

Private Investment in Renewable Energy in Alaska?

A long term sustainable solution

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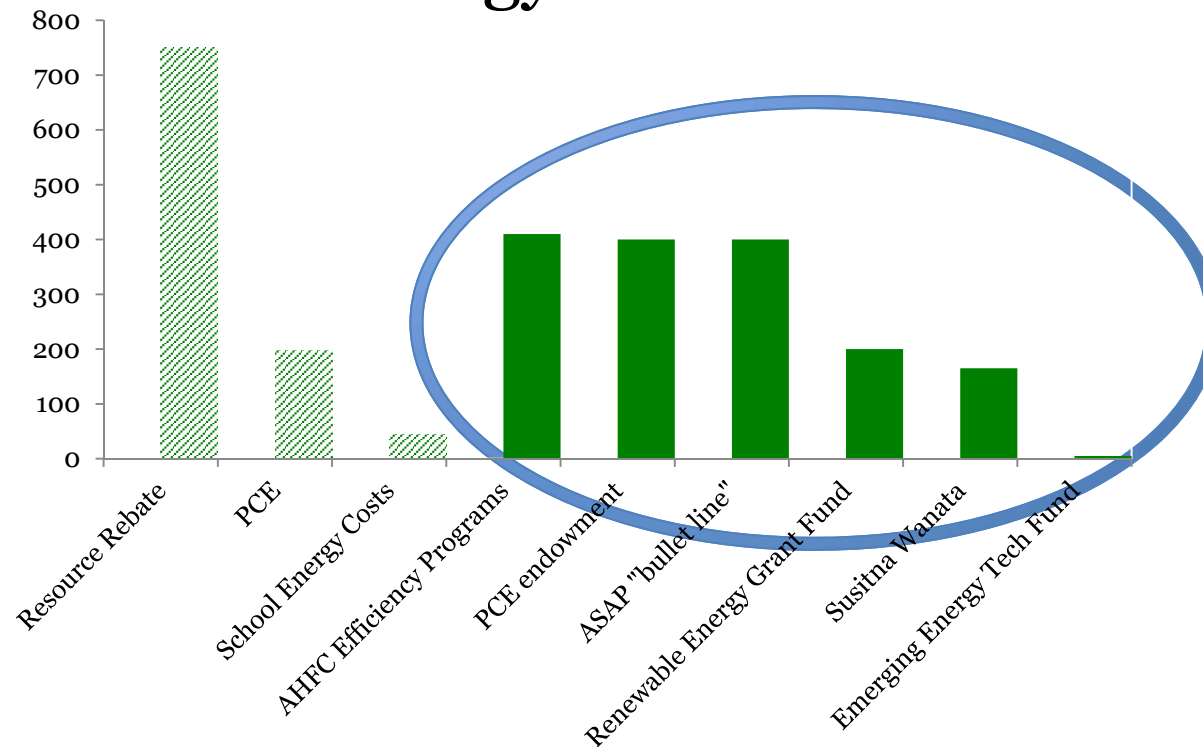
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Alaska Center for Energy and Power

