

Fire Island Wind Project

Town Hall Meeting

October 20, 2010

Presented by



CIRI



Fire Island Wind Project

CIRI – An Alaska Native Corporation

It is one of 12 Alaska-based regional corporations established by the Alaska Native Claims Settlement Act of 1971 to benefit Alaska Natives who had ties to the Cook Inlet region.

The company is owned by more than 7,300 Alaska Native shareholders.

- Energy and resource development
- Oilfield and heavy construction services
- Real estate development
- Tourism and destination resorts



Fire Island Wind Project

Project Overview

- Fire Island Wind, LLC – wholly owned subsidiary
- Railbelt's first commercial-scale wind project
- 3 miles west of Anchorage on Fire Island
- 33 GE 1.6 MW wind turbines
- Total nameplate capacity of 52.8 MW
- 15 mile double circuit 34.5kV transmission line



Wind Turbine Statistics

Blade length = 135 feet

Hub height = 248 feet

Turbine rotational speed =
18-21 RPM

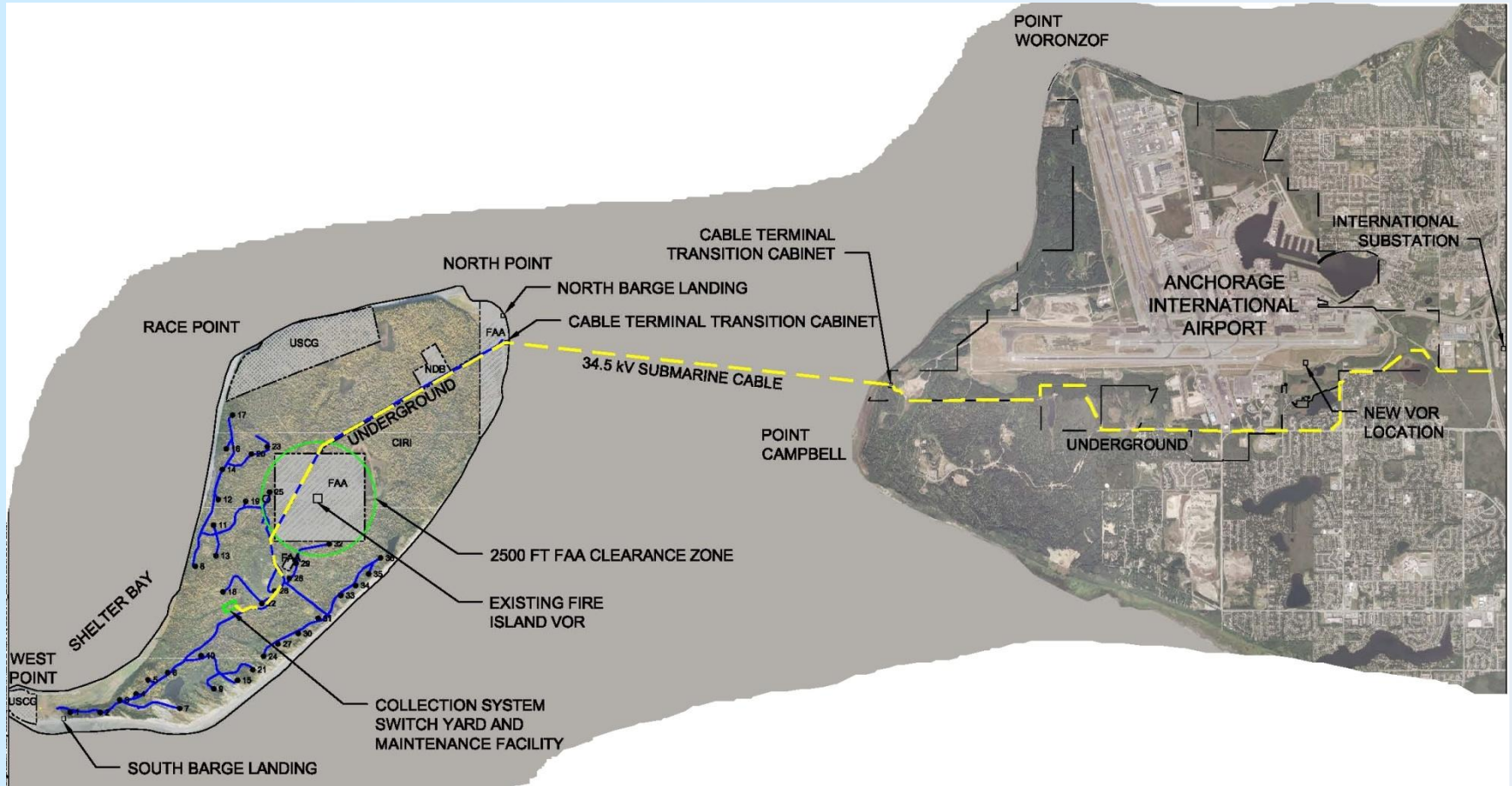
Turbine foundation =
steel reinforced concrete

