



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD
ELECTRIC SERVICES DIVISION

Rely on us.

TO: Commissioners Farmer, Brown, Cassidy, Cunningham and Ernst
FROM: Dean Ahlsten
DATE: April 13, 2009
RE: Revised 2009-13 Electric Capital Improvement Plan and 2009 Capital Budget Amendments

Issue Statement

Board financial controls policy EL-1 directs staff to perform year-end, post-audit assessments of the Electric Utility Capital Improvement Plan (CIP) to reconcile 2008/2009 capital project budgets and reserve balances, and to identify impacts to the 2009-13 CIP that was approved the prior year. This constitutes a mid-course adjustment between annual updates of the CIP. This memo provides the details of the proposed changes coming out of that review, for consideration by the Board.

Background

The 2009-13 CIP, approved on September 2, 2008 projected a year-end 2008 capital reserve balance of \$16,147,105. That amount included the \$4,173,000 transfer from contribution margin to fund the Energy Trading & Risk Management (ETRM) replacement and facilities upgrades in the IS data center, per approval of the Board in September.

Accounting's year-end reconciliation of capital reserves, in February 2009, revealed a year-end total of \$16,800,000, which is \$653,000 greater than projected. This favorable variance is the result of 2008 projects finishing under budget and others that were not completed as planned and carried forward to 2009.

On November 18, 2008 the Board approved, via emergency declaration, to accelerate the replacement of Johnson Creek Bridge from 2011 to 2008. The actual cost of this project exceeded the amount that had been allocated in year 2011 of the CIP by \$600,000. As a result, the Board established revised capital reserve targets of \$10.7 million in 2011 and \$11.0 million in 2013 as compared with \$11.3 million and \$11.6 million, respectively. Refer to Attachment 1 for a comparison of the September 2, 2008 approved CIP versus Staff's current projections.

Discussion

Proposed Revisions to the 2009-13 CIP: Changes in the CIP generally result from one of the three categories described below. Details of the proposed CIP changes are listed by project and category in Attachment 2:

- 1) Carryover: Carryover funding for projects that did not complete by year-end as planned but were not anticipated and re-budgeted accordingly.
- 2) Revised Estimates: Revisions to project budgets that reflect one or more of the following: a change in the scope of work, an increase in labor or material costs, a reflection of actual bid results, or a shift in anticipated year-to-year cash flow on multi-year projects.
- 3) Emergent Priority: New additions to the CIP/budget consisting of projects that had formerly been deferred due to shortage of funds and/or labor or new priorities not formerly anticipated..

2009 Budget Amendments: Policy EL-1 also requires Board approval of budget amendments that exceed either 25% or \$250,000 of approved funding on major capital projects (budgets in excess of \$500,000). For this reason, proposed 2009 budget amendments are separated into two categories; the first addresses projects on the “Major Capital Projects” list and the second “Omnibus” amendment incorporates all other carryover and revised project estimates.

Budget Amendment No. 3 - Major Capital Projects:

Carmen Smith Relicensing: Amends the 2009 budget to add \$725,000. The increase is needed to fund activities associated with preparation for license implementation which includes planning and design activities. These costs are in addition to those associated with obtaining the new license. The source of funds for the increase is interest earnings from the Carmen Smith reserve.

Carmen Smith Communications & Distribution System Upgrades: Amends the budget to add \$1,200,000. Existing voice and data communication systems between EWEB headquarters and the Carmen Smith Plant are obsolete and unreliable. Existing communications and 12 kV power cables between the Plant and Smith Dam are installed in conduit, above grade, traversing steep, rugged and heavily treed areas. Communications infrastructure is essential to the safe and reliable operation of the Project today and during the construction phases of relicensing improvements.

Funding for this project spans two years; the 2009 capital budget includes \$1.9 million and the 2010 Carmen Smith budget has \$2.0 million allocated. Staff is proposing to accelerate 2010 components of this work to take advantage of favorable construction bids. Refer to the Board memo in your packet from Senior Engineer Mark Zinniker, dated April 14, 2009, for details.

