,700,000 | |
| 2013 | | 10,200,000 | |
| 2014 | | 10,700,000 | |
| 2015 | | 11,300,000 | |
| 2016 | | 11,900,000 | |
| 2017 | | 12,500,000 | |
| 2018 | | 13,200,000 | |
| 2019 | | 14,000,000 | |
| 2020 | | 14,700,000 | |
| 2021 | | 15,500,000 | |

Each bid must specify whether the principal amount of the 2000 Series A Bonds payable on a particular date will be a payment at maturity of a serial bond or a mandatory sinking fund payment of a term bond. The mandatory sinking fund payments of each term bond shall be on one or more consecutive annual payment dates immediately preceding the maturity date of such term bond. The mandatory sinking fund payment (if any) so specified for any year must be equal to the full principal amount of 2000 Series A Bonds listed in the table above as payable in that year. The same interest rate specified for the nominal maturity of a term bond must also be specified for all mandatory sinking fund payments of such term bond.

The 2000 Series A Bonds will bear interest, payable on July 1, 2001 and semiannually thereafter on the first day of January and July, at such rate or rates per annum as are designated by the successful bidder in its bid. Interest on the 2000 Series A Bonds will be computed on the basis of a 360-day year of twelve 30-day months.

Optional Redemption. The 2000 Series A Bonds are subject to redemption at the option of the Commission on July 1, 2010 or any date thereafter, in whole or in part, in integral multiples of \$5,000. In the event of partial redemption, the Commission shall direct the maturity or maturities and the amount thereof so to be redeemed. The redemption price for 2000 Series A Bonds redeemed prior to their stated dates of maturity shall be equal to 100% of the principal amount of the 2000 Series A Bonds so redeemed, plus accrued interest to the date of redemption.

Mandatory Sinking Fund Redemption. The 2000 Series A Bonds of certain maturities will be subject to mandatory redemption prior to their respective stated maturity dates, in part, from mandatory sinking fund payments, to the extent the successful bidder so specifies in its bid. In such event, the redemption price shall be equal to 100% of the principal amount of the 2000 Series A Bonds so redeemed, plus accrued interest to the date of redemption.

Book-Entry. The 2000 Series A Bonds will be issued as fully registered bonds without coupons and, when issued, will be registered only in the name of Cede & Co., as nominee for The Depository Trust Company, New York, New York (DTC). DTC will act as securities depository of the 2000 Series A Bonds. A single bond certificate for each separate maturity will be issued to DTC and immobilized in its custody. Individual purchases will be made in bookentry form pursuant to the rules and procedures established between the securities depository and its direct and

indirect participants, in the principal amount of \$5,000 and integral multiples thereof. Individual purchasers will not receive certificates evidencing their ownership of the 2000 Series A Bonds purchased. Bank One Trust Company, National Association (Trustee) will deposit the bond certificates with DTC and will release them upon closing. The Trustee will make payments of principal and interest on the 2000 Series A Bonds on the dates set forth above, to the securities depository or its nominee as registered owner of the 2000 Series A Bonds in same-day funds. Transfer of said payments to beneficial owners will be the responsibility of the securities depository and its direct and indirect participants, all as required by rules and procedures of the securities depository and its direct and indirect participants. No assurance can be given by the Trustee or the State that the securities depository and its direct and indirect participants will make prompt transfer of said payments. The Trustee and the State assume no liability for failures of the securities depository or its direct and indirect participants to promptly transfer said payments to beneficial owners of the 2000 Series A Bonds.

Notice to Securities Depository. Notices, if any, given by the Trustee or the State to the securities depository are redistributed in the same manner as are payments. The Trustee and the State assume no liability for the failure of the securities depository, its participants, or other nominees of beneficial owners to promptly transfer said notices to the beneficial owners of the 2000 Series A Bonds. The Trustee and the State are not responsible for supervising the activities or reviewing the records of the securities depository or its direct and indirect participants.

Successor to Securities Depository. In the event that the relationship with the current securities depository is terminated and the Commission does not appoint a successor securities depository, the Commission will prepare, authenticate, and deliver, at its expense, fully registered certificated 2000 Series A Bonds in the denominations of \$5,000 or any integral multiple thereof, in the aggregate principal amount of 2000 Series A Bonds of the same maturities and interest rates then outstanding, to the beneficial owners of the 2000 Series A Bonds as identified to the Commission by the securities depository and its participants.

Purpose and Pledge. The State has previously issued transportation revenue bonds. As of August 15, 2000, there were \$735,445,000 outstanding transportation revenue bonds (Outstanding Bonds). The 2000 Series A Bonds will be issued senior to the pledge granted to the State of Wisconsin Transportation Revenue Commercial Paper Notes of 1997, Series A (Notes), which were also issued pursuant to the General Resolution. As of August 15, 2000, there were \$141,733,000 of Notes outstanding. The 2000 Series A Bonds will be issued pursuant to Subchapter II of Chapter 18 of the Wisconsin Statutes and pursuant to a General Resolution adopted by the Commission on June 26, 1986, as amended by Supplemental Resolutions adopted by the Commission on March 19, 1998 and August 9, 2000, and a Series Resolution adopted by the Commission on June 28, 2000. The 2000 Series A Bonds will be issued to finance the cost of certain State transportation facilities and highway projects and to pay costs of issuance.

Security for the Bonds. The 2000 Series A Bonds will be revenue obligations of the State payable solely from amounts in the Redemption Fund created by the General Resolution. The 2000 Series A Bonds are secured by a first lien pledge of the Program Income, which includes vehicle registration fees authorized under Section 341.25 of the Wisconsin Statutes. The Bonds are not general obligations of the State, its agencies, and do not constitute "public debt" of the State as used in the Constitution and Statutes of the State.

Minority Participation. It is the policy of the Commission to endeavor to ensure that 6% of the 2000 Series A Bonds are underwritten by firms that are certified by the State as being minority owned. The Commission urges prospective bidders to obtain from the Commission a list of firms so certified and to include such firms in their bidding group. The Commission further encourages certified minority-owned firms to submit bids directly and to assemble bidding groups for the submission of bids. Minority-owned firms that are not yet certified by the State and wish to be, may contact the Wisconsin Department of Commerce, Bureau of Minority Business Development at 608.267.9550.

Offering of Securities. The State offers to sell these securities by competitive bid. In the jurisdictions of Georgia, Illinois, Louisiana, Nebraska, New York, North Dakota, and Vermont, the State's offer is limited to the following: brokers, dealers, banks, savings institutions, trust companies, insurance companies, investment companies as defined in the Investment Company Act of 1940, pension or profit sharing trusts, and other financial institutions, whether the purchaser is acting for itself or in a fiduciary capacity.

Insurance on 2000 Series A Bonds. In the event the successful bidder obtains a bond insurance policy for all or a portion of the 2000 Series A Bonds, by or on behalf of it or any other member of its underwriting group, the successful bidder is responsible for making sure that disclosure information is provided about the credit enhancement provider (for example, through a wrapper to the Official Statement). The Commission will cooperate with the successful bidder in this manner. The costs of obtaining any bond insurance policy and the costs of providing

disclosure information about the credit enhancement provider shall be paid by the successful bidder. In addition, the successful bidder will be required, as a condition for delivery of the 2000 Series A Bonds, to certify that the premium will be less than the present value of the interest expected to be saved as a result of such insurance.

