

Final Report

A Management Audit of the Energy Trust of Oregon

January 31, 2005

Prepared for:

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Board of Director's Audit Committee
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Executive Summary

TecMarket Works and Morgan Marketing Partners (the Audit Team) are pleased to provide the results of a management audit of the Energy Trust of Oregon, Inc. (Energy Trust). This audit is provided to the members of the Energy Trust's Audit Committee, a sub-committee of the Board of Directors.

This management audit examines the operations of the Energy Trust to determine if the Energy Trust is meeting the legislative objectives and to investigate and report on a number of audit-related issues identified by the Energy Trust's Audit Committee. The issues investigated in this audit are specified in the contractor's scope of work provided to TecMarket Works by the Audit Committee during the contract process.

This report is divided into several sections. The main body of the report presents the audit results and is segregated into chapters, with each chapter dealing with a general topic associated with the examination. This section allows the reader to understand the activities associated with the audit, the focus of the audit, and the audit findings and recommendations. The second section of the report is identified as Appendix A. Appendix A presents the audit's scope of work provided to TecMarket Works, allowing the reader to understand the specific issues investigated during the audit. Also presented in Appendix A is a presentation of references to the findings in the main body of the report. This presentation allows the reader to examine each issue included in the scope of work and follow the references listed under each issue to the findings discussed in the main body of the report. Also presented in Appendix A are discussions that expand on the presentations in the main body that relate to specific audit issues. The added discussions in Appendix A are supportive of the findings and recommendations presented in the main body, but are not critical to understanding the audit finding or the associated recommendations.

There are two additional sections included in the report. Appendix B provides a discussion about when a program should use the Program Management Contractor (PMC) model to structure and offer program services, or when other approaches may be more appropriate. Appendix C is a checklist of the items considered by the Audit Team when reviewing program design and implementation issues.

The main body of the report represents the formal findings and recommendations associated with this management audit.

Summary of Findings

As a result of this audit we find that the Energy Trust has been able to establish itself and begin offering programs and services within a short period of time, offering full-scale comprehensive programs across targeted markets within two years. This is a significant accomplishment of which the Energy Trust should be proud. We believe that the Energy Trust is where it should be relative to the number of months the organization has been in operation, the staff resources it has available, and the management and operational structures employed. With the staff available to the Energy Trust and the processes established to design, approve and implement programs, in our opinion, the Energy Trust has had an outstanding first three years of operation, with programs that are providing cost effective energy resources. Given the Energy Trust's goals and the Board's policy direction on program equity, the Audit Team finds that budgets are allocated appropriately among programs and among functions.

The Audit Team recognizes that this accomplishment could not have been achieved under the systems and structures operating at the Energy Trust without exceptionally dedicated executive professionals at both the Board and Energy Trust levels, the program management levels, and indeed at the operational staff and contractor levels where professionals focused on the needs of the Energy Trust rolling out well-designed energy efficiency and renewable energy programs. However, the Audit Team believes the Energy Trust could have fielded programs more rapidly, obtaining energy resources more quickly, if it had more timely ability to hire staff when needed, and if it had a more streamlined program development and approval processes.

While the Energy Trust has made significant progress in the short period it has been in existence, there remains a number of challenges on which the Energy Trust now needs to focus in order to move from an entrepreneurial start-up organization to an efficiently operating organization with processes and procedures established for long-term success. These challenges are identified within the detailed findings but are summarized here to capture the general themes described in the audit findings and recommendations.

Establish Sector-Level Performance Measures

The Energy Trust of Oregon is on track to meet legislative intent to acquire cost effective energy efficiency resources and above market cost renewable energy resources. The Energy Trust has established goals for both energy efficiency and renewable energy acquisitions. More recently, the Energy Trust has established annual energy goals that provide a path for long-term goal achievement. However, the goals are very aggressive, even when consideration is given to leveraging Energy Trust funds with state energy business and residential tax credits and low interest loan funds for energy projects.

The renewable energy goal may be overly aggressive and depends more on non-Energy Trust efforts in the market than on efforts that can be provided within the current program structure and funding levels. The energy efficiency goals may also be overly aggressive if equity policies drive budget decisions more strongly than the minimum performance measures recently adopted by the Commission.

For energy efficiency programs in particular, the Audit Team recommends that the Energy Trust establish sector-based goals, allowing the organization to follow the equity decisions associated with specific types of energy efficiency programs offered and the customer groups targeted. To gauge their reasonableness, the goals should be compared with programs in the Pacific Northwest offered by other providers. The Energy Trust should then assure that the “rolled up” portfolio of all energy efficiency programs meets the Commission’s minimum standard of 2 cents per kWh, if that is the resulting cost effectiveness target identified when all markets and market offerings are considered.

Streamline and Focus Operational Procedures

The Energy Trust is now in a period of time in which the operating structures of the organization need to be refocused and streamlined if the organization is to successfully move to a longer-term, more efficient, policy-driven approach to providing programs and services. The Energy Trust has gone through an initial formation and start-up mode and has experienced the kind of organizational, management, administrative and technical challenges associated with new organizations. The Energy Trust is now transferring from a start-up organization to a more steady-state condition.

