



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD
ELECTRIC DIVISION

Rely on us.

TO: Commissioners Farmer, Brown, Cassidy, Cunningham and Ernst
FROM: Dean Ahlsten and Tom Williams
DATE: October 26, 2009
SUBJECT: Intergovernmental Agreement – University of Oregon Electric Facilities
Upgrade

Issue Statement

Staff has been working with the University of Oregon on the design, construction, ownership and operational aspects of a new electric substation and transmission lines to serve growing load requirements on campus. Those efforts have resulted in an Intergovernmental Agreement (IGA) between EWEB and the University of Oregon. Staff is seeking Board approval to execute the IGA.

Background

New construction on the University campus and an upgrade of its Central Power Station led to projected electrical loads in excess of what can be reliably served with current EWEB facilities. University and EWEB staffs agree that the preferred load service solution is construction of a new 66 MVA, 115-12.47 kV substation (like the new Willamette Substation) on University property. Placing a substation close to the load center is the most cost effective and efficient method of service. It provides for long-term growth on campus and within the riverfront research park.

EWEB staff began work on the substation design some time ago and has initiated major equipment procurement contracts, in accordance with the Board's exemption, to meet the University's timelines and to limit risks to the reliability of electric service. The University made an advance payment for the initial engineering and design work while details of the IGA governing the design, construction and ownership were being finalized. Recently, the University secured financing for the project and both parties have agreed to the terms for completion of the new substation.

Discussion

The IGA stipulates that the University is responsible to pay for all direct costs associated with the new facilities, estimated to be \$9.0 million. Initially, the U of O planned to finance the entire project with F series bonds. However, this financing mechanism required that the U of O own the assets and EWEB cannot allow 3rd party ownership of transmission lines

and substation components that are integral to the reliable operation of its electric system. For this reason, the arrangement was not agreeable to EWEB.

The U of O has now been able to secure financing for those portions of the facilities that must be owned by EWEB, which amount to \$6.4 million of the project total. The remaining elements of the project will be financed with F series bonds (approximately \$2.6 million). The bond funded portion of the substation will be paid for, designed and installed by the University, in accordance with EWEB specifications. This includes the two power transformers and all site work and substructure components of the new substation.

Upon completion of the project, EWEB will operate and maintain the new substation and transmission lines, and recover those expenses through energy delivery charges via the Power Sales Agreement. The University will be responsible for all repair or replacement costs associated with University-owned equipment.

The University also plans to develop new co-generation facilities at its Central Power Station. EWEB is provisioning the substation to accommodate this addition in the future.

Recommendation

Staff requests Board approval of the new IGA with the University, and approval for the General Manager to execute the IGA.

If you have questions regarding this information please contact Dean Ahlsten at 685-7136 (dean.ahlsten@eweb.org) or Tom Williams at 685-7160 (tom.williams@eweb.org).

INTERGOVERNMENTAL AGREEMENT

This Intergovernmental Agreement (“Agreement”) is made and entered into by and between the Eugene Water & Electric Board, a local government/municipal utility, hereinafter referred to as EWEB, and the State of Oregon acting by and through the State Board of Higher Education on behalf of the University of Oregon, hereinafter referred to as University. EWEB and University may be referred to singularly as the “Party” or collectively as the “Parties.”

- A. University, an EWEB electric service customer, requires an increase in its electric load for new facilities.
- B. EWEB and the University have determined that the best way to serve the increased load is to construct a new distribution substation adjacent to the University Central Power Station that will be connected to EWEB’s transmission system via a double circuit 115kV underground transmission line.
- C. EWEB is willing to provide professional engineering and technical services during design, equipment procurement, construction, testing and commissioning of the University Substation equipment.
- D. EWEB is willing to furnish and install equipment to properly connect the University Substation to its Willamette and Adams Substations and thus EWEB’s electric transmission system.
- E. Based on this understanding the Parties mutually agree to the following contractual provisions:

1.0 Definition

The term “University Substation” means a 115–12.47 kV, 66 MVA electrical substation on University property including: concrete foundations; oil containment systems; ground mat; vaults; conduit systems; yard lighting; security fence; gates; structural steel; two 115-12.47 kV, 33 MVA power transformers with On-Load Tap Changers and associated equipment; telemetering equipment; transmission lines and equipment; structures, switching equipment, protective relays, controls and safety equipment, necessary to provide electric service to the University Central Power Plant and Main Campus.

