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The Natural Resources Committee convened on February 16, 1977, in Room 437, with Chairman Shelden presiding. All members were present except Representatives Huennekens and Burnett, who were excused, and Representative Cooney, absent.

Chairman Shelden opened the meeting to a hearing on House Bill 692, which had not been heard on Tuesday, due to lack of time.

HOUSE BILL 692

Representative Dorothy Bradley, District No. 77, the bill's chief sponsor, said the purpose of the bill is to eliminate the use of natural gas for outdoor advertising and other outdoor decorative uses. She suggested an amendment which would make the effective date July 1, 1978.

RON ERICKSON, Citizens' Advisory Committee, supported the bill. He felt this use was a waste of natural gas.

Representative Metcalf asked if this bill could be amended to include the flare off the Billings refinery—answer was "no", as that was a safety flare. Chairman Shelden asked if it could serve a useful purpose—answer was not that they know of, as the flare was to burn gases that could otherwise harm employees.

HOUSE BILL 722

Representative Les Hirsch, District No. 52, the bill's chief sponsor, handed out to the committee members proposed amendments, EXHIBIT 1, and apologized for not having the bill in shape before drafting. He said the problem addressed in this bill comes from the original owner keeping the mineral rights, when he sold the surface rights. As generations have passed the rights have become so divided as to be almost worthless, and also very difficult, or impossible at times to locate the heirs. He said this makes it difficult for the oil and gas companies to lease. He said this bill would have the surface owner file a notice with the clerk and recorder and for the mineral This would take three years, and, if he received no response, he would file a quiet title action which would take three more years, during which every effort would be made to locate the heirs. one responds, the mineral right will be considered abandoned and revert to the surface owner. He suggested if there is a constitutional question to let the courts decide; the committee he felt could better concern itself with the philosophy of whether or not we want the abandoned mineral rights to go back to the surface owner. He said Larry Weinberg of the Legislative Council was there to help answer questions.

WARD SHANAHAN, Dreyer Brothers, Inc., Minerals Development, Burlington Northern, Inc., opposed the bill, unless certain problems could be corrected with amendments. He felt the state rather than the surface owner should be the recipient of the abandoned mineral rights. A copy of his testimony and suggested amendment is EXHIBIT 2.

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STEVE WILLIAMS, Anaconda Company, spoke in opposition. He said the intent and purpose is very meritorious, but the bill has some serious problems. He said the recording requirements are somewhat unclear. It states that a fee of \$10.00 will be charged, no matter what the quality or quantity of mineral. He said some mineral interests were severed before the land was divided into blocks—this could be a monumental task to put together and record.

PETER C. PAULY, Montana-Dakota Utility, felt this created a windfall for the surface owner and a ripoff of the mineral owner. He said there were serious constitutional questions on the standpoint of notice.

DON ALLEN, Montana Petroleum Association, said he was neither a proponent or an opponent. He said this is a problem that his industry faces. He offered to help the sponsor make this a workable bill. He said if the bill works they are for it, but they don't want to see Montana in the position of another state, which has had continued litigation.

Representative Hirsch in closing said Michigan has this statute and it has been working for three to four years. He requested the opponents to address a solution rather than a problem. He said it is a difficult problem, but he felt it could and should be addressed. He questioned who else the mineral right should go to, if not the surface owner. He said you can't just own something 100 years and expect to reserve that property forever unless you make some attempt to keep it. He compared it with water rights, which, if not filed on, are lost.

Larry Weinberg, Legislative Council, in response to a question said front end notice would be given by the counties and then the owner of the surface would institute the quiet title action and hunt down everyone and give them notice.

Chairman Shelden said that Representative Hirsch will be chairman of a sub-committee to look further into this bill.

HOUSE BILL 731

REPRESENTATIVE HIRSCH, the chief sponsor of this bill, said a week or so ago the committee had a hearing on House Bill 430, which established that the state building code would include an energy conservation code. He said this bill is merely the money to go along with that bill. He said the only question is are the funds the correct amount—he said it is quite a lot of money.

SONNY HANSON, Montana Trade Council, said they support the bill. Page 3, Section 5, he said deals with the development of building codes and the whole section should be eliminated, as it doesn't belong here. He said the authority should be in the hands of the building code council to regulate.

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Chairman Shelden said this bill will be put in the Conservation Sub-Committee.

