

A Comprehensive Plan for the Alaska Railbelt

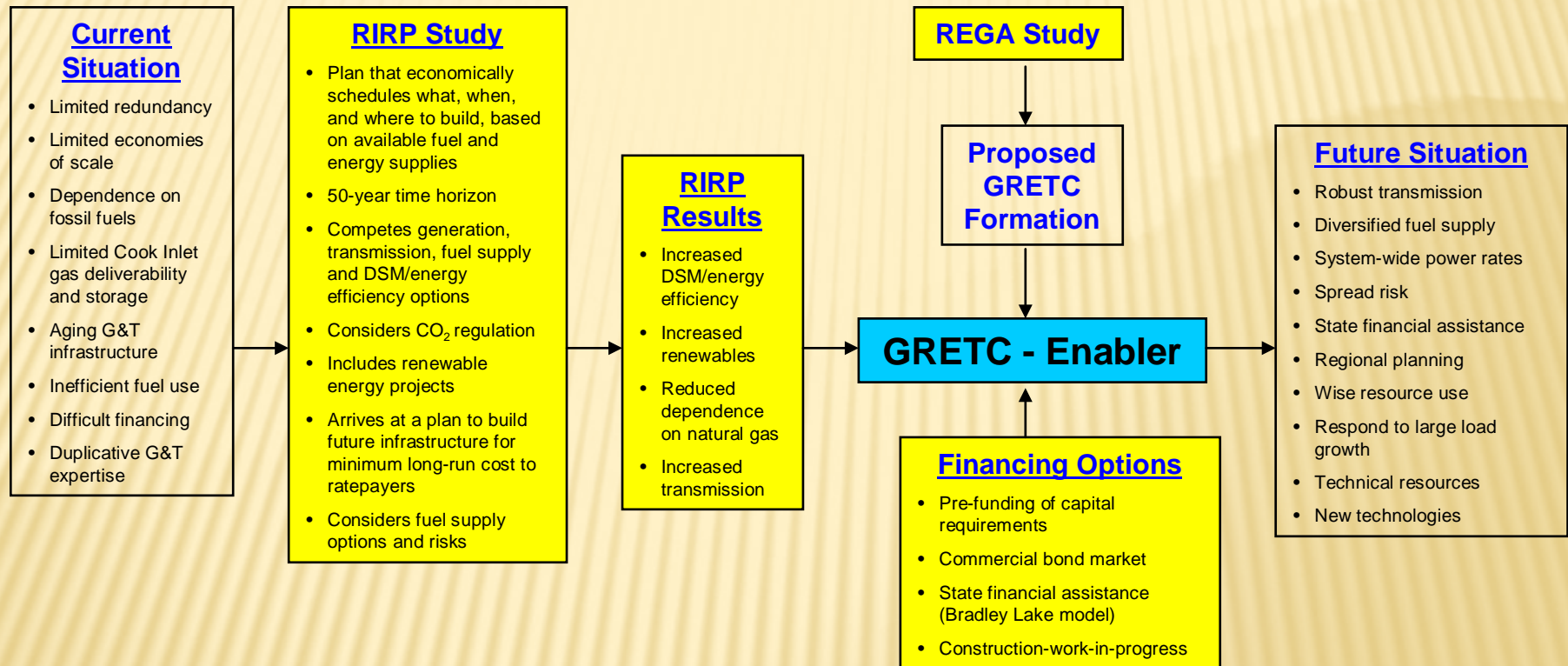
Results of the Railbelt IRP

House Energy Committee

March 11th, 2010



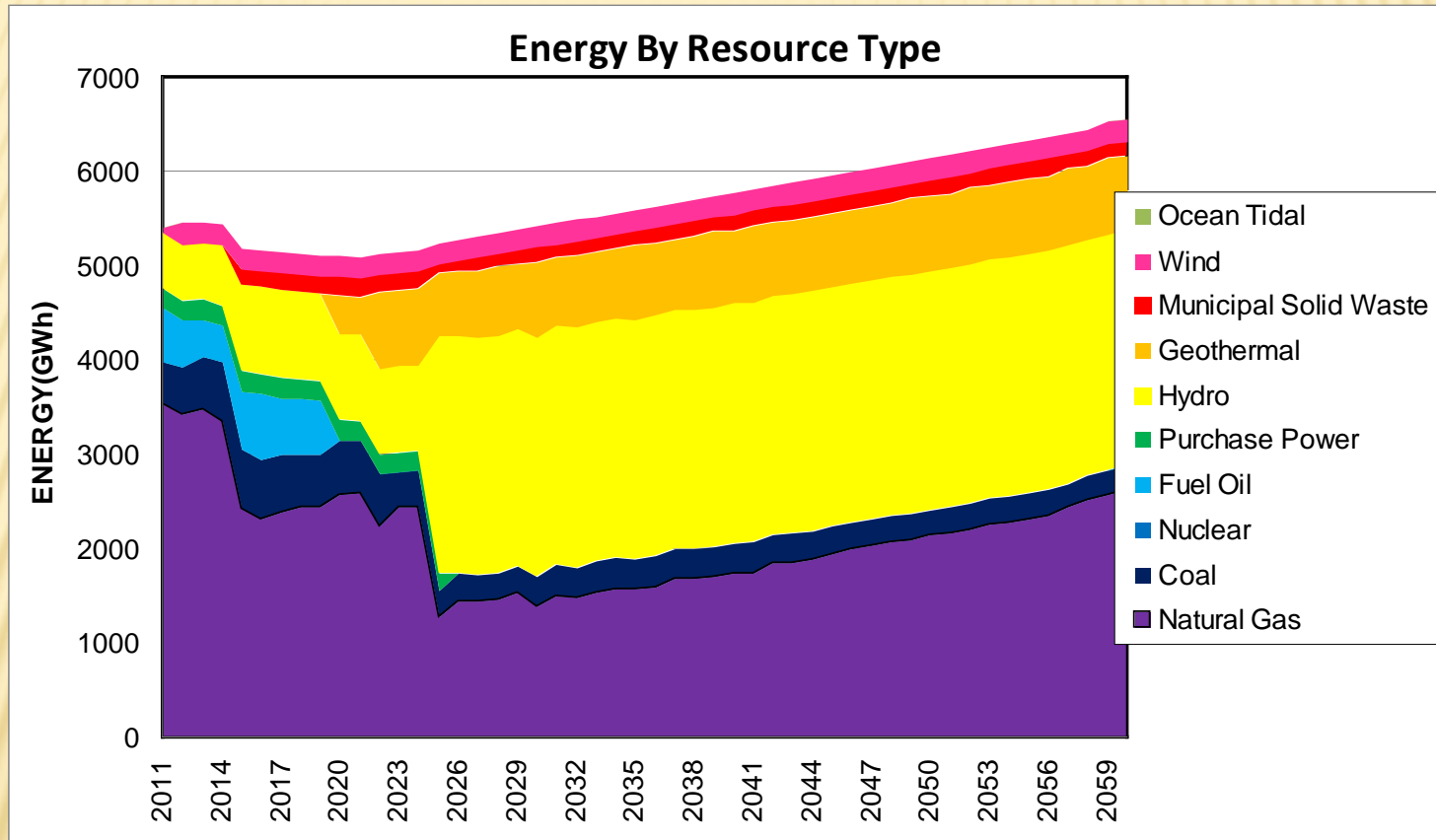
A COMPREHENSIVE PLAN FOR THE RAILBELT



10-Year Transition Period



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Scenario 1A/1B



The Railbelt 50-year power portfolio, presented graphically

Source: B&V RIRP Final Report

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CONCLUSIONS – PREFERRED RESOURCE PLAN

- ✖ DSM/EE Programs (2011)
- ✖ Nikiski Wind (2011)
- ✖ HCCP (2011)
- ✖ Fire Island Wind (2012)
- ✖ Southcentral Power Plant (2013)
- ✖ Glacier Fork Hydro (2014)
- ✖ Anchorage and GVEA MSW (2015/2017)
- ✖ GVEA North Pole Retrofit (2018)
- ✖ Mt. Spurr Geothermal (2020)
- ✖ Parallel pursuit of Chakachamna/Susitna/Glacier Fork
- ✖ Multiple transmission projects



