

# Electricity Restructuring

**A Montana view of the western power market**

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Summer 2001**

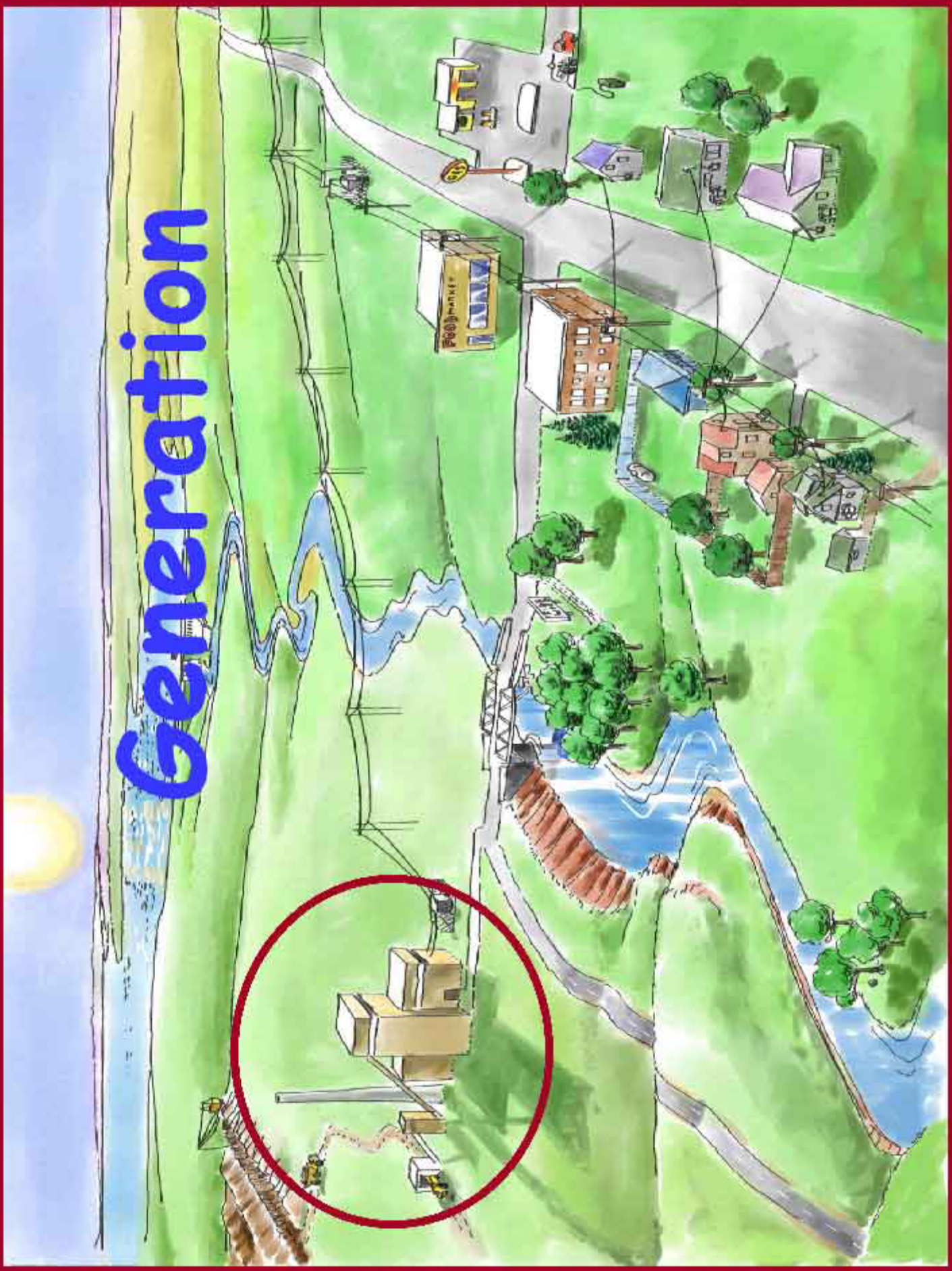


“The age of sophists,  
economists and  
calculators is upon us.”