The Audit Team recommends that the Energy Trust move significant levels of decision making authority, in addition to already transferred financial signature authority, into the Energy Trust’s full time staff, with the Board of Directors focusing on oversight issues, including the overall effectiveness of the organization, the adequacy of the portfolio and program mix, the equity of service issues (including limits on programs within market sectors or for specific customers or customer types), cost effectiveness targets for each market sector, achievement monitoring and tracking, and appropriate and responsible financial accountability. Policies and decision systems should be established by the Board that allow staff to design and implement programs and program services consistent with the need for long-term efficient organization operations, with oversight from the Board to make sure the programs fit within their established policies and decision systems. Under this approach, the Board can exercise its monitoring, guidance and oversight responsibilities consistent with the objectives of U.S Congress House Resolution 3763 known as Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley) and establish the Energy Trust as an efficiently operating organization.

Refine and Define Roles and Responsibilities

The Energy Trust is beginning to move out of the start-up phase consistent with an entrepreneurial organization of similar age. During the start-up phase it is not unusual for key people to have many roles and responsibilities with shifting priorities as new issues evolve and as delivery structures and mechanisms are developed. This is especially true for organizations that are ratepayer funded and must operate with open public review. In these phases an “everyone does everything” kind of operation is not unusual, as the issues with the greatest need receive the available resources at the time. Organizations in this phase are often characterized as being in a *just-in-time-crisis-resolution* mode of operation. During these early operations, roles shift, priorities change and responsibilities are added or moved to meet current conditions. However, as organizations mature and begin to move beyond the start-up mode (as is the Energy Trust at this time) the roles of

staff become routine, with well defined responsibilities supported with decision policies and structures that allow for systematic, routine, uninterrupted processing of work flow.

The Audit Team recommends that the Energy Trust examine the roles and responsibilities associated with its current operations and decision systems and confirm that all staff positions and responsibilities are well defined with systematic and consistent management structures that support routine processing of information and work flow and that these roles are well understood by all staff. Within the resources and timeline of this audit, the Audit Team is not able to establish specific guidance for structuring staff descriptions and related responsibilities and reporting structures. However, the audit was able to identify the lack of clear and consistent job responsibilities and reporting structures as a management issue. In making this finding and recommendation, the Audit Team also recognizes that the Energy Trust has already identified this as an issue and has made improvements over time. This process should continue until the Energy Trust jobs and job descriptions are systematic and formalized in standard job descriptions, responsibilities, and reporting structures.

Improve Communications

The Energy Trust needs to improve its approach to internal communications and to some extent external communications. Energy Trust staff often feel left out of the communications loop for information that directly affects their areas of responsibility and performance. Program Management Contractors (PMCs) indicate that the Energy Trust does not always adequately listen to their issues and problems and may not fully understand their operational environment or organizational needs. Members of the Advisory Councils, but particularly the Renewable Energy Advisory Council (RAC), report that they do not receive feedback indicating how their input is used or not used by the Energy Trust and report the need for feedback information regarding their ideas and contributions. Other communications issues are discussed within the report.

The Audit Team recommends that the Energy Trust strengthen its internal and external communications systems. The Energy Trust should establish a formal communications policy and approach to bridge the information gap or information flow barriers. The Energy Trust should establish bi-directional communication systems and feedback loops with external stakeholders, PMCs, and advisers so that these allies become a fully valued part of the Energy Trust, ensuring that their information and guidance remains a desirable component to the operations of the Energy Trust.

Develop IT Management Reporting Systems and System Availability

A consistently reported strength of the recently developed IT tracking system is that the systems are now able to support the program accounting and tracking needs of the Energy Trust's directors and managers as well as meet a portion of the needs of the external PMCs. Another system design strength is the expected future capability to provide detailed, customized management reports for all of the system's users. However, also consistently reported by these same individuals is the lack of the *current* system's ability to provide the management reporting needed by the users to track the progress of their programs, budgets and expenditures or to match expenditures and commitments with energy impacts and future impacts. This is not a criticism of the IT staff or contractors,

but instead is a confirmation that the newly designed and installed system is not complete and not yet providing all of the desired benefits. The Energy Trust is fully aware of these issues and is currently working to develop the reporting capabilities of the system.

The Audit Team recommends that the Energy Trust continue to place a high priority on system availability to all users so that “user-customized reports” are routinely provided in real time to all system users. The reports should be user-customized to the extent possible so that the reports become a valuable part of the user’s management toolbox. This recommendation applies to both internal and external users of the system. Directors, managers and PMCs and other users should have real-time access to the system data in a way that meets their reporting needs. The Energy Trust IT staff should now work with specific users to develop specification and layout designs to address their reporting needs. These specifications and designs should then serve as the IT staff’s template for report programming. The users of the IT system should be able to enter the system, and view or print their customized reports that meet the specifications provided by the systems users.

Recognition of an Excellent Start

Finally, the auditors extend recognition of an excellent start to a challenging task. In a very short period of time the Energy Trust has: formed an exceptionally strong and dedicated Board of Directors that has helped guide the accomplishments of the organization, hired exceptionally knowledgeable and dedicated staff, designed and rolled out an equitable mix of programs, begun the process of acquiring cost effective energy resources and above market priced renewable energy, and has continually strived to improve operational systems and processes to be more efficient. This Audit report, above all, recognizes these efforts.

Auditor’s note: These findings represent the general themes of the audit report. The reader is strongly encouraged to read the detailed findings presented in the body of this report and not rely only on a review of the Executive Summary to gain an understanding of the content of this report.

