

TRANSMISSION

Long Term Capital Investment Strategies

September 19, 2011

2:30pm – 4:00pm

Rates Hearing Room

911 N.E. 11th Ave, Portland, OR 97232

Participants may participate via phone by dialing 503-230-5566, after the double beep enter 0124#



Presentation Outline

Strategic review of the Transmission Asset Strategy

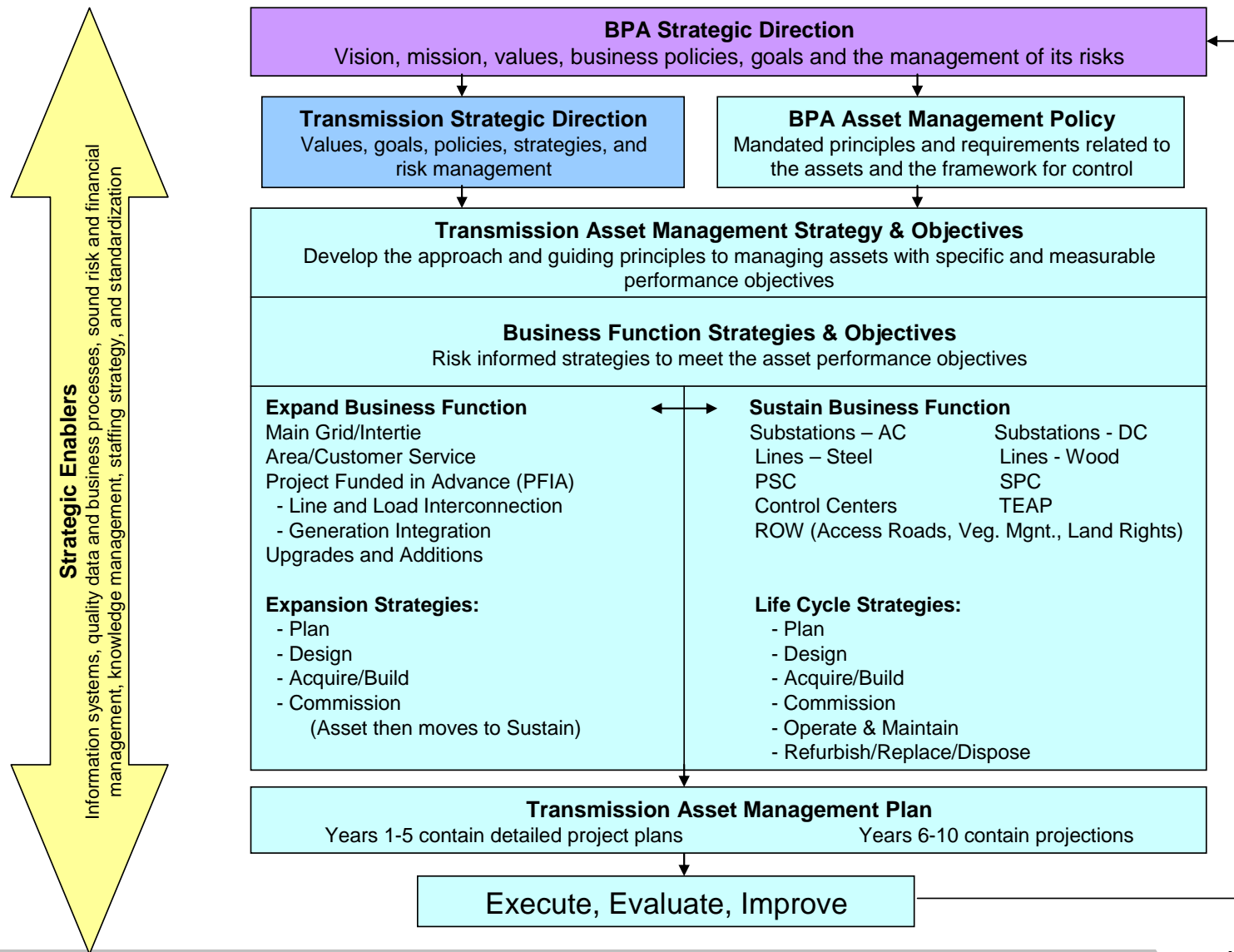
- Asset Strategy and Long Term Goals
- Strategic Drivers
- Program Prioritization
- Project Prioritization
- Forecasted Spending
- Strategic Reductions to Capital Spending
- Program Specific Reductions
- Potential Changes

Transmission Asset Strategy

- The Transmission Asset Management Strategies are designed to convert the agency's mission, vision, and strategic objectives into long-term investment and maintenance strategies.
- The Strategies seek to ensure the critical assets operate reliably, meet availability requirements, and provide adequate capacity into the future.
- BPA will invest in, maintain, and operate assets minimizing the life cycle costs of assets when practical.