HOUSE BILL 473

REPRESENTATIVE STEVE WALDRON, District No. 97, the bill's chief sponsor, said this bill would put a tax on water consumed in a coal gasification plant. He said the process separates the molecules so it is no longer water, and can't be reused for other uses. He said the bill intends the tax to be a small one, but hopefully will encourage the development of plants that consume less water. He suggested an amendment that would have the funds go into the renewable resources fund, and also on page 2, line 11, to strike "or the formula which yields the greater amount of revenue in a particular case shall be applied in that case."

RON ERICKSON, professor of chemistry and director of the Environmental Studies Program at the University of Montana, spoke next in support. A complete copy of his testimony is EXHIBIT 3 and part of the minutes.

PAT SMITH, Northern Plains Resource Council, spoke in support of the bill. He asked why tax water? He then listed several reasons: Large amounts are consumed; consumed in a different way than in agriculture or in a thermogenerated coal fired plant where it is recycled back into the system; possibility of a water shortage; tax money can be used for renewable resource funds and most of those funds are used for irrigation projects. He mentioned nine companies that are considering coal gasification plants in Montana. A list of these is EXHIBIT 4.

WARD SHANAHAN, Dreyer Brothers, signed as an amender. A copy of his suggested amendments and testimony is EXHIBIT 5.

Representative Waldron in closing said Ted Doney and Orrin Ferris of the Department of State Lands were available for questions. In response to Mr. Shanahan, he said the bill was not intended to cover his fertilizer plant.

During questions, it was brought out that if a party or company had a water right prior to July 1, 1973, it is a right; after that date, it is an application. The hydrogen atom taken from the water will be added to the nitrogen atoms to make ammonia and carbon dioxide will be discharged.

HOUSE BILL 687

REPRESENTATIVE J. D. LYNCH, District No. 87, the chief sponsor of the bill, said we must sit back and realistically realize that there is a natural gas shortage and that we can't continue to bury our heads in the sand. He said this bill would bring massive government funds for the coal gasification study. He said the Governor's Task Force on Energy unanimously voted for and recommended that gasification should be looked into further. He said this will not require much state expenditures, nor permit further coal development. He said if a demonstration plant were to be built, they had selected

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the old Glasgow Air Force Base as the logical location; and, if it were built, there would be 600 permanent employees with a payroll of ten million. He said House Bill 687 presents an opportunity, if all other options fail and Montana can't supply enough power for its citizens. He passed to the committee members a statement by Jerry D. Plunkett, Managing Director of the Montana Energy and MHD Research and Development Inst., Inc. This is EXHIBIT 6.

JIM HODGE, Chairman of the Governor's Task Force on Gasification, used charts. One showed Substitute Natural Gas Demand. plant could maintain a constant supply to Montana and so answer Montana's energy question, and it could utilize Glasgow Air Base. The second chart showed solutions they would recommend and they addressed seven areas: Technical--German technology and High Gas were recommended; 2. Environmental -- worked with the Department of Defense for the potential of using the Glasgow Base; Financial--what gas costs will be; 5. Site--looked over several but decided on Glasgow as best; 6. Public concern; 7. Federal He said they used no state funds in their study, and he said they will submit all of the study to the committee for their If they pursue the federal demonstration program, they could get substantial capital participation. The ERTA program would supply most of the prework.

FRANK SCHORA, Chicago, senior vice president of the institute of Gas Technology, was introduced by Representative Lynch. Mr. Schora said that coal gasification is a coming thing. With the high gas process, 70% efficiency is reached and with Montana lignite the amount of water driven off exceeds the water needed. He said pollution would be minimal—less than for electricity made from coal.

BILL CHRISTIANS EN, Montana's energy director, said he would like to give his time to Mr. Schora as the committee could listen to him any time, and Mr. Schora's expertise and knowledge of this area should be taken advantage of while he is here.

REPRESENTATIVE LYNCH said while conservation should be the state's first priority, followed by incentives for instate natural gas resources and uses of alternative energy, the option of coal gasification should also be considered.

RON ERICKSON, professor of chemistry and the director of the Environmental Studies Program at the University of Montana, representing the Citizens' Advisory Committee on Energy, spoke first in opposition to House Bill 687. A complete copy of his testimony is <u>EXHIBIT 7</u> of the minutes.

PAT SMITH, Northern Plains Resource Council, spoke next in opposition and a copy of his testimony is EXHIBIT 8 of the minutes.