Audit Approach

The Energy Trust management audit included in-depth interviews with staff, directors, managers, Board members, advisory council members, and other stakeholders. In addition, the audit included an extensive review of program records and documents relating to the foundation of the Energy Trust, the operations of the Energy Trust, the Energy Trust's performance and the program metrics associated with the goals set forth in the project's scope of work.

The primary approach used to conduct the audit involved two primary activities. The first involved conducting detailed operational audit interviews with forty-five stakeholders associated with the operations of the Energy Trust. These individuals are identified in Table 1. The list includes Board members, directors, managers, staff, PMCs, program and operational advisors, former staff, and others. The table provides a complete listing of the individuals interviewed.

The on-site and follow-up interviews were held in August and September of 2004 with additional clarification discussions held in September and October. Records reviews were conducted throughout this period. A draft report was provided to the Audit Committee on October 24, 2004. Following the draft report additional discussions were held with the Audit Committee and a final report was scheduled for delivery on January 31, 2005. This report is the final report.

Table 1 People Interviewed for the Management Audit

Name	Role or Title
John Savage	Oregon Public Utilities Commission: Commissioner; Ex-Officio Energy Trust Board Member
Janet Fairchild	Oregon Public Utilities Commission: Staff Liaison to Energy Trust
Bill Nesmith	Oregon Department of Energy: Assistant Director for Conservation; Ex-Officio Energy Trust Board Member
Mark Kendall	Oregon Department of Energy: Senior Energy Analyst
Steve Bicker	NW Natural: Director of Energy Efficiency Programs
Thor Hinckley	Portland General Electric: Renewable Power Program Manager; Renewable Energy Advisory Council Member
Virinder Singh	PacifiCorp: Environmental Policy Analyst; Renewable Energy Advisory Council Member
Cheryl Perrin	Energy Trust Board Member
Debbie Kitchin	Energy Trust Board Member
Jason Eisdorfer	Energy Trust Board Member
John Klosterman	Energy Trust Board Member
John Reynolds	Energy Trust Board Member
Julie Hammond	Energy Trust Board Member
Rick Applegate	Energy Trust Board Member
Rick Kroon	Energy Trust Board Member
Steve Schell	Energy Trust Board President
Tom Foley	Energy Trust Board Member
Ben Bronfman	Energy Trust: Evaluation Manager

Carmen Doi	Energy Trust: Former Office Manager
Char Rollier	Energy Trust: Program Integration Manager
Dave Bonkowski	Energy Trust: Project Manager (Former Commercial and Industrial Program Manager)
Debbie Menashe	Energy Trust: Attorney (consultant)
Diane Ferington	Energy Trust: Residential Program Manager
Fred Gordon	Energy Trust: Planning and Evaluation Director
Greg Stiles	Energy Trust: New Commercial Construction Program Manager
Jan Schaeffer	Energy Trust: Communications and Marketing Director
John Volkman	Energy Trust: General Counsel
Kacia Brockman	Energy Trust: Solar Program Manager
Margie Harris	Energy Trust: Executive Director
Mark Roller	Energy Trust: Former Acting Information Technology Manager (consultant)
Maureen Quaid	Energy Trust: Communications and Marketing Manager
Monica Gruher	Energy Trust: Former Director of Finance and Operations
Peter West	Energy Trust: Renewable Energy Director
Steve Lacey	Energy Trust: Energy Efficiency Programs Director
Sue Meyer Sample	Energy Trust: Controller
Tom Beverly	Energy Trust: Customer Service Manager
Tony Dennis	Energy Trust: Information Technology Technical Architect (consultant)
Bob St. Amand	Aspen Systems: PMC Program Manager, Building Efficiency Program and Production Efficiency Program
Lois Gordon	Ecos Consulting: PMC President, Home Energy Savings Program
Ken Keating	Conservation Advisory Council Member; Bonneville Power Administration: Coordinator of Market Transformation
Stan Price	Conservation Advisory Council Member; Northwest Energy Efficiency Council: Executive Director
Steve Weiss	Conservation Advisory Council Member; NW Energy Coalition: Senior Policy Associate
Justin Klure	Renewable Energy Advisory Council Member; Oregon Department of Energy: Senior Policy Analyst
Frank Vignola	Renewable Energy Advisory Council Member; University of Oregon: Director, Solar Radiation Monitoring Laboratory
Sonja Ling	Renewable Energy Advisory Council Member; Renewable Northwest Project: Policy Associate

Nick Hall, Rick Morgan and Johna Roth performed the majority of these interviews in person while the Audit Team was on-site in the offices of the Energy Trust. The majority of these interviews were conducted in a one-week period. The Audit Team is greatly appreciative of Mark Roller for his valuable assistance in arranging these interviews. Without Mark's assistance, these interviews would not have been scheduled and conducted in the short amount of time that was provided. Following the on-site interviews a number of additional interviews and follow-up interviews were conducted by telephone from our Wisconsin offices. Interviews typically lasted two hours, however, a few lasted 60 minutes while others took three hours or more, depending on the breadth of subjects covered and the interviewee's involvement in those subjects. All interviewee opinions and comments provided to the Audit Team for this report were gathered under the protection of confidentiality. Interviewee opinions or comments

presented in this report are not linked to specific individuals nor are individual work papers linked to specific individuals.

