



Interim Environment, Energy & Technology Committee

September 11, 2013

Avista's Coal-Fired Generation

Introduction

- Avista Provides Natural Gas and Electric Services in eastern WA and northern ID, and Natural Gas Services in southern OR to Industrial, Commercial and Residential customers
- Avista produces electricity from Hydro, Natural Gas, Coal, and Biomass in WA, ID, OR & MT
- Approximately 400,000 Electric accounts and 354,000 Natural Gas accounts
- Regulated by Utility Commissions in the states

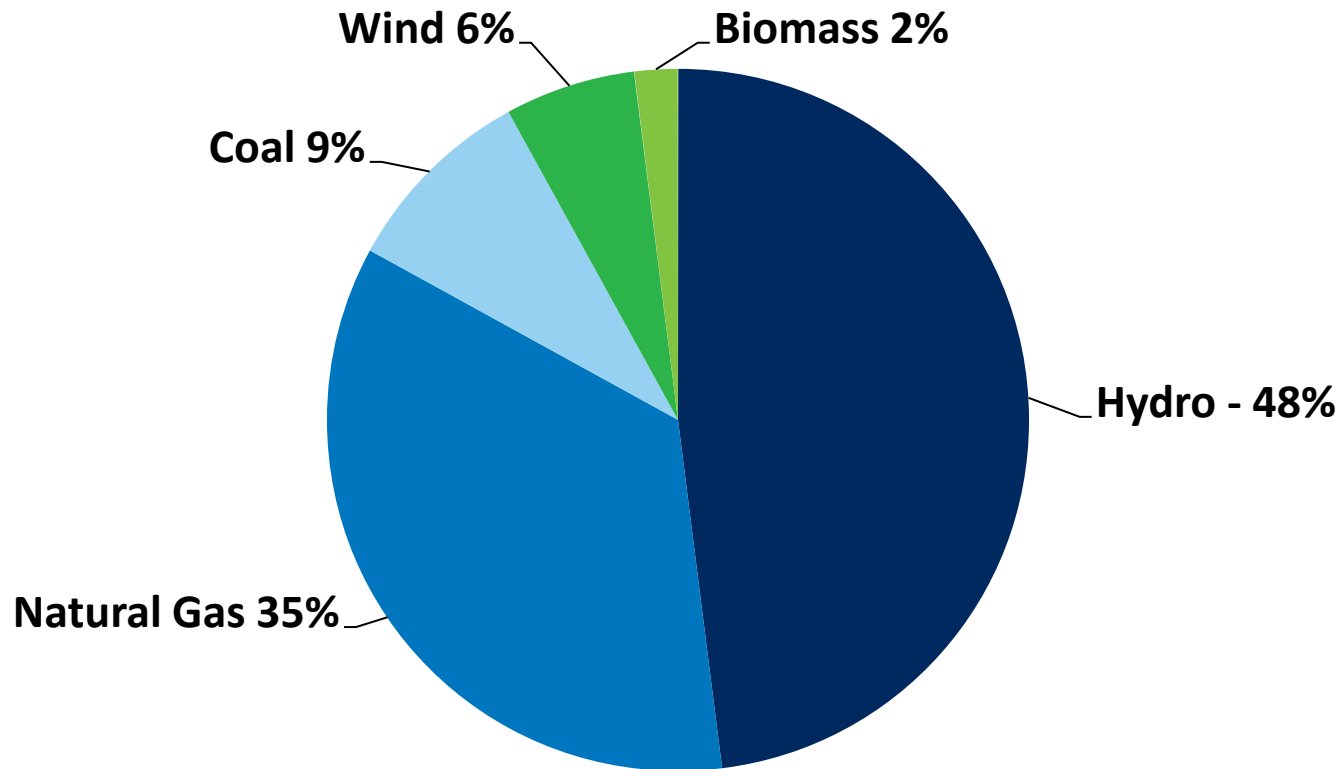
Avista's Coal Operations

- Overview – Integrated Resource Plan
- Avista's Energy Supply Portfolio
- Limited Generation from Coal, But...
- Colstrip Background Information
- Colstrip Environmental Information
- Summary and Conclusions