The term “Premises” means all University real property which EWEB accesses under this Agreement.

2.0 Term and Termination

2.1 This Agreement shall become effective upon its execution by the Parties and shall terminate upon the execution by both University’s Project Manager and EWEB’s Project Engineer of a project construction completion certificate signifying completion of the University Substation. It is estimated that the University Substation will be completed by June 2011.

2.2 This Agreement may be terminated by the mutual written consent of both parties. If this Agreement is terminated, University shall pay EWEB for all work and actual expenditures performed prior to the date of the mutual written consent and reimburse EWEB to the date of the mutual written consent. Such payment and reimbursement shall be made within 60 days after mutual written consent. Actual costs include direct labor, travel expense, material purchases, equipment use, tool expense, stores expense and applicable overhead. Accounting of all actual costs shall be made in accordance with EWEB’s standard practices. Either party may suspend work at any time upon five business days’ written notice to the other. If there is a suspension by either party, EWEB will be paid and reimbursed as described in this section, and if there is any dispute then it goes to dispute resolution.

3.0 Work and Equipment Provided by EWEB

3.1 EWEB will provide professional engineering and technical services relating to design, equipment procurement, construction, testing and commissioning of the University Substation. This will include detailed drawings, single-line diagrams and protection diagrams along with furnishing technical specifications and physical requirements for use by the University and the University's designees in the design, equipment procurement, construction and documentation of the University Substation.

3.2 EWEB will designate technical staff to participate in the University procurement process for 15kV vacuum switchgear. EWEB staff will participate in the evaluation of bid results and manufacturer drawings and submittals, negotiation of purchase terms, bid award recommendations, and on-site inspection and acceptance. EWEB staff will also participate in factory visits to witness testing and manufacturing stages as deemed appropriate by EWEB and University. EWEB will inspect and be responsible for final approval of all stages of substation construction, equipment installations, electrical wiring, and on-site acceptance testing.

3.3 EWEB will furnish and install, in the designated EWEB control room of the University Substation switchgear building, all protective relaying and control, revenue metering, and telecommunications panels necessary for EWEB's subsequent use of the University Substation.

3.4 EWEB will furnish and install Supervisory Control and Data Acquisition (SCADA) and telemetry equipment at EWEB's Dispatch Center and in the University's 15 kV switchgear building to allow 15kV and 115kV monitoring and 115 kV control of the University Substation and related facilities and equipment.

3.5 EWEB will design, furnish and install the following:

3.5.1 Two 3-phase, 115 kV underground transmission circuits from the University Substation to EWEB's Willamette Substation to interconnect with EWEB's existing 115 kV Willamette-Adams transmission line (one circuit) and Willamette Substation (second circuit).

3.5.2 A 144-fiber underground communications cable and associated multiplexing equipment between the University Substation and EWEB's Willamette Substation.

3.5.3 Gas-insulated switchgear (GIS) with four 3-phase 115kV, 2000 ampere power circuit breakers and associated disconnect switches on foundations designed and provided by the University.

3.5.4 Protective relaying and control, metering and communications panels and equipment in the University's 15 kV switchgear building necessary to protect and operate EWEB's 115 kV transmission system and to monitor the status and condition of the 15 kV and 115 kV Substation equipment.

3.5.5 Supervisory Control and Data Acquisition (SCADA) and telemetry equipment at EWEB's Dispatch Center and in the University's 15 kV switchgear building to allow monitoring and control of the University Substation and related facilities and equipment.