The second task associated with this audit was the review of Energy Trust documents, including annual reports, Board minutes, program documents, advisory council documents, evaluation reports, contract and budget documents, integrated tracking systems and system documents and a host of other documents used by the Energy Trust to plan and manage projects, expenditures and budgets. Of the over 400 documents delivered to TecMarket Works, just over 200 of these were selected to be included in the document reviews.

In conducting the reviews of these documents we wish to again thank the staff of the Energy Trust. In particular we would like to thank Char Rollier who was able to compile 440 of the requested documents to support this audit early in the audit period, and Mark Roller who was able to provide additional requested documents as the need arose. In over 25 years of conducting management audits and evaluations, the Audit Team has never seen an organization able to compile the documents required to support the assessment in as short a period of time. Without the support and assistance of these two key individuals, and the availability and cooperation of the extended staff and stakeholders associated with the Energy Trust's operations, this audit would not have been possible.

Audit Report

This section of the report presents the audit findings. The findings are presented in chapters, with each chapter dealing with a specific audit subject. At the end of each chapter the audit recommendations pertaining to that chapter are presented. The recommendations are numbered sequentially throughout the report, enabling the reader to refer to and discuss with others the specific findings. Following the audit findings and recommendations the report presents the formal response from the Energy Trust of Oregon, allowing the reader to understand the Energy Trust's reaction to each recommendation. The audit findings are presented under the following topic categories (report chapters).

- ✓ Accomplishment of Energy Goals
- ✓ Organization of the Energy Trust
- ✓ Staff Operations
- ✓ Program Design
- ✓ Procedures of the Energy Trust
- ✓ Budgeting and Internal Controls
- ✓ Data and Data Tracking
- ✓ Evaluation

Appendix A of this report provides a reference to the individual findings linked to the audit's researchable issues. These issues were provided to TecMarket Works by the Audit Committee and were developed with input, review and approval by the Oregon Public Utilities Commission (Commission). Addressing the issues contained in the scope of work constitutes the primary objectives of the audit effort. This appendix serves two purposes: first, it allows the reader to understand the findings that are associated with each of the researchable issues used to guide the audit's scope of work; and second, the appendix provides additional information on a few selected findings that are more fully developed, but not necessary to convey the primary findings presented in the main body of the report. Together, these two presentation approaches allows the reader to review the individual audit findings and also to understand how the audit findings link to the researchable issues.

Appendix B is a discussion of different implementation models (such as the PMC model) with pros and cons of each model type. This is provided for the Energy Trust's future planning efforts and is included in the report at the request of the Energy Trust staff.

Appendix C is a checklist of the items considered by the Audit Team when reviewing program design and implementation issues.

Accomplishment of Energy Goals

The Energy Trust of Oregon has been successful and is currently on the right track for meeting both the objectives established by the legislative mandate as well as the more specific performance measures established by the Oregon Public Utilities Commission. However, there is some concern about the Energy Trust's ability to stay on course to meet the Commission's performance measures over the longer-term and avoid a Notice of Concern. This concern is not attributed to a lack of confidence in the Energy Trust or its excellent Board of Directors and professional staff, but rather on the policy requirements associated with program equity. These equity requirements specify a balanced portfolio across market sectors. The Energy Trust will need to monitor the cost to serve each of the targeted market sectors and be ready to adjust program offerings that are designed to keep the total portfolio's cost effectiveness within the Commission's performance measures.

Addressing Goals

Background Under Which Goals Were Established

Passed in 1999, Senate Bill 1149 established Oregon's public purpose funds, and charged the Oregon Public Utilities Commission with oversight of these funds, and with choosing an entity to administer those funds to acquire energy resources for the citizens of Oregon. The Commission determined that a separate non-profit entity should be established to administer the programs for achieving energy efficiency and renewable projects throughout the state and appointed a Board to create the Energy Trust of Oregon. This Board began planning and created a strategic plan for the Energy Trust and developed its operational and energy goals. The Board then began the process of hiring permanent staff to implement the plan.

Since beginning operations, the Energy Trust has launched a series of programs that are providing both energy efficiency and renewable energy resources that are consistent with the legislative objectives and the Board's plan. However, the Audit Team notes that the legislative objectives themselves are not clearly specified with respect to what constitutes a cost effective energy resource, or who is ultimately responsible for acquiring those resources.

The Grant Agreement between the Commission and the Energy Trust also does not define intent. The stated purpose of the Grant Agreement is to "control the manner in which the Energy Trust will receive and expend funds for the Statutory Purposes". The Commission is to oversee the Agreement's implementation.

Assessing Goal Performance

With unclear specifications as to legislative intent beyond a general goal of being "cost effective", the audit focused on addressing goal performance by comparing the energy resources acquired to date with the funds received by the Energy Trust to date. This comparison is used to determine if the energy resources gained can be considered cost

effective, or if the Energy Trust is on a course of action that is capable of obtaining cost effective resources.

The Commission's recently adopted performance measures establishes the energy acquisition goal at 2 cents (or less) per average levelized kWh. This is a reasonable performance measure for a start-up organization and places the energy acquisition goals of the Energy Trust well within a cost effective range compared to all other forms of generation.

To assess whether or not the Energy Trust's accomplishments can be considered cost effective or if the Energy Trust is on a course of action that is capable of obtaining cost effective resources, the audit focused on comparing the energy resources acquired with the funds received. The following table was generated based on a review of Energy Trust documents on costs and accomplishments.