Source: GE Energy
1.5MW wind turbines
at Kodiak, AK site



Fire Island Wind Project

Project Layout



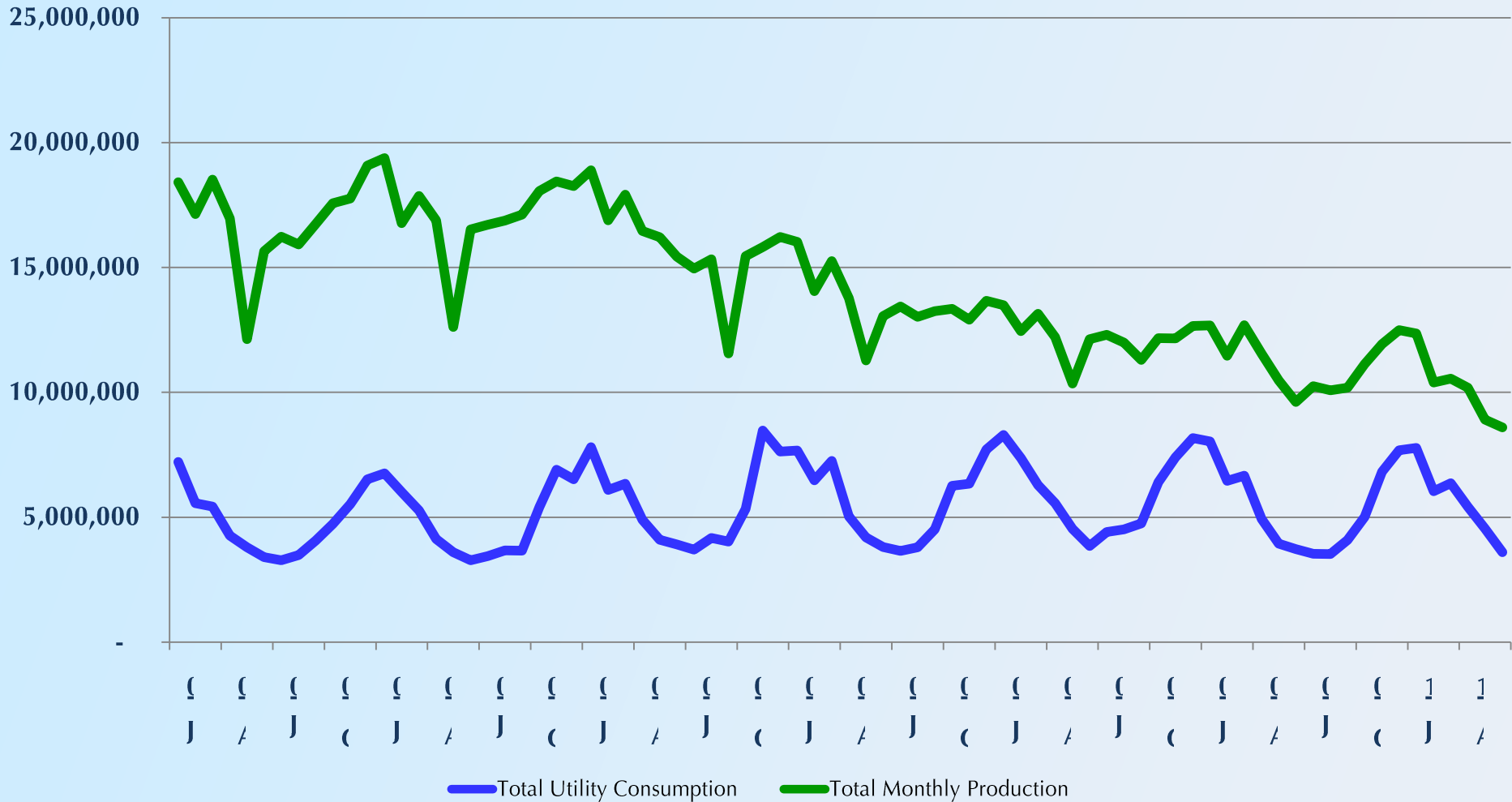
Fire Island Wind Project

The time is now

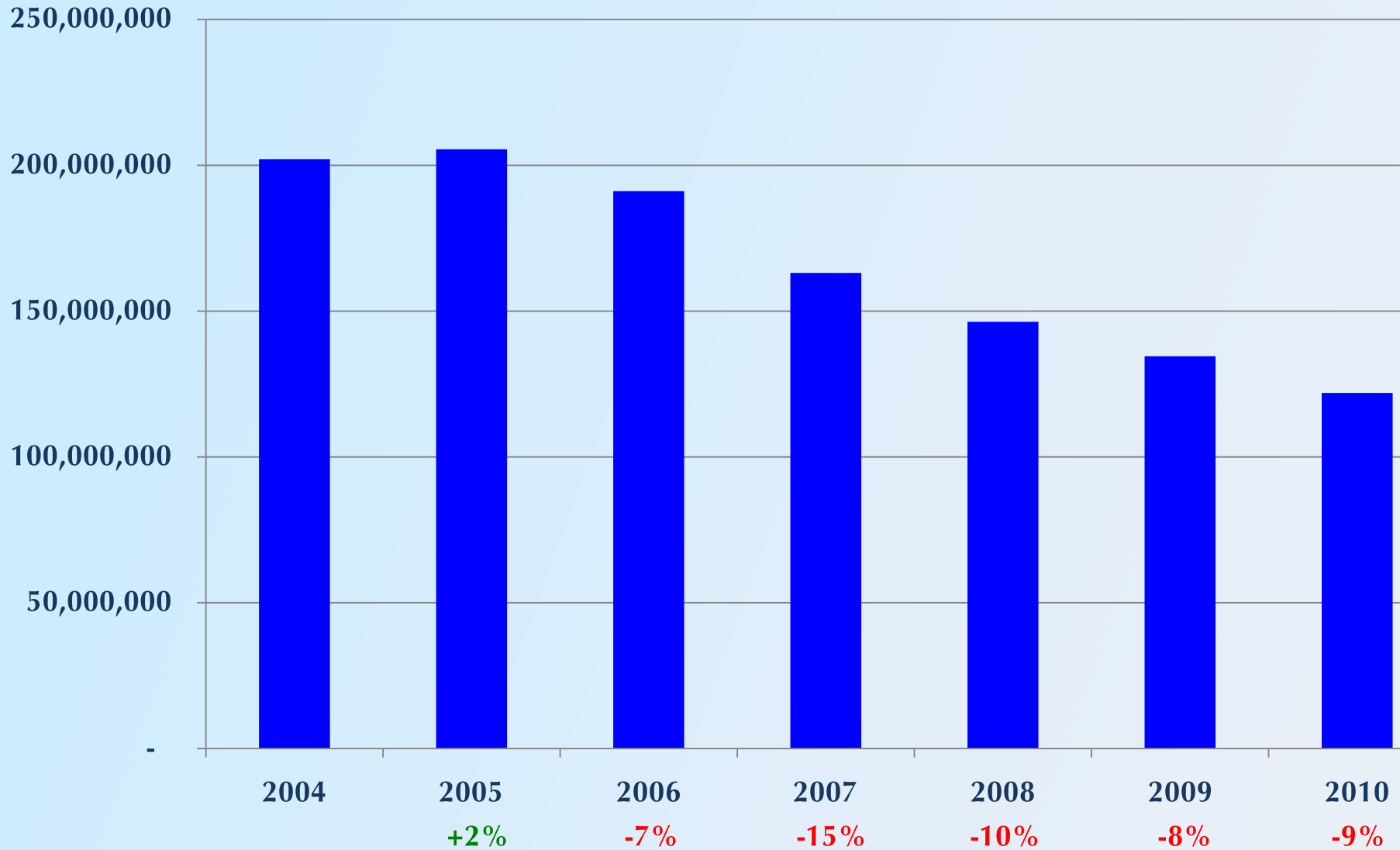
- CIRI is a willing and capable developer
- Challenging economy – creates advantages
- \$70 million subsidies available now
- Significant local economic stimulus: jobs and new Muni tax revenue
- Consistent with AK renewable energy goals: 50% by 2025
- Urgent need for fuel diversification – 90% natural gas
 - LNG imports 2013



