Energy Facility Siting
Options for Idaho

Arne Olson
Energy & Environmental Economics, Inc. (E3)

Presented to:

Subcommittee on Energy Facility Siting
Boise, Idaho
August 21, 2006
Goals for Today’s Session

- Understand the substantive issues that an energy facility siting process must address
- Understand the current process for siting large energy facilities in Idaho and the gaps in that process
- Get a good idea of how other states handle energy facility siting
- See where there is common ground on an appropriate siting process for Idaho
Roadmap for Developing the Energy Plan

- Understand where we are today
- Decide where we want to go tomorrow
- Figure out the best ways to get there
- Negotiate through legislative process
- Implement the approved measures
- Repeat

You are here
Task of Siting Subcommittee

- Role of siting subcommittee is to talk about *process*
- What type of process is appropriate for siting large energy facilities in Idaho?
  - Generation facilities (gas, coal, nuclear, renewable)
  - High-voltage transmission facilities
  - Pipelines (crude oil, petroleum products, natural gas)
- Role of subcommittee is *not* to get into specifics of substantive issues
Draft Policy

Objectives
Proposed Structure of Plan Findings

Policy Objectives
1. Reliability, Stability
2. Low-Cost, Affordability
3. Environment, Conservation
4. Jobs, Economy
5. Flexibility

Policy Statement

Action Item

Policy Statement

Action Item

Policy Statement

Action Item

Policy Statement

Action Item
Draft Policy Objectives

1. **Ensure a secure, reliable and stable energy system for the citizens and businesses of Idaho**

2. **Maintain Idaho’s low-cost energy supply and ensure access to affordable energy for all Idahoans**

3. **Protect Idaho’s public health, safety and natural environment and conserve Idaho’s natural resources**

4. **Promote sustainable economic growth, job creation and rural economic development through investments in Idaho’s energy infrastructure**

5. **Provide the means for Idaho’s energy policy to adapt to changing circumstances**
Energy Facility Siting Issues
Substantive Issues in Energy Facility Siting

- Air emissions permitting
- Water discharge permitting
- Water rights & use of potable water
- Health and safety issues
- Consistency with zoning/land-use plans
- Site remediation/restoration
- Need for reliable energy supply
What is Unique About Energy Facilities?

- Energy facilities have a large “footprint”; impacts go beyond single community
- Energy networks are regional in scope
- Reliable energy supply is seen as indispensable to the functioning of a modern society
- Electricity and natural gas utilities typically have power of eminent domain after obtaining Certificate of Public Convenience and Necessity (CPCN)
Why do Most States have State-Level Energy Facility Siting?

- Energy facilities have environmental impacts that go beyond local areas
  - Air emissions impacts
  - Water discharge impacts
  - Water Consumption

- Energy facilities have economic impacts that go beyond local areas
  - Energy is a basic necessity
  - Must come from somewhere
  - Energy networks are regional in scope
Why do Most States have State-Level Energy Facility Siting? (2)

- Single state-level siting process can offer “one-stop shopping” for permits
- State-level process may be more consistent and predictable
- Linear facilities such as transmission lines and pipelines cross multiple jurisdictions
- EPACT 2005 grants siting authority to FERC for “National Interest Electric Transmission Corridors” for states without state-level transmission siting authority
Preliminary Map of “National Interest Electric Transmission Corridors”
How Does Energy Facility Siting Work in Idaho Today?

- No comprehensive state-wide process
- Air emissions & water discharge permits issued by DEQ
- Water rights acquired from DEQ -- no process for evaluating alternative economic uses of water
- IPUC issues Certificate of Public Convenience and Necessity (CPCN) for utility-owned generation & transmission
- Local jurisdictions hear issues related to consistency with land-use plans
Gaps in Current Idaho Process

- Merchant generation facilities
  - No requirement to show need for power
  - Possible mismatch between constituency of decision-makers and people who bear the impacts (both positive and negative)

- Generation and transmission facilities developed by municipal utilities and rural cooperatives

- High-voltage transmission facilities not owned by investor-owned utility
Independent or “Merchant” Power Producers

- Independent power producers (IPPs) first gained a foothold with passage of Public Utility Regulatory Policy Act (PURPA) in 1978
- Momentum accelerated with federal policy favoring wholesale deregulation during the ‘90s
- Today, IPPs generate around 35% of U.S. power
- IPP can locate in any state on the Western grid and sell power to any other state on the grid
Utility vs. Merchant Facilities

Utility Facilities
- Developed under state regulation in conjunction with obligation to serve
- PUC reviews prudency and sets returns
- Risks and returns shared among utility shareholders and ratepayers
- PUC issues CPCN

