

## Appendix H

### 20x10 Questions from Legislative Fiscal Division and Legislative Services Division Response by Department of Environmental Quality April 1, 2008

- **Provide a broad outline of the 20x10 project from DEQ's perspective.**  
20x10 is Governor Schweitzer's initiative to reduce energy use in state government facilities and operations by 20 % by the end of calendar year 2010. It encompasses retrofits to state buildings and other facilities, operations, purchasing and related policies, and workplace practices. There is a parallel initiative to raise the efficiency of new light vehicle purchases to 30 mpg CAFE.
- **What are the overall goals or objectives of 20x10?**  
To reduce energy use in state government facilities and operations by 20 % by the end of calendar year 2010.
- **Do they differ in any way from the Governor's original broad vision?** No
- **Who is coordinating the 20x10 initiative?**  
The primary agencies coordinating 20x10 are the Departments of Environmental Quality and Administration; Transportation is coordinating the vehicle initiative.

#### DEQ responsibilities

- Benchmarking energy use
- Energy audits and recommendations for retrofits
- Retrofit financing through State Buildings Energy Conservation Program
- Technical guidance
- Information and training

#### DOA responsibilities

- Capitol Complex operations
- Retrofit design and construction
- Purchasing and related policies
- Leased buildings
- Computer operations

#### MDT responsibilities

- Vehicle purchases and leases

- **What authority do they have (who will have the ultimate say and authority in the course of the endeavor to ensure success)?**  
Agencies have received direction to achieve 20 % reduction by 2010. DEQ is coordinating retrofits and capital improvements to buildings and other facilities, MDT is coordinating vehicle purchase and lease, and DOA is coordinating purchasing and operational policies. Other aspects are more decentralized. For example, individual agencies determine how they will handle workplace practices for employees, such as lights and personal appliances. DEQ and DOA provide guidance in these areas.

- **What is the role and involvement of the Governor's office?**  
The Governor's Office provides goal direction. Initially, the lead agencies and the Governor's Office meet weekly to coordinate, report progress and determine next steps. The Office of Budget and Program Planning provides direction in the event agencies would disagree on specific aspects of 20x10.
- **What direction were all agencies provided to create individual plans to implement the Governor's 20x10 initiative?**  
Agencies received directions in the Executive Planning Process to submit individual agency plans. DEQ is developing a template and model plans that agencies may use as a guide.
- **Who are the agency contact personnel?**  
The department directors are the agency contacts.
- **What specifically are the objectives of 20x10 (types of energy saved, total from which the savings will be measured, etc.)?**  
The objective is to reduce energy consumption in state-owned buildings and facilities. Most of the reduction will be in electricity and natural gas. There also will be savings in fuel oil and propane, but these fuels comprise just a few % of state government energy use. Leased buildings, most of which have energy costs folded into the rental rate, are not initially included in 20x10; however, DEQ, with the support of DOA, will be investigating ways to encourage energy efficiency improvements in leased buildings. Universities were not a part of the Governor's original plan, but now are signing on to the same goal.

2007 was initially chosen as the base year for determining energy consumption. However, it now appears DEQ may be able to obtain reliable consumption data from over a longer base period.

- **What performance measures and milestones have been developed?**  
The initial step, still underway, is developing a management system for energy use. SABHRS is designed to manage and oversee financial transactions with energy providers, not consumption of fuel and energy. This energy database development requires collating state information on buildings and payments with utility information on meters and consumption. DEQ started with NorthWestern Energy, since it is the utility serving most state buildings. Flathead Electric Cooperative and Montana-Dakota Utilities, the other large energy providers, also have been contacted and are starting to provide information.

DEQ is in the process of calculating an Energy Utilization Index, in Btu/ft<sup>2</sup>, for larger state buildings served by NorthWestern. This index allows us to do a preliminary ranking of state buildings, and to compare them to the efficiency of similar buildings elsewhere. This preliminary ranking permits DEQ to identify buildings most likely to benefit from a comprehensive energy audit.

- **All agencies are involved in the project. However, is there a difference in the involvement of larger agencies or agencies with facilities around the state in the development and implementation of the 20x10 initiative?**  
The major difference will be between agencies that own buildings and those that lease space from other state agencies, primarily Department of Administration. DEQ is working with agencies owning state buildings to develop capital improvement projects for those buildings.

- **When do the involved players meet?**  
Meetings occur as needed between DEQ, DOA and individual agencies. Thus far, Directors have been briefed on 20x10 at cabinet meetings every other week. The 20x10 website, soon to be operational, will be a major conduit for providing information. Also, DEQ has conducted one lighting workshop in Helena for state facility managers and plans another this spring in Billings, and DOA and DEQ are conducting a workshop next week in Helena for green product purchasing.
- **How are the benchmarks from which savings will be measured being determined?**  
The energy used by each of the executive branch agencies at the conclusion of 2010 will be compared to a base year of 2007. Electricity, gas, and heating fuels will be converted to Btu so the total energy usage comparison can be made.

For larger buildings owned by the state, energy use indices will be determined at the end of 2010 based on building characteristics as well as energy use. A comparison will be made to the base year to determine the degree to which the building has become more efficient.