Electronic Bidding. Bidders who intend to submit electronic proposals must submit a signed Agreement About Use of Electronic Bidding Service Provider to the Capital Finance Director prior to the bid opening. The Commission assumes no responsibility or liability for bids submitted through an Approved Provider. If any provisions in this Official Notice of Sale conflict with information provided by an Approved Provider, this Official Notice of Sale shall control. Further information about the electronic bidding service providers, including any fee charged and applicable requirements, may be obtained from:

- Bloomberg Services
 Bloomberg Business Park
 100 Business Park Road
 Skillman, NJ 08588-3629
 New Issues Desk, 609.279.3250
- Dalcomp/Parity
 395 Hudson Street, FLR 3
 New York, NY 10014
 Cheryl Horowitz, 212.806.3898
- MuniAuction
 Allegheny Building
 429 Forbes Ave., Suite 1800
 Pittsburgh, PA 15219
 David Hasenkopf, 412.391.7686

Official Bid Form and Award. Sealed proposals must be made using the Official Bid Form, and all electronic proposals shall be deemed to incorporate the provisions of the Official Bid Form. The 2000 Series A Bonds will be awarded at the lowest true interest cost rate to the State. The true interest cost rate for each bid will be determined on the basis of present value by doubling the semiannual interest rate, compounded semiannually, necessary to discount the debt service payments to September 15, 2000 and to the price bid. In the event two or more bids specify the same lowest true interest cost rate, then the award will be made to the bidder with the lowest true interest cost rate and the largest minority-owned firm participation, or if such bidders have an equal amount of minority-owned participation, then selection for award will be made among such bidders by the Capital Finance Director by lot.

Each bid shall indicate an interest rate for each maturity and a purchase price for the 2000 Series A Bonds. Each interest rate bid must be a multiple of 0.05%. A bid must be for all the 2000 Series A Bonds and may be for any purchase price not less than 98.5% of the par amount of the 2000 Series A Bonds (\$121,844,500) nor greater than 101% of the par amount of the 2000 Series A Bonds (\$124,937,000). There shall be only one interest rate per maturity. The 2000 Series A Bonds may not have an initial offering price less than 98.5% of par. The Capital Finance Director, acting on behalf of the Commission, may waive any informality or irregularity in any bid or condition of this Official Notice of Sale and reject any or all bids.

No later than one-half hour after verbal notification of being the apparent high bidder, the "when, as, and if issued" offering prices of all 2000 Series A Bonds must be communicated to the Capital Finance Office. In the interest of price transparency in the market, the State encourages the successful bidder to promptly disseminate the initial offering prices for all 2000 Series A Bonds.

Bid Deposit. A certified, official, or cashier's check must be provided, or a financial surety bond submitted, for each bid, payable to the order of the State of Wisconsin, in the amount of \$2,475,000. If a check is provided, it must accompany the bid. If a financial surety bond is submitted, it must be from an insurance company licensed to issue such a bond in the State of Wisconsin and acceptable to the Capital Finance Director, and such bond must be submitted to the Capital Finance Office prior to the opening of the bids. The financial surety bond must identify each bidder whose deposit is assured by such bond. Each bidder submitting a financial surety bond should determine for itself that the financial surety bond is submitted prior to the bidding deadline. If the bid is awarded to a bidder that has submitted a financial surety bond, the bidder is required to provide the good-faith deposit in immediately available funds not later than 1:30 p.m. (CDT) on September 13, 2000. A claim may be made under the financial surety bond in the event that the good-faith deposit is not timely. Bids shall be enclosed in a sealed envelope marked on the outside, in substance, Bid for State of Wisconsin Transportation Revenue Bonds, 2000 Series A.

Good-Faith Deposit. The good-faith deposit of the successful bidder will be cashed. All checks of unsuccessful bidders will be returned immediately upon award of the 2000 Series A Bonds. No interest will be allowed on the amount of the good-faith deposit. The proceeds of the good-faith deposit of the successful bidder will be applied to the purchase price of the 2000 Series A Bonds. In the event that the successful bidder should fail to take up and pay for the 2000 Series A Bonds in compliance with the terms of its bid, the Commission, at its option, may retain the good-faith deposit as liquidated damages or, at its further option, may retain the good-faith deposit as partial payment of actual damages or as security for any other remedy available to the Commission. The amount of the good-faith deposit is to be returned to the successful bidder on the failure of the Commission to perform in accordance with the terms of this Official Notice of Sale and the bid. All bids shall remain firm for five hours after the time specified for

the opening of bids, and an award of the 2000 Series A Bonds, or rejection of all bids, will be made by the Capital Finance Director within said period of time.

Certification of Price. The successful bidder shall certify, prior to delivery of the 2000 Series A Bonds, the "issue price" of the 2000 Series A Bonds awarded to such bidder as defined in Section 1274 of the Internal Revenue Code of 1986, as amended.

Closing and Delivery. No later than September 26, 2000, the 2000 Series A Bonds will be delivered through the Trustee to DTC using DTC's Fast Automated Securities Transfer (FAST) System. The closing will be at or about 9:30 a.m. (EDT), on or about September 27, 2000 at a mutually agreeable location. Payment for the 2000 Series A Bonds must be made by wire in immediately available funds for credit at Bank One Trust Company, National Association at said date and time. Should delivery be delayed beyond 45 days from the date of sale for any reason beyond the control of the State except failure of performance by the successful bidder, the State may cancel the award or the successful bidder may demand return of its good-faith deposit and thereafter its interest in and liability for the 2000 Series A Bonds will cease.

Bond Opinion. The legality of the 2000 Series A Bonds will be approved by Michael Best & Friedrich LLP, bond counsel, whose unqualified approving opinion will be furnished to the successful bidder without cost upon the delivery of the 2000 Series A Bonds. There will also be furnished upon the delivery of the 2000 Series A Bonds the usual closing papers, including a certificate stating that there is no litigation pending or threatened affecting the validity of or security for the 2000 Series A Bonds and a certificate to the effect that the Official Statement prepared in connection with the sale of the 2000 Series A Bonds, as of the date of the Official Statement and as of the date of delivery of the 2000 Series A Bonds, does not contain any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

Tax Exemption. Under existing law interest on the 2000 Series A Bonds is excluded from gross income for federal income tax purposes. Interest on the 2000 Series A Bonds is not an item of tax preference for purposes of the federal alternative minimum tax.

Continuing Disclosure. In order to assist bidders in complying with Section (b)(5) of Rule 15c2-12 under the Securities Exchange Act of 1934, the State has executed a Master Agreement on Continuing Disclosure and Amended and Restated Addendum Describing Annual Report for Transportation Revenue Bonds and will execute a Supplemental Agreement specifically for the 2000 Series A Bonds (Continuing Disclosure Documents). The Continuing Disclosure Documents are available to prospective bidders and will be included in the closing papers.

CUSIP Numbers. The 2000 Series A Bonds will contain CUSIP identification numbers, but such numbers shall not constitute a part of the contract for the purchase of the 2000 Series A Bonds, and any error or omission with respect thereto shall not constitute cause for refusal by the purchaser to accept delivery of and pay for the 2000 Series A Bonds in accordance with the terms of the purchaser's bid.

Bidding Documents. The Preliminary Official Statement, which is available electronically at the web site shown below, is in a form which the Commission "deems final" as of August 31, 2000 for purposes of Section (b)(1) of Rule 15c2-12 under the Securities Exchange Act of 1934 but is subject to revision, amendment, and completion in a final official statement as defined in Section (e)(3) of such rule. The Preliminary Official Statement, Official Bid Form, Agreement About Use of Electronic Bidding Service Provider, and Continuing Disclosure Documents may be obtained from the world wide web at:

www.doa.state.wi.us/debf/capfin/pos.asp

Paper copies of these documents may be obtained from the Capital Finance Office, Department of Administration, Administration Building, 101 East Wilson Street – 10th Floor, Madison, Wisconsin 53702, 608.266.2305 or 608.267.0374.