Transmission Asset Strategy

Transmission Asset Management System Framework



Transmission Capital Strategic Drivers

Key drivers for developing expansion strategies

- Meet all regulatory requirements
- Improve reliability through path constraint mitigation
- Meet customer service requirements
- Additions to deliver new generation sources – Network Open Season
- Upgrade key Transmission infrastructure

Key drivers for developing sustain strategies (replacements)

- Equipment end of life issues
- Equipment maintainability and availability
- Equipment security and exposure to hazards
- Obsolescence and original equipment manufacturer (OEM) support
- Legislative and regulatory compliance

Transmission Program Prioritization (1 of 2)

Main Grid

- Network Open Season Projects
- Assure compliance with NERC planning standards and Western Electricity Coordinating Council (WECC) reliability criteria
- Provide voltage support
- Provide a reliable transmission system for open access
- Provide for relief of transmission system congestion

Upgrades & Additions

- Maintain or enhance the capabilities of the transmission system
 - Replace older communications and controls with newer technology
 - Upgrade Celilo Terminal
 - Replace and add fiber optics

Transmission Program Prioritization (2 of 2)

Area & Customer Service

- Meet reliability standards, load growth and contractual obligations

System Replacements

- Replace high-risk, obsolete, and maintenance-intensive facilities and equipment and reduce the chance of equipment failure by
 - Replacing high voltage transformers and power circuit breakers which are at or near the end of their useful life based on health, criticality, and risk
 - Replacing risky, outdated, and obsolete control and communications equipment and systems, including mandated replacements due to legislation
 - Continue to replace high-risk wood pole structures, spacer dampers, and other obsolete and failing equipment

Transmission Capital Project Prioritization

Projects are prioritized by considering

- Key Program drivers and priorities
- Asset Strategy alignment
- Discretionary/Non-Discretionary categorization
- Critical facilities and equipment – failure, obsolescence, environmental damage, noncompliance, health, and safety
- Integration/Coordination/Sequence with other existing and/or proposed projects
- Availability of resources

Strategic Reductions in Long Term Transmission Capital Spending

Reduction to Capital Programs – Total

- Overall 5 percent contingency removed from all programs totaling \$146 million
- The Expansion Program absorbed the majority of the remaining reduction totaling \$ 468 million
- The Sustain Program absorbed reductions totaling \$50 million
- The reduction was minimized in the near-term, where there is less flexibility moving the majority of the reductions out to FY 2017 and beyond