Cook Inlet Natural Gas Monthly Production vs. Consumption

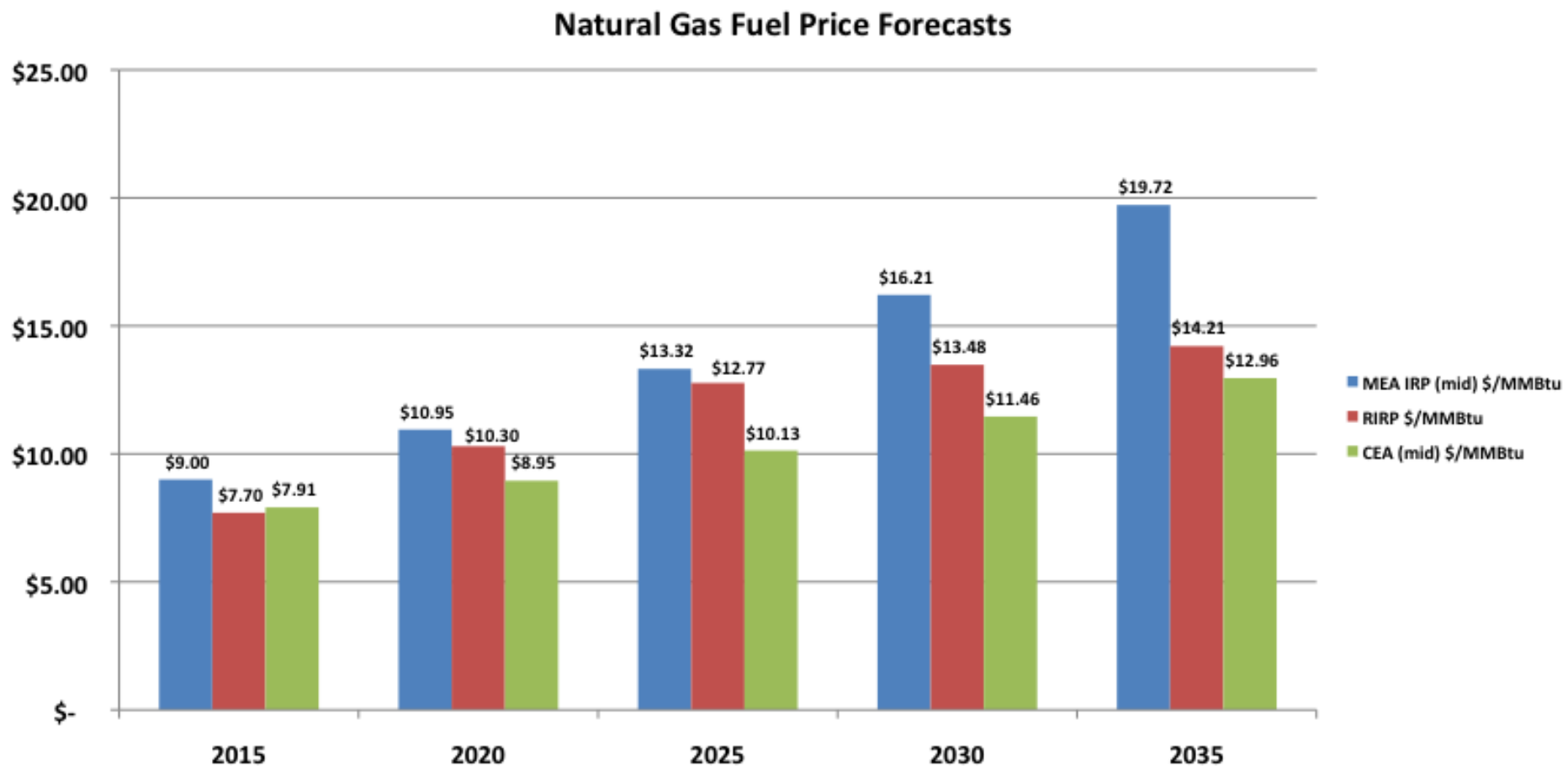


Cook Inlet Total Annual Production



Between 2005 and 2010 Cook Inlet Natural Gas Production has decreased by 40%

Future Gas Fuel Costs Increasing



Sources:

- MEA 2009 IRP – table 3.4 – March 2010
- CEA staff – June 2010
- RIRP – table 7.3 – March 2010

Gas Fuel Alternatives?

- **LNG**
 - Current LNG price in Japan is \$13/MMBtu
 - Japan largest world market for LNG
 - Alaska will pay **AT LEAST** what Japan pays
- **Bullet Line**
 - High cost and long time to complete
- **Additional E&P in Cook Inlet**
 - Regulatory issues for producers
 - Cost of production high



Fire Island Wind Project

Impact on Gas Demand

- Generate ~144,000 MWh annually
- Power ~17,000 Alaska homes
- Save ~1 to 1.5 BCF natural gas/yr (3 - 4%)



Grants and Timing - State Grant

2008 State of Alaska Appropriation

- \$25 million for utility owned intertie
 - 15.5 mile transmission line
 - Designed to CEA approved standards
 - CIRI to manage permitting/construction
 - 3 submarine cables for improved reliability
 - Funds released with executed utility power purchase agreements



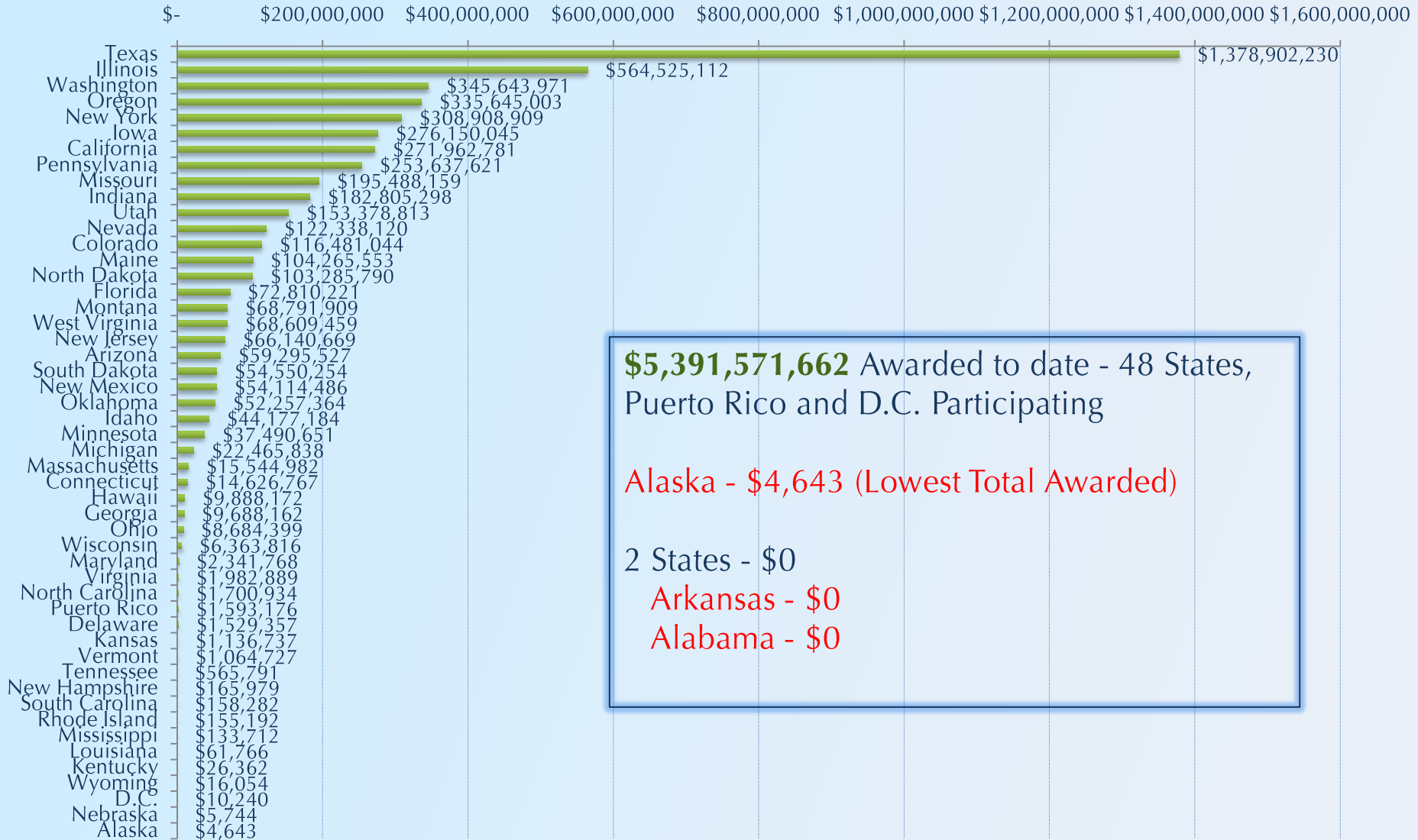
Grants and Timing – Federal Grant

- **ARRA Section 1603 Cash Grant**
 - Programmatically available
 - Qualified Taxpayer
 - ~\$44 million
 - Requires construction to begin in 2010
 - Maintain continuous program of construction
 - COD – by 12.31.12
- **Effect of grants on project**
 - 100% of grant funding benefits utility customers
- **Who has received the money from federal grant?**