Johnson Creek Bridge Replacement: Amends the 2009 budget to add \$839,091. As noted earlier, the Board approved \$1.35 million in November 2008; permitting delays resulted in a carryover of \$810,000. Staff estimates the final project cost will be \$1.4 million.

Leaburg Lake Boat Ramp: Amends the 2009 budget to add \$243,324. Approximately \$162,000 of last year’s \$1.0 million budget was carried forward to 2009. Staff’s current estimate to complete the project over the 2007-2009 period is \$1.73 million.

Walterville Fish Return Channel: Amends the 2009 budget by reducing it \$620,896. Staff is recommending deferral of this project to 2010 in order to allow the necessary time for completion of the design and for acquisition of in-water work permits.

Bethel Substation Transformer Upgrade and 115 kV Conversion: Amends the budget by reducing it \$1,754,867. This project is being deferred for the following reasons: 1) Last fall, Staff decided to delay the purchase of a new 33 MVA transformer (\$900,000) in favor of utilizing two serviceable transformers salvaged from the Willamette Substation Rebuild; and 2) EWEB System Engineering and Substation Reliability staff has been redirected to NERC Compliance work in 2009. The revised budget provides for completion of design work in 2009.

Elmira Road Widening: Amends the 2009 budget to add \$600,000. This project emerged early in the year as the City of Eugene included improvements to Elmira Road in its 2009 work plan. EWEB is required to relocate existing overhead facilities and will use the opportunity to underground portions of the line and to improve reliability of service in the area. Funding for the project comes from the 2009 pole replacement budget (\$200,000), the 2009 facilities relocate budget (\$200,000) and from capital reserves (\$200,000).

IS Facilities Upgrades: Amends the 2009 budget to add \$1,167,054. EWEB's 4th floor data center facilities were not designed to accommodate the exponential growth in the structural and electrical loads associated with server additions in recent years. The current emergency power supply system was installed in 1987. Cooling and electrical systems are at capacity and end of life and must be replaced. The project is proposed to be funded from capital reserves. The increase will be offset by the elimination of \$1.25 million in planned expenditures in 2010-2012.

Harvest Wind: Amends the budget to add \$4,768,133. Expenditures in 2008 totaled \$9,236,532 out of a total budget of \$18 million. Carrying forward \$4.8 million from this favorable variance and adding it to the approved 2009 budget results in a two-year project budget of \$32.0 million equal to the funding authorization approved by the Board in Resolution No. 0834 October 2008..

Budget Amendment No. 3 Total: \$7,166,839

Budget Amendment No. 4 – Omnibus:

Budget amendment 2 incorporates all proposed revisions to capital projects that do not meet the criteria for classification as a "Major Capital Project". Project details for Amendment 2 are also provided in Attachment 2.

Budget Amendment No. 4 Total: \$1,606,065

Included in Distribution Reliability's proposed 2009 budget amendment is an \$870,240 decrease in customer contributions for residential and commercial development projects, to reflect current economic conditions. In order to align with forecasts in the 10-year Electric Utility Financial Plan, customer contributions in the CIP have been reduced by approximately \$1.0 million in 2010 and 2011, having the affect of further drawing down capital reserves. Budget monies for 2009 residential and commercial work are being

reallocated toward PUC-mandated compliance projects such as pole replacement / reconfigurations and installation of system neutrals where required.

2009 Major Capital Project Additions & Deletions: Policy EL-1 further requires that all Electric Utility capital projects with a budget exceeding \$500,000 be identified and monitored individually. Proposed budget amendment 3 would result in the addition of three projects and the removal of two from the current Electric Utility Major Capital Project list:

Adds:	Johnson Creek Bridge Replacement:	\$ 839,091
	Elmira Road Widening:	\$ 600,000
	IS Facilities Upgrade:	\$1,418,140

Deletes: Walterville Fish Return
Bethel Substation Transformer Upgrade and 115 kV Conversion

Emerging Capital Priorities

In anticipation of preparing the 2010 capital budget and developing the 2010-2014 CIP, Staff is informing the Board of additional capital priorities that will need consideration:

1) On March 13, 2009, EWEB experienced a failure of a 20 MVA power transformer at Cal Young Substation. The failure was precipitated by an electrical short circuit in the 12 kV distribution system. The Cal Young transformer was manufactured by General Electric in 1960. Due to the age and configuration of the unit, it is recommended to replace it rather than to rewind. Furthermore, recent results of annual oil testing performed on EWEB station class transformers indicate that six other units are showing signs of internal heating. Preliminary analyses indicate that EWEB may need to replace four or five of these transformers within the next five years. The present cost of substation transformers is \$800,000 - \$900,000 each.