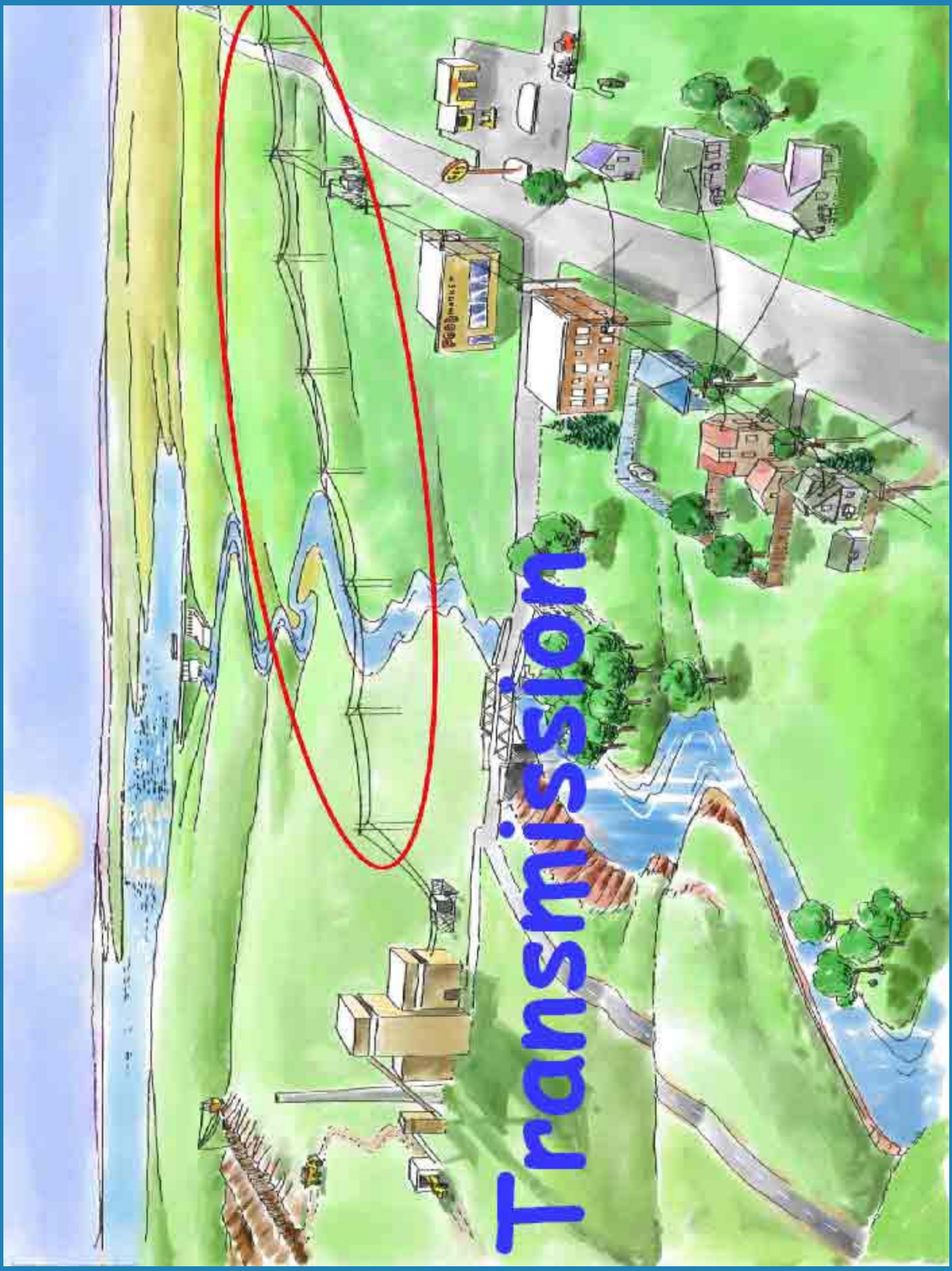
Edmund Burke,

*(Writing the first  
commissioners' job  
description)*

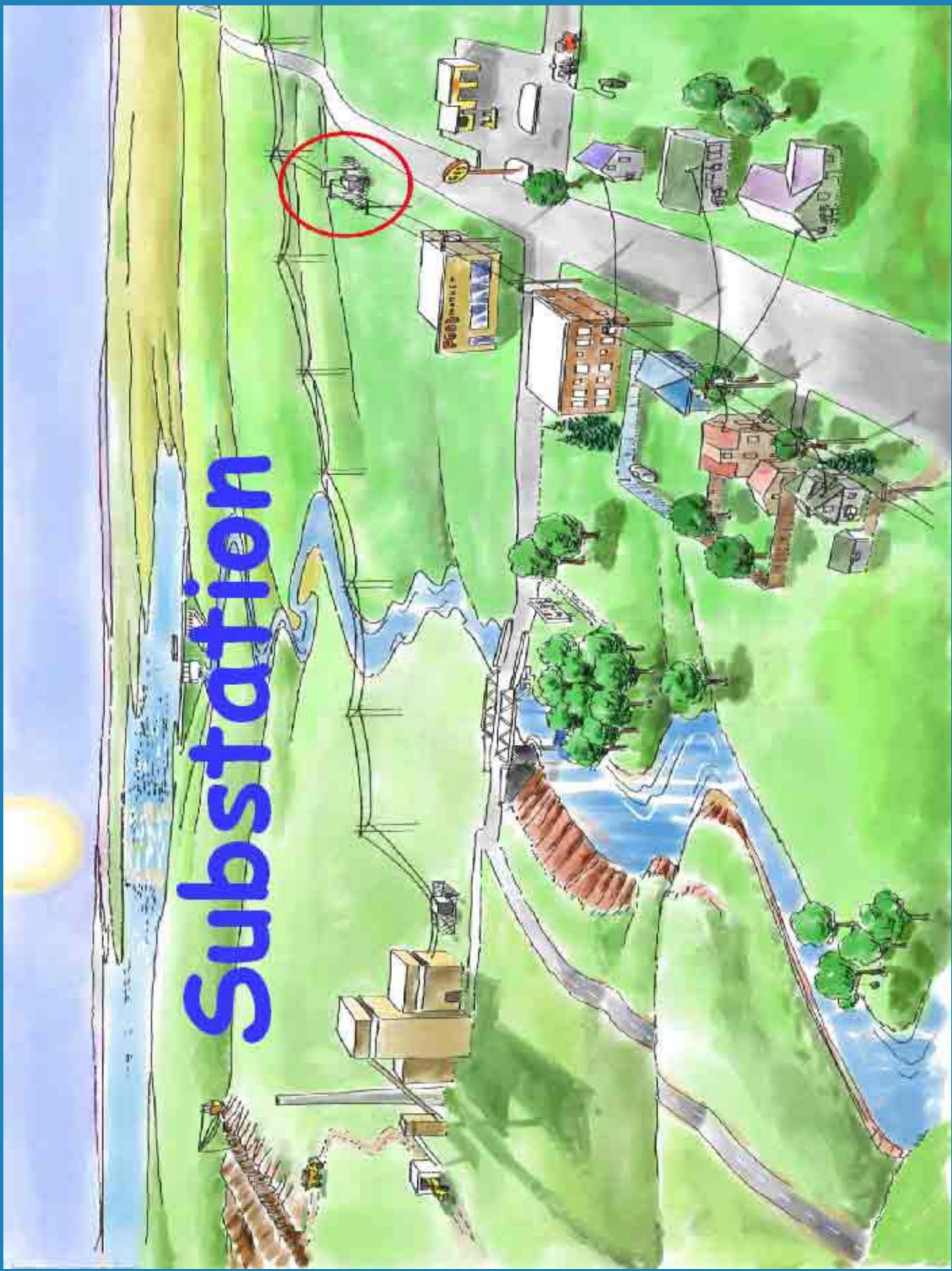
# Generation



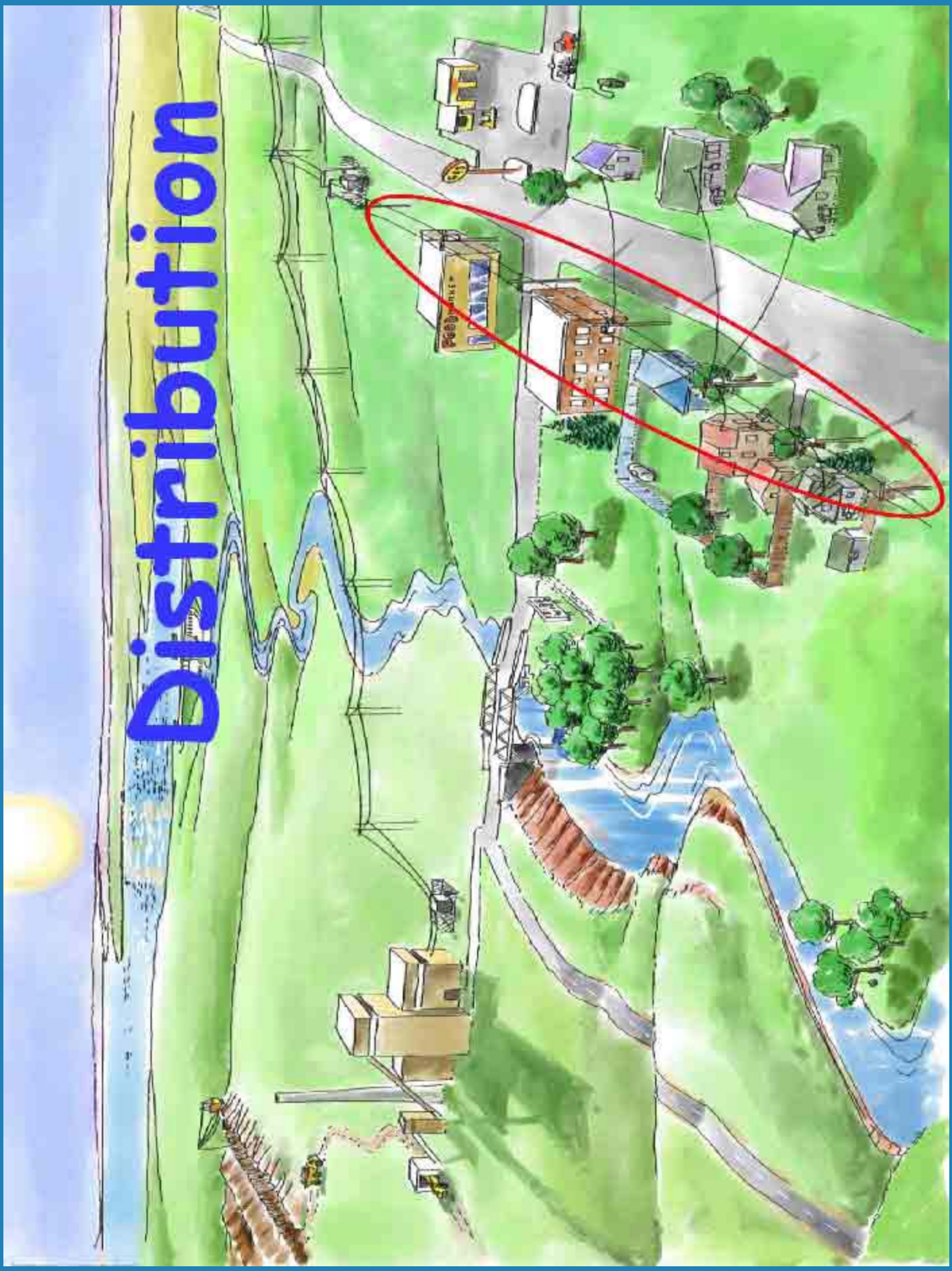
# Transmission



# Substation