Federal Incentives

ARRA Section 1603 Grant Award Amount



\$5,391,571,662 Awarded to date - 48 States,
Puerto Rico and D.C. Participating

Alaska - \$4,643 (Lowest Total Awarded)

2 States - \$0

Arkansas - \$0

Alabama - \$0

Fire Island Wind Project

On-Island Activities – 2009 and 2010

- Completion of all construction permits
- Engineering: civil, structural, electrical
- Tree clearing and geo-tech
- Develop gravel and water resources
- Prepare lay down area and preliminary man camp
- Runway and access road development
- Begin work on 5-7 turbine foundations















Fire Island Wind Project

On-Island Activities - 2011

- Complete all civil work
- Roads, turbine foundations, electrical collection system, O&M building, transmission line

On-Island Activities – 2012

- Turbine delivery, permanent facility staffing, erect turbines, test and commission, demobilize
- First Power - September 2012
- COD – October 2012



Schedule

- **Proceed with 2010 construction program** – CIRI risk
 - Over \$13 million pre-financial close
- **Board approved utility contracts** – by November 2010
- **RCA approval** – by March 2011
- **Construction finance close** – by April 2011
- **Commercial Operation** – by October 2012



Project Economics

Dana Zentz, P.E.

Vice President, Summit Power



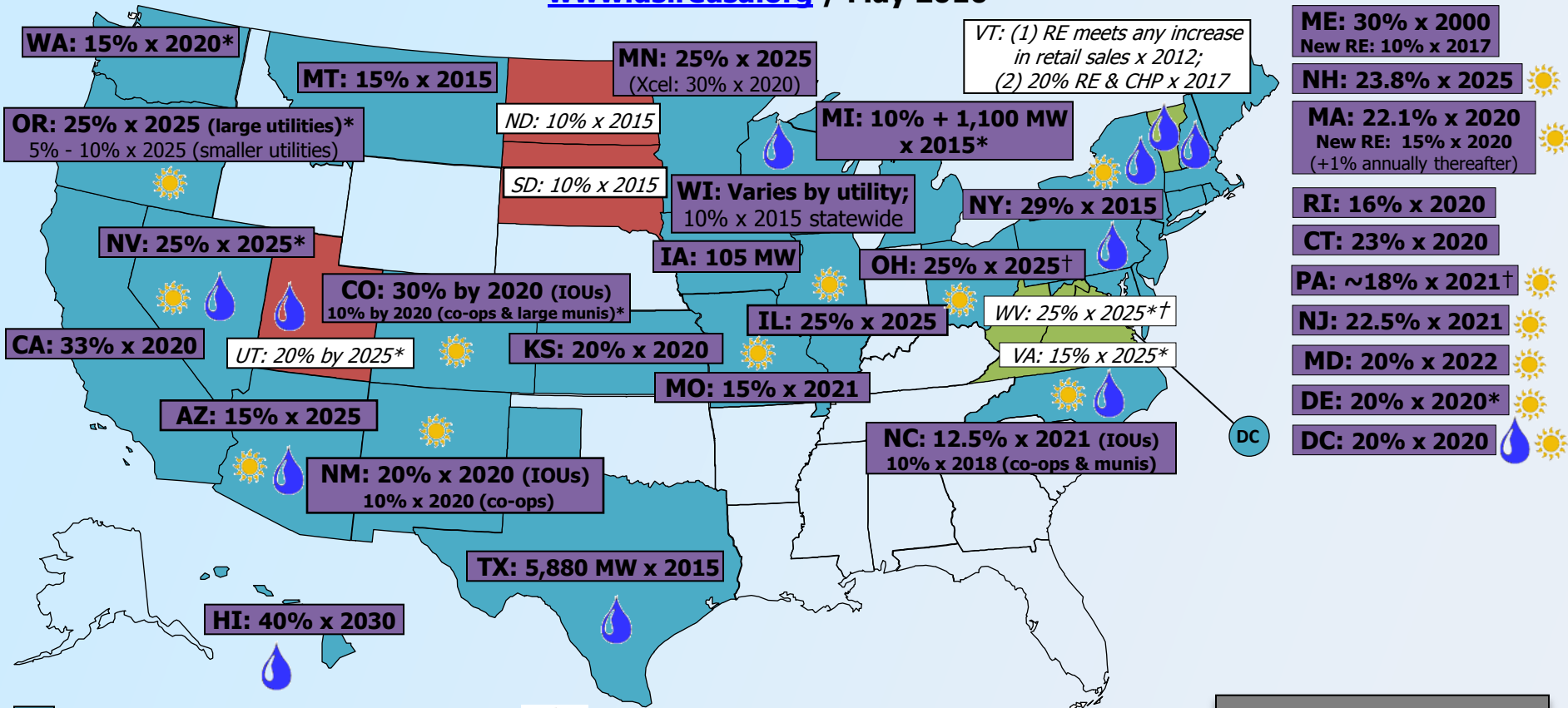
Summit Power Group, Inc.

- Founded 1987
- Full scope, value added development firm – based in Seattle, WA see: www.summitpower.com
- **Natural gas**
 - over 7000 MW of projects permitted or operating
- **Wind** –
 - Over 800 MW projects operating or under construction
 - Over 500 MW projects in current development
- **Solar PV** – over 500 MW of projects in development
 - Over 100 MW on short list or in final negotiation with Utilities
- **Coal Gasification** with carbon sequestration
 - 400 MW in FEED study – \$450 million in ARRA grants



Renewable Portfolio Standards - cover over 76% of Population

www.dsireusa.org / May 2010



State renewable portfolio standard
 State renewable portfolio goal
 Solar water heating eligible

Minimum solar or customer-sited requirement
 Extra credit for solar or customer-sited renewables
 Includes non-renewable alternative resources

29 states + DC have an RPS
(6 states have goals)

