

DESIGNING ALASKA'S FUTURE: Removing Energy Gridlock

Opening Alaska for Electrical Competition through Legislative Action



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WHO IS AIPPA?

The Alaska Independent Power Producers Association is comprised of Alaska Native Corporation and private Alaska energy developers and operators in Alaska's wind, hydropower, ocean/ river kinetic and combined heat & power sectors.

AIPPA Members



FISHHOOK
RENEWABLE, LLC



ALYESKA RESORT



Competitive IPP role vs. Utility role in America

- Utilities Role- Provide reliable service, billing, maintenance to ratepayers either producing **or purchasing** the lowest cost power available.
- IPP Role- Developing Private Power with private investment and risk to produce electricity at the most economical and reasonable possible price...or IPP's are out of business

These Roles are well defined and work everywhere in US, but Alaska legislation and regulations discourage this relationship.

WHY WE MUST REMOVE GRIDLOCK

ALASKA ELECTRICAL CHALLENGES

- Challenge #1 Alaska has the 2nd Most Expensive Electricity in the Nation
- Challenge #2 Alaska non-oil Industry is Energy Intensive
- Challenge #3 Alaska High cost power has social costs
- Challenge #4 Government “energy fix” monies are dwindling or nonexistent
- Challenge #5 Alaska’s In-state energy potential is untapped
- Challenge #6 Alaska is ranked last in Competitive Energy Environment
- Challenge #7 Legislation is holding us back from some solutions.

THE HIGH COST OF ELECTRICITY IS IMPAIRING ALASKA’S ECONOMY AND COSTING ALASKAN’S JOBS

Challenge #1. Alaska ranks 2nd in the highest electricity costs in America

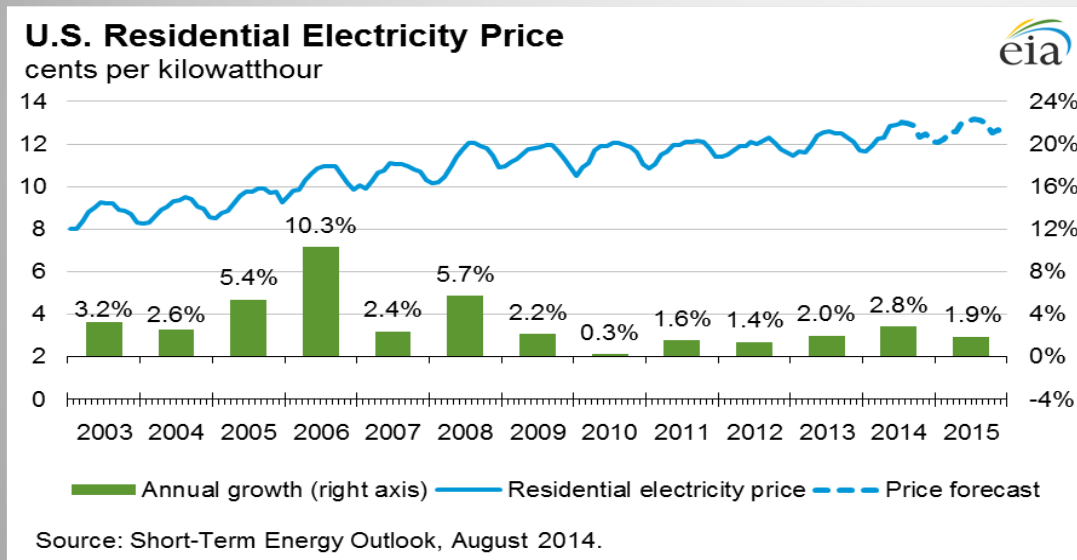
From Alaska EIA Average Retail Price by Sector, May 2014				
		AK 2014 cents/kWh	US 2014 cents/kWh	% difference Alaska higher over US
Average Retail Price (cents/kWh)				
Residential		17.88	12.84	39%
Commercial		14.93	10.51	42%
Industrial		16.82	6.76	149%
Total		16.33	10.04	

**JOB
robbing
Electrical
rates**

U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

**Alaska has the 2nd Highest Rates of Electricity in the U.S.
hurting Alaska's non-oil economy and unnecessarily
raising Alaskans household costs and costing jobs.**

Alaska Rate Growth vs US



Some Railbelt Utilities have applied for or will be applying for double digit rate increases.