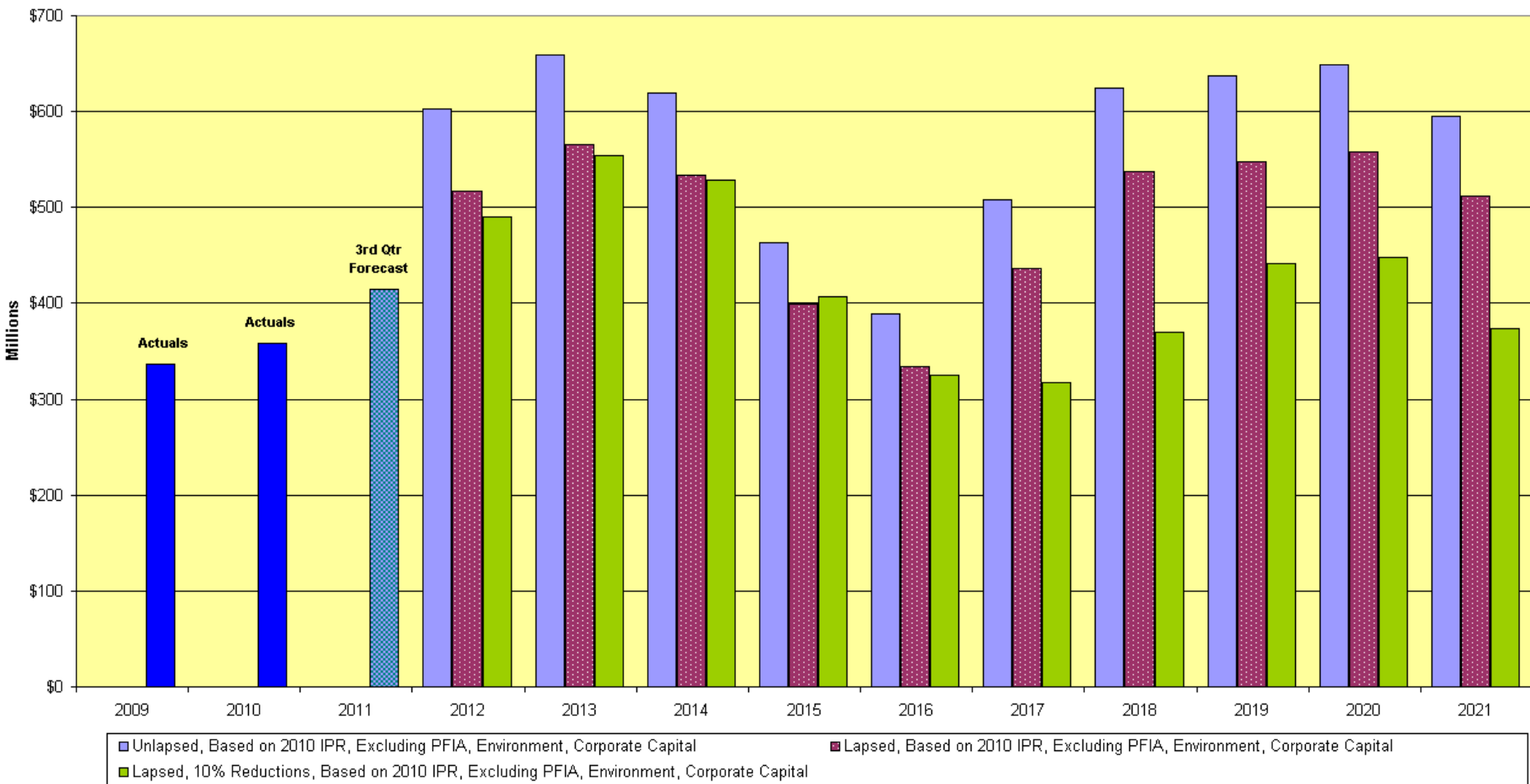
Fiscal Year	2012	2013	2014	2015	2016	2017
Transmission Capital (Lapsed), net of PFIA, Base Scenario *	517,235	565,907	533,170	398,691	334,304	436,837
Transmission Capital (Lapsed), net of PFIA, 10% Scenario *	490,254	554,603	529,092	407,020	324,574	317,496
Net Increase (Decrease) in Capital Spending	(26,981)	(11,304)	(4,078)	8,329	(9,730)	(119,341)

Fiscal Year	2018	2019	2020	2021	10 yr % Reduction	10 yr % Reduction before IT Respread
Transmission Capital (Lapsed), net of PFIA, Base Scenario *	537,541	547,923	557,743	512,365	4,941,716	4,941,716
Transmission Capital (Lapsed), net of PFIA, 10% Scenario *	369,560	441,944	447,287	373,216	4,255,045	4,276,550
Net Increase (Decrease) in Capital Spending	(167,981)	(105,979)	(110,456)	(139,149)	13.9%	13.5%