Fire Island Wind Project

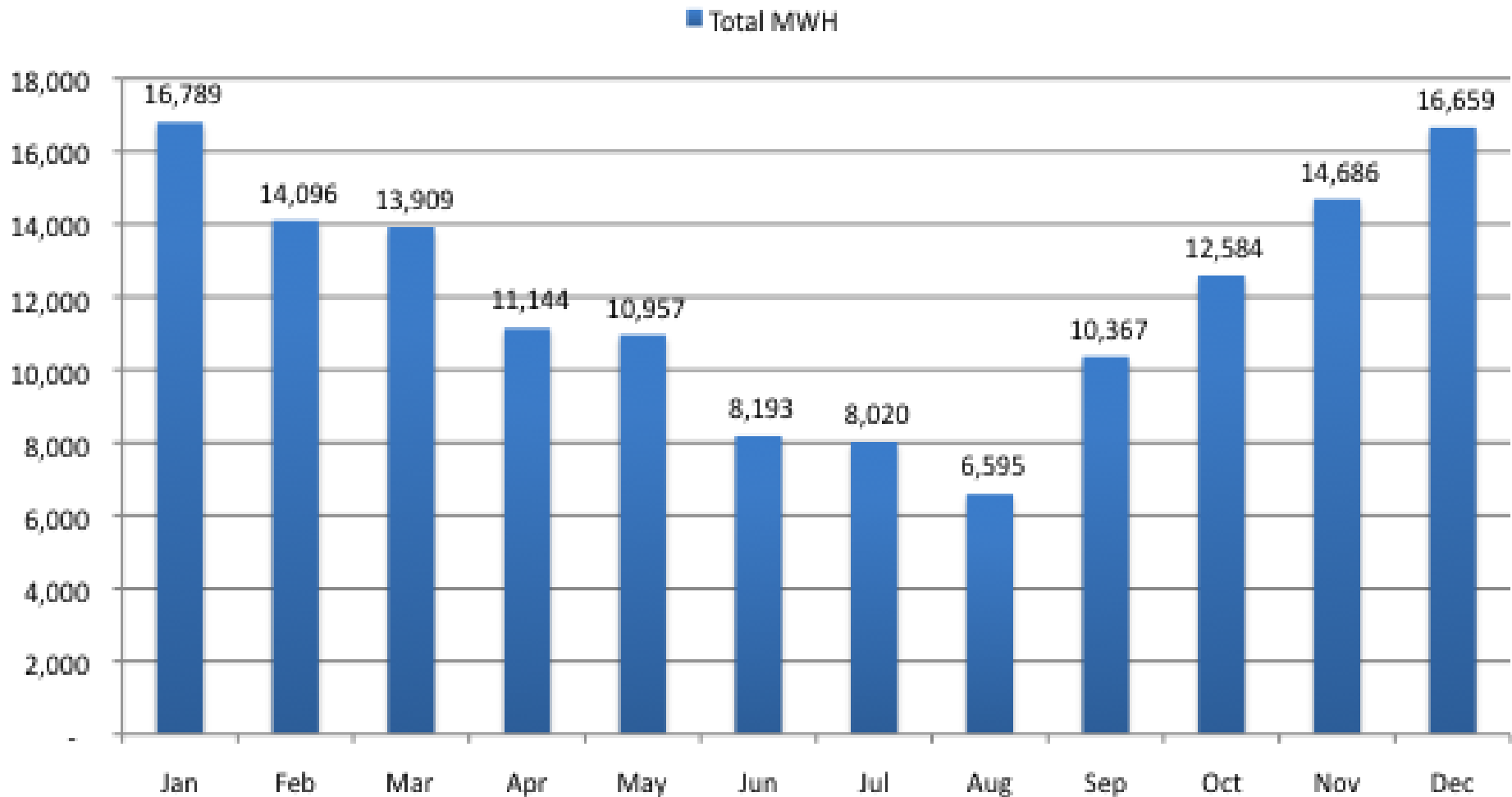
Proposed Allocation of Output

Output Allocations by Buyer as of September 10, 2010:

	Allocation In MW	Percent of Total	Average Annual MW	Annual P-50 MWH
Chugach Electric Association	17.0	32.2%	5.29	46,359
Matanuska Electric Association	11.0	20.8%	3.42	29,997
Municipal Light & Power	14.8	28.0%	4.61	40,359
Golden Valley Electric Association	10.0	18.9%	3.11	27,270
	52.8	1.0	16.4	143,985

