



Railbelt Energy Study Summary of Findings

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Base Case Results

- Short-Term
 - 2008 – *Definitely* build 85 MW CT in Fairbanks
 - 2010/2011 – *Possibly* build 60 MW CC in Fairbanks
 - 2012/2013 – *Possibly* build 60 or 130 MW CC in Fairbanks, 130 MW CC in Anchorage
 - 2015 – *Most likely* build 60 MW CC in Fairbanks and 130 MW CC in Anchorage
- Long-Term
 - Build between 535 MW and 985 MW of new capacity between 2008 and 2030 – 725 MW most likely, 355 MW to replace retired units
 - Present value of expected 2008 – 2033 costs is \$5 billion – \$53 / MWh versus \$35 / MWh currently. Half of increase due to higher natural gas prices, half to capital and life extension costs

Unique Investment Opportunity Cases Results

- Pseudo-Healy Clean Coal Project – Cost-effective if transformation to unit with characteristics of generic 50 MW coal plant costs less than \$220 million (including fixed O&M)
- Southern Intertie – Negative \$113 million savings
- Fire Island (50 MW) – \$3 million savings
- Nikiski Repowering (25 MW) – \$65 million savings
- Emma Creek (2 x 100 MW) – Negative \$27 million savings
- Generic Coal (150 MW Units in Fairbanks and Anchorage) – \$420 million savings
- Natural Gas to Fairbanks – \$110 million cost increase, due to high gas price volatility. In near term, possibly build 130 MW CC in Fairbanks instead of 60 MW CC.

R. W. Beck Recommendations

- Coal
 - Pursue development of plants in Anchorage and/or Fairbanks
 - Large capital investment, may require multiple-utility and/or state participation
- Natural Gas
 - Pursue strategies to lock in lower and less uncertain natural gas prices than forecast in the study
- Large Units
 - 130 MW CCs more cost-effective, especially in Anchorage area, than smaller units
 - May require multiple-utility participation