3.5.6 Low voltage (600 V) control wiring to EWEB furnished protective relays and control and monitoring equipment in the EWEB control room of the switchgear building between and including EWEB's panels and the station equipment including the GIS, 115-12.47 kV power transformers and SCADA systems.

3.6 EWEB or its designee will make available two 115-12.47 kV, 33 MVA transformers for purchase by University or its designee, on terms and conditions negotiated by EWEB with its vendor.

3.7 EWEB will make all high voltage (115 kV) electrical connections between EWEB's GIS equipment and University's power transformers.

3.8 EWEB will conduct, in conjunction with University and its designees, final commissioning tests and acceptance necessary to energize the new transmission lines, substation equipment and telecommunications systems so that they function optimally.

3.9 EWEB will provide training for EWEB and University personnel on the operation and maintenance of the new equipment and incorporate all project documentation, such as drawings, O&M manuals, equipment specifications and settings, into EWEB's records retention center. EWEB will provide copies of relevant documentation to University.

3.10 EWEB shall perform its obligations under this Agreement in a professional workmanlike manner and in accordance with the standards of the electric utility industry. EWEB agrees to perform its obligations under this Agreement in a timely and expeditious manner, consistent with its obligations under the preceding sentence

3.11 EWEB, in consultation with University shall be responsible for securing any permits, licenses, inspections and authorizations necessary for the proper execution of its work.

3.12 EWEB will promptly notify University about any necessary or desirable work or equipment of which EWEB becomes aware, in addition to the work and equipment set forth herein.

4.0 Work and Equipment Provided by University

4.1 University shall design or cause to be designed, and construct or cause to be constructed in accordance with EWEB's specifications, a 115–12.47 kV, 66 MVA electrical substation on University property with capacity for future University co-generation onto EWEB's grid. The substation will include: concrete foundations; oil containment systems; ground mat; vaults; conduit systems; yard lighting; security fence; gates; station batteries and charger; structural steel; and 15 kV main service disconnecting means.

4.2 University will furnish and install or cause to be furnished and installed, protection and metering equipment and instrumentation directly mounted in the University main breaker sections in accordance with EWEB's specifications.

4.3 University or its designee will purchase two 115-12.47 kV, 33 MVA transformers from EWEB or EWEB's designee and cause the transformers to be installed on concrete foundations provided by the University.

4.4 University will furnish and install or cause to be furnished and installed all 15 kV cables between University provided transformers and 15 kV switchgear.

4.5 University will comply with all EWEB substation engineering requirements. EWEB's obligations shall be conditioned upon University's adherence to EWEB's standards and requirements.

4.6 University, in consultation with EWEB, shall be responsible for securing any permits, licenses, inspections and authorizations necessary for the proper execution of its work.

5.0 Environmental Conditions

5.1 Each Party shall be responsible for remediation of all environmental conditions on its own property that may affect that party's performance of its obligations under this Agreement.

5.2 Neither party nor its subcontractors shall cause or permit any Hazardous Substance to be spilled, leaked, disposed of, or otherwise released on or under the Premises. Either party may use or otherwise handle on the Premises only those Hazardous Substances typically used in the prudent and safe operation of the operation of a public electrical utility. Either party may store such Hazardous Substances on the Premises only in quantities necessary to satisfy that party's obligations under this Agreement. Both party's shall comply with all Environmental Laws and exercise reasonable care in the use, handling, and storage of Hazardous Substances and shall take all practicable measures to minimize the quantity and toxicity of Hazardous Substances used, handled, or stored on the Premises. On the expiration or termination of this Agreement, the parties shall remove all Hazardous Substances from the Premises. The term *Environmental Law* shall mean any federal, state, or local statute, regulation, or ordinance or any judicial or other governmental order pertaining to the protection of health, safety, or the environment. The term *Hazardous Substance* shall mean any hazardous, toxic, infectious, or radioactive substance, waste, and material as defined or listed by any Environmental Law and shall include, without limitation, petroleum oil and its fractions.