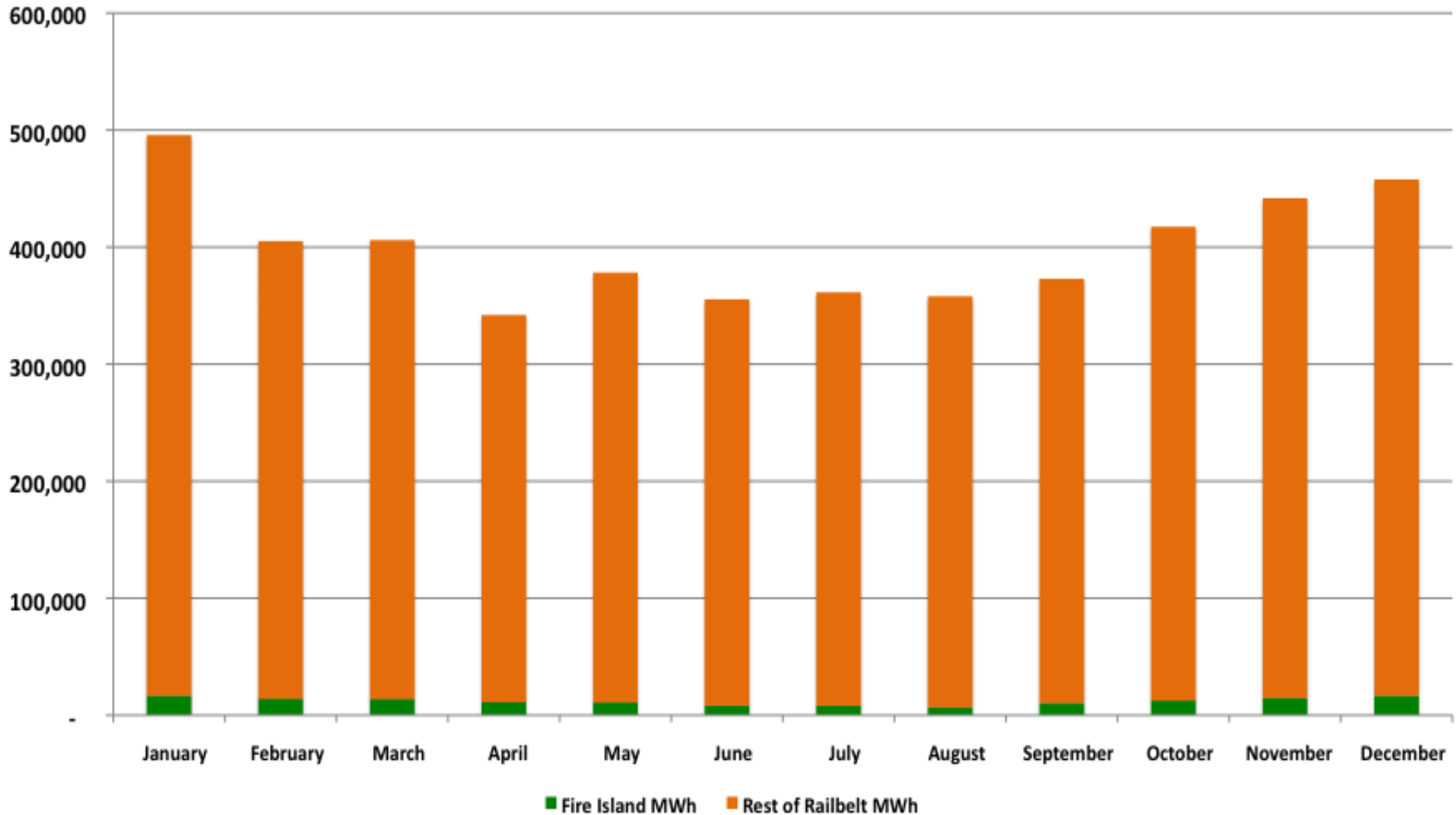
Fire Island Wind - Production

FIWP - Production - Total MWh



Fire Island vs. Total Railbelt

Fire Island Energy as Part of Railbelt Total



Fire Island Wind Project

Summary of Estimated Project Cost

Does not include \$25 MM Interconnect

Item	Cost
Wind Turbines/Parts/Transport	\$82 Million
Balance of Plant/ Construction/ Contingency	\$46 Million
Permitting/ Construction Mgmt/ Pre-Development Costs/ Legal/ Taxes/ Insurance	\$23.4 Million
Total	\$151.4 Million
AFUDC (int. During Construction)	\$10.8 Million
“all in” Financed Cost at COD	\$162.2 Million

Fire Island Wind Project

Summary of Estimated Project Financing

Item	Amount
Approx Project Capital Cost:	\$162.2 Million
Approx ARRA Sec. 1603 Grant:	\$43.9 Million
Est. Net Project Cost	\$118.3 Million
Amt Financed – Debt:	\$81.6 Million
Approx Equity Investment:	\$36.7 Million

Fire Island Wind Project

Power Purchase Agreements

- **\$0.0945/kWh**
 - Price of energy = \$0.0721/kWh
 - Expected cost of O&M = \$0.0224/kWh
 - Regulation cost is additional
 - 25-year term
- **Additional Savings Opportunities**
 - O&M can be structured as a pass through
 - Structured payment streams
 - Construction bids and project mgmt.



Fire Island Wind Project

What If We Can't Capture the ARRA Section 1603 Grant?

- **\$0.0945/kWh** current price - with grant
- **\$0.1125/kWh** if we get the ITC over time without the grant
 - NPV difference is \$29 million negative
 - Does not save any time – ITC expires 12.31.12
- **\$0.125/kWh** if we can't get the grant or the ITC
 - NPV difference is \$49.1 million worse than current offer



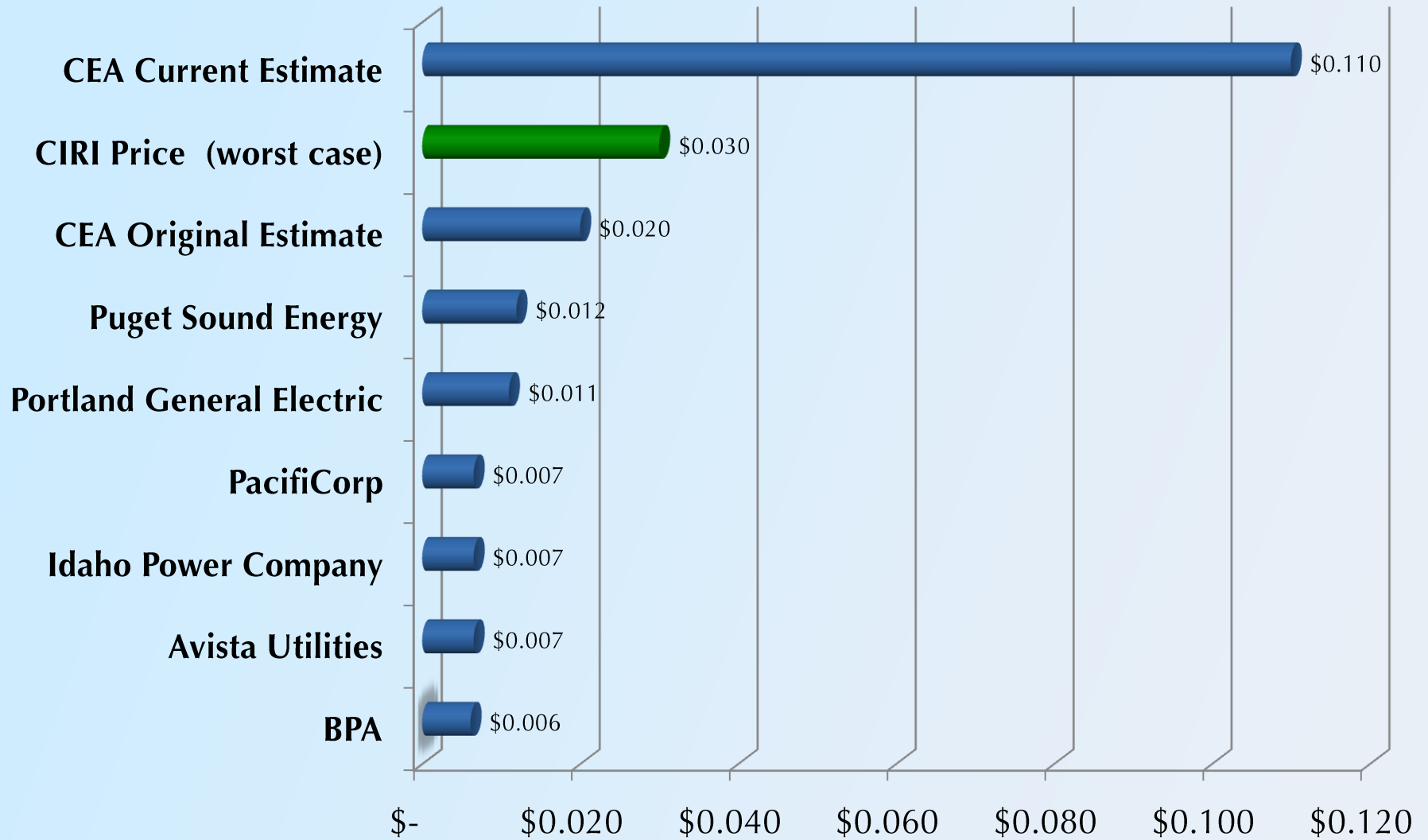
Interconnection and Regulation

- Studies are complete
 - No reliability issues relating to interconnection
- Integration (firming and backup) still under discussion
 - Wide range of costs being discussed
 - CIRI working on way to “cap” integration costs