# Distribution



# Customer



# Electric service until now ...

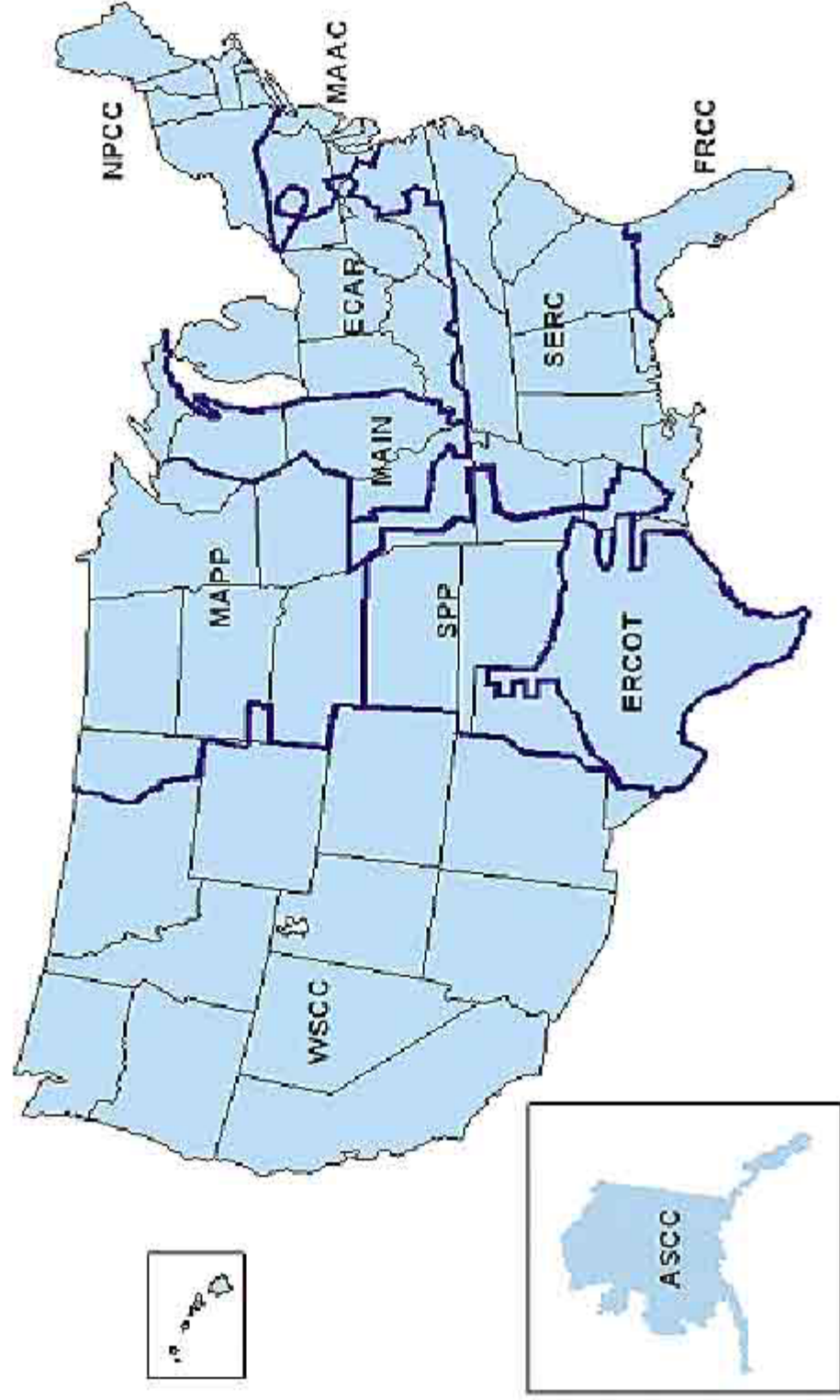
- \* Monopoly utility electric service “package”:
  - supply – up to 40% of avg. residential bill
  - transmission
  - distribution
  - other services