2) Should the Board determine to authorize purchase of the output from Seneca Sawmill's Biomass Cogeneration Plant; an additional \$600,000 will be required in the CIP to fund a 115 kV transmission line extension and interconnection with the project. EWEB already has plans to acquire property for this line and for construction in 2014 or 2015. The cogeneration project would accelerate this expenditure.

Recommendation/Requested Action

Staff is requesting Board authorization to proceed with finalizing the proposed revisions to the 2009-2013 CIP, based on the changes reflected in Budget Amendments 3 and 4 and the revised estimates for 2009-2012 customer contributions.

Staff will be requesting Board approval of the revised CIP and Budget Amendments 3 and 4 in the May 5, 2009 regular Board meeting.

Please contact Dean Ahlsten at 341-1830 or via e-mail at dean.ahlsten@eweb.org to discuss any of this material.

Attachments:

Attachment 1. Comparison of Approved versus Proposed 2009-2013 Electric Capital Plans

Attachment 2. 2009 Budget Amendment 3 & 4 Detail

c: Randy Berggren
Jim Wiley
Patty Boyle

ATTACHMENT 1												
2009 - 2013 Electric Capital Plan												
	Proposed 2009	Sept 2, 2008 Approved 2009	Proposed 2010	Sept 2, 2008 Approved 2010	Proposed 2011	Sept 2, 2008 Approved 2011	Proposed 2012	Sept 2, 2008 Approved 2012	Proposed 2013	Sept 2, 2008 Approved 2013	Proposed 2009-2013	Sept 2, 2008 Approved 2009-2013
I. Program Estimates												
Hydro Relicensing	2,251,358	1,526,358	6,775,000	13,500,000	6,775,000	14,000,000	54,200,000	40,000,000	33,877,000	27,000,000	103,878,358	89,182,692
Generation	4,398,035	3,565,933	1,591,832	2,012,210	1,236,382	1,631,099	893,768	890,724	1,722,902	1,722,902	9,842,918	9,397,293
Substation Reliability	4,746,347	6,227,035	5,229,896	10,723,320	2,106,494	2,106,494	3,008,835	3,008,835	2,411,601	2,411,601	17,503,173	25,432,593
Distribution Reliability	9,115,509	9,436,985	24,970,624	21,743,133	20,770,800	20,770,800	20,481,074	20,481,074	13,018,338	13,018,338	88,356,345	85,000,411
Configuration Management	185,605	185,605	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,185,605	1,250,000
Power Management	24,568,279	19,800,802	15,000	18,015,000	15,000	15,000	10,000	10,000	10,000	10,000	24,618,279	37,815,000
DSM & Retail Services	27,500	27,500	50,000	50,000	15,000	15,000	15,000	15,000	40,000	40,000	147,500	147,500
Facilities Capital Improvements	3,307,556	2,238,042	1,674,591	1,889,591	1,389,350	1,889,350	2,130,520	2,659,620	2,415,300	2,386,200	10,917,317	11,769,374
Roosevelt Building Project	32,875,794	32,875,794	38,185,000	38,185,000	2,120,000	2,120,000	-	-	-	-	73,180,794	66,425,000
Information Resource Management	2,819,220	2,868,586	1,283,910	1,283,910	1,224,303	1,168,075	1,045,709	987,794	1,009,296	973,137	7,382,438	6,753,456
Telecommunications Infrastructure	544,267	329,267	150,000	150,000	175,000	175,000	-	-	-	-	869,267	655,000
Total Expenditures	84,839,470	79,081,907	80,175,854	107,802,164	36,077,329	44,140,818	82,034,905	68,303,047	54,754,436	47,812,178	337,881,994	333,828,319
II. Capital Fund Sources												
Electric Rates (note 1)	15,020,000	15,020,000	15,700,000	15,700,000	16,171,000	16,171,000	16,656,130	16,656,130	17,155,814	17,155,814	80,702,944	80,702,944
Capital Reserve Balance (note 2)	16,800,000	16,147,105	8,764,196	9,402,962	9,028,501	10,769,998	9,384,112	11,299,362	10,361,244	11,808,352	16,800,000	17,259,505
Customer Contributions (note 3)	3,233,037	4,158,082	6,340,298	10,344,339	1,386,940	2,399,182	2,290,907	2,290,907	2,859,634	2,859,634	16,110,816	21,294,619
Steam Utility Payment	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	1,350,000	1,350,000
Water Utility Loan For Capital												
Carmen Smith Relicensing Dedicated Funds (note 4)	2,251,358	1,526,358	6,775,000	13,500,000	6,775,000	14,000,000	54,200,000	40,000,000	33,877,000	27,000,000	103,878,358	89,182,692
Telecommunications bonds	135,000	236,528	-	-	-	-	-	-	-	-	135,000	200,000
Advanced Meter Infrastructure Bonds		-	12,919,861	12,919,861	9,430,000	9,430,000	9,300,000	9,300,000	-	-	31,649,861	31,610,000
Roosevelt Project Bonds (series 2006, 2007)	32,875,794	32,875,794	38,185,000	38,185,000	2,120,000	2,120,000			-	-	73,180,794	66,425,000
Harvest Wind Project Dedicated Funds (note 5)	22,763,477	17,996,002	-	18,000,000							22,763,477	36,000,000
Interest Earnings on Reserve Fund	255,000	255,000	250,000	250,000	280,000	280,000	295,000	295,000	350,000	350,000	1,430,000	1,430,000
Total Funds	93,603,666	88,484,869	89,204,355	118,572,162	45,461,441	55,440,180	92,396,149	80,111,399	64,873,692	59,443,800	348,001,250	345,454,760
Cumulative Reserve Balance YE	8,764,196	9,402,962	9,028,501	10,769,998	9,384,112	11,299,362	10,361,244	11,808,352	10,119,256	11,631,622	10,119,256	11,626,441

