Energy Supply and Demand TWG

Recommendations to
Mitigation Advisory Group

6 Nov 2008 • Anchorage

Energy Supply & Demand TWG Members

- David Benton – Marine Conservation Commission - TWG
- Charlie Boddy – Usibelli Coal Mine
- Peter Crimp – Alaska Energy Authority
- Clint Farr – Alaska Department of Environmental Conservation
- Scott Goldsmith – ISER
- Wayne Hall – Teck Cominco (Red Dog)
- Gwen Holdmann – AK Center for Energy & Power
- Meera Kohler – AK Village Electric Cooperative – TWG & MAG
- Marilyn Leland – Alaska Power Authority
- Tom Lovas – National Rural Electric Cooperative Association
- Jodi Mitchell – Inside Passage Electric Cooperative
- Christopher Nye – Department of Natural Resources
- Jim Posey – Municipal Light & Power (Anchorage)
- Sean Skaling – Green Star
- Steve Colt – ISER
- Steve Denton – Usibelli
- Kate Lamal – Gold Valley Electric Association
- Greg Peters – Alyeska Seafoods
- Chris Rose – Renewable Energy Alaska Project
- Dan White – Institute of Northern Engineer

2

Overview

- 1. TWG recommends removal of numerous policy barriers
- 2. Considered initial catalogue of 73 measures
- 3. TWG reduced this to 12 candidate items
- 4. Balloting: each TWG member cast 5 votes
- 5. 19 (of 20) TWG members balloted. We had three abstentions, and one (1) non-voting.
- 6. Result:
  - Four top-priority items
  - Six medium priority items
  - Two low priority items

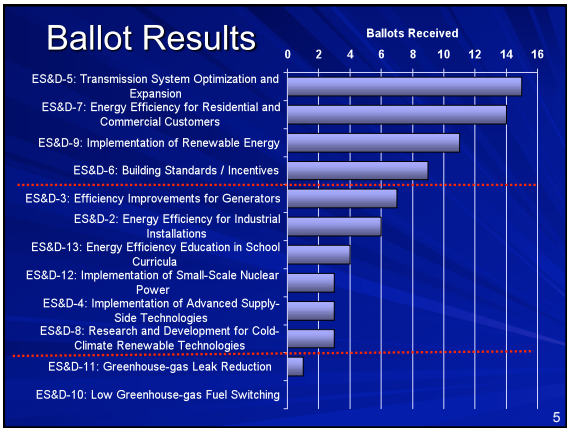
3

Eliminate Policy Barriers

- Eliminate or fix known deficiencies in state policies to encourage energy efficiency for both supply and demand-side resources.
- Remove policy barriers for implementation of combined heat and power (CHP)
- State agencies, especially DNR, should revise or develop policies to make State resources available for renewable energy development.
- Remove policy barriers for deployment renewable energy (grid-based and distributed)

4

Ballot Results

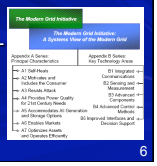


5

Optimize Transmission System

- Upgrade existing systems to accommodate new low-C energy sources
- Connect diesel-dependent villages to new low-C resources and to each other

- Move toward "Smart Grid"
  - Embedded microelectronics optimize the use of conventional, alternative, demand-side, and storage resources
  - Consistent with Title 13 of Energy Independence and Security Act of 2007



6

Energy Efficiency for Residential and Commercial Sectors

- Provide Demand Side Management/EE programs
  - Consumer education
  - Energy audits
  - Rebates & incentives
  - Loans
  - Appliance recycling

- Implementation by: state agency, utilities, or 3rd-party
- Funding: State appropriation and either public benefits fund or state endowment
- Benefits:
  - Involve, support and leverage the public and businesses in reducing GHG emissions.
  - EE is very cost-effective.
  - Low-hanging fruit / lots of room for improvement.

7

Renewable Energy Implementation

- Incentives to Promote Renewable Energy
  - Renewable Energy Fund established by HB 152
- Grid-based Renewable Energy Incentives
  - Direct subsidies to sell/purchase renewable energy
  - Tax credits or exemptions for investing in renewables
  - Regulatory policy to assure cost recovery…
- Distributed Renewable Energy Incentives
  - Standardized interconnection policies
  - Streamlined permitting
  - Financing packages…
- Production Based Incentives
  - Feed-in tariffs
  - Production tax credits
  - Renewable energy credits/Green tags…

8

Building Standards / Incentives

- Adopt BEES as the state residential energy efficiency building code.
- Enforce existing regs on building codes and develop a commercial EE building code.
- Energy audits, loans, and/or match grants for schools, commercial facilities, public facilities, institutional buildings
- Implement pay-as-you-save loan programs for residential/ commercial customers.
- Lead by Example: SOA agencies and UA reduce energy use 20% by 2020
- Tax credits, permit fee reductions, or other incentives for green buildings.

9

Medium-priority Items:

- Energy Efficiency for Industrial Sector
- Efficiency improvements for generators
- Energy efficiency in school curricula
- Small scale nuclear
- R&D for cold-climate renewables
- Advanced supply-side technologies

10

Other Items

- Greenhouse gas leak reduction
- Low Greenhouse gas fuel switching

11

12

Additional references

http://www.netl.doe.gov/moderngrid/

13