

# Montana's Energy Future Symposium

## THE FUTURE OF ENERGY DISTRIBUTION COMPANIES

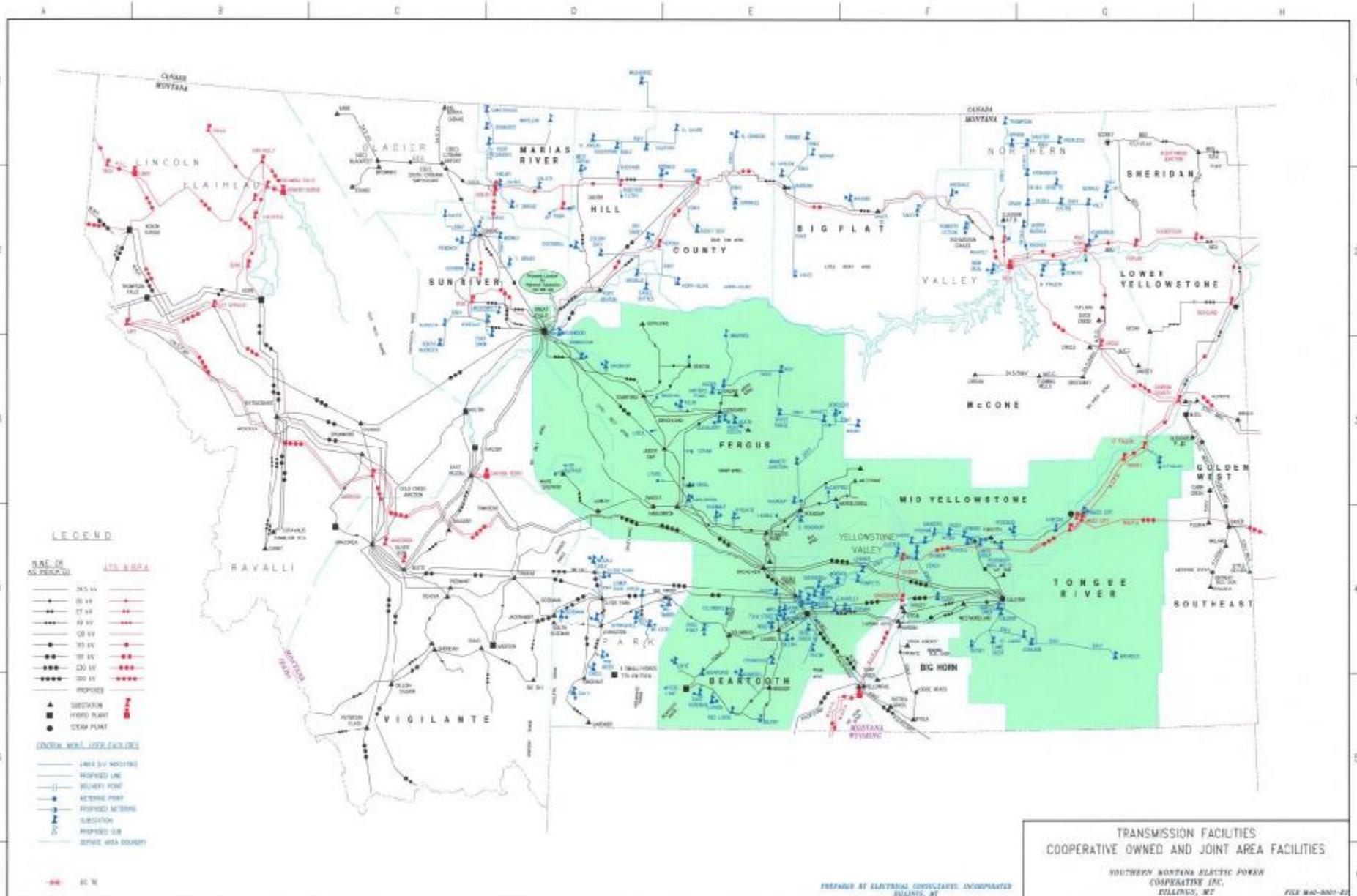
19 October 2005

Presented by

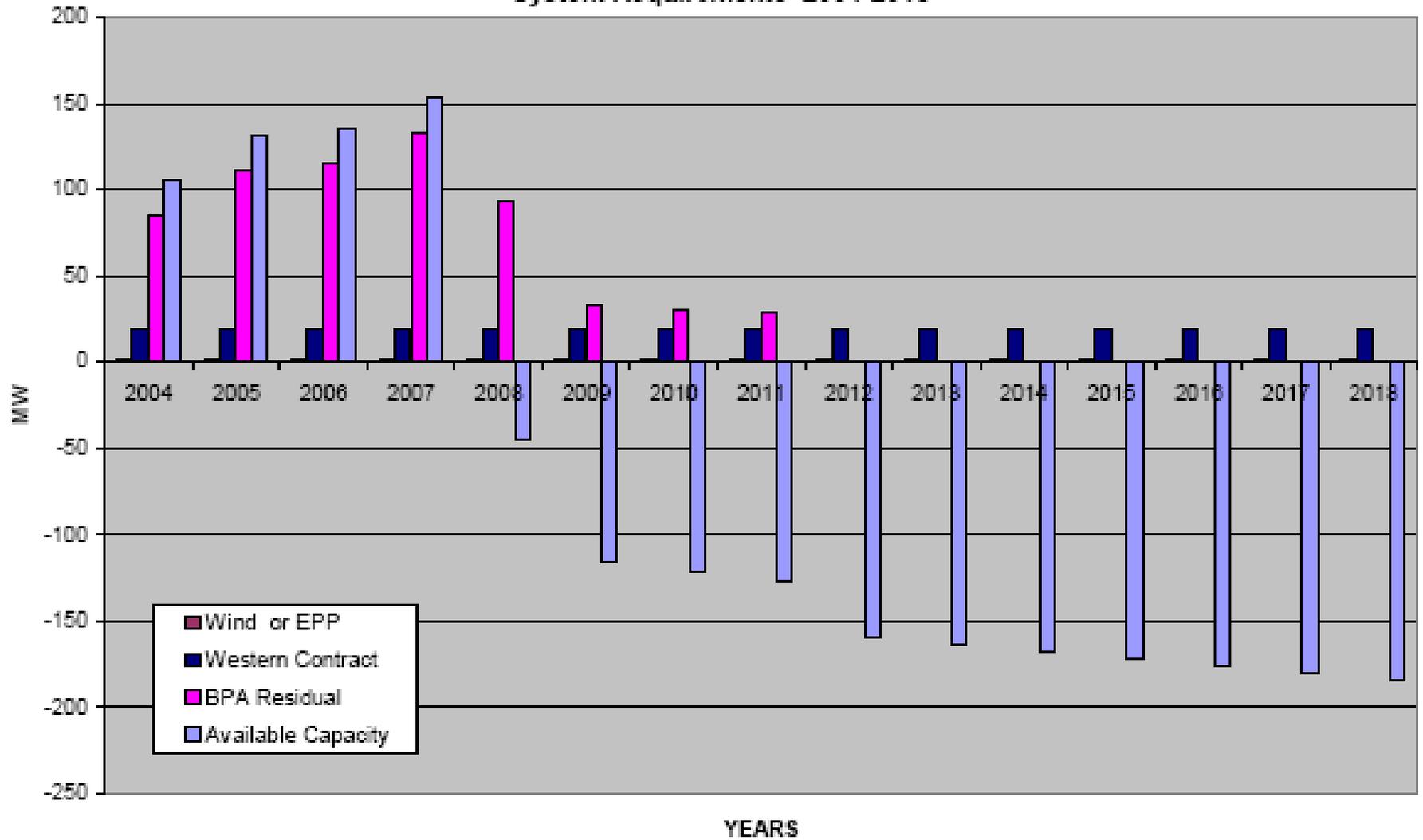
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Southern Montana Electric G&T Cooperative





### Southern Montana Electric Generation & Transmission Cooperative System Requirements 2004-2018



# Future of Electric Distribution Companies:

- n Reliable, Affordable, Balanced Energy Supply Portfolio**
- n Integrated Energy Resource Plan (IRP):**
  - “Base Load” Generation - Diversified**
  - Environmentally Preferred Product**
  - Conservation (Weatherization/Efficiency)**
- n Long Term Goals – Near Term Price Sensitive**
- n Dynamic – Will not happen over night**
- n Public Power Supply Entities – Cost Based**