Alaskans Suffer

Alaska Rate Growth and Inflation is one of the highest in the Nation

Alaska is suffering from rate increases-impacting Alaska businesses, military off base housing, and crippling the private sector economy of Alaska

Examples: September 2013. ML&P proposes a **31.52 percent rate increase** U-13-184

December 2012. Chugach proposed a **22 percent base rate increase** for residential consumers, and a higher rate increase for each of Chugach's wholesale customers (a **28 percent base rate increase** for Homer Electric Association; a **42 percent base rate increase** for MEA; and a **32 percent base rate increase** for the City of Seward)U-13-007

Challenge #2. ALASKAN “non-oil” industries are electricity intensive

- Alaska Mining Industry- Electricity is **up to 50%** of a mine's Operating Cost
- Alaska Seafood Processing Industry- Electricity is **up to 35%** of a seafood plants Operating Cost
- Timber Mills **7.5%** and Biomass up to **25%** Operating Cost
- Hotel, lodging and Tourism Industry **15%+**
- Hospitals and Universities-Government and Military Bases **10% to 20%** Operating Cost.

Electricity Rates IMPACT every Alaskan Employer

Challenge #3 High Cost Electricity has social costs in Alaska

- Eat or Heat
- Stagnant Rural Alaskan Economies-No Jobs
- High Energy Costs and Lack of Jobs = High unemployment, alcoholism, suicide rates, and social problems.
- High Cost Electricity has created a legacy of dependency on governmental subsidy programs.
- “Energy Refugees”- Alaskans move from high energy cost communities to lower cost communities with jobs.

High Cost Electricity creates a negative downward spiral affecting all Alaskans

Challenge #4 State of Alaska does not have the \$\$\$ to solve Alaska's In State Energy needs

- Susitna Watana \$5.2 B?
- Fairbanks In State Gas Trucking \$350 Million?
- Railbelt Intertie Maintenance \$900 Million+?
- Southeast Intertie \$400 Million?
- Unmet Rural Community Energy Projects >\$?
- Gas Lines A, B, or C \$?
- In next 15 years 67% of existing generation will need to be replaced or upgraded...requiring \$9 to \$19 billion dollars (RIRP-2010).

More Demand on Government resources than \$\$ exists for next 20 years.

Challenge #5 Alaska 's Energy Potential is virtually untapped

- Potential Hydropower in Alaska is 40% of U.S. untapped hydropower (192 billion kWh energy potential)-*ACEP- Alaska Center for Energy and Power*
- Alaska is blessed with a phenomenal Wind Power Potential based on our enormous coastline.
- Tidal and wave – over 90% of the total US tidal and wave resource-*NREL- National Renewable Energy Laboratory*
- Biomass – over 20% of the total US Resource-*NREL*

“We have more energy potential than just about anywhere in the world.”

U.S. Sen. Lisa Murkowski, R-Alaska

Challenge #6 Alaska Ranks **Dead Last** in IPP Competitive Power Generation



U.S. Energy Information
Administration

Electricity

State Electricity Profiles

Data for 2012 | Release Date: May 1, 2014 | Next Release: May 2015

Alaska Electricity Profile 2012

Table 1. 2012 Summary Statistics (Alaska)

Item	Value	U.S. Rank
NERC Region(s)		--
Primary Energy Source		Natural Gas
Net Summer Capacity (megawatts)	2,119	48
Electric Utilities	1,946	39
Independent Power Producers & Combined Heat and Power	172	50
Net Generation (megawatthours)	6,946,419	49
Electric Utilities	6,361,802	39
Independent Power Producers & Combined Heat and Power	584,618	50