Final Official Statements. The Commission will furnish to the successful bidder, without cost, up to 1,000 copies of the final Official Statement within seven business days after the award of the 2000 Series A Bonds.

Dated: August 31, 2000

Frank R. Hoadley
Capital Finance Director

MINORITY-OWNED UNDERWRITING FIRMS CERTIFIED BY THE WISCONSIN DEPARTMENT OF COMMERCE

March 23, 2000

Note: The following list of minority-owned underwriting firms is provided for the information of potential bidders on the Bonds and does not constitute a part of the Official Notice of Sale. Minority participation in bids is strongly encouraged by the State but is not a requirement for submitting a bid.

Mr Hugh Albritton III

A & M Securities LLC

2475 Northwinds Pkwy Ste 200

Alpharetta GA 30004

770-753-6166

Mr Michael Yap Americal Securities Inc 290 7th Ave San Francisco CA 94118 415-666-0633

Mr Elton Johnson Jr Amerivet Securities Inc 9800 S Sepulveda Blvd Ste 820 Los Angeles CA 90045 310-641-6284

Ms Caridad Ingco AMI Risk Consultants Inc 11410 N Kendall Dr #208 Miami FL 33176-1031 305-273-1589

Ms Ceyenna Bennett Apex Securities Inc 333 Clay St Ste 1310 Houston TX 77002 713-650-1122

Ms Benita Pierce B Pierce & Co Inc 12 Greene St #3 New York NY 10013 212-219-1114

Mr Sano Shimoda *Bio Science Securities Inc* 2 Theatre Sq #210 Orinda CA 94563 925-253-9520

Mr Charles W Johnson Blaylock & Partners LP 609 5th Ave New York NY 10017 888-738-6633

Mr Bufus Outlaw Boe Securities 225 S 15th St Ste 928 Philadelphia PA 19102 215-546-2300 Mr Stephen R Goodwin Cartwright & Goodwin Inc 425 E 86th St Fl 8 New York NY 10028-6449 212-427-1602

Ms Baunita Greer
Cromwell Miller & Greer Inc
301 Cathedral Parkway #6S
New York NY 10026
212-323-8273

Mr Samuel D Ewing JR Ewing Capital Inc 6630 16th St NW Washington DC 20012 202-829-9450

Ms Sherlin Lee First Honolulu Securities Inc 900 Fort St #950 Honolulu HI 96813 808-523-9422

Ms Gail M Pankey Gail M Pankey 8 Broad St New York NY 10005 212-425-0382

Mr Christopher Gardner Gardner Rich & Company 311 S Wacker Dr #6060 Chicago IL 60606 312-922-3333

Ms Lenda P Washington GRW Capital Corp 1004 Sixth St NW Washington DC 20001 202-628-7090

Ms Laura J Janus

HCM Investments Inc
35 W Wacker Dr #3260
Chicago IL 60601-1614
312-553-1000

Mr Louis A Holland Holland Capital Mgmt LP 35 W Wacker Dr Ste 3260 Chicago IL 60601 312-553-1040 Mr Eric H Pookrum INNOVA Securities Inc 3703 Woodsman Court Suitland MD 20746-1376 301-967-7368

Mr Ronald Jackson Jackson Partners & Assoc 381 Park Ave S #621 New York NY 10016 800-932-9863

Mr Samuel W Bacote
Jackson Securities Inc
100 Peachtree St NW Ste 2250
Atlanta GA 30303-1912
404-522-5766

Mr John Hsu John Hsu Capital Group Inc 767 3rd Ave Fl 18 New York NY 10017-2023 212-223-7515

Mr Albert Grace Jr Loop Capital Markets LLC 175 W Jackson Ste A635 Chicago IL 60604 312-913-4905

Ms Patricia Winans MAGNA Securities Corp 60 E 42nd St Ste 2530 New York NY 10065 212-547-3740

Ms Patricia Senese
May Davis Group
1 World Trade Center Ste 8735
New York NY 10005
212-775-7400

Mr Philip Y Leung Montrose Securities Intrntl 50 California St #3270 San Francisco CA 94111 415-399-9955

Mr Neil Lieberman MR Beal & Company 67 Wall St New York NY 10005 212-983-3930

MINORITY-OWNED UNDERWRITING FIRMS CERTIFIED BY THE WISCONSIN DEPARTMENT OF COMMERCE

March 23, 2000 Continued

Mr Hunter Reynolds Omni Financial Group LLC 6575 W Loop South Ste 110 Bellaire TX 77401 713-349-9600

Mr David Ormes Ormes Capital Markets Inc 55 Broadway Fl 10 New York NY 10006 212-361-1320

Mr Miguel Uria *Oro Financial Inc* 4037 Tulane Ave #100 New Orleans LA 70119-6829 504-482-4116

Mr Malcolmn Pryor Pryor Counts & Co Inc 1515 Market St #819 Philadelphia PA 19102 215-569-0274 Mr George W Graham Ramirez & Co Inc 61 Broadway #2924 New York NY 10006 212-248-0500

Mr Dominic Antoniello Redwood Securities Group Inc 600 California St Ste 1650 San Francisco CA 94108-2408 415-954-0678

Mr Eric L Small SBK-Brooks Investment Corp 50 Public Sq 840 Terminal Twr Cleveland OH 44113 216-861-6950

Ms Suzanne Shank
Siebert Brandford Shank & CO LLC
30 N Lasalle St Ste 2120
Chicago IL 60602
312-759-0400

Ms Barbara M Aaron Sturdivant & Co Inc 223 Gibbsboro Rd Clementon NJ 08021 856-627-4500

Ms Maria Markham Thompson *The Chapman Co* 401 E Pratt St Fl 28 Baltimore MD 21202 410-625-9656

Mr Christopher J Williams The Williams Capital Group LP 650 Fifth Ave Fl 10 New York NY 10019 212-830-4500

Mr Matthew Greene Utendahl Capital Partners LP 30 Broad St Fl 31 New York NY 10004 212-797-2660

Mr Vernon A Reid Jr VA Reid & Associates Inc 2 E Read St Fl 5 Baltimore MD 21202-2232 410-332-0893

STATE OF WISCONSIN DEPARTMENT OF ADMINISTRATION 101 East Wilson Street, Madison, Wisconsin

TOMMY G. THOMPSON GOVERNOR

GEORGE LIGHTBOURN SECRETARY



Office of the Secretary Post Office Box 7864 Madison, WI 53707-7864 Voice (608) 266-1741 Fax (608) 267-3842 TTY (608) 267-9629

September 26, 2000

The Honorable Donald J. Schneider Senate Chief Clerk 1 East Main Street, Suite 402 Madison, WI 53707

The Honorable Charles Sanders Assembly Chief Clerk 1 East Main Street, Suite 402 Madison, WI 53708

Dear Chief Clerk Schneider and Chief Clerk Sanders:

This report is transmitted as required by sec. 20.002(11)(f), Wis. Stats. (for distribution to the appropriate standing committees under sec. 13.172(3), Wis. Stats.), and confirms that the Department of Administration has found it necessary to exercise the "temporary reallocation of balances" authority provided by this section in order to meet payment responsibilities and cover resulting negative balances during the month of August 2000.

On August 1, 2000 the <u>Wisconsin Health Education Loan Repayment Fund</u> balance was -\$1 thousand. This shortfall increased to -\$3 thousand on August 2, 2000 and continued into the month of September. As of the date of this letter, it is expected to be resolved soon. This shortfall was due to the timing of revenues.

On August 7, 2000 the <u>University Trust-Income Fund</u> balance was -\$186 thousand. This shortfall increased to -\$235 thousand on August 9, 2000, and to -\$252 thousand on August 10, 2000. This shortfall continued until August 11, 2000 when the balance reached \$2.38 million. This shortfall was due to the timing of revenues.