# Price of Electricity v. Natural Gas

Dow Jones Mid-C Price Index

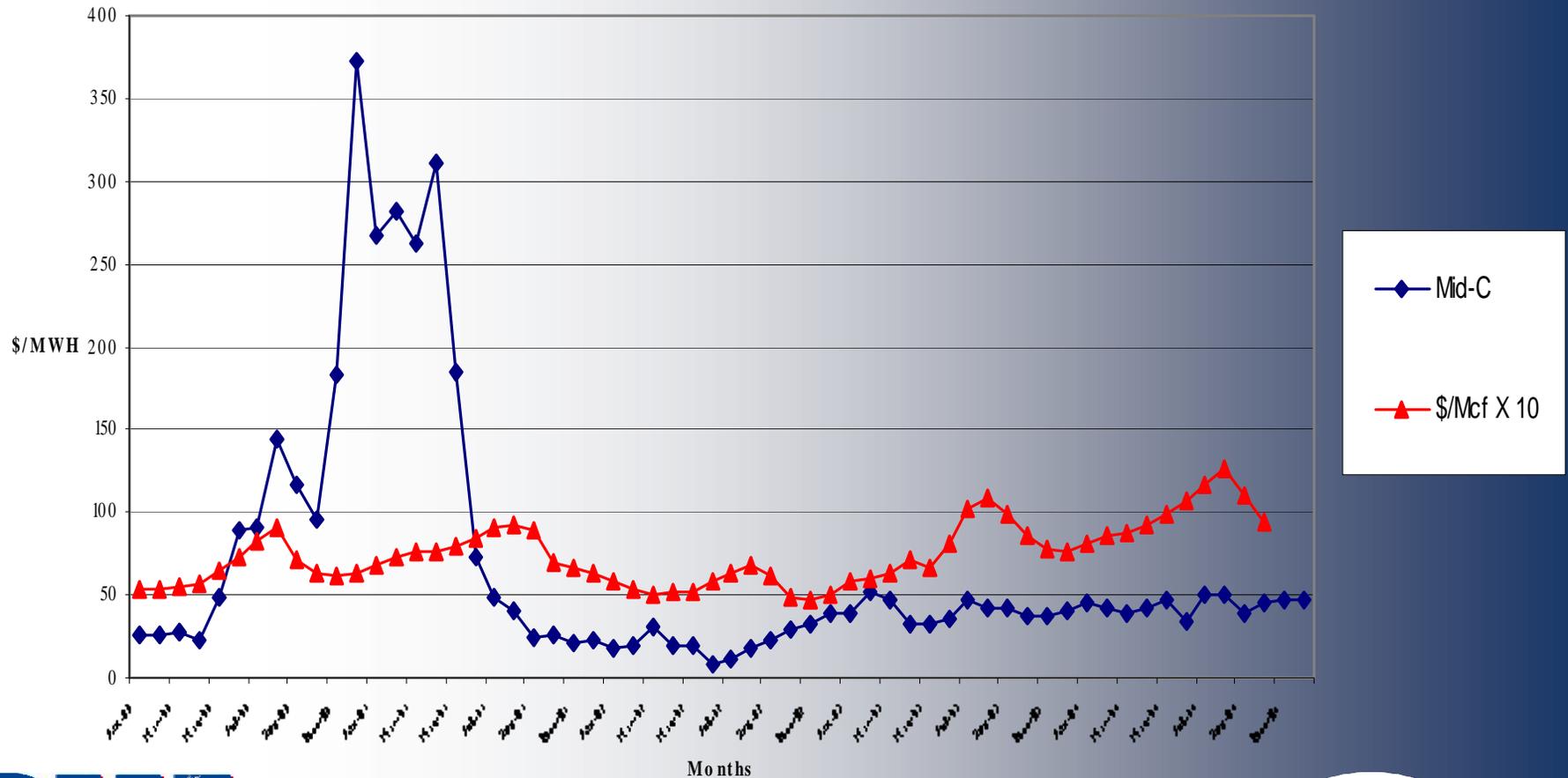


Figure 1. U.S. Average Winter Fuel Expenditures Are Expected to be Significantly Higher

Fuel	Winter of		Winter of 05-06			% Change from last Winter		
	Average 99-04	04-05	Warmer	Base	Colder	Warmer	Base	Colder
<b>Natural Gas</b>								
Price (\$/mcf <sup>**</sup> )	8.41	11.13	15.32	16.95	16.68	37.7	43.4	49.9
Expenditures (\$)	586	742	964	1,096	1,242	29.8	47.6	67.3
<b>Heating Oil</b>								
Price (\$/gallon)	1.35	1.92	2.34	2.54	2.80	21.7	32.0	45.4
Expenditures (\$)	865	1,199	1,326	1,577	1,893	10.6	31.5	57.9
<b>Propane</b>								
Price (\$/gallon)	1.29	1.64	1.91	2.05	2.25	16.0	24.8	37.0
Expenditures (\$)	885	1,102	1,215	1,427	1,700	10.3	29.5	54.3
<b>Electricity</b>								
Price (\$/kwh <sup>**</sup> )	0.08	0.09	0.09	0.09	0.09	3.4	3.4	3.3
Expenditures (\$)	685	717	719	755	791	0.3	5.4	10.4
<b>Average Expenditures</b>	668	786	929	1,044	1,176	18.1	32.9	49.6
Expenditures are based on typical per-household consumption. * thousand cubic feet, ** kilowatthour								