THIS MUST CHANGE

Alaska is ranked last in IPP electrical generation percentage

EIA Table 1.6.B Net Generation by State, by Sector, Year-to-Date through June 2014 and 2013 (Thousand Megawatthours)								
				Electric Power Sector				
Census Division and State	All Sectors			Electric Utilities		Independent Power Producers		Independent Power Producers
	June 2014 YTD	June 2013 YTD	Percentage Change	June 2014 YTD	June 2013 YTD	June 2014 YTD	June 2013 YTD	Percent of total Generation
Alaska	2,994	3,154	-5.1%	2,720	2,918	126	125	4.2%
U.S. Total	2,010,193	1,959,358	2.6%	1,182,108	1,142,203	752,428	738,895	37.4%

Source: U.S. Energy Information Administration, Form EIA-923, Power Plant Operations Report.

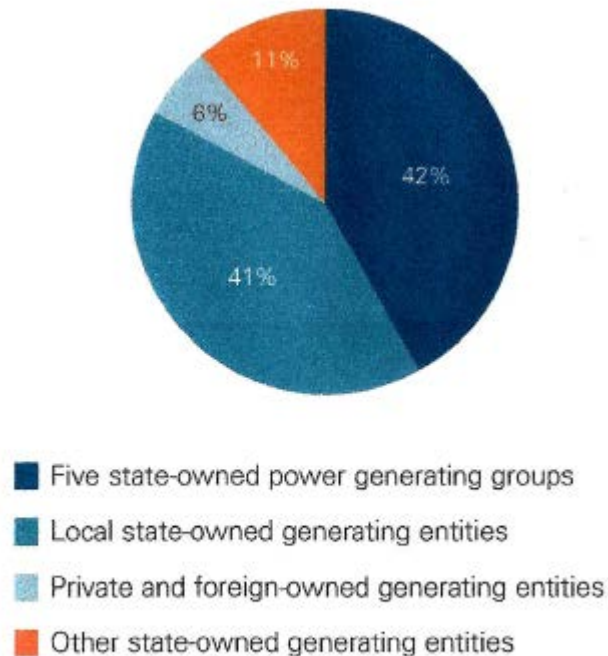
Alaska Ranks 50th out of 50 States for percentage of independent power production- Source EIA June 2014

How empty is theory in the presence of facts-Mark Twain

Comparatively 6% of China's electricity is supplied by Independent Power Producers

What Market is a *Command Economy* and what Market is *Open*?

The Chinese, State Energy Regulatory Commission (SERC) is increasingly supportive of privately funded IPP projects as a means to increase competition, to lower energy costs and to develop renewable energy technologies.



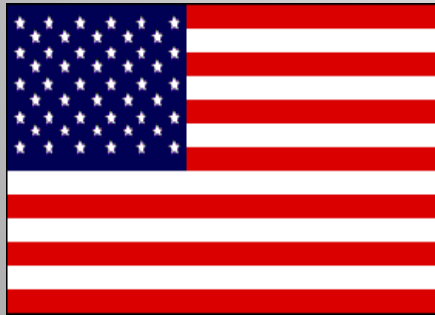
Source: SERC, Electricity Annual Report 2007

*In Comparison,
Alaska's
percentage of
electricity
supplied by
IPP's is only*

4.2%

China regulations allow IPP electrical competition and as a result has a more open electrical market than Alaska