Integration Cost Comparison

Fire Island Wind Regulation \$/kWh



Fire Island Wind Project

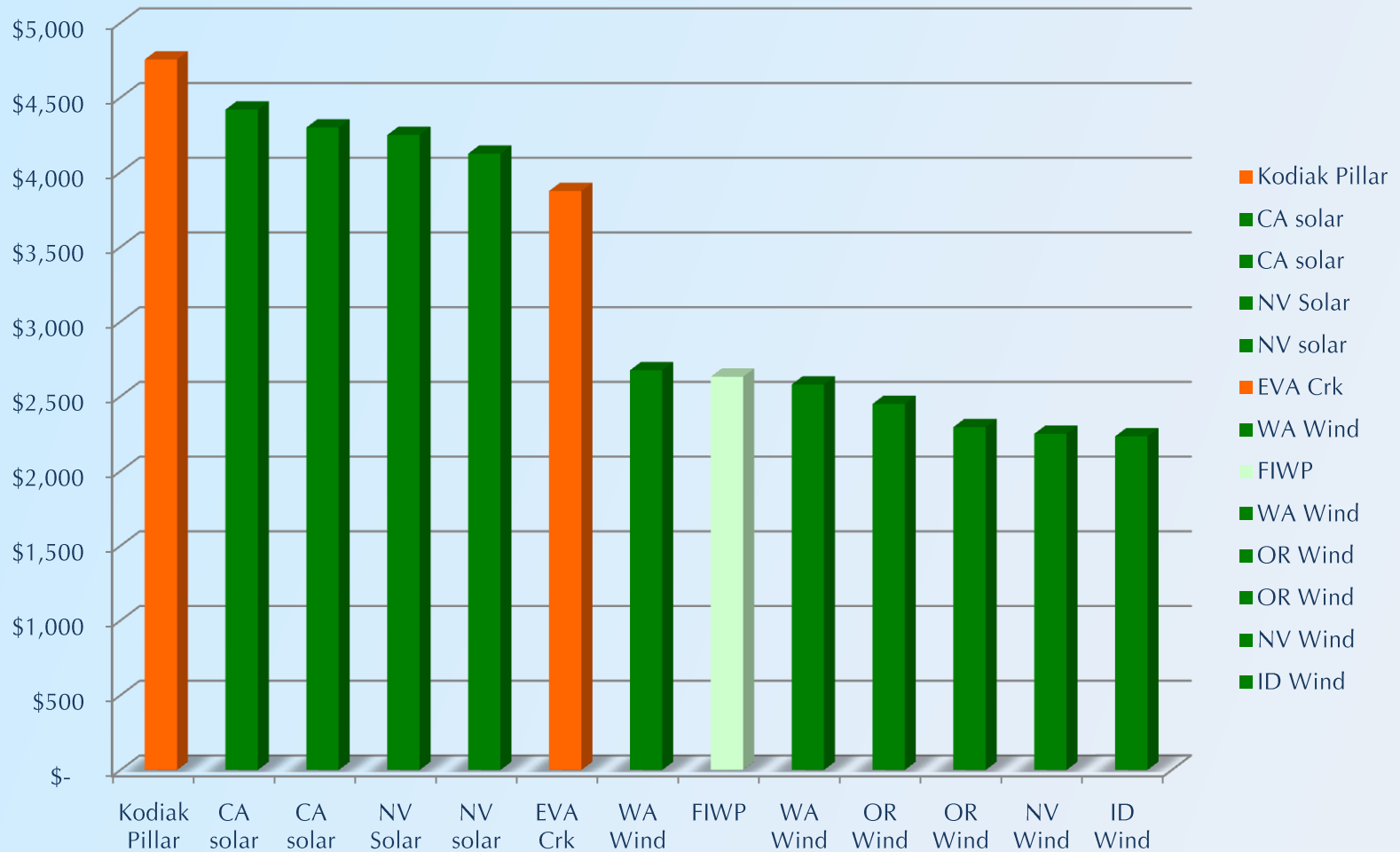
Comparative Economics - Alaska

- **Kodiak Pillar Mountain Wind Project**
 - 4.5 MW
 - \$21.4 million
 - **\$4.755 million/MW**
- **GVEA Eva Creek Wind project**
 - 24 MW
 - Projected cost = \$93 million
 - **\$3.875 million/MW**
- **CIRI Fire Island Wind Project**
 - 52.8 MW
 - \$118 million “all in” net of ARRA Sec.1603 grant
 - **\$2.242 million/MW**

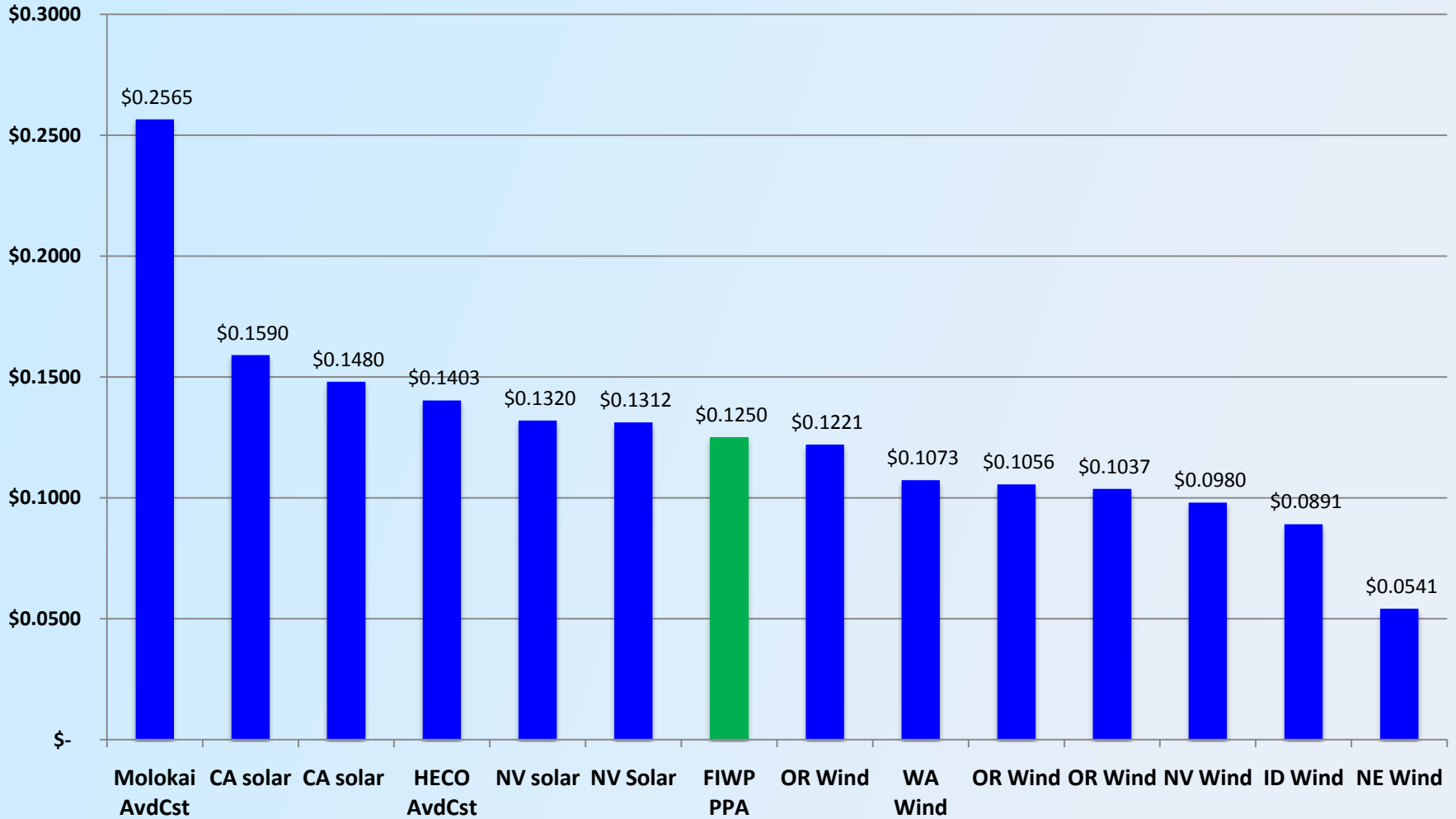


Installed Cost Comparisons: FIWP to L48

Renewable Projects 2009 - 2013 - \$/kW Installed



PPA Price Comparisons – FIWP to L48



Fire Island Wind and the AK Railbelt Integrated Resource Plan

Fire Island is a Recommended Project in the AEA's Railbelt IRP:

Regarding Fire Island Wind: “Subject to the successful negotiation of a purchase power agreement and successful negotiation of the interconnection and regulation issues, **Black & Veatch recommends that it be part of the preferred resource plan in a time frame that allows for the ARRA benefits to be captured.**”

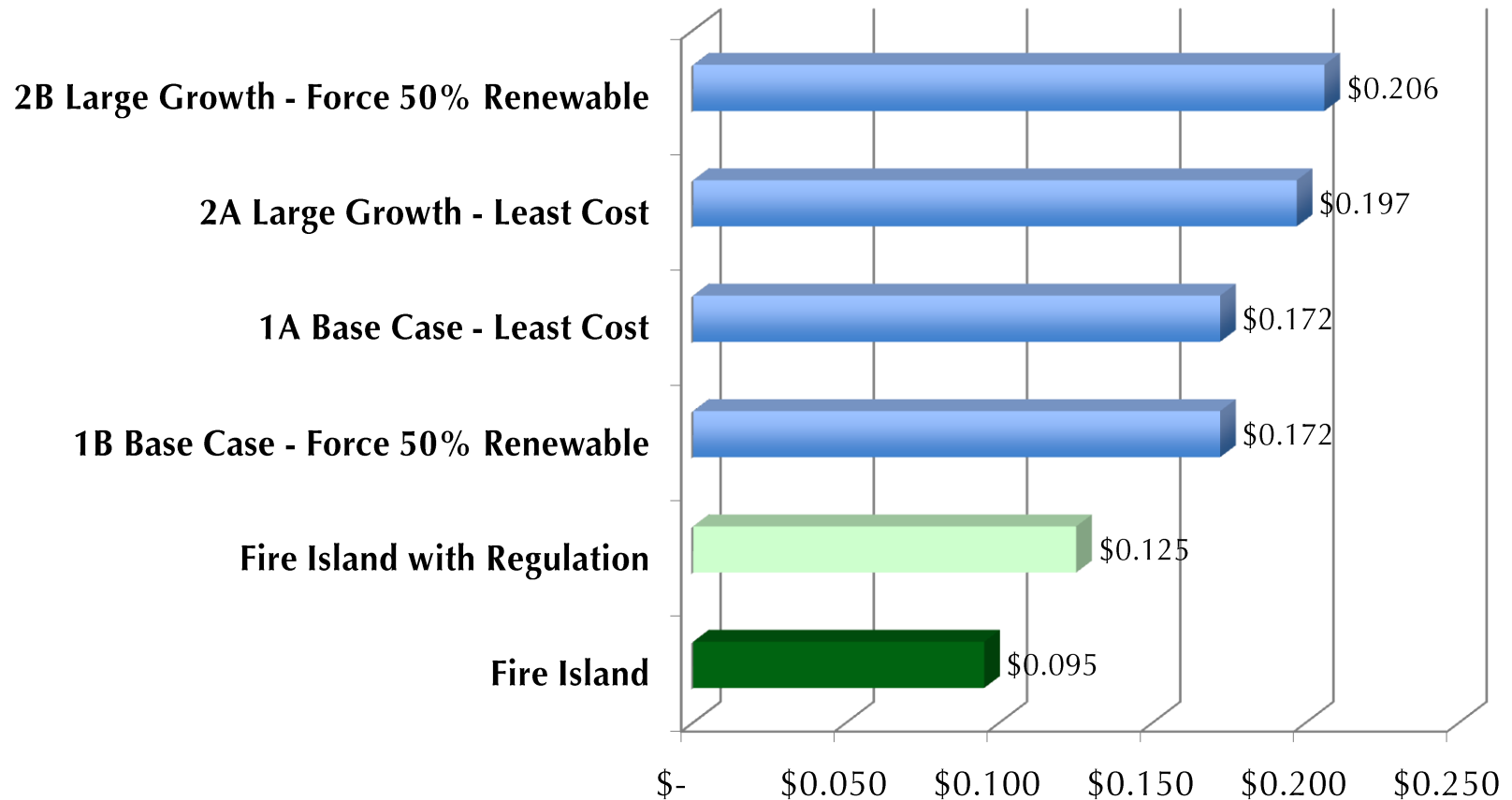
Source: Results and Recommendations – Table 15 – Alaska Railbelt IRP



Fire Island Wind Project

Actual Cost Compared to Long Term Plan

Fire Island vs. AEA RIRP Recommended Portfolios - (\$/kWh)



Avoided Fuel Cost and Emission Reductions

- **Emission Reductions – EACH YEAR**
 - **100,000** tons of CO₂ (a greenhouse gas)
 - **70** tons of carbon monoxide (greenhouse gas and toxic emission)
 - **85** tons of oxides of nitrogen (contributes to haze and smog)
 - **3** tons of oxides of sulfur (contributes to acid rain and is toxic)
 - **6** tons of particulates (contributes to haze and smog)
- **Avoided fuel cost:**
 - **\$11.69/MMBtu - RIRP forecast. If 1 Bcf of gas fuel avoided each year that is \$11.69 million in fuel savings**
 - **\$11.69 million x 25 year term is NPV of \$130 million**
 - **Total project cost net of grants is \$118 million**



Fire Island Wind Project

- **CIRI as owner and developer**
 - Member of local community
 - Below market return
 - Open book process
 - Full allocation of incentives to reducing power prices
 - Investing in Alaska



Fire Island Wind Project

- Wrap Up and Summary
- Suzanne Gibson



Fire Island Wind Project

Direct Benefits

- Cost competitive
- Energy diversity – not the solution, but a first step
- Jobs – >200 construction/10 to 12 permanent
- gas fuel savings
- Emission reductions
- New Municipal tax revenue
- Consistent with State energy policy
- Timely - 2012



Fire Island Wind Project

The time is now

- No better time than right now
 - \$70 million in incentives available now
- Massive investment needed in the Railbelt (O&G Conference 9.28.10)
 - Generation: \$13.5 Billion
 - Fuel: \$1 Billion
 - Transmission: \$662 Million
 - Total: \$15.2 Billion
- Call to action
 - Encourage utilities to get to YES!
 - Encourage the State to support utilities
 - Seek additional opportunities to create private/public partnerships
- Fire Island Wind is part of the solution



Fire Island
Wind^{LLC}



THE TIME IS RIGHT
and
THE TIME IS NOW