6.0 Easement and Access Agreements

6.1 The University on or before 60 days after final design, shall grant EWEB, at no cost, a 15-foot wide perpetual utility easement on University property between EWEB's Willamette Substation and the new University Substation for operation and maintenance of the underground 115 kV transmission facilities, on a mutually agreed upon route.

6.2 Prior to construction, the University shall grant EWEB, at no cost, a temporary construction easement of sufficient width from center line of utility easement, or an agreement for access to and use of such area once a mutually agreed upon route is reached. This easement shall reflect the timing and possible space restriction associated with the area designated for the Trammell Crow/Oregon Research Institute Project. The term of the temporary construction easement or access agreement shall end upon termination of this Agreement.

6.3 The University grants EWEB access rights for entry onto University property for purposes of EWEB's performance of its obligations under this Agreement.

7.0 Payment by University

7.1 The maximum cost to University for EWEB's performance of its obligations under this Agreement, as executed, is delineated in Exhibit A. The University agrees to reimburse all actual costs incurred by EWEB during construction up to the sum set forth in Exhibit A. This sum does not include the obligation to sell and purchase the transformers delineated in Sections 3.6 and 4.3 and Exhibit B.

7.2 If EWEB determines that the full completion of its obligations under Exhibit A will exceed the amount set forth in Exhibit A, it shall notify the University and provide the University with a detailed statement of the proposed additional costs. The Parties shall then negotiate in good faith in an attempt to agree on an amendment to this Agreement whereby the University will pay any agreed-upon additional costs. If EWEB and the University are unable to agree on an amendment, either may terminate this Agreement.

7.3 Actual costs include direct labor, travel expense, material purchases, equipment use, tool expense, stores expense and applicable overhead as determined by EWEB. Accounting for all actual costs shall be made in accordance with EWEB's standard accounting practices. EWEB shall invoice University no more frequently than once a month and University shall pay the invoices within 30-days of invoice receipt.

7.4 Each invoice shall contain documentation sufficient for University to verify the invoice's accuracy. University may request that EWEB provide reasonable additional documentation to verify the accuracy of

an invoice. University shall review each invoice for conformance with this Agreement. In accordance with ORS 293.462, any sums not paid when due from one Party to the other shall accrue simple interest at 8% per annum calculated from the time when due until paid.

7.5 If University in good faith disputes all or any portion of any amount due under this Agreement, University shall pay the undisputed amount and notify EWEB in writing of the disputed amount within 30 days of receipt of the invoice and the basis for such dispute. Once such dispute has been resolved, University shall pay any amounts due. University's payment shall include interest at the rate set forth in section 7.4 from the original due date until the date paid, unless the amount contested is substantially reduced, in which case University shall pay no interest. If the dispute is not resolved, either Party may resort to the dispute resolution provisions of this Agreement.

7.6 Except for dispute resolution, nothing in this Agreement shall preclude either Party from exercising any and all remedies with regard to the other's obligations under this Agreement at any time prior to the expiration of the applicable statute of limitations period, including any deadline for the filing of a tort claim notice.

8.0 Ownership and Operational Control

8.1 Upon completion of the University Substation, University will own, and as needed EWEB will convey ownership of, all facilities and equipment beyond the demarcation points specified in Exhibit C and furnished and installed under Section 4.0. EWEB will retain ownership of all equipment furnished and installed under section 3.5 and as defined in Exhibit C. EWEB shall assume operational control of the University Substation as defined in the Power Sales Agreement.

8.2 The parties agree that upon completion of the University Substation, University will lease equipment and facilities owned by the University to EWEB for a period of 30 years or until such time as the University's XI-F series bonds are retired, whichever occurs first. EWEB's interest after that point shall be as provided in the Lease and Transfer Agreement.