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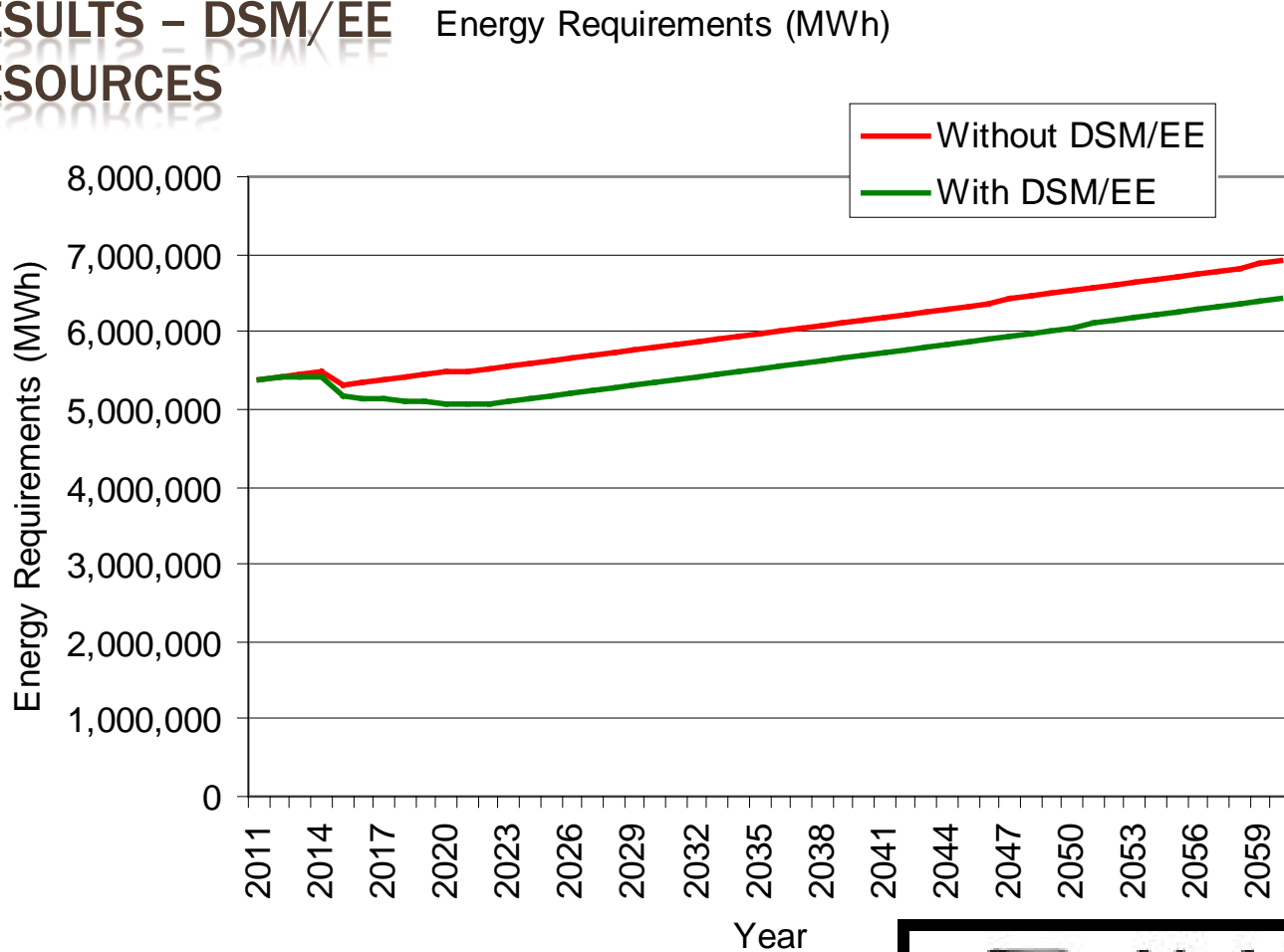
CONCLUSIONS – PREFERRED RESOURCE PLAN

- ✦ **Near-Term Transmission Projects**
 - + Soldotna-Quartz Creek transmission line (\$126MM)
 - + Quartz Creek-University transmission line (\$165MM)
 - + Douglas-Teeland transmission line (\$63MM)
 - + Lake Lorraine-Douglas transmission line (\$80MM)
 - + SVCs (\$25MM)
 - + Southern Intertie study (\$1MM)
 - + BESS – frequency regulation (\$50MM)



