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Peter West
Energy Trust of Oregon
421 SW Oak
Portland, Oregon

Dear Peter:

NW Natural values this opportunity to provide formal comments on the Energy Performance Score (EPS), and more specifically, on your report "Home Energy Performance Scores: Efforts to Date with Modeling Tool Comparison and Summary of Key Issues" (January 16, 2012).

We acknowledge and appreciate the Energy Trust's genuine effort to help customers accurately assess their energy use in order to drive conservation. We also appreciate your dedication to develop a metric that is both fair and accurate across fuels and to do as expeditiously as possible.

Based on the useful workshop of January 23rd, it seems there is broad agreement among stakeholders regarding the score's objectives. We believe these objectives are as follows:

- To motivate people, especially home *sellers*, to take action by helping them understand their homes' energy use;
- To provide accurate information as to the relative operating costs between homes. (*Relative* rather than *actual* operating cost because behavioral components are not included); and
- To raise general consumer awareness of energy use and carbon emissions.

NW Natural strongly supports these objectives.

To successfully achieve these broad objectives, the energy score must satisfy the following criteria as articulated at the workshop:

- It must be relevant: especially at the time of home listing, the score must give homebuyers and sellers useful home comparison information.
- It must move as efficiency measures are implemented: the score must be sensitive enough that actions taken result in a changed score.
- It must be easily understood: the best score will be understood quickly without much additional explanation or education.
- It must be accurate and affordable: the models used to gather data and the presentation of the information must achieve these twin objectives.

NW Natural's strongest concern rests with this final criterion: the score's accuracy.

While ETO's comprehensive analysis finds three models provide consistent scores (ranking in order: Earth Advantage, EMHome, Energy Savvy) the report suggests these scores do not provide an accurate comparison *across* fuel types.

Despite the hard work, it appears we are a step away from having an accurate score in hand. Without fair comparability across fuels, the current scoring mechanism moves conscientious customers towards investments that increase energy costs to the region overtime and for their households today. It is our hope that we can work diligently to overcome this significant flaw.

Wrong choice for the region: As the ETO study accurately shows, two identical homes will be scored dramatically differently depending on whether they have an electric heat pump (HP) or a gas furnace. With the current use of a site score for energy, the homeowner could be encouraged by the score to replace a furnace with a HP to drive their EPS score down. This current score's recommended direction is misdirection according to an exhaustive look at fuel switching recently completed by the NW Power Planning Council. In this study, the Council finds that there are no situations where it makes economic sense – from a Total Resource Cost perspective – to switch a home from gas to electric space heat. To move forward with a site energy score that promotes exactly that is not in the interest of ratepayers or the state.

Wrong choice for the customer: Not only would the move *away* from gas come to the economic detriment of the region, but also will cost the customer more. ETO's report states: "…the home with the gas furnace will have a worse score than the home with the electric heat pump. However, the home with the gas furnace will cost less to operate." In addition to higher cost, in most cases within ETO's territory, it is also true that the HP home will result in higher carbon emissions when compared to the gas home. This lack of symmetry raises issues regarding how the energy score would be communicated to customers. How will customers be asked to understand an energy

metric that drives them towards paying more for energy and emitting more GHG emissions?

As NW Natural expressed at the workshop, we believe a source-based energy calculation is the more complete and accurate approach to reflect the energy necessary to fuel a home. US DOE recently promulgated a final rule that states the agency will use full fuel cycle (FFC) information rather than site energy for information communicated to consumers (FR 51281, August 18, 2011). Other policy documents (including the International Green Construction Code) have also moved to a full source look at energy use. As this movement continues towards improving the information we provide customers, we would expect to see ETO in the vanguard as well.

Both US DOE and the IGCC rely on simple regional look up tables to calculate source energy use and these lookup tables could easily and seamlessly be incorporated into the current EPS calculation. To be completely accurate, some will argue that these data will need to be reviewed and updated periodically and this would create additional work. As ETO considers the source option, it should note that the EPS already uses utility-specific greenhouse gas emissions – a laudable move, but one that carries with it a similar level of complexity and need for occasional updating. While it is important that the EPS be accurate, it is not necessarily a reasonable goal that the score, once provided, last forever. It does seem reasonable that the score will be used like other documents during a real estate transaction (e.g., a home inspection) and will therefore have a limited shelf life, not beyond two years.

Developing the most accurate measure of energy use will be the most effective tool, in the long run, to drive customer decisions that benefit our entire energy system. A source energy calculation is that measure.

While we fully support the source energy measure as a workable and accurate approach, in the interest in getting to a measure as quickly as possible, NW Natural is open to other energy scoring methods that provide useful scores across fuel types and meet the other important objectives of the program.

Another option would be to move away from the BTU measurement altogether and instead rely on a system more clearly designed to drive action. Perhaps a score indicating yet to be completed efficiency measures will provide a clearer message. For example, a home that scores 95% for homes of a certain type (fuel type and vintage) is clearly going to have less to do than a home that scores 65%. The benefit of such a score is that it will focus the customer on the work remaining – and this type of score would lead seamlessly to a list of proposed energy measures.

ETO's report proposal to "Normalize the scores to percentage scores" is most similar to this concept. There are two advantages of this approach: it neutralizes fuel bias, and a score reflected as a percentage is likely to be more accessible than a BTU measure. As

described, it will require some amount of additional work to determine the average energy use for homes of a particular fuel type and profile. NW Natural suggests there may be some benefit of linking the 100% score on the average home, as described by ETO, as this would allow homes to continue to get better and better over time. We can also see the benefit of having a 100% score reflect maximum efficiency for a particular fuel and profile – this would communicate very clearly the amount of efficiency work that remains.

Finally, we have not discussed the presentation format of this material to customers; presentation is secondary to getting the energy score right. The mock-up presented at the workshop increases the visibility of energy cost and also strives to clarify the meaning of the carbon value. These are useful steps in making the score understandable for customers. The EPS is likely to be presented with the leave behind now being used for the Home Energy Review. As this form has been well received, these two products should be linked so they work together to inform the customer about their current score and the steps necessary to improve it.

Thank you again for the opportunity to comment. Please do not hesitate to call if you have questions.

Sincerely,

Bill Edmonds