Notes:

- 1) In 2010 rate funding for capital reverts back to \$15.7M per year upon completion of a 5-year payback of the 2004 \$3.4M reimbursement for C/S Relicensing bonds. Beginning in 2011 electric rate funding for capital matches the rate of depreciation on plant in service (3% per year)
- 2) Figures reflect beginning of year balances. Reserve includes a \$1.07M transfer from excess contribution margin for HQ/Facilities improvements in 2009 plus a \$3.1M transfer from contribution margin to fund the upgrade to ETRM (\$1.4M in 2008 and \$1.7M in 2009)
- 3) Includes customer reimbursements for residential/commercial customer work, fiber optic customer work, and the University Substation project.
- 4) \$1.5M per year funded from rates up to acquisition of a license. Annual expenditures in excess of \$1.5M funded from interest on C/S deferred reserve and then from the \$20M reserve equity when interest earnings are fully expended.
- 5) This project is currently funded from Operating Reserves. Reserves will be reimbursed upon issue of project bonds.

ATTACHMENT 2: 2009 Budget Amendment Detail

	Job No.	Category	Existing 2009 Budget	Proposed 2009 Budget	Inc/Dec in 2009 Budget	Source of Funds
BUDGET AMENDMENT 3: MAJOR PROJECTS						
Carmen Smith Relicensing - License Implementation	Proj 22639	Revised Estimate	\$1,526,358	\$2,251,358	\$725,000	C-S Reserve
Walterville Fish Return Improvements	25894	Revised Estimate	\$770,896	\$150,000	(\$620,896)	Cap Reserve
Carmen Smith Communications Upgrade	29454	Revised Estimate	\$1,900,000	\$3,100,000	\$1,200,000	Reimbursable
Johnson Creek Bridge Replacement	30776	Carryover	\$0	\$839,091	\$839,091	Cap Reserve
Leaburg Lake Boat Ramp	29434	Carryover	\$506,676	\$750,000	\$243,324	Cap Reserve
Bethel 33 MVA Transformer & Breaker Upgrades	24497	Revised Estimate	\$1,934,867	\$180,000	(\$1,754,867)	Cap Reserve
Elmira Road Widening	32236	Emergent Priority	\$0	\$600,000	\$600,000	Transfers & Cap Reserve
Harvest Wind	30538	Carryover	\$17,995,344	\$22,763,477	\$4,768,133	Cap Reserve
IS Facility Upgrades (UPS)	31699	Emergent Priority	\$251,086	\$1,418,140	\$1,167,054	Cap Reserve

BUDGET AMENDMENT 3 TOTAL **\$24,885,227 \$32,052,066 \$7,166,839**

BUDGET AMENDMENT 4: NON-MAJOR PROJECTS

PROGRAM 28286 GENERATION

Project 14261 Carmen Smith Capital

Trail Bridge Power Plant Sump Oil Detection		Revised Estimate	\$23,751	\$35,000	\$11,249	Cap Reserve