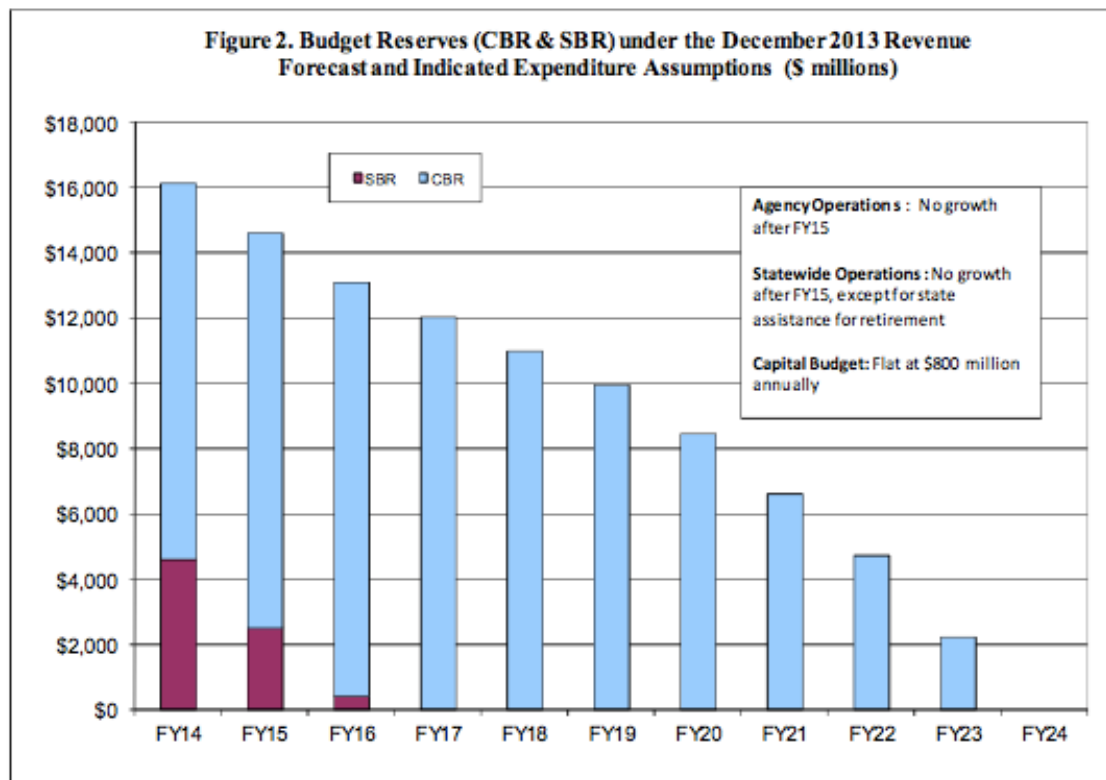
State Spending on Energy Projects

- Since 2008 the State has committed roughly \$2.8 billion for energy cost efforts



Legislative Fiscal Analysis, FY 2015

- ***“For FY 2015, the budget proposed by the Governor has a deficit of over \$1 billion”***



Assumes:

- Agency operations unchanged from FY 2015
- Flat statewide operations
- Capital budgets of \$800 million

Source: Legislative Fiscal Analyst's Overview of the Governor's Request

Legislative Fiscal Analysis, FY 2015

“The implications of the figures are severe:

1. Simply constraining expenditure growth is insufficient – current levels of expenditures are unsustainable without additional revenue
2. Failure to reduce the projected deficit will result in a very hard landing...
3. Imposition of broad based taxes, reduction or elimination of Permanent Fund Dividends and large reductions in capital budgets may not eliminate deficits.”

Implications

- Less State money for renewable energy projects, and capital projects more generally
- Private capital should be considered
 - The world is awash in capital looking for a home
 - The IEA projects worldwide renewable investment to total \$1.6 trillion in just the next 6 years
 - There are opportunities to bring some of this to Alaska

Electric Cooperatives/Munis

- Often favorable economic structure
 - No Federal or State taxes
- Often favorable cost of borrowing
 - Munis can issue tax-exempt debt (cheaper)
 - Co-ops can get subsidized loans
- Charges based on total cost of service (including cost of construction)

Independent Power Producer

- Taxpayer (additional cost)
- Wholesale power producer, *not* a utility
 - Generally takes more risk than utility
 - Typically seeks higher return on equity
 - Generally has less debt in their financing
- Charges based on a Power Purchase Agreement (contract) rather than “cost +”



Some Benefits of PPAs

- Risk of construction cost is borne by the IPP
- Risk of project performance is borne by the IPP
- New project tasks can be reduced for utility management
- Portfolio diversity
- Power priced on a stable and predictable basis

Comparative “tariffs” for sample wind project in Bristol Bay region

- IPP = \$.210/kWh

- Some leverage (35%)
- 16% return on equity
- 20-year contracts

Attractive compared with current costs

- Co-op = \$.149/kWh

- Lots of leverage (70%)
- 12% return on “equity”, 6% cost of debt

Better than IPP power

But Co-ops can't use Federal Tax Credits or Depreciation Benefits

- Co-op = \$.149/kWh
 - Unchanged, because not a taxpayer
- For IPPs picture changes dramatically
 - Production tax credit \$.027/kWh → \$.168/kWh
 - Investment tax credit of 30% → **\$.105/kWh**
(Still assumes 16% ROE, 35% debt)

If IPP Projects are so great why aren't they in Alaska?

- A few are
 - Banner Wind (Nome)
 - Fire Island Wind (Anchorage)
- A couple more may be around the corner
 - Pilgrim Geothermal (Nome; PPA signed)
 - Naknek (solar panels; PPA signed)

If IPPs Are So Great Why Aren't They Everywhere?

- Most village-scale projects are too small
 - The Bristol Bay wind example premised on investment of ~\$2 million
- Counterparty (credit) risk
 - Will community be around to pay PPA for the full 20-years?
- Alaskan fear factor
 - Cost overruns

How to solve the barriers: One idea

- Use public money for project development
 - Resource assessment
- Have public sector partnership to develop a “bundle” of similar projects
 - Solves problem of scale
 - Solves counter party risk
- ANCSA corporation investment?
 - Know Alaska

Summary

- IPPs have capital public power often lacks
- Some IPP-sponsored RE projects don't need Tax Credits to provide consumer rate relief
- TC's dramatically boost returns for RE projects: worth getting ready (or taking advantage of solar opportunities this next summer)!
- Challenges of scale, credit risk, and "fear factor" might be overcome through project bundling
- Potentially a good use in future of limited REF funds

Questions?

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