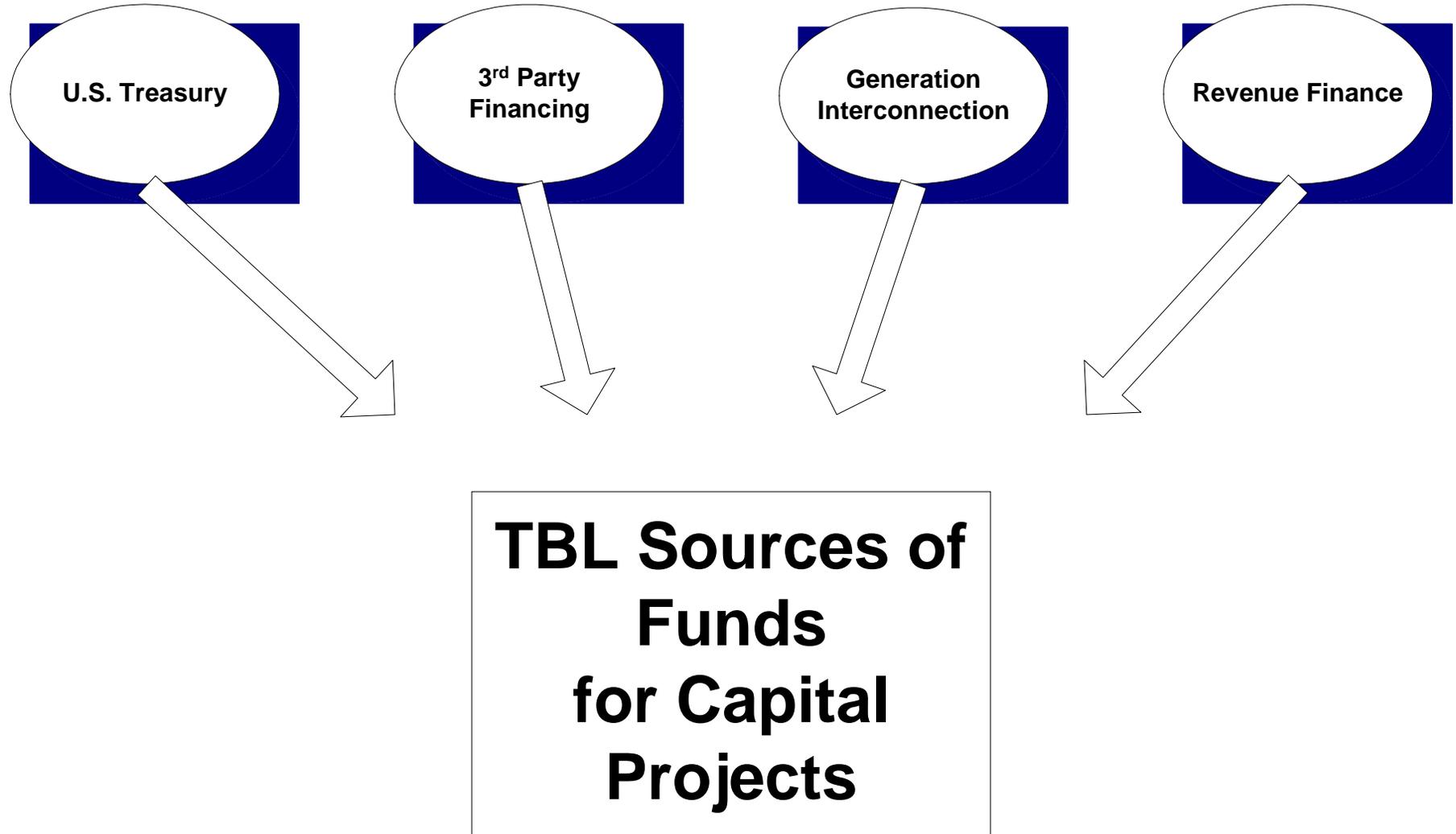


TBL Capital- Project Detail

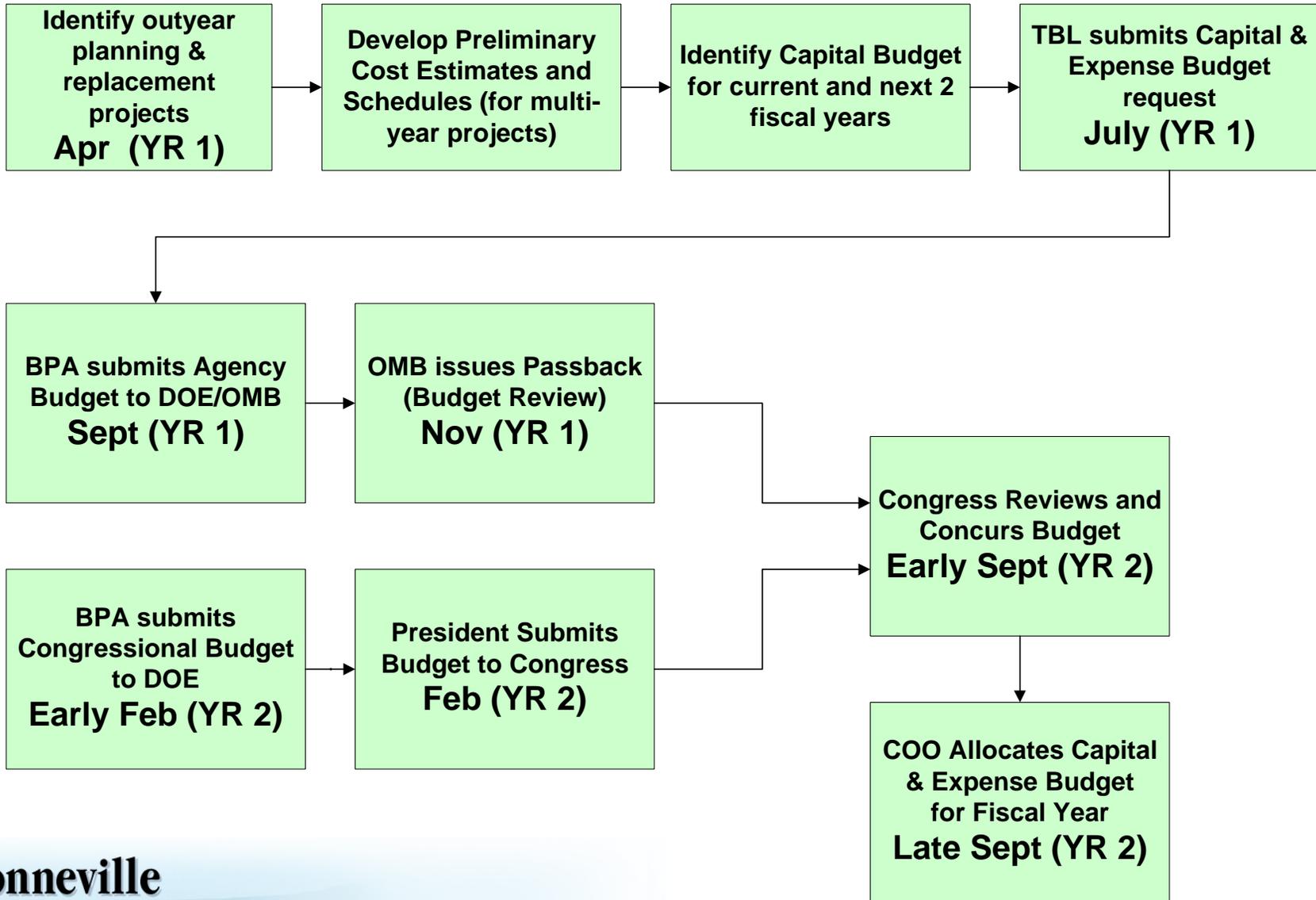
PIR Technical Workshop

August 25, 2004

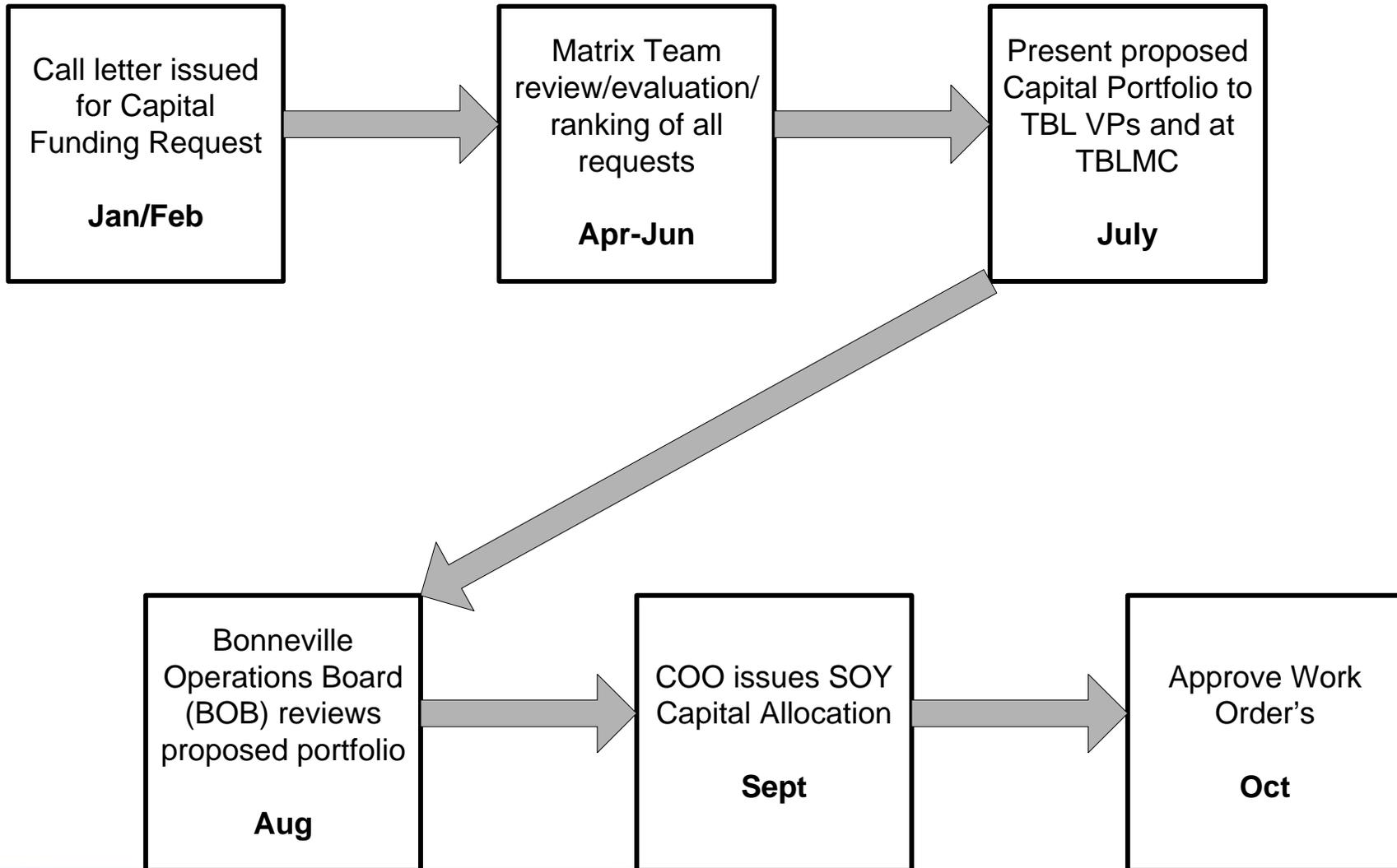
Funding for TBL Capital



TBL Capital Budget Process



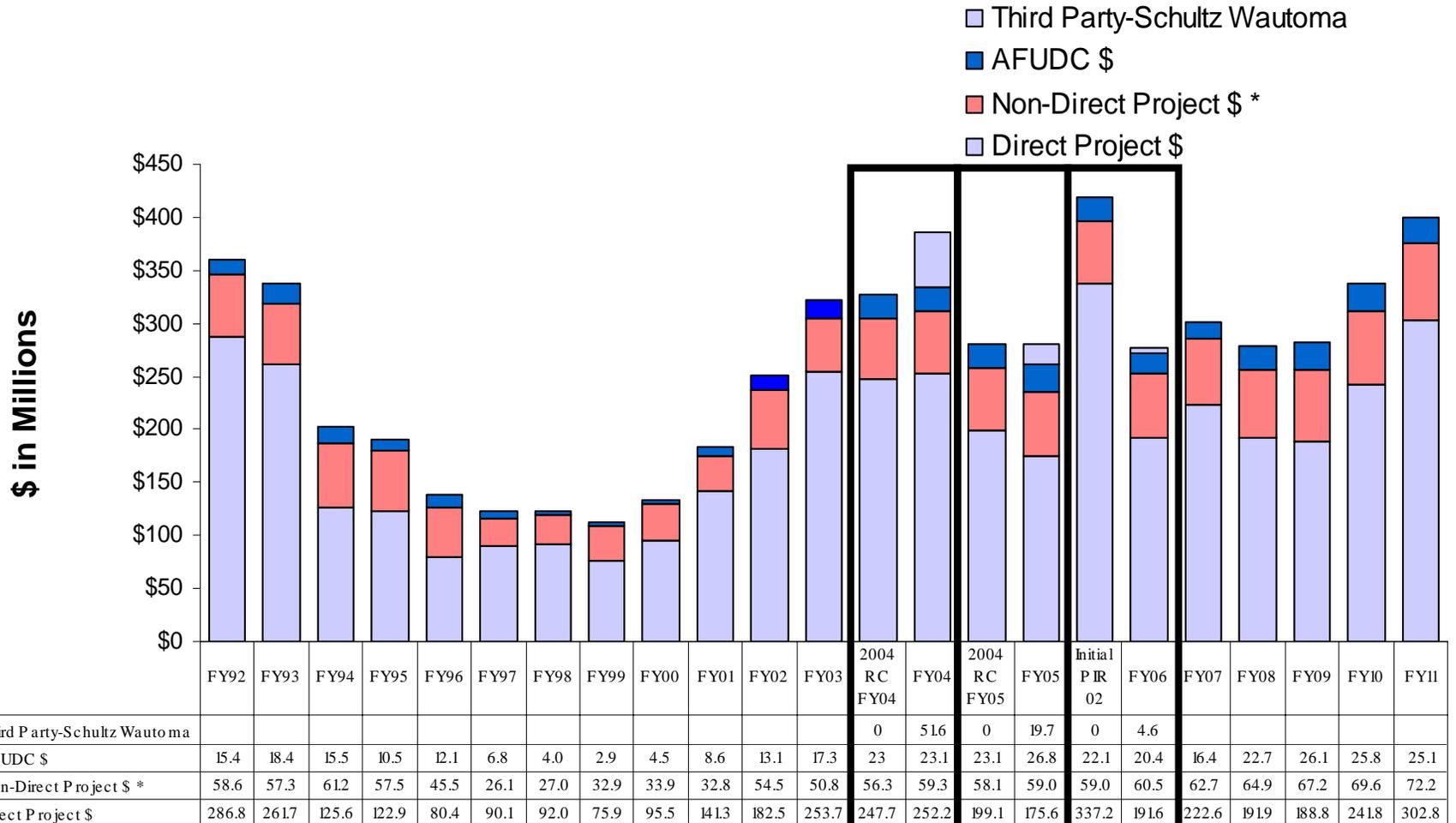
TBL Capital Matrix Process



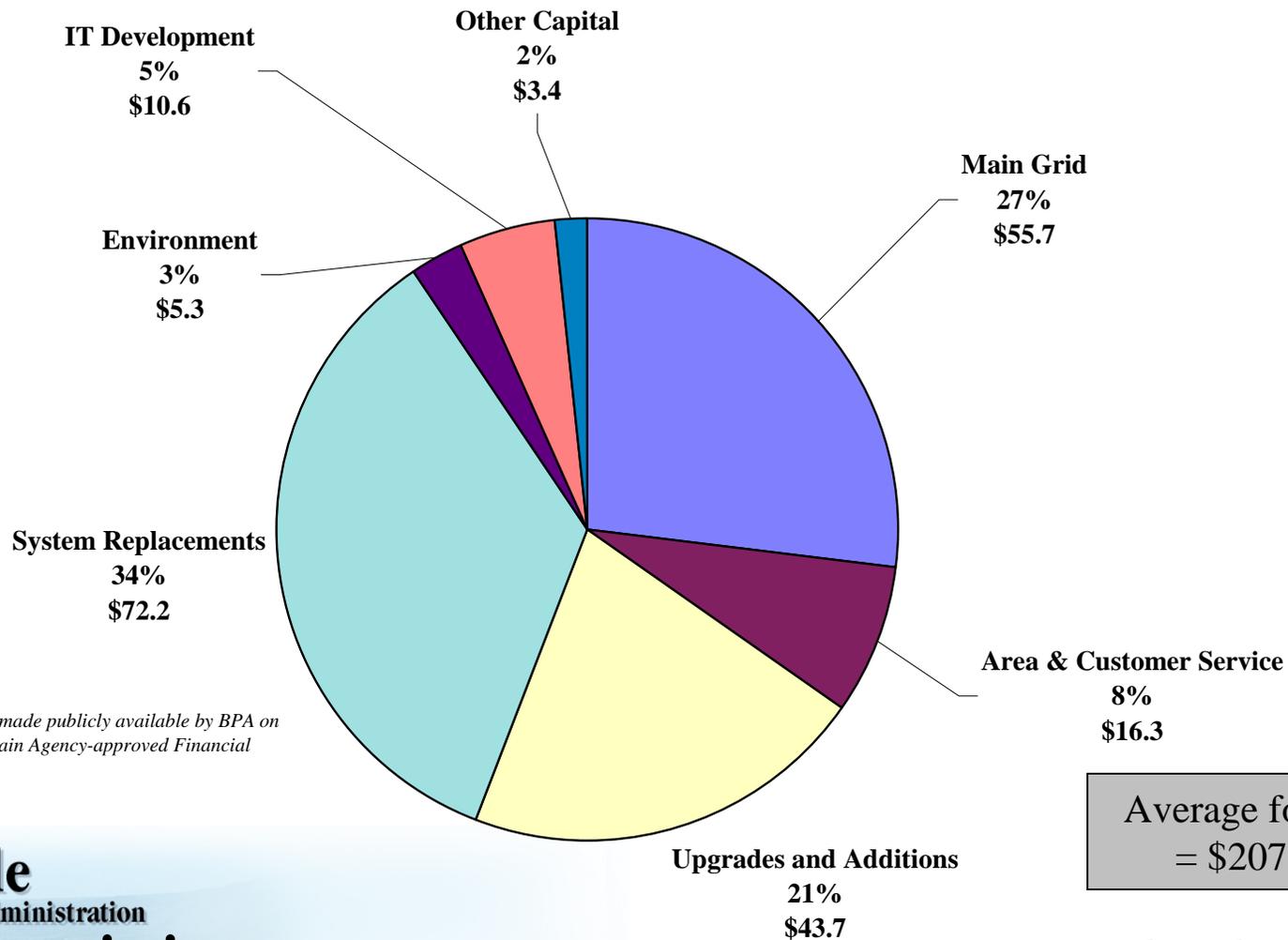
Example of Risk Matrix