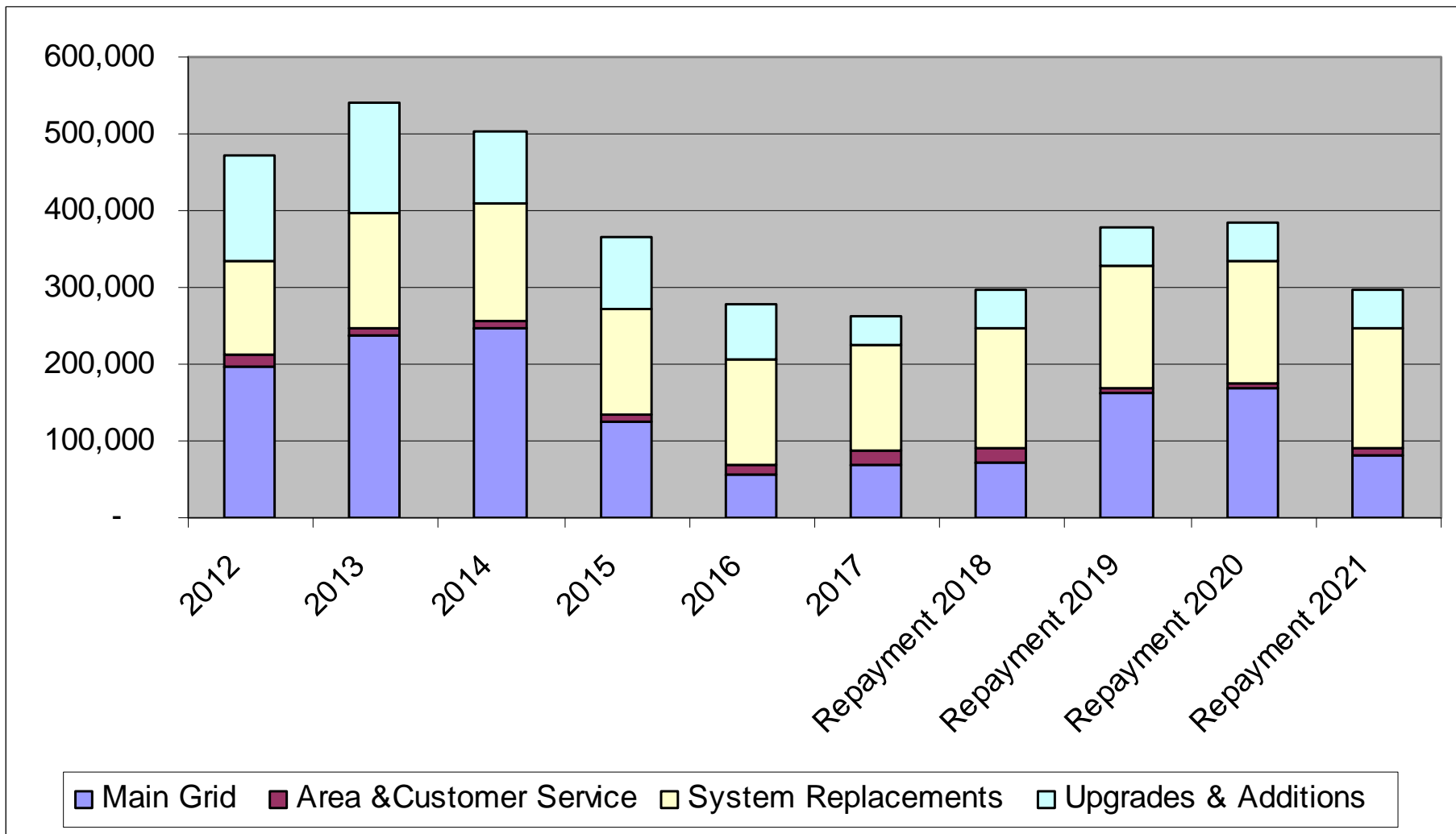
Dollars in Millions

* Base and 10% Scenario Exclude PFIA, Environment & Corporate Capital

Forecasted Capital Spending by Fiscal Year



Forecasted Program Spending Levels by Fiscal Year



Dollars in Millions

Strategic Reductions in Long Term Transmission Capital Spending

Transmission Capital IPR Base Scenario	Final IPR 2012	Final IPR 2013	Final IPR 2014	Final IPR 2015	Final IPR 2016	Final IPR 2017	Repayment 2018	Repayment 2019	Repayment 2020	Repayment 2021
Main Grid	213,330	270,082	254,946	138,186	86,879	189,404	216,649	276,020	287,441	233,521
Area & Customer Service	11,321	9,467	10,746	16,154	17,131	28,295	61,527	7,862	7,865	8,855
System Replacements	139,406	150,668	160,978	149,452	140,641	138,983	156,157	159,026	159,084	158,882
Upgrades & Additions	126,569	110,825	69,027	39,623	31,830	33,365	42,461	43,241	43,256	43,202
Total Direct Capital	490,626	541,041	495,695	343,415	276,481	390,047	476,794	486,148	497,646	444,460
Capital Indirects	79,041	80,367	82,592	84,568	86,061	87,525	105,102	107,033	107,072	106,936
AFUDC	33,018	37,709	41,624	34,905	26,143	30,926	42,929	43,718	43,734	43,678
Total Indirect Capital	112,059	118,076	124,216	119,473	112,204	118,451	148,031	150,751	150,805	150,615
Total Capital Program	602,685	659,117	619,911	462,888	388,684	508,498	624,825	636,899	648,451	595,074
Lapse	(85,450)	(93,210)	(86,741)	(64,197)	(54,380)	(71,661)	(87,284)	(88,976)	(90,708)	(82,709)
* Total Capital with Lapse Factor	517,235	565,907	533,170	398,691	334,304	436,837	537,541	547,923	557,743	512,365
Environment	5,074	5,174	5,279	5,488	5,494	5,589	5,965	6,075	6,078	6,070
PFIA	44,432	43,715	29,694	22,310	22,650	22,987	37,431	38,119	38,132	38,084