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RESULTS - DSM/EE RESOURCES

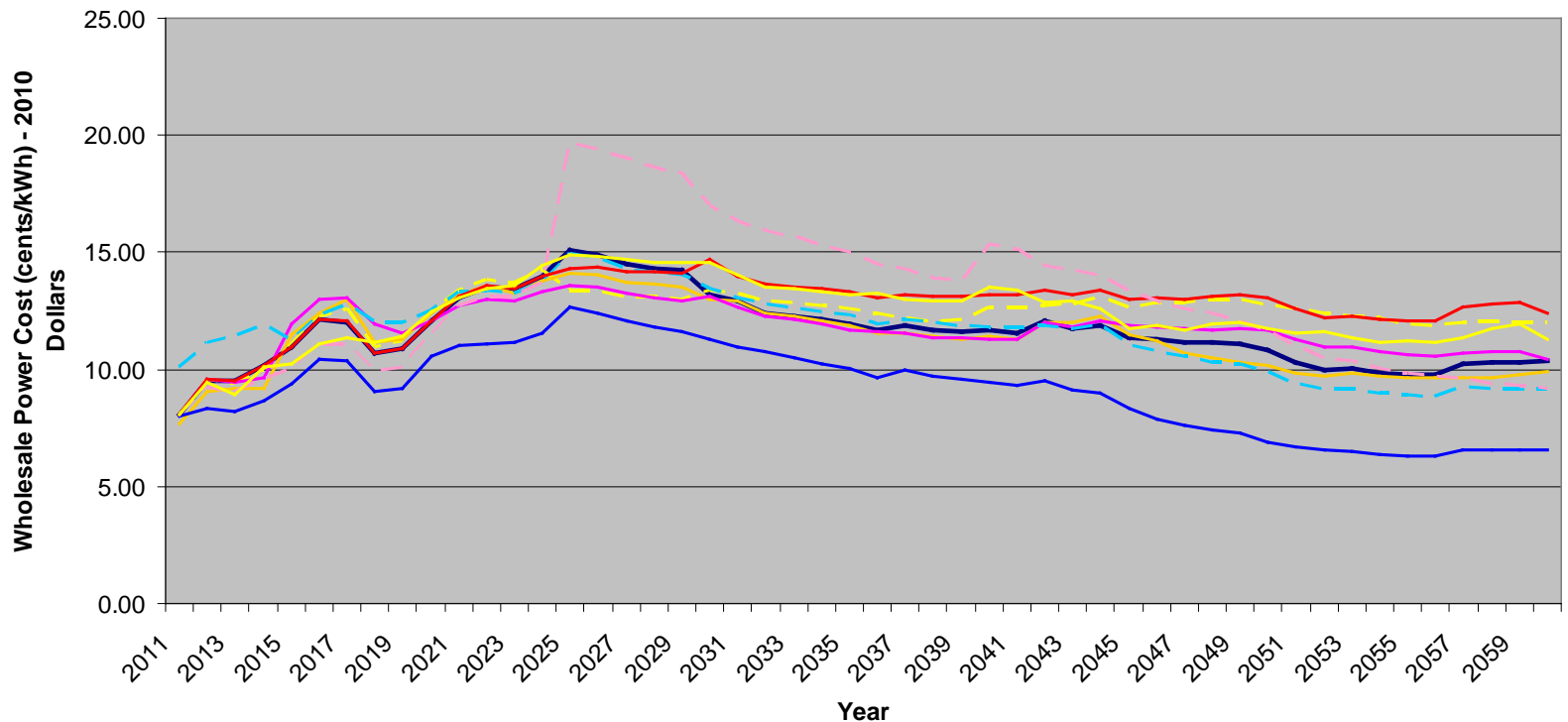


Source: B&V RIRP report



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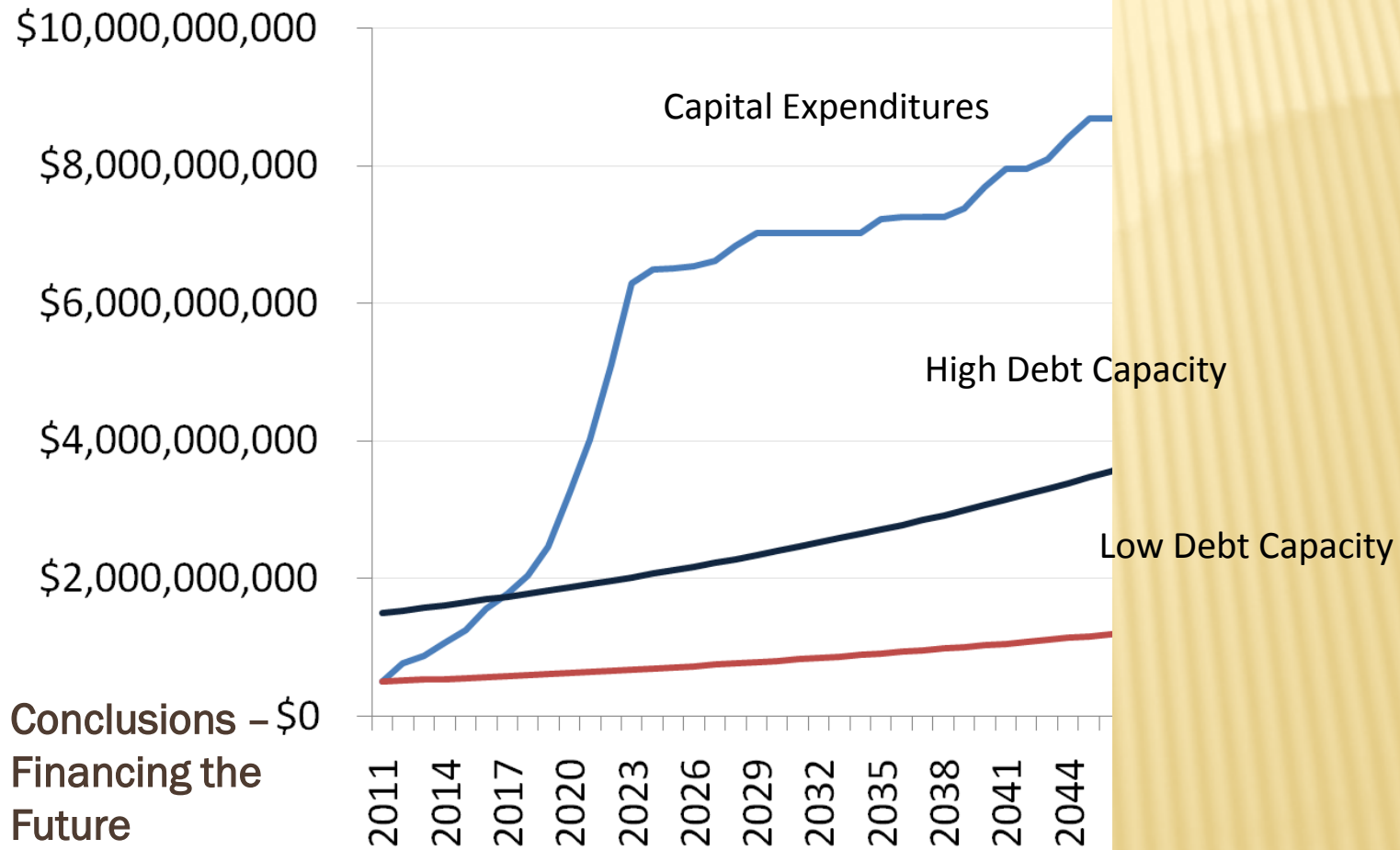
Annual Wholesale Power Cost (2010 Dollars) - Selected Cases



- Plan 1A/1B
- 1A/1B With Double DSM/EE Programs
- 1A/1B With High Gas Prices
- 1A/1B Without Chakachamna
- 1A/1B With Committed Units
- Plan 2A
- 1A/1B Without DSM/EE Programs
- 1A/1B Without CO2 Taxes
- 1A/1B With Susitna (Low Watana Expansion)

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RIRP Plan 1A Capital Expenditures and Debt Capacity of the Railbelt Utilities