\$ 5 M < PAR	<p>HIGH COST/ LOW RISK</p> <p>NPV and IRR required Sensitivity Analysis (model uncertainty)</p> <p>Examples:</p>	<p>HIGH COST/ MEDIUM RISK</p> <p>NPV and IRR required Sensitivity analysis (model uncertainty)</p> <p>Examples:</p>	<p>HIGH COST/ HIGH RISK</p> <p>NPV and IRR required Sensitivity analysis (model uncertainty)</p> <p>Examples:</p>
\$5 M < PAR < \$.5 M	<p>MEDIUM COST/ LOW RISK</p> <p>NPV and IRR required Discussion of uncertainty</p> <p>Examples:</p>	<p>MEDIUM COST/ MEDIUM RISK</p> <p>NPV and IRR required Sensitivity analysis (model uncertainty)</p> <p>Examples:</p>	<p>MEDIUM COST/ HIGH RISK</p> <p>NPV and IRR required Sensitivity analysis (model uncertainty)</p> <p>Examples:</p>
PAR < \$.5 M	<p>LOW COST/ LOW RISK</p> <p>No individual analysis Analyze in aggregate (portfolios)</p> <p>Examples:</p>	<p>LOW COST/ MEDIUM RISK</p> <p>NPV and IRR required Discussion of uncertainty</p> <p>Examples:</p>	<p>LOW COST/ HIGH RISK</p> <p>NPV and IRR required Sensitivity analysis (model uncertainty)</p> <p>Examples:</p>
	LOW RISK	MEDIUM RISK	HIGH RISK

Historical Trend of TBL Capital Projects



Direct Capital Programs FY06-07 Average



Average for FY06-07
= \$207 Million

This information has been made publicly available by BPA on June 8, 2004 does not contain Agency-approved Financial Information.

New Infrastructure Focus

- Strategy – Keep the momentum going
 - Measured but steady progress
- Focus on completing two major projects underway
 - Coulee-Bell
 - Schultz-Wautoma
- Launching two major projects in FY2005 (possible non-wire solutions)
 - Olympic Peninsula Reinforcement Project (Washington)
 - Lower Valley Transmission Project (Idaho/Wyoming)