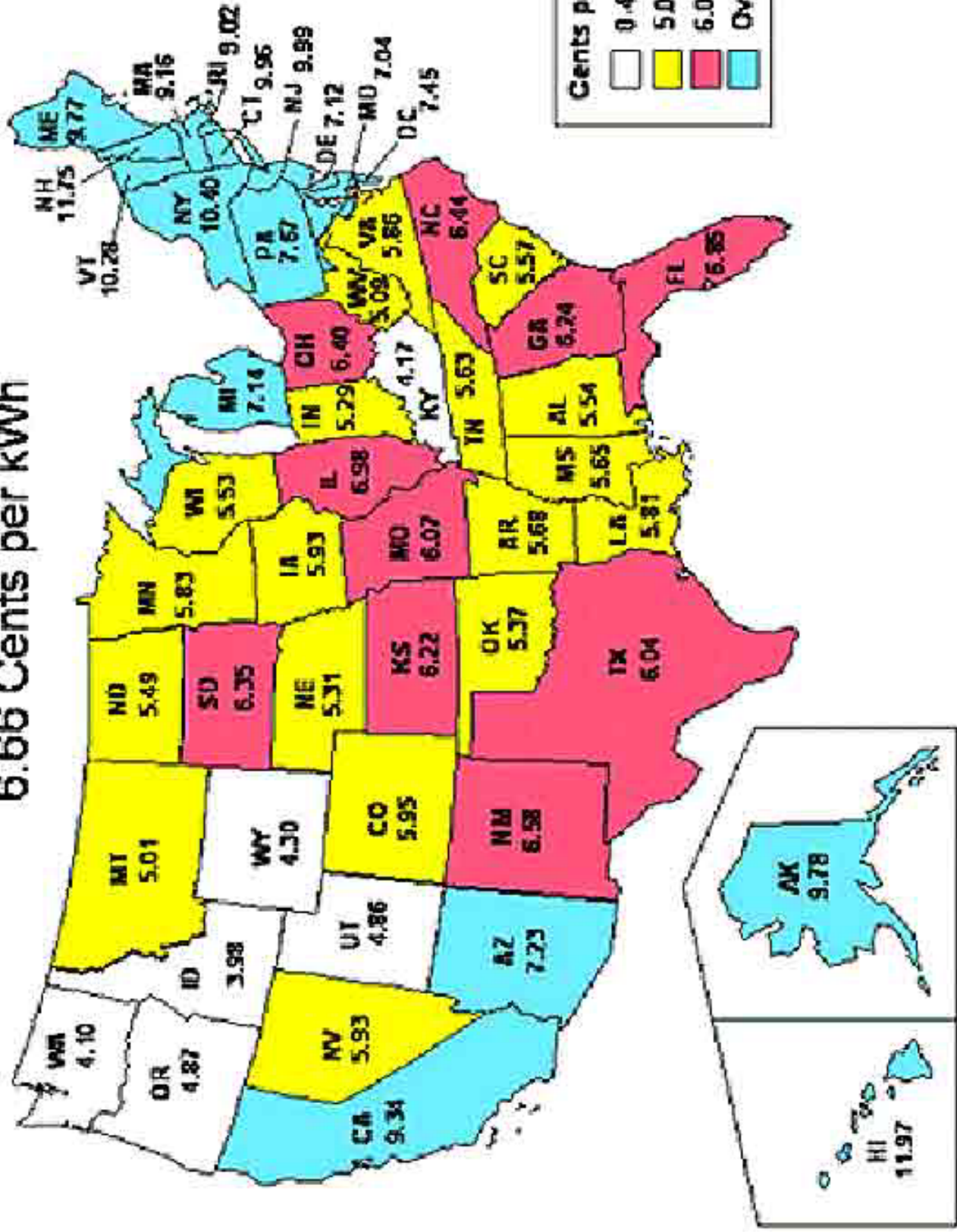
# Restructuring in theory

- \* Generation becomes competitive, with many suppliers competing over open, highly coordinated transmission and distribution systems.
- \* Sacrifice static efficiencies of vertical integration for dynamic efficiencies of robustly competitive generation market.
- \* Long-term, sacrifice predictability and greater control of largely intra-state market for potential efficiencies of interstate power market?

**Figure D1. North American Electric Reliability Council Regions for the Contiguous United States, Alaska and Hawaii**



# 1999 National Average Retail Price was 6.66 Cents per kWh

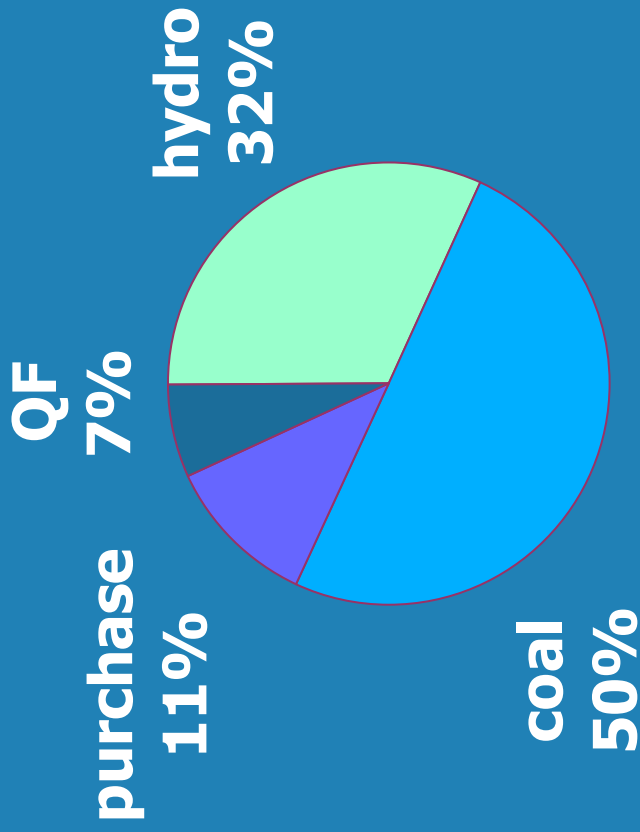


# Montana background

- \* Population - 902,195
- \* Density - 6 persons/sq. mi.
- \* 47% of citizens live in rural areas
- \* Per capita income - \$22,019
- \* 340,000 residential households
- \* Montana Power retail prices (bundled)
  - residential - 6.6 cents/kWh
  - industrial - 3.9 cents/kWh