			\$23,751	\$35,000	\$11,249	

Project 18043 Leaburg-Walterville Capital

Leaburg Recreation Plan	24034	Revised Estimate	\$92,676	\$135,000	\$42,324	Cap Reserve
Leaburg Canal Landslide/Seismic	25775	Revised Estimate	\$26,819	\$35,000	\$8,181	Cap Reserve
Leaburg Dam Rollgate Manual Bypass	29829	Carryover	\$2,934	\$75,000	\$72,066	Cap Reserve
Leaburg Power Plant Sump Oil Decion	29831	Carryover	\$0	\$35,000	\$35,000	Cap Reserve
Walterville Power Plant Sump Oil Detection	29832	Revised Estimate	\$27,418	\$35,000	\$7,582	Cap Reserve
Upgrade Walterville Generator Voltage Regulator	29881	Revised Estimate	\$12,000	\$20,408	\$8,408	Cap Reserve
Trash Rack Cleaner - Leaburg Fishscreen	30717	Revised Estimate	\$0	\$400,000	\$400,000	Cap Reserve
Automate Sluice Gate	30876	Partial Deferral	\$65,210	\$30,000	(\$35,210)	Cap Reserve
Leaburg FS & TRB - Hydraulic Evals	32100	Carryover	\$0	\$200,000	\$200,000	Cap Reserve
Walterville Pond Pump Controls Upgrade	30873	Deferral	\$65,001	\$0	(\$65,001)	Cap Reserve
			\$292,058	\$965,408	\$673,350	

Project 14496 Smith Falls Capital

Smith Falls Generator & Line Relaying Upgrade	27575	Revised Estimate	\$294,599	\$326,465	\$31,866	Cap Reserve
Smith Falls Power Plant Sump Oil Decion	29830	Deferral	\$27,418	\$0	(\$27,418)	Cap Reserve
Smith Falls PLC & HMI Upgrade	30872	Deferral	\$78,021	\$0	(\$78,021)	Cap Reserve
			\$400,038	\$326,465	(\$73,573)	

PROGRAM 22640 SUBSTATION RELIABILITY

Project 14009 Substations - Modifications & Additions

Substation Seismic Mitigation - UMBRELLA	24471	Deferral	\$32,511	\$0	(\$32,511)	Cap Reserve
SEL-351 Relay Additions on Transf Bkrs - UMBRELLA	24480	Deferral	\$43,602	\$5,000	(\$38,602)	Cap Reserve
River Road Substation 115 kV Breaker Addition	24492	Revised Estimate	\$0	\$10,000	\$10,000	Cap Reserve
BPA Eugene B-1198 - River Road Relay Upgrade	24493	Revised Estimate	\$0	\$5,000	\$5,000	Cap Reserve
Delta 5370 - River Road Relay Upgrade	24494	Revised Estimate	\$0	\$5,000	\$5,000	Cap Reserve
Walterville Thurston Relay Upgrade	29813	Carryover	\$0	\$10,000	\$10,000	Cap Reserve
Arc Flash Mitigation	29867	Carryover	\$74,473	\$30,000	(\$44,473)	Cap Reserve
Thurston PCB 2360 Relay Upgrade	29978	Deferral	\$81,200	\$5,000	(\$76,200)	Cap Reserve
Move Willamette Transformers to Hilyard	30761	Deferral	\$0	\$452,382	\$452,382	Cap Reserve
Danebo Substation Noise Mitigation	31898	Emergent Priority	\$0	\$10,000	\$10,000	Cap Reserve