On August 23, 2000 the <u>Common School Income Fund</u> balance was -\$5.45 million. This shortfall continued until August 31, 2000 when the balance reached \$3.55 million. This shortfall was due to the timing of revenues.

The Wisconsin Health Education Loan Repayment Fund, University Trust-Income Fund, and Common School Income Fund shortfalls were not in excess of the statutory interfund borrowing limitation and did not exceed the balances of the Funds available for interfund borrowing.

The distribution of interest earnings to investment pool participants is based on the average daily balance in the pool and each fund's share. Therefore, the monthly



The Honorable Donald J. Schneider The Honorable Charles Sanders September 26, 2000 Page 2 of 2

calculation by the State Controller's Office will automatically reflect the use of these temporary reallocations of balance authority.

Sincerely,

George Lightbourn Secretary

STATE OF WISCONSIN DEPARTMENT OF ADMINISTRATION 101 East Wilson Street, Madison, Wisconsin

TOMMY G. THOMPSON GOVERNOR

GEORGE LIGHTBOURN SECRETARY



Office of the Secretary
Post Office Box 7864
Madison, WI 53707-7864
Voice (608) 266-1741
Fax (608) 267-3842
TTY (608) 267-9629

October 13, 2000

The Honorable Brian Burke, Co-Chair The Honorable John Gard, Co-Chair Members of the Joint Committee on Finance 113 South, State Capitol Madison, Wisconsin 53702

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Dear Senator Burke, Representative Gard, and Members:

In accordance with sec. 16.531(3), Wis. Stats., we are submitting this report on the completed calendar quarter ended September 30, 2000, with an assessment of the condition of the General Fund for the period October 1, 2000 to March 31, 2001.

The cash position of the General Fund at September 30 was \$934.2 million, which is lower than the \$997.1 million projected in our report to you on September 26, 2000. This difference is due to higher than expected General Fund disbursements. The cash activity for the quarter was as follows:

General Fund Cash Activity for the Quarter Ended September 30, 2000 (\$ in millions)

| Month | Beginning Balance | Receipts | Disbursements |
|-----------|----------------------|-----------|---------------|
| July | \$ 671.6 | \$1,405.8 | \$1,674.9 |
| August | 402.5 | 1,391.6 | 1,036.2 |
| September | 757.9 | 1,716.8 | 1,540,5 |
| October | 934.2 | | |

At no time during the quarter was it necessary to exercise the authority under sec. 16.53(10)(a), Wis. Stats., pertaining to the delay of payments. However, at various times during the quarter it was necessary to exercise the reallocation authority under sec. 20.002(11)(a), Wis. Stats., for the Wisconsin Health Education Loan Repayment Fund, the Utility Public Benefits Fund, the University Trust-Income Fund, and the Common School Income Fund.

The following cash forecasts are based on the General Fund condition statement as estimated by the Legislative Fiscal Bureau in its January 24, 2000 letter adjusted for legislation subsequently enacted into law.

The Honorable Brian Burke
The Honorable John Gard
Members of the Joint Committee on Finance
October 13, 2000
Page 2 of 2

General Fund Cash Forecast October 2000 - March 2001

(\$ in Millions)

| Month | Beginning Balance | Receipts | Disbursements |
|----------|-------------------|-----------|---------------|
| October | \$ 934.2 | \$1,442.8 | \$1,027.5 |
| November | 1,349.5 | 1,405.5 | 1,961.0 |
| December | 794.0 | 1,429.6 | 1,971.2 |
| January | 252.4 | 1,939.0 | 1,196.5 |
| February | 994.9 | 1,387.2 | 1,231.1 |
| March | 1,151.0 | 1,550.0 | 2,192.2 |
| April | 508.8 | | |

The General Fund will show a positive balance throughout the six month period, with the possible exception of the period between December 4th and December 29th. During this period, it may become necessary to exercise the authority granted under sec. 20.002(11)(a), Wis. Stats., pertaining to the reallocation of certain eligible surplus moneys. It is not anticipated that the authority to delay payments granted under sec. 16.53(10)(a), Wis. Stats. will be utilized.

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Sincerely,

George Lightbourn

Secretary

STATE OF WISCONSIN DEPARTMENT OF ADMINISTRATION 101 East Wilson Street, Madison, Wisconsin

TOMMY G. THOMPSON GOVERNOR

GEORGE LIGHTBOURN SECRETARY



Office of the Secretary
Post Office Box 7864
Madison, WI 53707-7864
Voice (608) 266-1741
Fax (608) 267-3842
TTY (608) 267-9629

October 13, 2000

The Honorable Donald J. Schneider Senate Chief Clerk 1 East Main Street, Suite 402 Madison, WI 53707

The Honorable Charles Sanders Assembly Chief Clerk 1 East Main Street, Suite 402 Madison, WI 53708



Dear Chief Clerk Schneider and Chief Clerk Sanders:

This report is transmitted as required by sec. 20.002(11)(f), Wis. Stats. (for distribution to the appropriate standing committees under sec. 13.172(3), Wis. Stats.), and confirms that the Department of Administration has found it necessary to exercise the "temporary reallocation of balances" authority provided by this section in order to meet payment responsibilities and cover resulting negative balances during the month of September 2000.

On September 1, 2000 the <u>Wisconsin Health Education Loan Repayment Fund</u> balance was -\$4 thousand. This shortfall increased to -\$5 thousand on September 27, 2000 and continued into the month of October. As of the date of this letter, it is expected to be resolved soon. This shortfall was due to the timing of revenues.

On September 21, 2000 the <u>Utility Public Benefits Fund</u> balance was -\$1 thousand. This shortfall increased to -\$2 thousand on September 22, 2000 and continued into the month of October. This shortfall was due to the timing of revenues.

The Wisconsin Health Education Loan Repayment Fund and Utility Public Benefits Fund shortfalls were not in excess of the statutory interfund borrowing limitation and did not exceed the balances of the Funds available for interfund borrowing.

The distribution of interest earnings to investment pool participants is based on the average daily balance in the pool and each fund's share. Therefore, the monthly calculation by the State Controller's Office will automatically reflect the use of these temporary reallocations of balance authority.

Sincerely,

George Lighthourn

Secretary

Wisconsin Focusion Energy

secono Interim Report -- Final

Prepared for:

Wisconsin Department of Administration

Prepared by:

Hagler Bailly Services, Inc. 2711 Allen Boulevard Suite 200 Middleton, WI 53562 (608) 827-7820

October 20, 2000

Contact:
Dr. David Sumi



STATE OF WISCONSIN DEPARTMENT OF ADMINISTRATION

101 East Wilson Street, Madison, Wisconsin

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GEORGE LIGHTBOURN SECRETARY



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October 23, 2000

The Honorable Brian Burke Co-Chair Joint Committee on Finance State Capitol, Room 316 South Madison, WI 53703

The Honorable John Gard, Co-Chair Joint Committee on Finance State Capitol, Room 315 North Madison, WI 53702

Dear Senator Burke and Representative Gard:

Enclosed please find the table of contents and executive summary of the second Interim Evaluation for the Wisconsin Focus on Energy pilot. A full copy of the interim report will be posted on the Focus on Energy website in October 2000 at www.wifocusonenergy.com.

The Department of Administration (DOA) has entered into a new agreement with the Wisconsin Public Service Corporation (WPSC) to extend the current Wisconsin Focus on Energy pilot through December 31, 2002. This agreement between DOA and WPSC was formalized and in effect as of July 1, 2000. To meet adjustments in the timelines of the Pilot program, the first Interim Evaluation was finalized and submitted to DOA on May 17, 2000. This second interim evaluation was delivered to DOA on September 30, 2000. Further interim evaluations will be provided to the committee as they are completed.