Table 2 Distribution of Funds and Acquisitions¹

	Funds Received	Funds Spent	Total Savings	Acquisition Cost²	Acquisition Cost over Lifetime
Electricity (Energy Efficiency)	\$97.5 M*	\$53.0 M	38 aMW	\$1.4 M / aMW \$0.16 / kWh	\$0.011 – \$0.015 / kWh
Natural Gas	\$8.3 M	\$5.2 M	865,817 therms	\$6.00 / therm	\$0.15 – \$0.30 / therm

*Includes funds received for renewable energy projects.

The cost of acquisition for electric energy is significantly under the Commission's target of \$0.02 per kilowatt-hour (non-discounted and non-escalated). However, as the Energy Trust moves away from the less expensive industrial program mix acquired from joint transition programs with the utilities, and moves toward an equity mix of services required by Energy Trust Board policy, this cost could increase unless there are significant large commercial or industrial projects that can act to hold total portfolio costs down.

This will be a primary challenge of the Energy Trust over the next several years. If the Energy Trust is successful, the cost of energy can indeed be realized at \$.015 per kWh or lower over the long term. However, if the Energy Trust is unable to acquire substantial industrial projects or projects that acquire large amounts of resources at rates much lower than the Commission's performance metric, the cost of conserved energy may increase to

¹ Note: these estimates are based on numbers that have not been fully trued-up following completed evaluations. As the evaluated adjusted savings are integrated into these calculations, the cost of energy is expected to increase. We suggest that the Energy Trust move to a routine approach to truing up portfolio estimates as soon as possible and establish an approach for adjusting estimated savings every six months, but no longer than annually. (See Recommendation 8).

² As calculated by TecMarket Works using records provided by the Energy Trust documenting costs and accomplishments as of July 1, 2004.

a level approaching \$.02 per kilowatt-hour or more. The Audit Team projects that the Energy Trust can exceed the Commission's performance measures over the long term if it can balance enough of its resources on longer-term, large industrial projects to offset the higher cost of residential, hard-to-reach and small commercial energy savings.

With respect to natural gas projects, the Energy Trust is well on its way toward coming in under the Commission's performance measures of acquiring gas savings at less than \$.30 per therm. However, the primary challenge of the Energy Trust, relative to gas measures, is to focus as many resources as possible on long-term technologies in order to reduce the long-term cost of conserved energy. The Audit Team projects that the Energy Trust will be able to meet or exceed the Commission's performance measures for natural gas savings with their current approach.

The intent of the legislation for renewable energy acquisition is to bring these resources in at an above-market price in order to level the cost to be comparable with other production methods, not simply minimize the cost of acquisition.

Potentially Overly Aggressive Goals

While the Energy Trust appears to be on track for acquiring cost effective resources, the total energy savings goals presented in the Strategic Plan and adopted by the Board of Directors on September 27, 2002, in the Auditors opinion, may be overly aggressive when compared to other program providers with which the Auditors are familiar. The goals in that plan are presented in Table 3.

Table 3 Summaries of Average Megawatt Goals

Program	2-Year Goal	5-Year Goal	10-Year Goal
Energy Efficiency	65 aMW	141 aMW	300 aMW
Renewable Resources	35 aMW	115 aMW	450 aMW

The energy efficiency and conservation savings goal, as indicated in the Board documents, is 300 average megawatts in 2012. This number is adjusted to reflect the portion of the funds and goal achieved by "Self-Directed" efficiency undertaken directly by large customers. The remaining total is 273 aMW at a funding level of approximately \$361 million. The result is energy efficiency and conservation achievement at \$1.3 million/aMW.

The renewable energy generation goals are set at 10% of the generation capacity of the State of Oregon in 2012, which is approximately 450 average megawatts. These goals are revisited and reconfirmed or modified annually by the Board. However, some interviewees indicated that the goal is actually somewhere between 130 and 250 average megawatt hours of renewable energy, depending on the forecast used. Other interviewees indicated that the renewable energy goal is subject to adjustment and is not firmly fixed. Others indicated that the renewable energy goal is dependent on the passage of federal legislation or the continuation of federal credits (which has passed since the interviews) and that this goal needs to be adjusted to reflect current conditions. Others indicated that both the energy efficiency and the renewable energy goals are set at "stretch" conditions

and that “everyone” realizes that these are set high so that there will be a significant challenge placed before the Energy Trust.

In establishing and assessing the Commission’s performance measures, it is important to understand that not all energy efficiency programs are alike. Programs that serve large industrial and commercial customers can focus on larger impacts per project and achieve higher impacts per program dollar. These programs can achieve impacts that cost less than the impacts reflected in the Energy Trust’s goals. However, the Energy Trust has established a policy requiring equity considerations, requiring the Energy Trust to offer programs within each of the customer classes (residential, commercial, industrial) across a wide geographic region. Residential programs typically provide energy efficiency savings at significantly higher costs than programs serving large commercial or industrial customers. Thus, the performance measures established must reflect that the Energy Trust’s equity policy will drive up acquisition costs for the portfolio, and make the goal of \$1.3 million per aMW difficult if significant numbers of residential or small commercial customers are to be served.