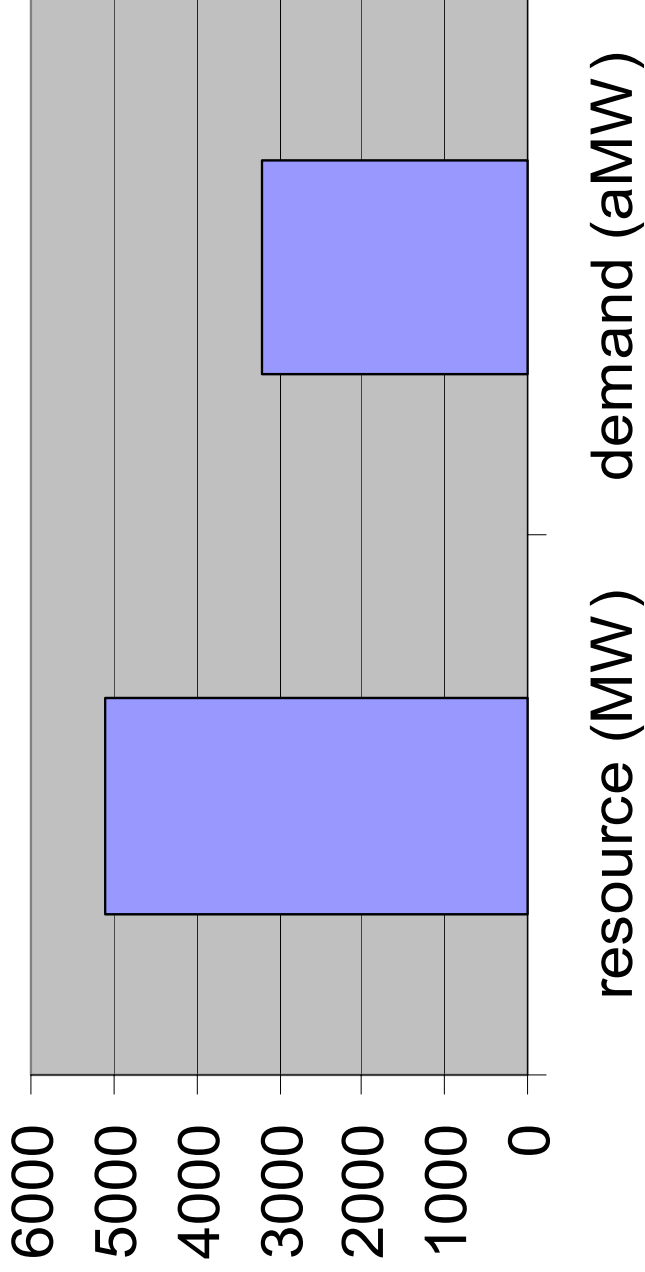
# Montana background

## Montana Power resource mix



# Montana Background, cont.

## Montana loads and resources



# Montana restructuring

- \* PSC inquiry initiated July 1995
  - Round table discussions with interested parties
  - Principles to guide restructuring
  - What PSC could do with current authority
  - Advised MPC to file a case
- \* Montana Power draft legislation Nov 1996
- \* Feb 1997 PSC approves market-based rate for new silicon chip manufacturing plant
- \* Oct 1997 PSC approves generic market-based rates
- \* Montana legislature passes comprehensive restructuring law May 1997
- \* IOU filings July 1997 - still processing

# Montana restructuring cont.

- \* Large commercial and industrial customer choice July 1998
- \* All other customers July 2002 or as soon as administratively feasible
  - Pilot programs for Montana Power residential and small commercial customers began November 1998
- \* Utility supply rates capped until July 2002
- \* Electric cooperatives may opt out (23% of customers)
- \* IOUs outside pacific northwest may delay transition until 2006 (6% of customers, Montana-Dakota Utilities Company)



## Montana restructuring cont.

- ✧ PSC licensing rules adopted in 1998.
- ✧ Applicants for supplier licenses provide information to ensure:
  - Electricity is provided as offered.
  - Adequate quality, safety and reliability.
  - Proof of financial integrity if intending to serve small customers.
- ✧ Electronic registration on PSC Internet site:  
[www.PSC.state.mt.us](http://www.PSC.state.mt.us)

## Montana restructuring cont.

- \* Total number of suppliers licensed by PSC = 28
- \* Suppliers licensed to serve residential = 9
- \* Suppliers with products available for residential = 0
- \* Industrial customers that have switched = 17/72
- \* Commercial pilot program customers = 13/2500
- \* Total switched load 240 aMW or 25% of MPC 1998 total retail load of 943 aMW
- \* 6 suppliers serving all competitive loads

# **MPC transition plan: Tier 1 issues - order issued June 1998**

- \* Plan for large customer choice
- \* Accounting order for stranded costs
- \* Customer education
- \* Customer protection
- \* Functional separation
- \* Unbundled bills
- \* Rate design
- \* Pilot programs
- \* Methods for choosing suppliers
- \* Code of conduct

# MPC's transition plan: Tier 2 issues

- \* Sale of MPC's generation assets
- \* Transition costs
- \* Market power
- \* Revenue requirements
- \* Universal system benefits charge
  - Hearing held October 1998.
  - Rates approved.
  - Funds allocation order issued Feb. 1999

## Tier 2 proceeding - status

- \* Suspended indefinitely, pending Supreme Court review concerning tracking of transition costs.
- \* Supreme Court decision, 6-12-01.
  - Constitutional “takings” claim by MPC is not ripe.
  - Law requires **finality** in determining stranded costs, which would not be achieved through use of tracker.
  - Not all “actual” transition costs may be recovered
  - Only those that are **verifiable**, established as **unrecoverable**, affirmatively shown, reasonably **mitigated**, reasonably demonstrable, reduced to a **net sum**, and reduced to an amount in a final order. Oral arguments scheduled May 3, 2001