	Job No.	Category	Existing 2009 Budget	Proposed 2009 Budget	Inc/Dec in 2009 Budget	Source of Funds
NERC Mitigation / Test Switch Installs	32218	Revised Estimate	\$0	\$73,600	\$73,600	Cap Reserve
			\$231,786	\$605,982	\$374,196	
Project 14011 Communications & Control						
Telegyr Master Station Upgrade	28793	Carryover	\$0	\$210,000	\$210,000	Cap Reserve
			\$0	\$210,000	\$210,000	
Project 17736 EWEB Owned Fiber Capital						
HBSS - Waltherville Fiber	26243	Carryover	\$0	\$15,000	\$15,000	Telecom Bonds
Carmen - Trail Bridge Fiber Link	27656	Revised Estimate	\$236,528	\$436,528	\$200,000	Cap Reserve
			\$236,528	\$451,528	\$215,000	
PROGRAM 22641 DISTRIBUTION RELIABILITY						
Project 14268 Transmission Capital						
Reinsulate Bethel - Adams 69 kV Transmission	24470	Deferral	\$137,491	\$10,000	(\$127,491)	Cap Reserve
			\$137,491	\$10,000	(\$127,491)	
Proj 14510 Residential Capital Additions						
Residential Revenue Bucket Job	18378	Revised Estimate	(\$636,538)	(\$204,786)	\$431,752	Cap Reserve
			(\$636,538)	(\$204,786)	\$431,752	
Proj 14511 Commercial Capital Additions						
Commercial Revenue Bucket Job	18379	Revised Estimate	(\$824,000)	(\$385,512)	\$438,488	Cap Reserve
			(\$824,000)	(\$385,512)	\$438,488	
Proj 14514 Facilities Relocation Distribution						
Distribution Facilities Relocates - UMBRELLA	20311	Revised Estimate	\$398,437	\$198,437	(\$200,000)	Cap Reserve
			\$398,437	\$198,437	(\$200,000)	
Project 14516 Distribution Pole Replacement						
Distribution Pole Replacement - Umbrella	11864	Revised Estimate	\$796,454	\$596,454	(\$200,000)	Cap Reserve
			\$796,454	\$596,454	(\$200,000)	
PROGRAM 13057: BUILDING & LAND MANAGEMENT						
Project 14326 General Plant Facilities Additions						
West Operations Yard Gate Repalcement (& Reader B	30522	Carryover	\$0	\$52,460	\$52,460	Cap Reserve
			\$0	\$52,460	\$52,460	
PROGRAM 13050/20795: INFORMATION SERVICES						
Project 23826 IS Capital Work						
Replace Headquarters Access Control System	29955	Revised Estimate	352,613	303,247	(\$49,366)	Cap Reserve
			\$352,613	\$303,247	(\$49,366)	
PROGRAM 13078: FLEET MANAGEMENT						
Project 14483 Acquisition of New Equipment						
Vehicle Acquisition (SnowCat)	1513	Carryover	\$1,605,000	\$1,455,000	(\$150,000)	Cap Reserve
			\$1,605,000	\$1,455,000	(\$150,000)	
BUDGET AMENDMENT 4 TOTALS			\$3,013,618	\$4,619,683	\$1,606,065	
GRAND TOTAL			\$27,898,845	\$36,671,749	\$8,772,904	

Note: Existing 2009 budget column only includes budgets that need amendments and are not the total budget of the project