To put these targets in perspective, the Audit Team compared these performance measures to other programs in the area. According to the Bonneville Power Administration (BPA), the average energy impacts achieved by the typical energy efficiency program in the Pacific Northwest historically is about \$2 million per average megawatt. If one were to calculate the Energy Trust’s energy savings goals against the total dollars collected, the energy savings goal of the Energy Trust equates to about \$1.3 million per average megawatt, or about two-thirds the cost of other energy efficiency programs in the Pacific Northwest. To achieve these goals the Energy Trust would need to be more effective than similar but more mature programs operated by organizations that have been implementing their programs for a longer period of time and have more program and market experience. However, offsetting this disadvantage are four program and market conditions that can help the organization meet or potentially exceed these performance measures. These are:

1. The State of Oregon has made available business tax credits of 35% of the difference between the cost of standard technologies and the energy efficient choice. This incentive helps lower the cost of energy efficiency and renewable energy projects in Oregon and is in addition to the incentives provided by the Energy Trust. This tax credit is not typically available in other states.
2. The State of Oregon provides residential customers with a tax credit to cover much of the cost difference for up-grading to energy efficient appliances and heating and cooling systems, making the high-efficiency up-grade more cost-competitive compared with lower cost options that use more energy. This tax credit is also available to help offset the cost to install renewable energy (wind and solar) systems.
3. The State of Oregon has a low interest loan program offered across all market sectors and has already loaned more than \$300 million to Oregon citizens. This program provides loans in the 4% to 6% range and can help fund energy

- efficiency and renewable energy projects that may not be eligible for funding through standard loan providers.
4. The Energy Trust has very skilled and exceptionally knowledgeable staff who use market intelligence in establishing program designs. These designs tend to make the programs offered by the Energy Trust attractive to customers.

The primary energy savings objectives of the Energy Trust are pegged for 2012, allowing time for the organization to establish a market presence, build market networks, and effectively deploy programs that take advantage of Oregon's special circumstances. These conditions (listed above) may provide the extra market push needed for the Energy Trust to provide programs that are more effective than others in the Pacific Northwest.

The programs inherited from the utilities when the Energy Trust was first formed tended to focus on easier to reach customers, acquiring energy efficiency at lower costs than programs providing services to a wider mix of customers. The programs offered by the Energy Trust must provide services across a more diversified set of customers in order to comply with the Commission's equity policies. This requirement increases the cost to acquire energy resources. However, the inherited programs provide time for the Energy Trust to get its programs up and running, providing cost effective resources to the extent possible within each market sector. However, in the Auditor's opinion, the Energy Trust should follow the goal setting strategies used by other organizations and establish cost effectiveness goals by sector (Residential, Commercial, Industrial, Low-income). The Energy Trust, working with the Commission, can then use the budget process to roll-up the sector goals to establish the portfolio cost effectiveness targets for the organization.

However, if service equity policies drive the program funding splits such that the Energy Trust cannot ramp up or down sector-targeted programs to reach the Commission's performance measures, achieving an overall cost effectiveness of less than \$0.02/kWh may be difficult. The Energy Trust should work with the Commission to establish new sector-specific performance targets and portfolio performance targets that are consistent with the equity policy requirements.

Long-Term Versus Short-Term

The portfolio of Energy Trust programs take into consideration both short-term and long-term effects, which will allow them to reach their goals as well as demonstrate successful implementation to various stakeholders. The Audit Team does note, however, that the long-term effects are under-represented in early planning. This is due to the Energy Trust's desire to get quick results, which the Audit Team agrees was the correct strategy. However, the Energy Trust's Board has also recognized the need to focus on long-term energy savings and market changes that remain long enough to add to goal attainment over a period longer than a few years. As the programs are maturing and savings are being achieved, modified program plans should consider obtaining long-term technology and market effects consistent with acquiring resources that meet both their short-term and long-term objectives.

The original goals focused on 2012 objectives and suggest that the programs needed to focus on offerings that get both the programs established and operating in the market, and obtain longer-term energy impacts. The Energy Trust's new annual levelized energy metrics allow the organization to focus their program and technology mix at both short-term and long-term energy savings and operational approaches. It also allows them to evolve their programs to capture savings rapidly while permitting a balanced portfolio that focuses on current savings as well as 2012 savings. The annual goals also allow the Energy Trust to become more cost effective in the short-term while maintaining their cost effectiveness goals for the longer-term.

At the program management contract level, contracted goals need to recognize the ramp-up time required for programs to begin to acquire resources. Even using a PMC model, where much of the delivery infrastructure is in place or can be rolled into place fairly rapidly, it takes time to obtain staff, set up tracking and marketing systems, and gain a position in the Oregon marketplace to address the Energy Trust's unique needs. These requirements will vary across the infrastructures within the program's targeted markets and their associated market barriers. A suggested energy acquisition goal for new organizations based on the Audit Team's experience is to establish program goals over a two-year period with one-third of the savings to be captured in year one and two-thirds captured in year two, after implementation within the marketplace has begun. This finding is not to imply that the Audit Team feels that the Energy Trust is behind where it should be with goals, as the results based on the life of the Energy Trust are very good; rather, it is a contractual and planning issue that needs to be considered.

Overall, the Audit Team finds that the Energy Trust is doing an excellent job of balancing these dissimilar objectives that require different approaches and implementation strategies.

Measurement of Goal Attainment

There are several areas where the Audit Team found potential improvements in the measurement of goals, which will help the Energy Trust better evaluate its success in meeting those goals. These include documenting standard practices for determining cost effectiveness, benefit cost analysis, and conducting routine true-up estimates of energy impacts.