# Electricity prices, Where are we today:

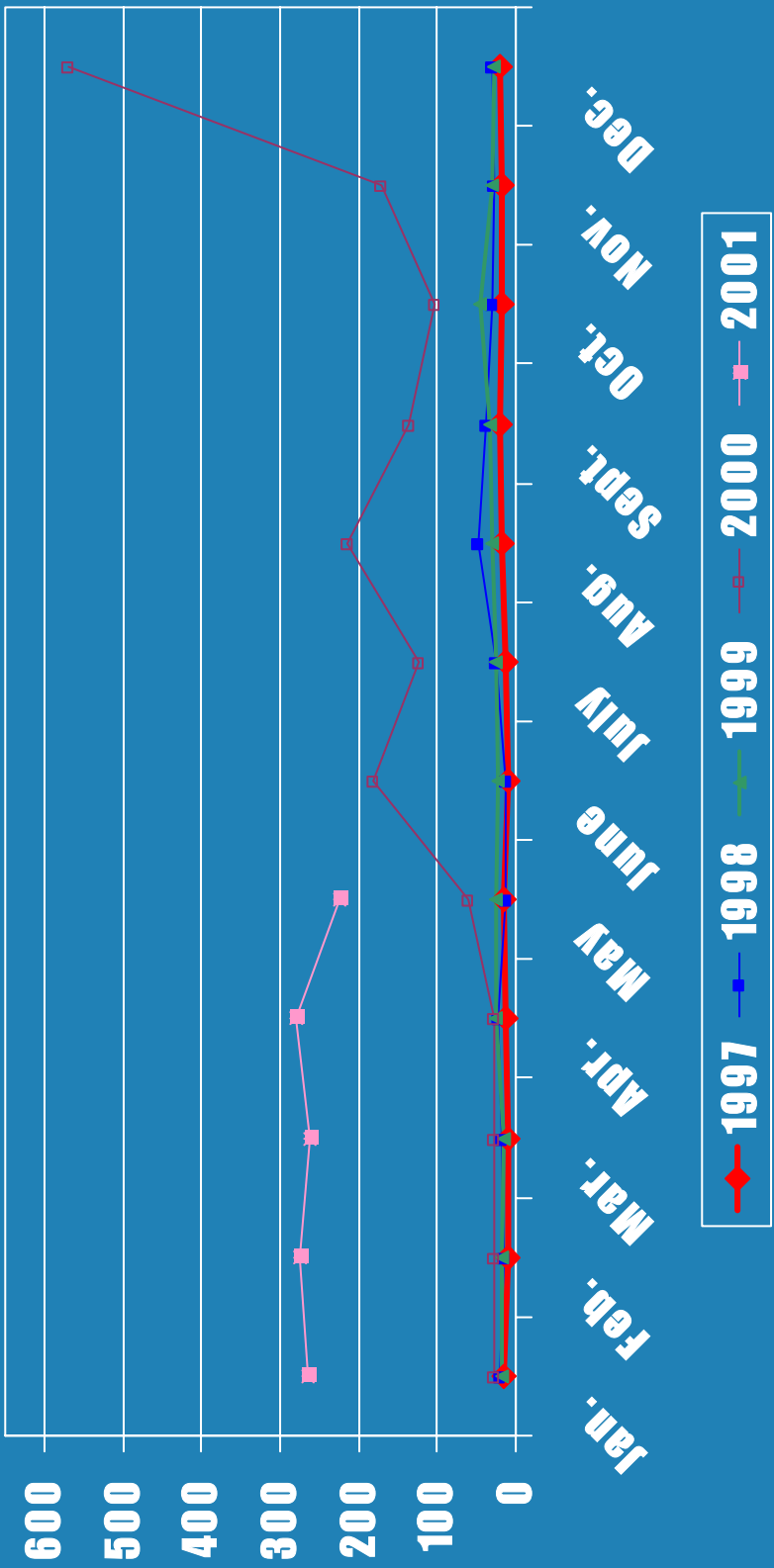
- \* Supply rates capped until July 2002.
- \* Current residential supply price - 2.7 ¢/kWh
- \* supply price after July 2002 - ?
- \* If the supply price doubled, average residential bill would increase about \$21/mo.
- \* Many large customers are in the market
- \* Customers who were buying short, or recently had contracts expire, are experiencing severe economic consequences.