IPP GENERATION AS A PERCENTAGE OF MARKET



37.4%



VS 6% VS



4%

Alaska has less electrical competition than Communist China

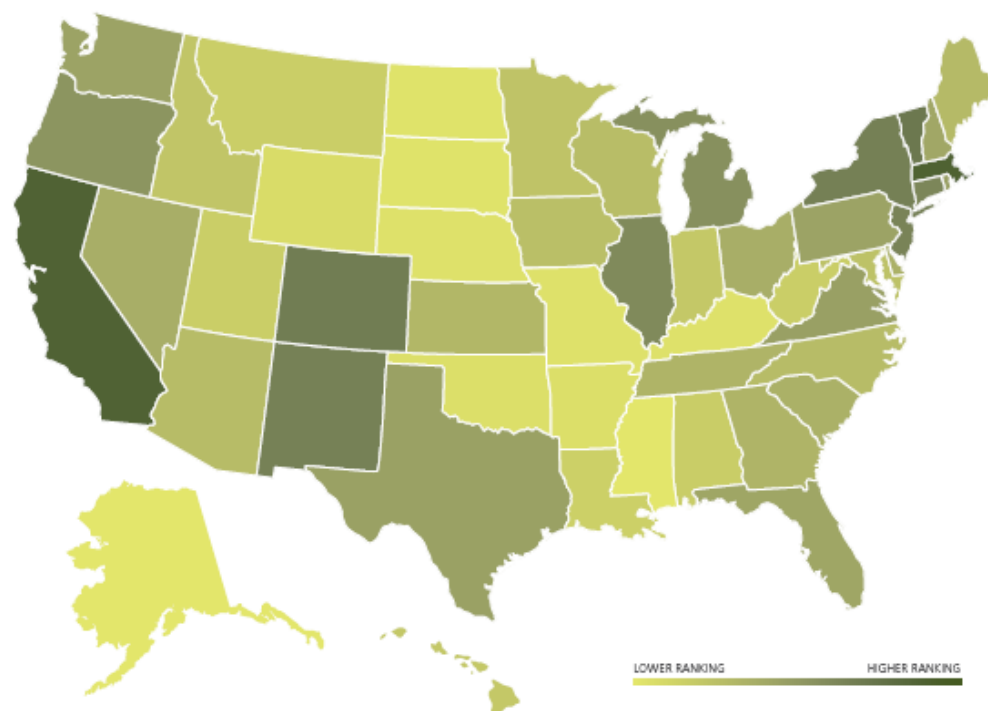
Source EIA 2014, SERC China 2007

In this report, Alaska is **last** in attracting Private Capital Investment

WELLS FARGO

Wells Fargo

CAPITAL



RANK	STATE	LEADERSHIP SCORE
1	Massachusetts	87.8
2	California	86.6
3	Vermont	71.3
4	Colorado	68.2
5	New York	66.3
6	New Mexico	64.5
7	New Jersey	64.3
8	Connecticut	62.1
9	Illinois	60.1
10	Michigan	55.6
11	Oregon	53.1
12	Virginia	45.8
13	Rhode Island	45.6
14	Texas	45.4
15	Pennsylvania	44.0
16	Washington	43.5
17	Florida	42.0
18	New Hampshire	40.6
19	Nevada	36.7
20	Ohio	36.6
21	Delaware	34.9
22	South Carolina	34.7
23	Georgia	33.3
24	Tennessee	33.0
25	Kansas	30.9
26	Maine	28.8
27	North Carolina	27.7
28	Arizona	27.5
29	Wisconsin	27.1
30	Iowa	25.8
31	Maryland	23.5
32	Minnesota	22.8
33	Idaho	21.8
34	Hawaii	19.8
35	Indiana	19.5
36	Alabama	16.8
37	West Virginia	16.3
38	Montana	16.2
39	Utah	16.0
40	Louisiana	14.6
41	Wyoming	6.6
42	Arkansas	4.9
43	Oklahoma	4.6
44	Kentucky	4.4
45	Nebraska	3.8
46	Missouri	3.5
47	North Dakota	3.3
48	South Dakota	2.9
49	Mississippi	1.1
50	Alaska	1.0

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Why is Alaska is lagging...last?

Our low ranking in many electricity metrics **confirm that that our State regulations and utility practices are outdated, and discourage competition**, competency and efficiency at the detriment of Alaskan ratepayers.

- Wholesale Competition is legislatively and regulatory discouraged in Alaska and should be reversed. Utilities that take mismanaged actions or make poor financial decisions are protected and exempt from Market Forces whereby costs have been historically passed onto the consumer. **Implementing competition makes all industry participants wiser.**
- State money always bails out problems and provides a safety net for expansion of generation or for financially bailing out poor decision making and business practices or utilities. **Why privately invest in Alaska when the State seems to always be willing to bail out or provide free money?**
- Alaska Legislation and regulations are **“utility centric” and anti-competitive rather than “market force centric”**.