Merchant Facilities
- No obligations other than those spelled out in contract
- Physical output is consumed locally, but economic benefits accrue to contractual owner
- Risks and returns borne by merchant shareholders
- No CPCN required
“Nightmare” Energy Facility Siting Scenarios

- Large, merchant coal facility in rural area
- New, large nuclear power plant
- High-voltage transmission facility from Montana coalbeds to Southwest through eastern Idaho
- New petroleum product pipeline proposed to bring gasoline, diesel & jet fuel from refineries in Rockies to markets in the Northwest
- Question is whether Idaho needs to act now to prepare for these possibilities
Survey of Siting Processes in Other States
Survey of State Energy Facility Siting Processes

- States surveyed:
  - Washington
  - Oregon
  - California
  - Arizona
  - Montana
  - Arkansas
  - Maine

- Questions asked:
  - Composition of Siting Body
  - Decision-making authority
  - Facilities over which Siting Body has jurisdiction
  - Decision-making role of local officials
  - Whether the jurisdiction requires a need standard or economic test to protect ratepayers
Washington

**Body:** Washington Energy Facility Site Evaluation Council (EFSEC)

**Composition:** Chair appointed by governor, five state agency members, one member from each local jurisdiction

**Decision:** Issues permits & site certificate, governor must sign

**Facilities:** Thermal generation greater than 350 MW, smaller wind (voluntary), oil & gas pipelines, transmission

**Role of locals:** Formal decision-making role on Council

**Need Standard?:** Must demonstrate need
Oregon

**Body:** Oregon Energy Facility Siting Council (EFSC)

**Composition:** Seven citizen members appointed by the governor and confirmed by the Oregon senate

**Decision:** Issues site certificate, directs agencies to issue permits

**Facilities:** Thermal plants greater than 25 MW, non-thermal plants greater than 35 MW, 230+ kV lines more than 10 miles in length

**Role of locals:** Must approve proposed land use

**Need Standard?:** No need standard or economic test
California

**Body:** California Energy Commission (CEC)

**Composition:** Five citizen members appointed by governor, four must have specific knowledge (economics, environmental, engineering, legal)

**Decision:** Issues permit to construct & operate

**Facilities:** Thermal plants greater than 50 MW and related transmission lines, fuel supply lines, and related facilities

**Role of locals:** No formal decision-making role

**Need Standard?:** No need standard or economic test
Arizona

**Body:** Arizona Corporation Commission (ACC), Arizona Power Plant and Transmission Line Siting Committee

**Composition:** Five elected members to ACC, two local members of Siting Committee

**Decision:** Recommendation to full Commission to issue Certificate of Environmental Compatibility

**Facilities:** Power plants greater than 100 MW and transmission projects greater than 115 kV

**Role of locals:** Formal membership on Siting Committee

**Need Standard?** Economic test to protect ratepayers
Montana

Body: Department of Environmental Quality, Board of Environmental Review

Composition: Seven members: three public, two government, two professional

Decision: DEQ director issues permits, Board of Environmental Review hears appeals

Facilities: Transmission > 69 kV or 10 miles, pipelines of certain diameters and lengths, hydro > 50 MW, nuclear and geothermal plans, gas/coal can “opt in”

Role of locals: No formal decision-making role

Need Standard?: No need standard or economic test
Arkansas

**Body:** Arkansas Public Service Commission

**Composition:** Three members appointed by Governor

**Decision:** Commission issues CPCN

**Facilities:** Utility-owned facilities only

**Role of locals:** No formal decision-making role

**Need Standard?:** Economic test to protect ratepayers
Maine

Body: Board of Environmental Protection

Composition: Eleven volunteer members appointed by Governor and confirmed by Legislature

Decision: DEQ director issues permits, Board of Environmental Review hears appeals

Facilities: Facilities emitting greater than 50 tons/yr. VOC, 10 tons/yr. of a single Hazardous Air Pollutant, 25 tons/yr. of all Hazardous Air Pollutants combined, 100 tons per year of any other regulated pollutant

Role of locals: Does not preempt local role

Need Standard?: No need standard or economic test
Senate Bill 1292 (2006 Session)

**Body:** DEQ Site Review Panel

**Composition:** Three DEQ, one governor-appointed, one member appointed by each city and county within 50 mile radius

**Decision:** make recommendation to DEQ Director within 90 days whether project is consistent with Energy Facility Siting Management Plan, Director makes decision

**Facilities:** Not specified in bill

**Role of locals:** Formal role on Site Review Panel

**Need Standard?**: Not specified in bill