# Northwest Wholesale Prices

Monthly average Mid-Columbia prices weighted by on-peak and off-peak hours

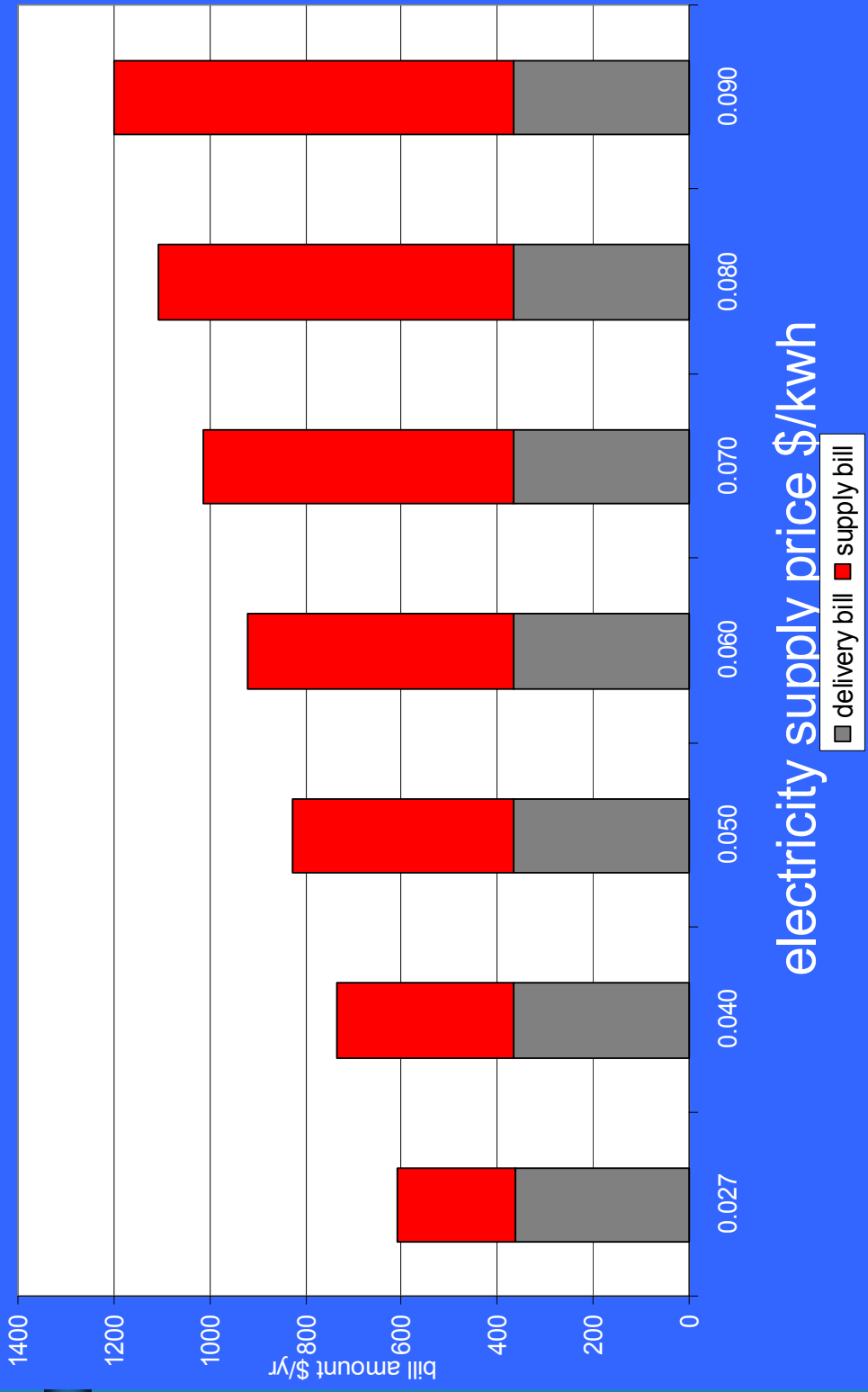


# Mid-Columbia On-Peak Prices





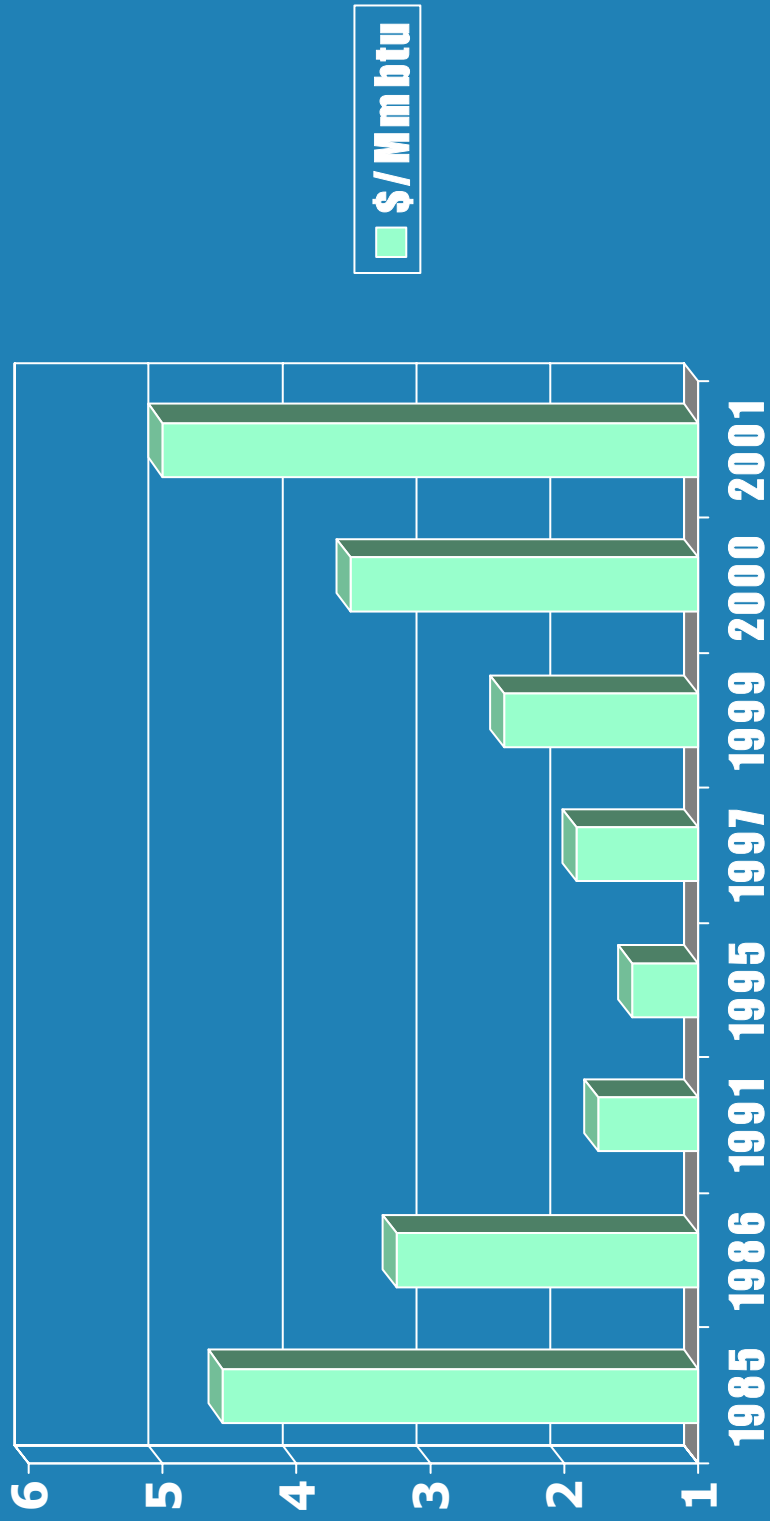
# Possible annual Montana residential bill impacts



# Western market drivers

- \* Utilities have not built generation because of uncertainty over long-term cost recovery
- \* Competitive generators have not built generation because market rules were not known, prices low
- \* Drought conditions in NW reduces supply available from hydroelectric generators
- \* Rising natural gas prices affect the cost of producing electricity with gas fired generators
- \* Wholesale markets not workably competitive, generators can influence prices
- \* Retail prices decoupled from wholesale markets, don't reflect demand supply imbalance

# NATURAL GAS PRICES



# Western market

- ✦ Is it mainly a supply problem?
  - Until this year WSCC load grew faster than supply.
  - But - transmission applications to BPA for 25,000+ new MW,
  - And NERC says WSCC reserve margins still at 22%.