The Energy Trust is using reasonable standard practices for determining cost effectiveness and incentive levels. However, the estimates and assumptions used in analyzing the prescriptive measures are not well documented or filed in a standard way so that they can be easily reviewed, verified, or modified in the future.

Cost effectiveness for energy efficiency technologies and programs should be based on kWh and therm benefit cost analysis considering the life of the measure to be installed instead of the cost per aMW. Utilizing a kWh and therm basis for analysis is more in line with the program acquisition results and tracking efforts. Using aMW analysis is inconsistent with the electric industry standards for how technologies are assessed. Likewise, aMW tracking is based primarily on steady-state generation impacts and is not related to program activities or actual accomplishments. The Audit Team agrees with the

recommendation to the Board (retreat presentation 07/04) that kWh and therm benefit cost analysis is the best method to measure the value of the energy efficiency and renewable technologies and their savings and contribution to reaching performance objectives. The energy-dependent benefit cost analysis is also more in keeping with industry standards.

The Energy Trust conducts evaluations to provide more reliable energy impact estimates for technologies installed in a participant's facility and for the programs as a whole. The results of these studies should be incorporated into the tracking system and used to report net impacts provided by the Energy Trust on a scheduled and routine basis so that annual and, to the extent possible, quarterly reports reflect the best estimates of actual impacts. Likewise, these adjustments should also be rapidly incorporated into cost effectiveness calculations so that actual acquired cost effectiveness can be estimated with more accurate impact information.

The Audit Team does not suggest that changes be incorporated every time an evaluation report or adjustment calculation is conducted. Doing so would cause problems with implementation in the field and with reliable reporting. But changes should be incorporated on a scheduled basis so that the Board and the Commission know when the information provided to them reflects adjusted impact estimates.

When estimates are adjusted as a result of the evaluation process, these adjustments should be incorporated into the tracking system and used to monitor progress of the PMCs and the Energy Trust as a whole. The tracking systems should reflect the best available information on measure and program impacts.

Recommendations for Addressing Goals

1. **Establish Sector-Level Performance Measures:** The Energy Trust of Oregon is on track to meet the legislative goals of providing cost effective energy resources, but may have adopted overly aggressive resource acquisition goals if equity policies drive budget decisions more strongly than performance measures. The Energy Trust should establish cost effectiveness goals by developing sector-specific goals so that the Energy Trust's cost effectiveness goals can follow the equity decisions associated with the specific types of programs offered and the customer groups targeted. Compare these goals with other programs in the Pacific Northwest offered by other providers to gauge the reasonableness of the goals. The Energy Trust should then assure that the "rolled-up" portfolio of all programs meets the Commission's minimum standard of 2 cents per kWh, if that is the resulting cost effectiveness target identified when all markets and market offerings are considered.

Energy Trust's Response to Recommendation 1

We agree with the Audit Team finding that Energy Trust goals are highly ambitious given the resources we have available and the history of program delivery here and elsewhere. The efficiency goal of saving 300 AMW and 19 million annual therms by 2012 is aggressive, by design. The Energy Trust

renewable goal of 450 aMW by 2012 is also ambitious and remains dependent upon many factors beyond our direct influence and control, including availability of the federal production tax credit and other favorable policies to encourage market players and activity. That said, we view the goals as a challenge and motivator, not as easy targets to be readily met. They continually stretch us to be open, creative and determined in our efforts.

Our ability to combine Energy Trust financial incentives with state tax credits and low interest loan programs available through the ODOE enables us to leverage our resources further than other states without such combined programs. Energy efficiency market transformation activities achieved largely through the NW Alliance have a much lower cost than resource acquisition and we rely upon them to reduce our overall average system cost.

We agree with the importance of balancing cost-effective energy efficiency savings acquisition, particularly from lower cost industrial projects, with equity considerations. We believe the language of our equity policy affords us the flexibility needed to deliver programs to all sectors without requiring a "dollar in, dollar out" distribution of resources. Data resulting from the actual and projected participation rates for our production efficiency program serving large industrial customers will help inform us about options for the distribution of future resources across all sectors. The Audit Team's suggestion to establish sector-level performance measures is intriguing and worthy of further consideration in the near future.

- 2. Balance Resources to Achieve the Goals Across All Sectors:** The Energy Trust should continue to roll out and improve energy programs that act to lower the overall delivered costs of the Energy Trust's programs and operational approaches while balancing equity among customers and technology opportunities. The Energy Trust should specifically focus a part of its resources on acquiring large long-term industrial and commercial projects in order to hold down the cost of conserved energy for everyone. The Audit Team does not take a position on the splits between low-cost and higher-cost market mix, but instead note that this will require quarterly monitoring and annual adjustments to achieve.

Energy Trust's Response to Recommendation 2

The Energy Trust agrees with this recommendation and believes that the current action plan is consistent with it. We also agree that over time, it will be both challenging and increasingly important to assess issues of maintaining equity and balance across sectors while acquiring lower cost volume savings. Board and staff are committed to closely tracking program results this year, particularly for industrial participants, to provide further insights about this important policy issue. The Board and staff will re-examine the goal later in 2005 in light of the management audit's recommendation and new information on the cost of savings acquired through programs now in place.

3. **Focus More on Long-Term Technologies:** Program managers should focus their efficiency programs on installing longer-term technologies whenever possible so that lifecycle energy costs can be kept as low as possible, but at the same time maintain a balanced technology mix that attracts and satisfies participants and avoids lost opportunities across the market sectors targeted. For renewable programs, the Energy Trust should continue to target a balanced mix of renewable energy technologies to meet its performance goals of offsetting new generation.