9.0 Force Majeure

If either party's performance of an obligation under this Agreement is delayed or prevented in whole or in part by (a) any legal requirement not attributable to an act or omission of the Party, (b) any act of God, fire or other casualty, flood, storm, explosion, accident, strike, epidemic, war, or civil disorder, (c) shortage or failure of supply of materials, fuel, power, equipment, supplies, or transportation, or (d) any other cause not reasonably within the Party's control, whether or not the cause is specifically mentioned in this Agreement, the Party will be excused, discharged, and released of performance to the extent that such performance or obligation is so limited or prevented by the occurrence without liability of any kind.

10.0 Indemnification

10.1 Each Party agrees to indemnify and save the other harmless from any claim, liability or damage, including attorney fees, resulting from any error, omission or act of negligence on the part of the indemnifying Party and its officers, employees and agents in the performance of its responsibilities under this Agreement. The Parties' indemnity and hold harmless obligations are subject to the limitations of the Oregon Constitution, as applicable, and the Oregon Tort Claims Act, as amended, except that the limitations of liability of the indemnifying party shall be the greater of University's or EWEB's limits of liability under the Oregon Tort Claims Act, as amended.

10.2 Each Party expressly recognizes and agrees that the indemnifying Party's obligation to indemnify and save another harmless is not a material obligation to the continuing performance of its other obligations under this Agreement. Each Party also recognizes its and the other's rights to any and all actions under the law.

11.0 Limitation of Liability

11.1 Insurance. Both Parties agree to obtain and keep in effect during the term of this contract, insurance coverage to protect the other from possible property damage and personal injury and shall name the other as "additional insured." Each Party shall provide the other certificates of insurance evidencing all applicable coverage. The insurance and/or self-insurance coverage required under this agreement shall be obtained from acceptable insurance companies or entities. Each Party shall be financially responsible for all premiums, deductibles, and/or self-insured retention.

12.0 Notice of Default

12.1 Except in case of default for failure to pay an EWEB invoice as set forth elsewhere in this Agreement, neither Party shall be deemed to be in default under this Agreement unless the other Party shall first give 20 days' written notice of the default and the defaulting Party fails to cure the default within 10 days. If the default is of such a nature that it cannot be cured within 10 days, the defaulting Party shall commence within 10 days of the notice to cure the default and shall proceed to cure the default with all possible diligence but in no event later than 20 days from the notice.

13.0 Disposition of Equipment

13.1 On termination of this Agreement for any or no reason before execution of the certificate under Section 2.1, University shall become owner of any work and equipment for which it pays or has paid, and EWEB shall take all reasonable steps, including the execution of documents, to effectuate the conveyance of title to University.

14.0 Applicable Laws.

14.1 The Parties in their performance of their obligations hereunder shall conform to all applicable laws, rules and regulations and, to the extent their operations are subject to the jurisdiction of state or federal regulatory agencies, they shall be subject to the terms of valid and applicable orders of such agencies. To the extent that the performance, construction, interpretation or administration of this Agreement is subject to state law, this Agreement is subject to the laws of the State of Oregon.

14.2 Waivers. Any waivers by a Party of its rights with respect to default hereunder, or with respect to any other matter arising in connection herewith, shall not be deemed to be a waiver with respect to any subsequent default or matter. No delay in asserting or enforcing any right hereunder shall be deemed a waiver of such right.

14.3 Assignment. The rights and obligations of the Parties to this Agreement may not be assigned by either Party, except upon the expressed written consent of the other Party, which consent shall not be unreasonably withheld or delayed. As a condition of such consent, any third party to whom an assignment is made will be required to demonstrate to reasonable satisfaction of the non-assigning Party that the third party is capable of fulfilling the assigning Party's obligations under this Agreement.

14.4 Amendments. This Agreement shall not be altered, modified, supplemented or amended, in any manner whatsoever, except in writing and signed by both Parties.