JOAN MILES, Environmental Information Center, spoke next in opposition and a copy of her testimony is EXHIBIT 9 of the minutes.

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Representative Lynch in his rebuttal said we are not contracting in this bill for a coal gasification plant, only contracting to have it looked into. He felt the state would be short sighted if it didn't go along with this study.

Chairman Shelden asked the committee if they wished to continue this hearing after third reading, at which time they could ask questions. It was decided to do so. Meeting recessed at 10:05 a.m.

The committee reconvened at 2:45 p.m.

In response to a question, Mr. Schora said water is used in two ways in a coal gasification plant--reacts with carbon to produce methane and it absorbs the waste heat involved in conversion. He said they are experimenting with other coolants that could cut down water requirements. He said SNG gas uses half as much water as it rejects half as much heat. Water associated with lignite is driven off as moisture into the environment. The water used in the process has to be supplied--about 65% is lost--basically the loss is from the condensers after the steam passes through the turbine. He said 60% of the BTUs becomes pipeline gas. He said electricity made from coal is only 42% efficient, while SNG is 70%.

Mr. Erickson said comparing these two makes SNG look good but how about looking at some other forms--like fluid beds which uses 90% of the BTU in coal since it is a simple burn. Mr. Schora questioned whether a good fluid bed boiler was available. Mr. Erickson said small scale liquid beds were being developed for the home. A gasification plant in Scotland was mentioned which is not now operating as it became feasibly unnecessary with the discovery of all in the North Sea. Mr. Schora said England is thinking of going back to coal, as they can see their gas lasting only 10 to 20 years. He said there is a\$1.7 billion plant being planned for South Africa to make liquid products.

Mr. Erickson said on page 9 of the bill it reads "to engage in demonstration" -- that this sounds not like research but the building of a demonstration plant.

Chairman Shelden asked that at the present state of the art, why Montana? Once some are built elsewhere, we can see how they work, how much they cost, and the price of the product? He felt the government is anxious to put in a demonstration plant to ascertain that the technology is viable and to establish what the real economics are and to prove to the financial community that this can go forward. He felt the government should not be in this.

Mr. Schora said he considered the government's participation in this the fairest and most equitable way to distribute the cost--otherwise the rest of the people gain the knowledge without any investment.

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Chairman Shelden expressed a concern that coal gasification would be pushed at the expense of other renewable energy programs.

Mr. Schora said coal gasification is not the total answer. But he said the feeling that we can revert to just renewable energy is misleading—he felt it would take longer than 10 to 15 years for solar to come along. He said it was needful to move forward in many areas, including coal gasification.

Mr. Shelden said the country couldn't build enough gasification plants to keep our supply up to where we are used to having it. For this reason Mr. Schora felt we must get oil and gas from anywhere we can find it. Mr. Erickson said Chicago will have to build gasification plants, but the question is for our state -- do we need them, or will we need them? He mentioned Glasgow, that it has high winds -- how about developing renewable energy sources there. He said wide spread diversity would be the best way to go for an energy policy. He felt we shouldn't keep on using the same old fuel, even if it costs 10 times as much. He said if it develops that we need coal gasification, then we can build and it would take only five years.

Mr. Christiansen said as he was looking toward the critical time frame, he didn't feel this session of legislature would need to deal directly with it, but when he heard MDU testify they planned to drop industrial customers in the mid 77's--he had second thoughts and didn't agree with the five year time to get a plant in line. He felt we should keep abreast of the gasification process and not turn our backs.

Mr. Schora said they had looked at a number of options but coal was the most viable and the cheapest source of energy for the next 50 years. He also mentioned that sulfur, a bi-product, had a good market now and, if not, could be buried until there is. The remnant ash--they have looked at making such things as building materials from it.

It was mentioned that phenols are a bi-product in some gasification processes and they are a serious water pollutant.

Chairman Shelden questioned the discovery of a lot of 1.75 natural gas and then use \$3.00 SNG--does that make sense?

Mr. Schora said he was a strong advocate of conservation. He said people will put 12" of insulation in their ceilings as the price of energy escalates, but he said conservation won't solve the energy problem.

Mr. Binns questioned whether the state would not be wise to pursue a conservation policy before getting into a premature technology.

EXHIBIT 10 of the minutes is a report on SNG prepared by Ron Erickson for Lt. Governor Christians en in December, 1976.

Meeting adjourned at 4:05 p.m.

Respectfully submitted,