If you have any questions, please contact John Marx, Administrator for the Division of Energy at 266-2035.

Sincerely,

George Lightbourn, Secretary Department of Administration

cc: Bob Lang, Director, Legislative Fiscal Bureau Tony Mason, Legislative Fiscal Bureau John Stolzenberg, Legislative Council

WISCONSIN FOCUS ON ENERGY

Second Interim Report - Final

Prepared for:

Wisconsin Department of Administration

Prepared by:

Hagler Bailly Services, Inc. 2711 Allen Boulevard Suite 200 Middleton, Wisconsin 53562 608-827-7820

Contact:

Dr. David Sumi

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EXECUTIVE SUMMARY

Introduction

This report presents the interim evaluation results for the Wisconsin Focus on Energy, a two-year pilot effort sponsored by DOA's Division of Energy and Public Benefits. In cooperation with Wisconsin Public Service Corporation, the pilot is being implemented in the utility's 23-county service territory in northeast Wisconsin. The pilot was designed in 1998 to test the delivery of energy efficiency programs by private, non-utility firms and individuals under DOA oversight. The main goal of the pilot is to prepare the energy efficiency market for a time when energy-efficient products and services are no longer mandated by state governments. The basic challenge of the pilot is to achieve public and private sector cooperation in delivering these products and services.

The Focus on Energy pilot is a comprehensive program, designed to be a key element of Wisconsin's strategy for preparing, transforming, and developing a self-sustaining, competitive energy efficiency services market. Ten individual programs were designed in 1998 and 1999 and are currently being implemented across the three major customer sectors—commercial, industrial, and residential (see Table 1 below).

The initial plan and funding for the pilot specified a program termination date of June 30, 2000. However, a new contract between DOA and WPSC now extends the original two-year Focus on Energy (FOE) programming period through December 2002. Thus, the DOA will continue the overall delivery of the FOE effort in the 23-county area as part of an innovative partnership—i.e., funded by a public utility, overseen by a state agency and delivered by private-sector contractors.

This document presents the results of the second interim evaluation of the FOE pilot. The evaluation of the pilot has two main objectives: (1) to inform the designs of the individual programs and (2) to inform the selection process for possible statewide expansion of the pilot within a public benefits format. Recent legislation has designated the DOA to oversee the implementation of an energy efficiency public benefits mechanism in Wisconsin. Feedback from evaluation research that has been designed and executed to the highest standards will be integral to achieving this objective.

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The remainder of this Report Summary is organized as follows. First, we provide some recommendations regarding how to use this report. Second, we summarize the goals and program structure of the FOE pilot. Third, we describe the role of the Evaluation Administrator in the pilot. Fourth, we provide an overview of the framework we have been using to evaluate the pilot. Fifth, we provide a summary of the interim findings and recommendations for each FOE program. Finally, we present overall conclusions and recommendations from the evaluation to date, including a discussion of the implications of the overall pattern of findings for individual programs, and a table making systematic recommendations regarding possible statewide implementation of FOE programs.

How to Use This Report

We have tried to design this report to be useful to readers with widely varying needs in terms of level of detail. Toward that end, we have structured the report in three layers, with each successive layer providing more detailed discussion of evaluation results. The first layer is this Report Summary, which presents all of our interim findings and recommendations in a relatively compact form. The second layer is the main body of the report, consisting of an introductory chapter and 10 chapters presenting evaluation results for each of the 10 FOE programs. The third layer consists of a set of appendices, presented in a separate volume, providing more detailed discussion of the issues covered in each chapter than could be included in the main report. For ease of reference the appendices are numbered using the Roman numeral corresponding to the chapter number. Thus, each program chapter in the report has a counterpart section in the appendix, providing more detailed information for readers with a strong interest in a particular program. The final version of this report will be available electronically at the FOE website (http://www.wifocusonenergy.com) where links will connect the chapters to their respective appendices.

GOALS AND PROGRAM STRUCTURE

In cooperation with WPSC and the Public Service Commission of Wisconsin (PSCW), the DOA has identified the main goal of the pilot as the *preparation* of markets for a time when energy efficiency products and services are no longer mandated by state governments. The fundamental challenge of the pilot is to achieve public and private sector cooperation in the delivery of these products and services.

The FOE pilot is implementing ten residential, commercial, and industrial programs, as well as a research and development effort, to assess which activities are most likely to promote future,

¹ In addition to evaluating the 10 individual programs being offered under FOE, the Evaluation Team is performing an overall process evaluation of the pilot as a whole and analyzing the environmental and economic impacts of the pilot. However, in this second interim report, due to the nature of the policy and programming decisions currently facing DOA, we have focused primarily on providing the most actionable findings and recommendations that we can regarding individual programs.

² We note that the evaluation to date has produced much more data than could be presented in the overall report, so there is often a good deal of data in the appendices underlying findings that are reported in a fairly straightforward manner in the report chapters. Readers with a particular interest in specific issues raised in the report may thus find it worthwhile to consult the appendices.

self-sustaining energy benefits to Wisconsin residents. A Renewable Energy Efficiency program has also been included. An overall marketing campaign augments the pilot and also supports individual programs. Thus, this comprehensive pilot is a key element in Wisconsin's strategy for preparing, transforming, and developing a self-sustaining, competitive energy efficiency services market.

Table 1, below, summarizes the programs being offered under the FOE pilot, the entities who are responsible for administering and implementing each program, and the members of the evaluation team with lead responsibility for evaluating each program.

Table 1. The Focus on Energy Programs

| Program(s) | Administrator(s) | Primary Evaluator |
|---|--|---------------------------------------|
| Commercial and Industrial | Delta Technologies Group | Hagler Bailly |
| Energy Efficiency Performance | Schiller Associates and Franklin Energy | Hagler Bailly |
| Residential Water Heater Conversion | Wisconsin Energy Conservation Corporation and Global Energy Options | Hagler Bailly |
| WISCONSIN ENERGY STAR® Homes | Wisconsin Energy Conservation Corporation | Opinion Dynamics Corporation |
| ENERGY STAR® Products | The Wisconsin Energy Conservation Corporation | Shel Feldman Management Consulting |
| Multifamily Asset Management | Center for Energy and Environment; Wisconsin Energy Conservation Corporation | Opinion Dynamics Corporation |
| Education and Training | The Energy Center of Wisconsin | Hagler Bailly |
| Demand-side Applications of Renewable Energy | Department of Administration | Opinion Dynamics Corp. |
| Marketing | Knupp & Watson | Shel Feldman Consulting |

THE ROLE OF THE EVALUATION ADMINISTRATOR

The Evaluation Administrator for the FOE pilot is expected to perform a range of tasks:

- Develop, in conjunction with all relevant stakeholders, a comprehensive evaluation plan that addresses each of the pilot's components;
- Oversee the *implementation* of the evaluation plan, including the selection and management of evaluation subcontractors; and
- Develop, implement and document data collection and compilation procedures.

In general, this research includes both a process evaluation and an impact evaluation. The process evaluation is intended to address the efficiency and appropriateness of the pilot's development and implementation. The impact evaluation will examine how well the individual programs meet their planned objectives. According to DOA's specifications for the Evaluation Administrator, the evaluation research methods must accomplish two primary evaluation objectives (from the "Request for Proposal for Evaluation Administrator," September 8, 1998):

- 1. Measure the success of the pilot project in order to provide guidance for the design and implementation of a broader, statewide public benefits program.
- 2. Develop credible data sources and measurement criteria for evaluating (1) the quantitative energy savings and qualitative market effects of the pilot project and (2) the design and evaluation needs of future programs.