- **Who will do the actual measuring from the benchmarks and how will they do it?**  
DEQ will gather gas and electric utility bill data directly from the utilities on all state accounts. This is accomplished by the utilities providing DEQ electronic data. Agencies will provide data on propane and heating oil. A database will be established including two years of historical data. The database will be updated through 2010 to track progress and develop benchmark comparisons.
- **How will factors such as changes in weather patterns be factored in?**  
DEQ will include building and site information for each account onto the database. In this manner the utility accounts can be identified for weather-dependent loads such as building conditioning as opposed to process operations that are not weather dependent, and then weather dependency patterns in energy use can be detected. A statistical analysis then can be performed to normalize energy use to heating and cooling degree days so a direct comparison can be made for benchmarks for the 20x10 targets.
- **How will leased facilities be integrated into individual 20x10 agency plans?**  
Agencies will receive information on how to reduce energy use in their leased buildings by employee participation and basic operational strategies. Agencies renewing leases are encouraged to include agreements to allow access to utility bill consumption reports, and to include incentives for landlords to increase efficiency of the building. Agencies initiating new leasing agreements are encouraged to include energy efficiency as criteria for selecting space. Agencies involved with "build to suit" lease agreements are encouraged to adopt high performance building standards for design and commissioning of new construction. Agencies that have access to utility bill data can provide information to DEQ's energy use database.
- **How much of the targeted savings over time will result from behavioral changes, and how much from other means?**  
DEQ estimates that capital construction improvements to state owned buildings will meet more than 10% savings, or more than half of the 20x10 goal. The remainder, up to 10%, will be from workplace practices and purchasing, building operations, and related changes.

- **How was this breakdown calculated?**  
DEQ reviewed the utility costs expenditures for the last four to six years to determine some rough estimates. DEQ also reviewed the projects from the State Building Energy Conservation Program to determine historical performance parameters. Also, review of other state programs and previous energy curtailment efforts provided some rough indication of feasible response to 20x10. This also is consistent with experience and guidance from the Department of Energy and the Environmental Protection Agency, and with industry rules-of-thumb.
- **What assumptions were made?**  
Agency employees, building operators, and administrators could reduce energy consumption by up to 10% by the end of 2010 by putting in place energy efficient practices through building operations, purchasing practices, and workplace practices.
- **Have your assumptions changed as the process has started? If so, why?**  
The assumptions were based on executive agency energy expenditures. Targets for investments may change when considering university capital improvement projects. Program design will be refined with more data available.
- **How will you determine and prioritize capital projects for consideration?**  
Recommendations for improvements will be analyzed for cost effectiveness and the ability to cash flow the investment.
  - **What standards will be used?**  
The improvements will need to provide enough energy costs savings to cover the debt service financing through the term of the financing.
  - **Who will conduct the cost/benefit analysis and how will it be constructed?**  
DEQ will determine the projects authorized for funding. Department of Administration will administer the construction project.
  - **When will funding sources be determined and by whom?**  
DEQ and OBPP will develop a request for bond financing in HB12 for the 2009 Legislature in the Executive Planning Process for the projects that have been found feasible. The 20x10 initiative also has submitted a proposal to Wal-Mart Corporation's Greening State Capitols program for additional energy audits.
- **What other measures besides capital improvements and behavioral adjustments is the state contemplating to help meet the objectives (i.e. major initiatives concerning availability of energy or its source)?**  
20x10 includes purchasing and operations and maintenance (O&M). Appliances, also known as plug load, are major consumers of energy. 20x10 includes efforts to increase the purchase of energy efficient appliances. There is a specific effort targeted at computers, possibly the largest type of plug load in state buildings. Enhanced O&M, as performed by the technical staff, will be a goal of 20x10, however, this will be emphasized in the next phase. Initially the push has to be on 1) buying more energy efficient appliances, because most of what is purchased now will still be using energy at the end of 20x10, and 2) planning for capital investments in energy efficiency, which by their very nature have a long lead time.

- **What other costs do you expect?**  
Costs of 20x10 are investment costs. The efficiency purchased now will reduce energy costs over the life of the improvement. Further, efficiency improvements provide insurance against the downside risks of unanticipated spikes in energy costs. In general, the costs will come in the early years and the savings in the later ones. 20x10 is expected to yield a net reduction in the cost of state government.
- **Will requests for capital improvements all be made through the long-range building program?**  
Financing for capital improvements will come through the State Buildings Energy Conservation Program and the Long-Range Building Program. These programs historically coordinate their efforts. The major focus of LRBP for the coming biennium will be 20x10 improvements. Some improvements may be accomplished with conservation funding from utilities in Montana.
  - **How are you deciding the cap on the amount that will be requested?**  
Projects that meet the economic tests of the State Buildings Energy Conservation Program and that are necessary to meet the reduction goals of 20x10 will be recommended for funding.
- **What resources is DEQ devoting to this project? Since the Legislature did not contemplate this project, have activities of the department been postponed or foregone to complete 20x10 related efforts? If so, what activities?**

The capital investment activity associated with 20x10 is currently performed by DEQ's State Buildings Energy Program. The pace of these efforts will increase under 20x10. DEQ is considering either temporarily adding modified positions or redirecting positions within the department that are currently vacant due to funding constraints and supporting these positions through the State Buildings Energy Program.

The operations activity under 20x10 currently is performed within DEQ's Energy and Pollution Prevention Bureau. Current outreach, training and technical assistance activity is consistent with the provisions of the initiative, but again the pace will increase. Current staff will meet these demands by reprioritizing work activities.