Alaska has created an inefficient and expensive electrical system that is devoid of competition and insulated from healthy market forces that would otherwise exert a downward pressure on rates.

Alaska's outdated regulations have created a poor investment climate and a private capital flight away from developing Alaska's in-state energy resources.

Alaska receives what it incentivizes

Challenge #7 Regulatory processes and statutes versus State Energy Policy & PURPA

- State Energy Policy favors Private Investment and Private development of Alaska's energy resources.
- State Energy Policy calls for streamlining of regulations and government processes.
- State Legislation and regulations for competitive power have not been modernized since 1982...yes, before computers, cell phones, mass adoption of the internet.
- State Government agencies and processes are not “competition” friendly.
- Directional vs. Aspirational
- Alaska violates PURPA that requires competition and purchase of IPP generation at a Utilities incremental avoided cost.

What is PURPA's Purpose?

Public Utility Regulatory Policies Act § 210

Section 210 of PURPA “is designed to promote the development of alternative energy resources by overcoming the historical reluctance of electric utilities to purchase power from nontraditional facilities.”

- *Consol. Edison Co. v. Public Serv. Comm'n of New York*, 470 U.S. 1075, 1076 (1985) (emphasis added).

Congress “directs FERC” to promulgate “rules requiring utilities to offer to ... purchase electricity from qualifying cogeneration and small power production facilities.”

- *FERC v. Mississippi*, 456 U.S. 742, 751 (1982) (emphasis added).

FERC’s rules “shall insure that ... the rates for such purchase ... shall not discriminate against qualifying cogenerators or qualifying small power producers.”

- 16 U.S.C. § 824a-3(b), (b)(2) (emphasis added).



Where we took a left turn

- Alaska's 1982 APUC Docket U-81-35 Order No. 4 effectively stamped out competitive energy development and private capital investments removing Alaska from market forces. Even this was supposed to be temporary until Alaska utilities were “sophisticated” enough to have competition.
- Now 32 years later...same **closed market anti-competitive system** that was supposed to be temporary.

What is that Avoided Cost Stuff?

PURPA and FERC Regulations

FERC regulations require states to ensure that utilities purchase power from QFs at a level that “equals” the utility’s “avoided costs,” unless the parties mutually agree otherwise.

- 18 C.F.R. § 292.304(b)(2).

“[E]ach State regulatory authority shall ... implement such rule ... for each electric utility for which it has ratemaking authority.”

- 16 U.S.C. § 824a-3(f)(1) (emphasis added).

Under both PURPA and FERC regulations, **“avoided costs” are defined as the “incremental costs to an electric utility of electric energy or capacity or both”** which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source.”

- 16 U.S.C. § 824a-3(d); 18 C.F.R. § 292.101(b)(6).



Bridges Forward to regain Alaska's competitiveness and reinvigorate Alaska's Economy

- Recognize that competition is good and that IPP's play a vital role in lowering Alaskan's electrical rates.
- Recognize that our State Energy Plan was only a first goal setting step that directs fiscal and regulatory regime to support private energy development.
- Next Step is to collaborate, hear and pass a Competitive Energy Bill (similar to last year's SB 217) being circulated around by Senator John Coghill along with other Senators and Representatives.
- Establish Railbelt Transmission System that is separate, independent from generation and that is not 100% subsidized by State of Alaska.
- All transmission in Alaska should be open access, at the same cost to all participants, and non-discriminatory.
- Measure outcomes, not objectives.

WE CAN DO SOMETHING ABOUT IT

- Alaska needs to change direction
- Competition and Market Forces are “good”
- Create positive regulatory certainty with market centric principles
- Unleash Alaskan private capital investment and job creation in energy resource development

Alaska Competitive Energy Act

- Alaskans Deserve Competition
- Alaskans Deserve Market Forces to keep Electrical rates in check
- Alaskans Deserve the job creation and a diversified economy that only comes from lower electrical rates
- Alaskans Deserve to have resources developed by attracting Private Capital and Know How
- **Alaskans Deserve the Alaska Competitive Energy Act**