Evaluation Planning. To accomplish the evaluation objectives above, the Evaluation Administrator must perform activities related to three phases. Phase I is the evaluation plan. In this phase, the evaluators must reach agreement with the DOA (and all relevant stakeholders) on such issues as performance measurement criteria, data availability, data collection methodologies, measurement standards, and evaluation and analysis techniques. Activities in this phase culminated in two major reports to DOA: a Strategic Evaluation Plan and program-specific evaluation workplans.

Implementing Evaluation Plans. Phase II consists of the activities for implementing the agreed-upon evaluation plans. This phase is currently underway. Activities include surveys, market effects research, and data collection pertinent to each of the Focus on Energy programs, as well as crosscutting evaluation functions (e.g., an overall process evaluation). In this phase, the Evaluation Administrator is also responsible for providing interim reports, of which this document is the second.

Reporting and Recommendations to DOA. The third phase consists of assessing all data, then reporting to DOA the success of the pilot programs. The reporting will provide DOA with suggestions for future direction in implementing statewide public benefits programming.

As noted above, this report presents the results of the second interim evaluation of FOE. Because DOA must soon decide what energy efficiency public benefits programs to begin implementing statewide, one major focus of this report is to provide program-specific recommendations wherever possible regarding statewide administration of FOE pilot programs. These recommendations are elaborated upon in the program-specific chapters and are summarized later in this Report Summary.

As discussed above, a new contract between DOA and WPSC has extended the original two-year FOE programming period through December 2002. In addition, due to certain program implementation delays and program designs, some implementation activities associated with the original two-year period continue beyond June 30, 2000. One implication of these extended activities for the evaluation is that some chapters in this Second Interim Report can be considered "final" evaluation reports for the initial two-year period, while other chapters must still be considered "interim." (The reader should keep in mind that due to the continuation of the overall FOE effort "final" evaluation reporting may not occur until 2002. However, interim reports will still be issued periodically.) Table 1-1 in chapter 1 helps to explain these differences across programs by summarizing the status of implementation for each program and the corresponding progress of the planned evaluation tasks.

The designs of certain programs also contribute to differences between programs in terms of when evaluation tasks can be conducted and reported. For example, the Commercial, Industrial,

and Energy Efficiency Performance Programs all face longer timelines for completing the installation of energy efficiency measures in participating facilities (largely a consequence of business planning and investment decision cycles). Thus, evaluation tasks that assess the energy impacts of these program-sponsored efficiency measures require more time to estimate and document in final reporting. Therefore, the Third Interim Report is expected to include significantly more energy impact-related results, as well as non-energy impacts that partly derive from the energy impacts (for example, environmental benefits).

EVALUATION FRAMEWORK

Evaluation activities for each program have been organized around five key functions: (1) tracking and database management, (2) measurement and verification, (3) measurement of energy and demand savings, (4) process evaluation, and (5) assessment of market effects. The relative level of emphasis devoted to each of these functions has varied across programs based on program characteristics, in a manner established through the initial evaluation planning process. Data sources for the evaluation include baseline and follow-up surveys of participating and non-participating customers and vendors; on-site visits; interviews with program administration staff; and reviews of program-specific documents. A wide range of methods are being used to analyze the data, including qualitative data analysis, statistical analysis, engineering review, quasi-experimental research design, and econometric techniques.

Two issues regarding the framework being used for the evaluation merit extra discussion: the methods being used to assess market effects, and the use of a theory-based evaluation approach.

Assessment of Market Effects

To assess the market effects of programs offered under the FOE, the evaluation team is using the Market Barriers framework—a conceptual framework first developed by Joe Eto, Ralph Prahl, and Jeff Schlegel in the 1996 report A Scoping Study on Energy Efficiency Market Transformation by California Utility DSM Programs. This approach revolves around working with program administrators to develop hypotheses regarding the specific mechanisms through which a program might generate lasting reductions in those market barriers that are limiting the adoption of cost-effective measures. These hypotheses are then tested using data collected from end-users and other market actors on their knowledge, attitudes, and behavior.

Theory-Based Evaluation

Our review of the initial program plans for FOE led us to conclude that, with a few exceptions, most of these programs would not be large enough or operated long enough to plausibly hypothesize changes in the overall structure and functioning of the markets being targeted within the limited time frame of the pilot. We did not regard this as an indictment of the programs, for given the limited funds available, the large number of markets over which these must be spread, and the relatively short implementation period, it would be asking to much to expect them to reach the stage of generating significant changes in the overall structure and functioning of markets. Nonetheless, we were left with the quandary of how to evaluate the potential market

effects of programs that would not be operating on a large enough scale to fully realize their market transforming potential.

Our solution to this quandary was to adopt a theory-based evaluation (TBE) approach. TBE is an evaluation approach that is rapidly gaining currency in the evaluation of social programs in fields other than energy efficiency. It involves specifying up front a relatively detailed *program theory* regarding the specific sequence of events a program is intended to cause, along with the precise causal mechanisms leading to these events. Evaluation then focuses on testing the consistency of the earliest observed events with the overall program theory.

We believe that TBE offers a number of potential advantages in the evaluation of energy efficiency programs. However, in the context of the FOE pilot, one particularly compelling benefit is that TBE does not require that a program be implemented until all of its ultimate market effects are known in order to assess its fundamental viability. Because every chain of events must include some initial events, most program theories should include some hypothesized program effects operating within some sector of the market that can plausibly be hypothesized as occurring within the time frame of the pilot. Our strategy has been to work with program administrators to identify these initial effects and to use the evaluation to test whether they occur as predicted. Usually, what we have been looking for are relatively lasting, programinduced behavioral changes on the part of the market actors being directly targeted. When these initial behavioral changes are observed to occur in a manner that is consistent with the overall program theory, this is regarded as evidence in support of the overall program theory. When they are not observed to occur, this is viewed as calling the overall program theory into question.

This strategy has had a significant effect on the specific research methods we planned and implemented for each program. One key implication is that for most programs, we have *not* used the standard methodological approach that is often used to evaluate the market effects of full-scale market transformation initiatives. Under the standard approach, hypotheses are developed regarding program-induced changes in certain overall indicators of market structure and functioning. These market indicators are measured before the program gets underway and again during and/or after program implementation, often accompanied by the collection of comparison data. Because we did not expect most programs to generate measurable market-level effects within the time frame of the pilot, the standard approach was not thought to be useful for the majority of FOE programs. Instead, we have concentrated largely on conducting surveys and interviews with those market actors most immediately targeted by the programs. The goal of this data collection was to assess whether the hypothesized behavioral changes had occurred, and if so whether they were going to last.

³ There are some exceptions to this rule. In one case, the Energy Star Products program, the activities funded by FOE are sufficiently interwoven with other ongoing activities that it was deemed realistic to anticipate market effects. In another case, the Demand-Side Applications of Renewable Energy program, the activities being funded by FOE are so diverse that only an overall snapshot of the status of the market before and after the program's intervention seemed likely to accurately capture the program's effects. Our evaluation approaches for these programs are discussed in more detail in the appropriate program chapters. However, for a majority of programs, we used the approach described above.

We have, however, collected some baseline data on overall market characteristics for purposes other than identifying market effects, including: (1) helping program administrators to characterize the market to assist in refining program design; and (2) developing empirical evidence as to the accuracy of the initial program theory regarding what are the most important market barriers operating in the market of interest.

Specific activities conducted for individual programs are discussed in more detail in the body of this report.