Transmission Capital 10% Scenario Updated	2012	2013	2014	2015	2016	2017	Repayment 2018	Repayment 2019	Repayment 2020	Repayment 2021
Main Grid	196,484	237,455	247,133	123,831	57,811	70,302	72,321	162,201	168,352	81,782
Area & Customer Service	16,613	9,655	10,212	11,549	11,205	16,295	18,460	7,436	7,439	7,426
System Replacements	120,033	151,238	152,302	135,800	136,238	137,964	155,396	158,319	158,380	158,122
Upgrades & Additions	137,974	142,404	95,005	95,264	72,134	38,175	49,235	49,994	50,010	49,940
Total Direct Capital	471,105	540,752	504,652	366,444	277,388	262,736	295,412	377,949	384,180	297,269
Capital Indirects	70,847	71,985	73,958	75,662	76,960	78,258	94,131	95,902	95,938	95,782
AFUDC	29,595	33,776	37,273	31,229	23,378	27,652	38,448	39,171	39,186	39,122
Total Indirect Capital	100,441	105,762	111,230	106,892	100,339	105,910	132,579	135,073	135,125	134,904
Total Capital Program	571,546	646,513	615,883	473,336	377,726	368,646	427,991	513,022	519,305	432,173
Lapse	(81,293)	(91,911)	(86,791)	(66,316)	(53,152)	(51,150)	(58,431)	(71,078)	(72,018)	(58,958)
* Total Capital with Lapse Factor	490,254	554,603	529,092	407,020	324,574	317,496	369,560	441,944	447,287	373,216
Environment	4,547	4,635	4,728	4,910	4,900	4,997	5,343	5,444	5,446	5,437
PFIA	76,930	89,111	33,188	21,197	21,831	22,987	37,431	38,119	38,132	38,084

Dollars in Millions

* Base and 10% Scenario Exclude PFIA, Environment & Corporate Capital

Program Specific Reductions

Main Grid

- 1-2 year deferral of West of Cascades North and South, Northern Intertie, Puget Sound, and Tri-Cities Reinforcements
- Network Open Season (NOS) Additions category - Reduced by \$2 million per year beginning FY 2012 onward
- Reduced projected spend in the out years
- **Risk:** Reducing the category and deferring the projects listed above, could jeopardize our ability to meet load service obligations in those areas and to meet NERC compliance standards.

Upgrades and Additions

- Program increased in PSC and SPC to better meet agency objectives
- \$151 million was reallocated from other projects to cover Celilo project needs of \$248.8 million.
- **Risk:** Increase to Upgrades and Additions Program resulted in larger decreases in other Programs.

Program Specific Reductions

Area and Customer Service

- Maintained levels for FY 2012 and FY 2014 for existing projects, minimized funding in FY 2015 – FY 2018, and maintained funding levels for FY 2019 – FY 2021
- **Risk**: Potential increase in budget for unidentified or emerging customer projects not known to date.

Sustain – System Replacements

- Reductions in the execution of the SPC, PSC, and Substation AC Program plans.
- **Risk**: Programs will not be able to fully implement their strategies as originally planned, potentially increasing failures and maintenance.