# Western market

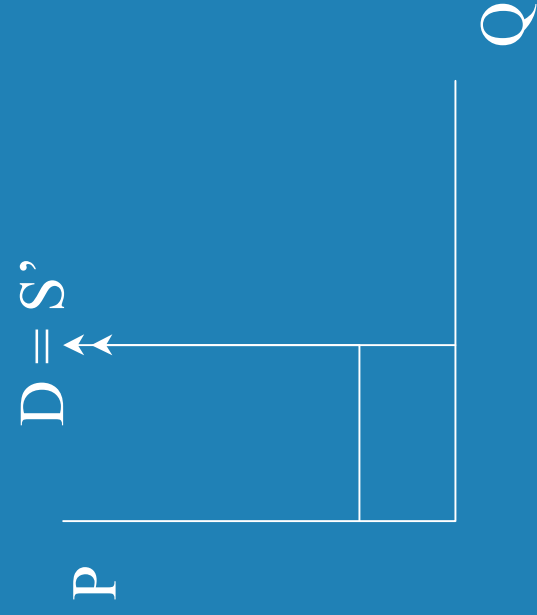
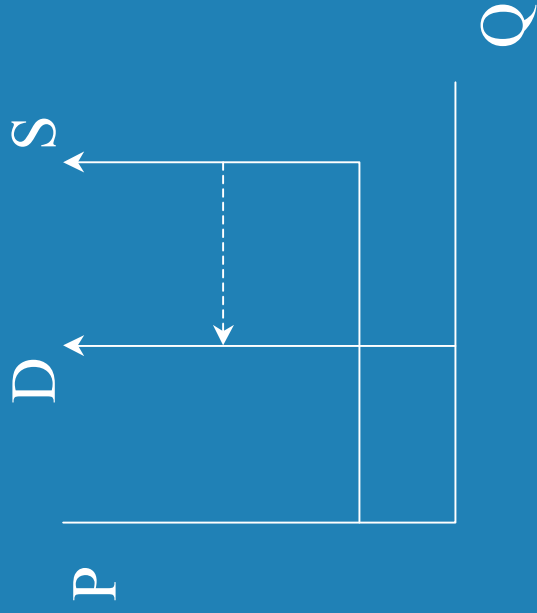
- ✦ **Is it mainly a transmission problem?**
  - **Operating near capacity.**
  - **Constrained transmission paths.**
  - **Increasing possibility of failure.**
  - **Open transmission policies not fully implemented.**
- ✦ **Is it mainly a market structure problem?**
  - **Too little available power and/or too few suppliers in the relevant geographical and product market.**
  - **Too high transaction costs.**

**Electricity :  
Before**

**Electricity :  
After**

**Withholding**

**Withholding**



**Does the commodity itself make certain practices more likely?  
For example, withholding supply can lead to very high prices.**

# FERC addresses Western Market

- \* Dec 2000 Order on CA market
- \* Flawed market structure and rules for wholesale sales
- \* Demand/supply imbalance
- \* Unjust and unreasonable prices at times
- \* Eliminated California Power Exchange mandatory buy-sell rule
- \* Penalties for under scheduling
- \* Benchmark price for bilateral contracts

# FERC addresses Western Market

- \* April 2001 Order, prospective price mitigation
- \* Market monitoring plan for CA
- \* CA ISO to file regional RTO proposal
- \* Increased ISO ability to coordinate/control generator outages
- \* ISO to report outage information to FERC
- \* Price mitigation during reserve deficiency
- \* Public utilities must develop demand response mechanisms



# FERC addresses Western Market

- \* June 2001 Order, Price mitigation in WSCC
- \* Continues price mitigation during reserve deficiency periods
- \* Prices in other spot markets in West capped at 85% of highest hourly clearing price in CA ISO market during most recent Stage 1 reserve deficiency period

# Current Montana PSC activity

December 2000

- \* PSC exercised its authority to extend the transition period for two years to July 2004
- \* Directed MPC to submit a plan for supplying electricity to non-choice customers in extended transition period

March 2001

- \* MPC issued RFP for power supply contracts
- \* PSC initiated Notice of Inquiry on feasibility of a tariffed demand exchange program

# House Bill 645 - Energy Pool

- \* **Creates an electrical energy pool to serve industrial customers exposed to high market prices.**
- \* **Energy in pool from contributions from generators and conservation from customers.**
- \* **PP&L pledged 20 MW at 3.5 cents.**
- \* **PSC assigned 10 MW to Golden Sunlight through Fall. Requests for 23 MW, with more requests expected.**
- \* **Instructed MPC to complete administrative contracts, working on rules.**
- \* **July 1, 2001 deadline for implementation.**

# Modest Proposal #1 - Electric Issues Roundtable (Rowe)

- ✦ *Goal - Better understanding and coordination of various restructuring efforts undertaken by multiple entities (public/private, federal/state/regional) work together.*
- ✦ **As a whole, are we moving in a direction that is good for Montana, its businesses and citizens?**
- ✦ **Suggested structured roundtable to better coordinate and understand all issues.**
  - **Several rounds of comments**
  - **Workshop**
  - **Specific assignment of tasks**

# Proposal #1 - Electric Issues Roundtable

- ✧ **Wide range of parties.**
- ✧ **Topics –**
  - **Demand-side issues.**
    - Pricing goals.
    - Balance of economic pricing signals and avoidance of rate shock.
    - Small customer incentives.
    - Demand-side market structure.
    - Peak management.
    - Role of pilots.
    - Ramp-in of retail choice.

# Proposal #1 - Electric Issues Roundtable

- **Supply-side issues.**
  - **Strategies to increase supply options – traditional and new source.**
  - **Market structure.**
  - **Prospects for competition in different market segments.**
  - **Distributed generation and net metering.**
  - **Transmission issues, including RTOs.**
  - **Role of BPA.**

# Proposal #1 - Electric Issues Roundtable

- **Customer and societal issues.**
  - Role of “system benefits” programs.
  - Strategies to protect particularly vulnerable groups, such as seniors, disabled, low income citizens.
- **Administrative and coordination issues.**
  - Coordinating various PSC proceedings.
  - Coordinating between PSC, Governor, NWPPG, RTO, FERC, others.
  - Who should do what.
  - What should we do more of, less of, or differently?

# Modest Proposal # 2 – Structured settlement process (Rowe)

*Goal: Reasonable rates and policies through the  
extended transition, with workable market at the end.*

**Possible parties – MPC, Northwestern, PP&L, Large  
Customer Group, Consumer Counsel, Administration,  
others? (Noticed opportunity to participate.)**

**Possibly related cases –**

- **Stranded cost claims in Tier 2 restructuring case.**
- **Financial issues in MPC distribution sale.**
- **Supply and cost default provider issues.**
- **Others?**



# **Modest Proposal # 2 – Structured settlement process (Rowe)**

**Timing - We know or soon will know certain things**

- Final legislative action.
- Supreme Court stranded cost tracking decision
- Better understanding of regional market.
- ADR works better when range of possible non-negotiated outcomes is better known.
- Idea may or may not be ripe yet.

**Product – Full or partial proposal filed with full PSC.**

**Precedent with many other complicated regulatory issues. (Telecoms market-opening collaboratives.)**

**Alternative to risk, cost and delay of “death by a thousand lawsuits.”**