Main Grid Projects

Project Name	Energization Date	FY2005 Plan	FY2006 Plan	FY2007 Plan
Puget Sound Area Additions, Phase 2	2006	2,140.80	0	0
Schultz-Wautoma 500 kV line	2006	21,407.90	1,258.90	0
Coulee-Bell 500 kV (WOH Ph 1)	2005	12,869.30	0	0
Line Relocation (Nisqually Reservation)	2005	2,309.80	1,678.50	0
Line Relocations on Tribal Lands	On Going	3,072.90	3,495.00	3,653.90
Olympia-Shelton 500 kV	2007	1,024.30	10,490.90	15,045.60
I-5 Corridor 230 kV upgrades	2007	10,243.00	15,736.30	0
Other Associated Gen Integration	On Going	4,000.00	5,000.00	5,000.00
NERC Criteria Compliance	On Going	10,000.00	15,000.00	15,000.00
System Reactive Facilities	On Going	5,000.00	5,000.00	5,000.00
Various Additions	On Going	0	5,000.00	5,000.00
Total Main Grid		72,068.00	62,659.70	48,699.50

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Area & Customer Service

Project Name	Energization Date	FY2005 Plan	FY2006 Plan	FY2007 Plan
SW Ore Coast (Bandon-Rogue)	2010	0	0	322.4
Trentwood 230/115 kV bank/line	2008	0	0	537.3
Driscoll/Clatsop 230/115 kV Transformer	2006	0	4,720.90	0
Longview 230/115 kV Bank #2	2007	0	524.5	3,761.40
Lower Valley Reinforcement	2008	0	524.5	2,149.40
East Omak 230/115 kV Bank	2007	0	524.5	3,761.40
McNary Sub - 115 kV Term. (Benton PUD)	2005	409.7	0	0
Olympia - 115 kV Switches	2005	153.6	0	0
Madison Shunt Cap	2007	0	0	483.6
Reconductor Chehalis-Centralia 69 kV #1	2006	0	1,615.60	0
Reconductor Chehalis-Centralia 69 kV #2	2007	0	0	1,775.40
Split Bridge Shunt Cap to Two Groups	2008	0	0	376.1
Misc. Line Upgrade/Cap Additions for Wind Projects	On Going	2,868.00	2,308.00	3,224.10
Customer Service Items	On Going	3,000.00	3,000.00	3,000.00
Total Area & Customer Srvc		6,431.40	13,218.10	19,391.10

Upgrades & Additions

Project Name	Energization Date	FY2005 Plan	FY2006 Plan	FY2007 Plan
System Controls	On Going	11,267.30	12,589.10	12,896.20
Control Center Systems	On Going	5,121.50	8,791.40	6,265.40
Flathead Valley Reinf (RAS)	2007	0	1,049.10	1,074.70
Fiber Optics (Incls Terminations)	On Going	12,291.60	12,589.10	16,120.30
Misc Line Upgrades	On Going	2,519.80	5,245.40	5,373.40
Misc Sub Additions	On Going	2,048.60	2,098.20	3,224.10
Total Upgrades & Additions		33,248.80	42,362.20	44,954.10

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Reliability in a Constrained System

- Meet Reliability Criteria
 - Reliability response to East Coast blackout
 - Line upgrades
 - Sectionalizing breaker additions
 - Remedial actions and safety nets
 - Other fixes as identified
- Remove Constraints
 - Examine smaller infrastructure fixes to respond to incremental generation development.
 - Several larger infrastructure projects are on hold pending generation development.

System Replacements

Project Name	Energization Date	FY2005 Plan	FY2006 Plan	FY2007 Plan
Nonelectric Plant Replcmts	On Going	6,145.80	4,196.40	4,298.70
Transmission Line Replacements	On Going	0	2,098.20	2,149.40
Wood Pole Replacements	On Going	0	6,294.50	6,448.10
NCI Replacements	On Going	0	314.7	322.4
Spacer Damper Replacements	On Going	0	2,727.60	2,794.20
Substation Replacements	On Going	11,267.30	10,490.90	10,746.90
System Protection Replcmts	On Going	7,170.10	7,343.60	7,522.80
Pwr Sys Control Replcements	On Going	4,097.20	3,147.30	3,224.10
Dittmer Annex	2008	0	2,622.70	37,614.00
Tools and Equipment	On Going	5,000.00	5,000.00	5,000.00
Emergency Funds	On Going	10,000.00	10,000.00	10,000.00
Total System Replacements		43,680.40	54,235.90	90,120.50

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System Replacement Overview

- System replacement program will average \$72 million for FY06-07.
 - Annual replacement budget includes \$10 million for emergency.
- System replacements based on 10-year Replacement Plan 2001-2011 (developed in 1999).
 - Replacement plan based on vintage, maintenance cost, availability of spare parts and condition of facilities.
- Consolidation of work force through facility expansion.
 - Replacement of VanMall leases with least cost option to improve security and work force efficiency.