INTERIM RESULTS BY PROGRAM

In this section we summarize the interim evaluation results for each of the 10 programs being offered under the FOE pilot, covering first the residential programs, then the non-residential ones, and finally the cross-cutting programs that cover both major customer sectors. Before we proceed, however, we believe it is important to discuss the context within which these results should be interpreted.

The purpose of a pilot initiative such as FOE is to serve as an experimental or trial undertaking prior to full-scale implementation. We believe this central fact has at least three key implications for the light in which the evaluation results should be viewed.

First, it should not be expected that all of the pilot programs will be successful. It is important for DOA to be open to testing new program approaches, both in the FOE pilot and in the statewide effort – and one consequence of being open to new program approaches is that not all will be found to warrant greater investment by the state.

Second, because we (and DOA) view all of these programs as *potential* statewide programs, we have applied fairly exacting evaluation standards. Our goal is to ensure that decisions made on the basis of evaluation research prove to be reliably grounded in valid evaluation findings linked to actionable recommendations.

Third, we believe it is worth reiterating a point we made in our first interim report, when, in the course of suggesting a number of administrative and policy changes in the FOE pilot, we said:

Overall, we believe that the FOE thus far represents an impressive effort by a resource-constrained agency to rapidly gear up to meet a sharply expanded set of responsibilities for energy efficiency programming.

We continue to believe that, in interpreting the evaluation results to date, it is important to keep in mind the resource constraints under which both the overall pilot and the individual pilot programs have been designed and implemented. Failure to do so could result in rejecting program, policy and administrative approaches that have simply not yet had enough time, trial and error to work.

Wisconsin ENERGY STAR® Homes Program

The Wisconsin ES Homes Pilot Program has been identified as the first step in the process of helping home buyers identify newly constructed homes with energy efficiency characteristics that are superior to standard or "typical" residential construction practices. The hypothesized inability of buyers to identify new homes with these characteristics has been identified as the fundamental barrier to increased energy efficiency in this market. It has been further hypothesized that this consumer inability removes any incentive for sellers to build or promote such homes. The long-term program approach is to address the fundamental market barrier by developing a new, widely recognized, standard of efficiency that is higher than code. This new standard will make it easy for new homebuyers to identify energy efficient houses. The implication is that it is necessary to intervene at all market levels. For example, customer recognition of the standard could be increased via education and promotion. A business strategy for providing specialized training for HERS raters could be created, and HERS ratings could be provided when construction is finished.

The Wisconsin ES Homes Pilot Program design recognizes that HERS ratings cannot be promoted to consumers as a way to distinguish between EE levels of newly constructed homes when the infrastructure (builders and HERS raters as building science experts) is not prepared to build such homes. Therefore, the pilot program seeks to create the infrastructure that will then enable the concept to be promoted to consumers.

The evaluation findings not only lend considerable support to WECC's overall program theory but also demonstrate that significant market preparation progress has been made. Interim evaluation results suggest that the very significant infrastructure issues (i.e., lack of energy efficient building science expertise and lack of a commitment to energy efficiency among builders and subcontractors) can be effectively addressed by forming links between Home Performance Raters and contractors. We also conclude that due to these linkages behavioral changes are taking place among the key market actors. For example:

- There are several indicators that the program has significantly impacted participating builder, subcontractor, and rater awareness of the value of energy efficient new home construction.
- As a result of their involvement in the program, most participating builders use one or more different products (primarily those that impact indoor air quality, safety, comfort, moisture control, and long-term building durability). In addition, many have learned new and improved installation techniques and practices (impacting both efficiency and other building issues).
- There is evidence of increased technical capabilities among all of the participating builders as they have all modified building products and/or building techniques as a result of the program. At this point in the program delivery process, participating subcontractors report fewer changes in practices and techniques.

This ability to bring about change among key market actors, which is the central market preparation goal of this pilot effort, demonstrates that the Wisconsin ES Homes Pilot Program has considerable promise.

The evaluation findings are considerably less clear with regard to the program's ability to achieve meaningful, short-term, quantifiable kWh and therm savings. Strongly related to this point is the program's long-term ability to develop a "widely recognized, standard level of efficiency that is higher than code." It is the judgment of the evaluation team that the per home kWh and therm savings achieved to date are modest. Although we consider this to be an important issue, we do not believe the modest savings to date detrimentally impacts our ability to test the initial steps in the program theory—which, as previously stated, show considerable promise.

Finally, the viability of the overall program theory remains in question for one important reason: WECC has not had the time or the resources to maintain a sustained effort to promote the program at the consumer level (i.e., create consumer demand through a "demand-side" effort) But there is some evidence that the limited demand-side efforts WECC was able to undertake created the desired market effects. In response to WECC's only concentrated "media blitz," for example, builders appeared to be interested in and willing attend Wisconsin the ES Homes training events. Anecdotal evidence suggests that this reaction may have been related to a fear of being left at a competitive disadvantage if consumer demand had suddenly increased due to the media blitz. This is a key issue, because many builders are currently uncertain about continuing to participate in the program if required to pay the full cost of rater services. Consumer demand is paramount to their continued involvement.

We provide the following recommendations regarding future implementation of this program:

- Consistent and sustained marketing to new home buyers as well as nonparticipating builders and subcontractors should be a central theme of future program efforts.
- Training programs are a very important component of the overall program delivery process and should be continued, perhaps on a more frequent basis. Training will be particularly important for new market entrants.
- Other ES programs (particularly appliances and lighting) must be more formally
 integrated into the Wisconsin ES Homes Program in order to achieve short-term kWh
 savings. Most participating builders are relatively unaware of these other ES programs
 and have not been consistently marketing them to new homebuyers.
- In the short-term, it will be necessary to continue the builder training and program subsidies to sustain the current infrastructure. It may be possible to reduce the subsidies as consumer awareness and demand increases.
- Without evidence to the contrary, the evaluation results indicate that program energy
 efficiency guidelines must be increased. The evaluation team is concerned that current
 savings levels are not high enough to create a new, widely recognized, standard of

efficiency that is higher than code—which is necessary for making it easier for consumers to identify energy efficient houses.

The program concept should be strongly considered for statewide implementation.

However, the short-term energy savings issue should be addressed prior to full-scale implementation.

ENERGY STAR® Products Program

For this program, WECC has set forth a program theory adapted from a national effort by the U.S. Environmental Protection Agency and the U.S. Department of Energy to address information and dealer support barriers to increased market penetration of energy-efficient appliances and lighting. In the near term, WECC is promoting the stocking and sales of appliances and lighting that have qualified for designation as ENERGY STAR products. The long-term objective has been to make customers aware of the brand and induce them to use the brand as a proxy for detailed energy-efficiency information. The theory proposes that, by increasing awareness and understanding of the ENERGY STAR brand (thus reducing or eliminating the information barrier), the program will make customers more likely to examine and purchase energy-efficient appliances and lighting. Relevant program activities include advertising and promotion of qualifying products as well as financial incentives.

The program design recognizes that customer-directed activities must be balanced by efforts to increase dealer and salesperson support, if a sustainable market for energy-efficient products is to be developed. Therefore, WECC has also addressed issues on the supply side, both to demonstrate the value of the program to dealers—increasing their profits—and to provide the support they need to take advantage of changes in customer demand. To implement this aspect of the market intervention, WECC has recruited appliance and lighting dealers as program participants and provided extensive support in the form of promotional materials and training.