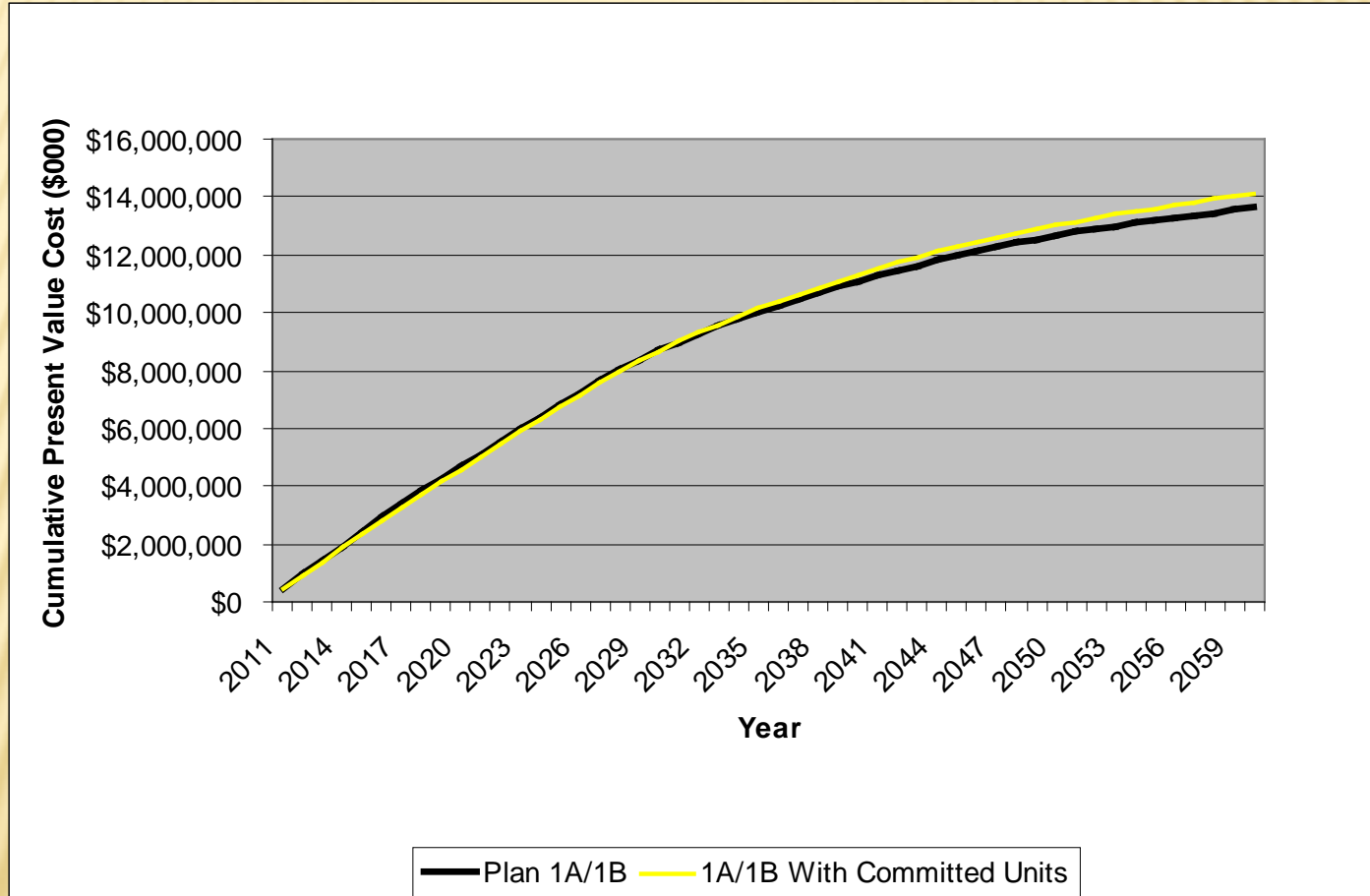


Source: B&V RIRP report, Seattle Northwest Securities



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CONCLUSIONS – REGIONAL OR INDIVIDUAL UTILITY FUTURE



Source: B&V RIRP report

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CONCLUSIONS – PREFERRED RESOURCE PLAN

Results of Financial Analysis

Techniques Considered

- ✗ Ratepayer benefit surcharge
- ✗ “Pay-go” financing
- ✗ CWIP
- ✗ State financial assistance
 - + 2.4 billion zero-interest loan
 - + Bradley Lake model

	Maximum Rate	Average Rate
Base Case	\$0.13/kWh	\$0.07/kWh
Alternative Case	\$0.08/kWh	\$0.06/kWh