14.5 Dispute Resolution. If the Parties are unable to resolve a dispute with respect to this Agreement, either Party may send a notice to the other requesting a meeting at which senior officers or officials of the Parties will attempt to resolve the dispute. If the Parties are unable to resolve the dispute within ten (10) days after the meeting notice is received by the Party to whom it is directed, either Party may demand that the matter be submitted to a single neutral arbitrator. If the Parties are unable to agree upon an arbitrator within ten (10) days of the demand, the arbitrator shall be selected by the Presiding Judge of the Circuit Court of Lane County, Oregon, and the Party applying for the selection of the arbitrator shall

request that the selection be made on an expedited basis. Within ten (10) days of the selection of the arbitrator, the Party demanding arbitration shall submit to the arbitrator a reasonably detailed description of its position together with supporting material. Within a further ten (10) days, the other party shall respond by submitting to the arbitrator a reasonably detailed description of its position together with supporting material. Each Party shall deliver copies of its submissions to the other Party and shall promptly provide any additional explanation or information requested by the arbitrator. The arbitrator shall be instructed to use all reasonable efforts to render a written decision setting forth its findings and conclusions within thirty (30) days of the date on which the arbitration proceedings are concluded.

The arbitrator's decision concerning the item or items in dispute may be appealed by filing a Complaint in the Lane County Circuit Court for the State of Oregon within thirty (30) days of the date the arbitrator's decision was served on the parties. If no timely appeal is filed, the arbitrator's decision shall be final and binding on the Parties.

Any arbitrator's decision must conform to the law applicable to the University and EWEB.

14.6 Notice. Any notice required or permitted by the terms of this Agreement will be deemed given if delivered personally; or sent by United States registered or certified mail, postage prepaid, return receipt requested; or if sent by fax with electronic confirmation of fax receipt; or if sent by email and first class mail; and addressed as follows:

If to University: Vice President for Finance and Administration
112 Johnson Hall
1283 University of Oregon
Eugene, OR 97403-1283
P: 541.346.3003
F: 541.346.6614
E: vpfa@uoregon.edu

With a copy to: Office of the General Counsel
219 Johnson Hall
1226 University of Oregon
Eugene, OR 97403-1226
P: 541.346.3082
F: 541.346.6110
E: gcounsel@jwj.uoregon.edu

If to EWEB: Eugene Water & Electric Board
P.O. Box 10148 Eugene, Or 97440-2148
Attn: James P. Wiley, Electric Division Director
Fax: 541-984-4709
Email: jim.wiley@eweb.org

With copy to: Eugene Water & Electric Board
P.O. Box 10148 Eugene, Or 97440-2148
Attn: Tom Williams, Key Accounts Manager
Fax: 541-984-4709
Email: tom.williams@eweb.org

Notwithstanding anything in this section to the contrary, any notice mailed to the last-designated address of any person or Party to which a notice may be or is required to be delivered pursuant to this Agreement or this section will not be deemed ineffective if actual delivery cannot be made because of a change of address of the person or Party to which the notice is directed or the failure or refusal of such a person or Party to accept delivery of the notice.

14.7 Entire Agreement; Modification. This Agreement contains the entire agreement between the parties and, except as otherwise provided, can be changed, modified, amended, or terminated only by an instrument in writing executed by the parties. This Agreement may be executed in any number of counterparts, including by fax signature, each of which will constitute an original, but all of which will constitute one Agreement.

14.8 Successors. The covenants and agreements contained in this Agreement are binding on and inure to the benefit of University, EWEB, and their respective successors and assigns.

14.9 Interpretation. In interpreting this Agreement in its entirety, the printed provisions of this Agreement and any additions written or typed thereon shall be given equal weight, and there shall be no inference, by operation of law or otherwise, that any provision of this Agreement shall be construed against either Party hereto. University and EWEB acknowledge that they and their counsel have reviewed and revised this Agreement and that any otherwise applicable rule of construction or any other presumption to the effect that any ambiguities are to be resolved against the drafting party shall not be used in the interpretation of this Agreement or any exhibit or amendment hereto.