Potential Changes

- No current funding for Southeast Idaho load service.
- Current funding of \$248.8 million for Celilo is estimated to be approximately \$103 million short of most recent project cost projections. BPA will investigate third party financing for this project. Project is also associated with DC inter-tie rates.
- No funding included for NOS 2010 Colstrip West of Garrison estimated at \$115.5 million.
- Current funding of \$127.2 million for Big Eddy Knight is estimated to be approximately \$58 million short of most recent project cost projections.
- All programs run the risk of being under budgeted based upon the overall contingency reduction.
- With the economic slowdown; Network Open Season projects could be delayed. (See next slide for NOS project budget projections)

10 Year Forecasted Main Grid NOS Spending Levels

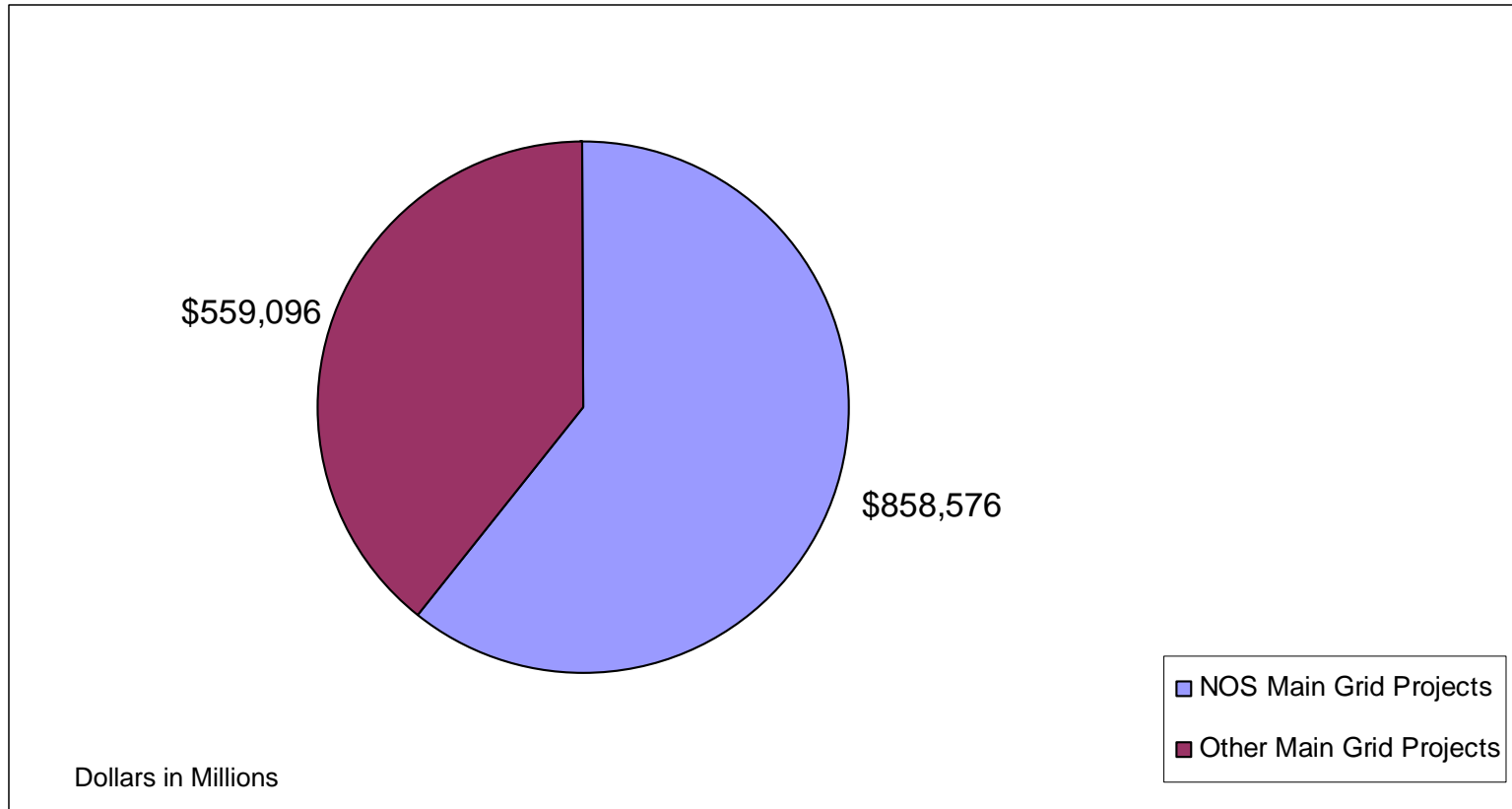


Chart does not include Colstrip West of Garrison (NOS 2010) or estimated project increase for Big Eddy Knight (NOS 2008)

Financial Disclosure

This information has been made publicly available by BPA on September 12, 2011 and contains information not reported in agency financial statements.