The evaluation has been designed to assess both the near-term effects of this program and the degree to which the hypothesized longer-term changes appear to be occurring. Major evaluation activities have included and been facilitated by regular and continuing liaison with program staff and review of program documents. Qualitative independent research has included focus groups with participating and nonparticipating customers and limited interviews with participating retailers. Quantitative studies have used telephone surveys to establish baseline awareness of ENERGY STAR among consumers, and follow up telephone, mail, and WebTV surveys to estimate changes in awareness among consumers. Other research has included store inventories to assess the presence and identifiability of ENERGY STAR products on the sales floor and store intercept surveys to assess the role of the ENERGY STAR label and promotions among actual shoppers. In addition, mystery shopping data have been obtained for review from the administrator and from a study undertaken by the Energy Center of Wisconsin.

The near-term results of this program continue to be quite impressive. The great majority of appliance and lighting dealers are participating. The emphasis on ENERGY STAR washers has been rewarded by a substantial level of market penetration, even as financial incentives have

been reduced, and the gross energy savings achieved have exceeded the initial targets. This success seems likely to be repeated, at least to some degree, with other qualifying appliances and lighting products.

In addition, preliminary results from data collection activities performed since the first interim report suggest the following:

- Customer awareness and understanding of the ENERGY STAR logo has grown substantially from the level observed earlier. However, additional analysis is required to ascertain the degree to which this increase is specific to the Focus territory or Wisconsin, rather than a reflection of broader trends.
- During the summer of CY2000, it was relatively easy to find qualifying, labeled dishwashers, refrigerators, and clothes washers on sales floors in the Focus territory.
- Mystery shopping suggests that retail sales staff are knowledgeable about and do promote ENERGY STAR products. However, many do so only in response to specific questions and requests from the shoppers. When they do respond, they generally respond correctly, but some gaps in knowledge and thoroughness do emerge.
- Interviews with shoppers who have just left an appliance store confirm the basic finding of the mystery shopper approach. A large proportion of shoppers who interact with sales persons do hear at least some reference to energy efficiency or operating cost savings. Moreover, about one-half of these receive some reference to the ENERGY STAR program. However, a number of customers report that the information received was limited and did not provide them with a clear understanding of the ENERGY STAR label or its value.

In summary, the ENERGY STAR appliance program appears to be well designed and on-track. It is not only achieving its near-term objectives, but appears to be demonstrating some initial success in market preparation through relationships with upstream market actors. These preliminary results bear further review and analysis. They also suggest possible refinements of the initial theory of the ENERGY STAR program with its heavy emphasis on consumer awareness and understanding of the label and relative neglect of program effects on manufacturers and retailers. Nonetheless, at a practical level, the results suggest the importance of maintaining the program momentum as the Department of Administration contemplates extending the Focus on Energy on a statewide basis.

Water Heater Conversion Program

The Residential Water Heater Conversion Program was designed to increase the conversion (or commitment to convert upon failure) of electric water heaters to fossil fuel water heaters in the study area.

The initial goal for this program was 1,300 conversions or commitments to convert by the end of June 2000, to achieve a total of 6,500,000 kWh in committed electric savings. As originally designed, the program targeted local HVAC, plumbing and LP contractors in three selected

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communities to act as program partners in marketing the program and obtaining commitments to convert or actual conversions. In addition to planned recruitment efforts by program partners, customers in the target communities were initially informed of the program and recruited through a direct mailing. In December 1999, the program changed its focus and expanded its geographic territory in an effort to increase the participation rate among consumers. The new strategy focused on partnering with utilities (to take advantage of name recognition) and other professionals already delivering energy efficiency services to homeowners (to overcome the barrier encountered in getting people's attention and getting into homes).

The evaluation of this program was designed to focus on the first steps leading to market transformation, including changes in conversion rates, contractor capabilities, and contractor business strategies. The data collection activities have included research with participating customers, participating and nonparticipating contractors, the program implementation contractor, and the residential program administrator.

The program plan as submitted to the DOA included very specific quantitative goals to either convert or gain commitment to convert approximately 1,300 electric water heaters, to achieve a total of 6,500,000 kWh in committed electric savings during the program implementation period. According to program records, the program fell short of its desired goal, obtaining 710 commitments to convert and 16 conversions (56% of its target goal in terms of number of commitments/conversions and kWh savings). Furthermore, the potential savings from other additional conversion opportunities for other appliances were also not realized. Even though the program was not successful, it should be noted that the program design was more successful when combined with the efforts of other contractors already in the home providing energy efficiency services, when compared to the first 5 months of implementation as a stand-alone program. By the end of June 2000, the actual number of commitments to convert was 710 and the actual number of conversions was 16.

A primary goal of the program was to begin to develop a market infrastructure that delivered ongoing benefits from water heater conversion. During the short time of the pilot, the program did not have an impact on the business strategies of contractors that will result in lasting market effects.

The primary barriers to conversion according to contractors and customers are structural constraints within the dwelling, a lack of natural gas lines, and the cost of converting, particularly if venting/chimney additions are necessary. The evaluation results suggest that a water heater conversion program that does not offer some type of incentive and that relies on the basic strategy of getting into people's homes to sticker the unit (to remind homeowners to convert upon failure), cannot succeed as a stand-alone program. However, given its energy savings potential and the environmental benefits, we believe that a program to encourage water heater conversions should be continued, focusing primarily upon conversions prior to failure.

Multifamily Facility Management Pilot Program

The primary goal of the Multifamily Facility Management Program is to develop a selfsustaining energy efficiency program and transform the way in which energy efficiency is marketed and delivered in the multifamily housing sector. The Center for Energy and Environment's (CEE) strategy is to bundle a comprehensive set of services—including energy efficiency—that building owners and building management companies are interested in and willing to purchase.

CEE's original proposal for the Multifamily Facility Management Program outlined an approach which was intriguing in terms of its market preparation (and long-term market transformation) potential in that it sought to provide a number of program services through a comprehensive and coordinated delivery mechanism. Most importantly, from a market preparation and transformation perspective, the program plan explicitly outlined the intent to address local market actors and provide (and make efforts to privatize) new and innovative services. The program plan also explicitly outlined the intent to focus on transforming the replace-on-failure paradigm by providing pre-approved recommendations for cost-effective, high quality, properly sized, energy efficient equipment.

The evaluation team found the Facility Assessment Reports (the primary participant deliverable) to present the relevant facts and figures in a logical and reader-friendly manner and, with some exceptions, include energy efficiency recommendations that are practical and economically feasible. Despite CEE's success in meeting the program goal of serving 3700 multifamily units, the evaluation team—based on conversations with program staff, extensive in-depth interviews with program participants and non-participants, and an engineering review—found that many program services (with market preparation and transformation potential) were modified, either in substance or spirit, or canceled. Additionally, many services were not offered in the "coordinated" or "comprehensive" manner that one could have reasonably anticipated when reviewing the original plan documents. While 3700 multifamily units were served, they were typically served at a lower level, and with fewer services than initially planned. Furthermore, and most importantly, some of the more innovative services (such as on-going asset and energy tracking) were not formally offered, nor were attempts made to foster the privatization of these services.

Fundamentally, the program appears to be suffering from the same syndrome that other market preparation and transformation programs around the country have: tension between, on the one hand, shorter-term objectives such as participation (which CEE met) and, on the other hand, longer-term goals such as market transformation.

The interim evaluation results suggest that privatization of energy and equipment tracking services may not be an attainable goal. The detailed data collection necessary in order to provide (in the long-term) energy and equipment tracking services results in a program which is relatively expensive to deliver on a per building or per facility basis. Furthermore, there appears to be a fundamental tension within the current program between the level of detail collected within the Facility Assessment Reports (and the subsequent cost of this activity) and the somewhat general or generic nature of many recommendations. We believe that a more streamlined version of the current program (less focus on detailed building information and more emphasis on short-term specific recommendations which can be immediately implemented and long-term specific replace-on-failure recommendations), coupled with an effort to work collectively with the local infrastructure, may be more effective in the future.