# Southern Montana Electric G&T Project Development - Milestones

- n **Load Forecasts, Alternative Evaluation Study, and Site Screening Study Complete**
- n **Secured funding for Project Development – CoBank**
- n **Long Term Financing - RUS Submitted 29 Nov 04**
- n **Site Acquisition/Easements and Rights of Way**
- n **Generation Interconnection and Network TRX Rights**
- n **Preliminary Engineering and Design – Integrated Emissions Control Strategy (IECS)**
- n **Operating Essentials – Water, Fuel, Ash Disposal (On Site)**
- n **Air Quality Permit Application (Draft) – 2 Sep 05**
- n **EIS (RUS) “Kick Off” Meeting – 8 Sep 05**
- n **RUS - Solicit Proposals for the Boiler Island (Focus on Emissions Guarantees)**

# Project Development - Guiding Principles:

- n **Minimize Price Volatility – “Bragawatts”**
- n **Costs Accuracy: Energy and Transmission Separately**
- n **Realistic Expectations for TRX System Improvements**
- n **Environmental Issues – Air, Water and Ash Disposal**
  - **Montana Department of Environmental Quality**
  - **Board of Environmental Review**
  - **Special Interest Groups**
  - **City of Great Falls/Community Leaders**
- n **Member Owned and Locally Controlled**
- n **Montana Project – Developed, Owned, Operated and for the Benefit of Montana Owners/Members**

# Highwood Generation Station

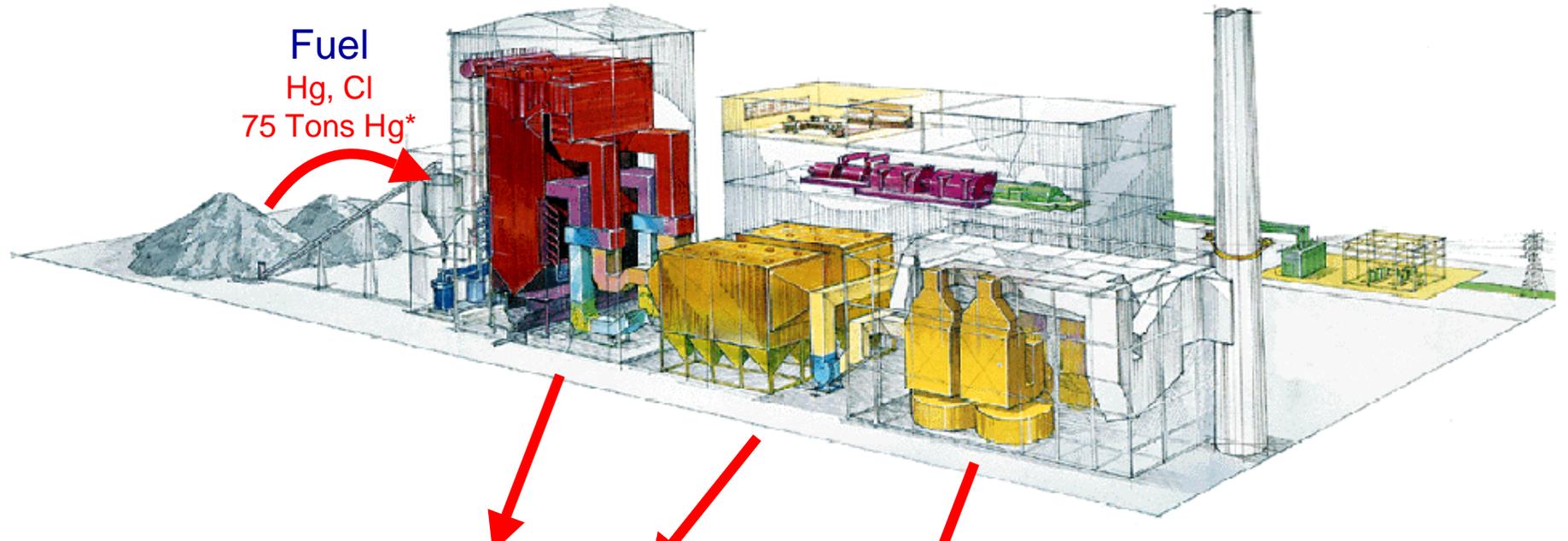


**Southern Montana Electric Generation &  
Transmission Cooperative, Inc.**

# US Mercury Emissions

Stack Emissions

45 Tons Hg\*  
Hg<sup>0</sup>, HgCl<sub>2</sub>

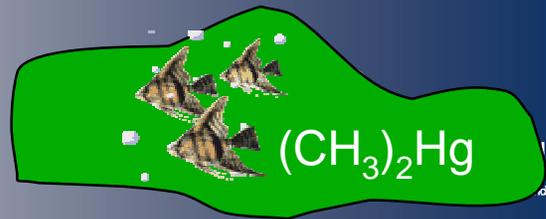


Fuel  
Hg, Cl  
75 Tons Hg\*

Bottom Ash & Fly Ash

Hg(p) 30 tons Hg\*

FGD Byproducts  
and Waste



(CH<sub>3</sub>)<sub>2</sub>Hg