14.10 Headings. The headings and captions contained in this Agreement are for convenience only and do not in any way define, describe, limit, or amplify the scope or intent of this Agreement or any term or provision in it. The use of the term *herein* refers to this Agreement as a whole, inclusive of the Exhibits, except when noted otherwise. The use of a masculine or neuter gender in this Agreement includes the masculine, feminine, and neuter genders and the singular form includes the plural when the context so requires.

14.11 Agency. Nothing contained in this Agreement is to be deemed or construed, either by the parties to this Agreement or by any third party, to create the relationship of principal and agent or to create any partnership, joint venture, or other association between University and EWEB.

14.12 Additional Documents. The Parties agree to execute whatever papers and documents may be necessary to effectuate the terms of this Agreement.

IN WITNESS THEREOF, the Parties hereto have caused this Agreement to be executed in their respective names by their respective officers hereunder duly authorized.

EUGENE WATER AND ELECTRIC BOARD

Authorized Signature
Name: James P. Wiley
Title: Electric Division Director

Date

THE STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF
HIGHER EDUCATION ON BEHALF OF THE UNIVERSITY OF OREGON

Authorized Signature
Name: Frances Dyke
Title: Vice President for Finance and Administration

Date

EXHIBIT A

JOB # 30742- U OF O 115kV UNDERGROUND TRANSMISSION LINE

	DESCRIPTION	HOURS	EWEB COST
LABOR	CAD Technician	200	\$7,200
	Associate Electrical Eng.	100	\$4,400
	Staff Eng.- Electrical/Electronic	100	\$7,000
	Staff Eng.-Civil. Mechanical	200	\$8,827
	Senior Eng.-Electrical/Electronic	500	\$36,500
		Labor Total	\$63,927
EQUIPMENT	Cars		\$420
		Equipment Total	\$420
PURCHASES	Contract for TL Design & Construction (price Valid till 11/15/2009)		\$3,688,200
	Travel and Expense (witnessing final testing of cables and accessories)		\$12,000
		Purchase Total	\$3,700,200
FINANCIAL TRANSACTIONS	Labor Overhead (15%)		\$9,589
	General Overhead (2.6%)		\$98,128
		Fin. Tran. Total	\$107,717
JOB #30742 TOTAL ESTIMATED COST			\$3,872,264

JOB # 30741- UNIVERSITY OF OREGON SUBSTATION

	DESCRIPTION	HOURS	EWEB COST
LABOR	CAD Technician	400	\$14,400
	Substation Crew, 3-Person	300	\$52,215
	Communication, 2-Person	700	\$90,976
	Relay Crew, 2-Person	700	\$98,000
	Associate Electrical Engineer	850	\$37,400
	Staff Eng.- Electrical/Electronic	700	\$51,800
	Staff Eng.-Civil. Mechanical	250	\$11,000
	Senior Eng.-Electrical/Electronic	1600	\$117,000
	Contract Labor	200	\$25,000
		Labor Total	\$497,791
EQUIPMENT	Cars, vans, trucks, etc		\$12,000
		Equipment Total	\$420
PURCHASES	Consultant (XFMR)		\$35,000
	115kV Gas Insulated Switchgear with Installation		\$1,436,020
	Relays, Controls, Comm. Equipment, Panels etc.		\$360,000
	Conductors, Connectors, Cable Trays, Terminations etc.		\$26,000
	Travel and Expense (plants visit, witnessing final tests of major equipment)		\$40,000
		Purchase Total	\$1,897,020
FINANCIAL TRANSACTIONS	Labor Overhead (15%)		\$74,669
	General Overhead (2.6%)		\$64,217
		Fin. Tran. Total	\$138,886
JOB #30741 TOTAL ESTIMATED COST			\$2,534,117
TOTAL EWEB COST			\$6,406,381

EXHIBIT B

**JOB # 30741- POWER TRANSFORMERS FOR
UNIVERSITY OF OREGON SUBSTATION**

Two 115/12.47kV, 20/26/33 MVA power transformers with LTC
including installation and final testing

Total Cost

\$1,364,574