Overview of Integrated Resource Plan

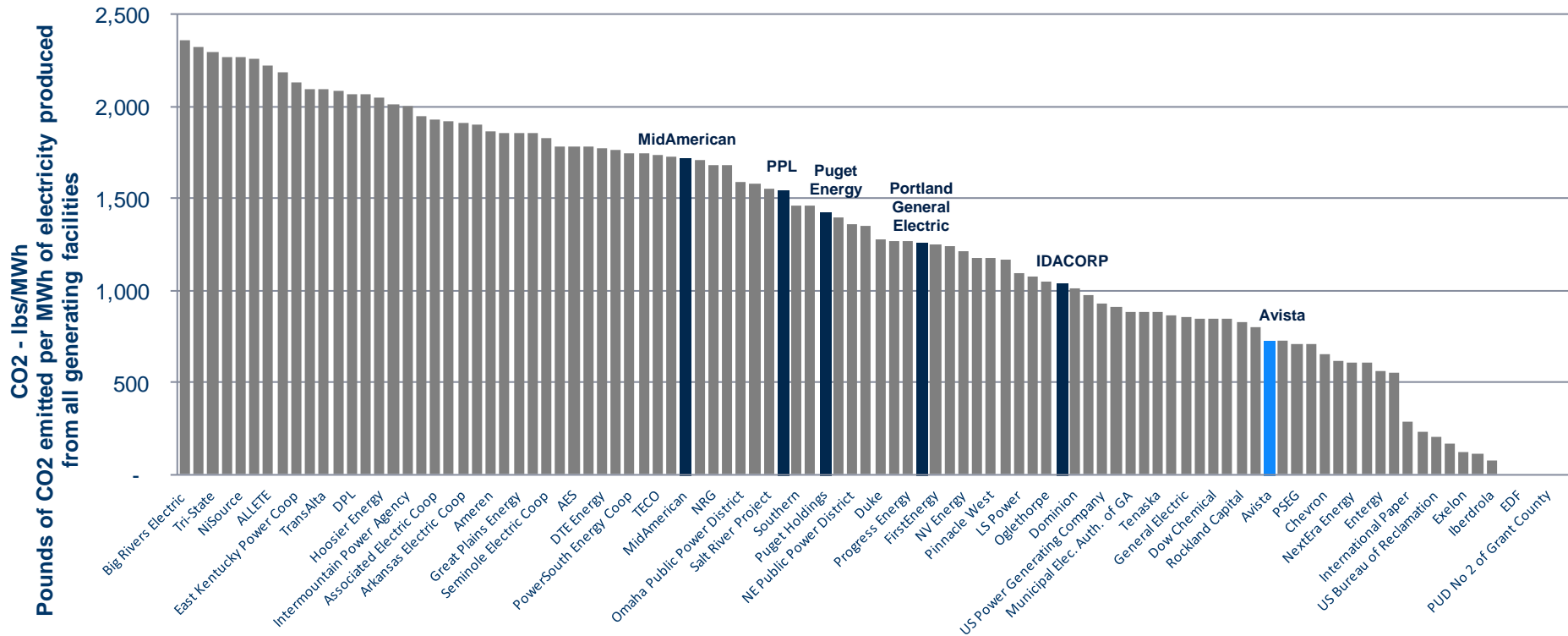
- Avista's 2013 Integrated Resource Plan (IRP) addresses all resource options, including coal and its associated risks
- IRP engages academics, regulators, other utilities, stakeholders and the public
- IRP is a 20-year planning document that is renewed every two years
- IRP is a public document available on the web

Avista's Generation Mix



2012 NRDC Report

Rate of CO₂ Emissions of Company-Owned Generation 100 Largest U.S. Electric Power Producers



Limited Generation from Coal, But...

- Only 9% of total generation capacity From coal
 - Actual energy output can vary depending upon hydro and other conditions
- Baseload Power – runs 24/7 when operational
- Very Low-Cost Resource for customers
- Maintenance performed when plants shut down during spring run-off

Colstrip Background Information

Colstrip Basic Data			Colstrip Ownership Percentages					
Colstrip Unit #	Size (MW)	Year Online	Avista	NorthWestern Energy, LLC	PacifiCorp	Portland General Electric	PPL Montana, LLC	Puget Sound Energy
Unit #1	307	1975	0%	0%	0%	0%	50%	50%
Unit #2	307	1976	0%	0%	0%	0%	50%	50%
Unit #3	740	1984	15%	0%	10%	20%	30%	25%
Unit #4	740	1986	15%	30%	10%	20%	0%	25%
Total	2,094		11%	11%	7%	14%	25%	32%

- Located southeast of Billings, MT
- Fuel - Sub-bituminous coal is delivered by a 4-mile, covered, overland conveyor system.
- Power delivered west by twin, 500 kV transmission lines
- Average yearly coal consumption of Units 3 & 4 is 6.4 Million tons

Colstrip Environmental Information

- Emissions at Units 3 & 4 meet recently-proposed standards
- In the top 10% of coal-fired plants for lowest SO₂ emissions
- In the last two years, units have installed state-of-the-art Nitrogen Oxide (NO_x) controls, reducing NO_x emissions by 80%. Top third of coal-fired plants for lowest NO_x emissions

Colstrip Environmental Information

- In 2010, Colstrip became one of the first coal-fired plants in the country to control mercury, achieving about a 90% reduction in mercury emissions

Colstrip Environmental Information

- Colstrip Units 3&4 meet increasing emission standards
 - Hazardous Air Pollutants (MATS) – exceed new standards
 - Coal Ash Management/Disposal – expect current impoundments to meet new standards
 - Effluent Discharge Guidelines – plant is zero discharge, wastewater managed on-site
 - Regional Haze Program – on target for now, additional control technologies may be required in later

Summary and Conclusions

- Coal included in IRP for next 20 years
- Colstrip is one of Avista's lowest-cost resources
- Provides necessary baseload capacity
- Even with expected future requirements, Colstrip remains a cost-effective resource throughout the 20-Year IRP planning horizon