Energy Trust's Response to Recommendation 3

The Energy Trust agrees with these recommendations. To clarify, our cost-effectiveness policy is only the first step in selecting programs. Cost-effectiveness thresholds are used to determine which programs and measures the Energy Trust may choose to fund. Among the cost-effective opportunities, the Energy Trust selects only those measures and programs that provide the best leverage in meeting strategic/action plan goals.

Cost effectiveness determinations are consistently made using benefit/cost ratios, with consideration to lifetime savings. However, in deciding which programs and measures to actually pursue among those eligible, the Board has considered cost per annual kilowatt hour, cost per Average Megawatt, and cost per therm saved -- measures of short-term savings -- and has also considered long-term measures such as levelized cost and benefit/cost ratios. The Energy Trust Board agrees that more emphasis on long-term measures of value is appropriate and has been moving in this direction. We furthermore agree that it is still appropriate to establish Average Megawatt and Annual Therm goals as one tracking mechanism to gauge progress. We also agree to continue to pursue a balanced mix of renewable resources.

4. **Set Annual Goals to Reflect Market Ramp-Up:** Based on experience in the field and experience with market infrastructures, establish realistic program-specific goals with time-dependent consideration for the ramp-up of program operations and marketing effects to take hold.

Energy Trust's Response to Recommendation 4

The Energy Trust agrees, and has followed this policy from the outset. Some program start-up and ramp-up times have exceeded our expectations and we have adjusted forecasts based on this experience.

5. **Document and Make Transparent Technology-Specific Energy Saving Estimates:** The assumptions, cost estimates and modeling behind the determination of technology-specific cost effectiveness should be documented through a standard approach and centrally filed so that they can be reviewed and adjusted over time. The Audit Team recommends the establishment of a master document with these assumptions, calculations, and results. The entries into the master document should follow standard accounting practices that allow non-Energy Trust professionals to come to the same result. These do not have to be formally established in public documents that require full disclosure, but the

Energy Trust should be able to document the assumptions and calculation approaches that go into cost benefit estimates at the technology level. The Energy Trust should consider having the Program Integration Team (PIT) or the Executive Director ‘sign-off’ on the calculations so that there is an internal check that the documentation trail is provided. As the numbers and assumptions change, they should be documented within the master document noting the date of the change and the basis for the change. Source documents for the data need to be noted for future reference as well, whether they are internal evaluations or external studies.

Energy Trust’s Response to Recommendation 5

The Energy Trust generally agrees with this recommendation, particularly the need to develop and retain appropriate documentation. The key inputs into cost-effectiveness are utility and societal costs, incentives, savings, measure life and load shape of savings. We agree that the Energy Trust should enhance its existing record and repository of these key inputs, including the initial reference sources, assumptions, calculations and subsequent updates and revisions associated with determining cost-effectiveness and savings projections at both measure and program levels. We agree such information should also be accessible to interested parties and to staff.

We also concur that the Energy Trust needs to develop a system whereby two people verify that the assumptions made in this process have been adequately documented. We believe the two people who sign off should be planning and evaluation staff or management.

- 6. Change Effectiveness Tracking to the Cost of Conserved Energy:** Change the standard for cost effectiveness accounting to the cost of conserved energy for energy efficiency and market transformation programs and cost of acquired energy for renewable energy programs, using a benefit cost ratio as outlined at the Board retreat, and keep aMW as an ongoing measurement of total savings desired if necessary.

Energy Trust’s Response to Recommendation 6

We agree with this recommendation, as addressed in recommendation 3, above.

- 7. Establish a Routine Approach For Impact True-Ups:** Establish a routine approach for how and when impact true-ups will be conducted in the Energy Trust and structure these efforts so that they update the tracking system. The Audit Team suggests that this process be done semiannually or annually and coordinated with the evaluation implementation and reporting process. These changes should then be appropriately reflected in the goals and contracts of the programs at that same time.

Energy Trust’s Response to Recommendation 7

We support this recommendation and are proceeding accordingly.

Organization of the Energy Trust

The organization of the Energy Trust of Oregon in terms of both structure and staff is the foundation upon which the organization will move forward to meet its objectives. The Audit Team found the basic structures in place, but in need of further development and a need for more autonomy in making decisions on administrative spending. Staff operations are facing challenges in moving from a small start-up organization to a larger entity with mounting expectations from stakeholders. To overcome these challenges, the responsibilities and time commitments for various staff tasks need to be re-evaluated, and the Energy Trust needs autonomy in making decisions on necessary staffing levels to meet their goals.

Organizational Structures

Structures Needed for Long Term Success

The Energy Trust faces challenges that are both common and particular to small businesses that are moving from the entrepreneurial phase to the growth phase of an organization. In that the Energy Trust is a nonprofit ratepayer funded organization, it also has challenges with respect to its multiple aspects of accountability. Based on the observations from the audit, the Energy Trust is where it should be in its evolution, and the organizational issues that are identified for attention in this audit report are normal but are also important to address. A fundamental task for the Energy Trust is to evolve, as it must to continue to be successful, building systems and processes while avoiding becoming encumbered by a growing bureaucracy or by cumbersome processes. While it is true that the Energy Trust “serves many masters”, now is the time in the organization to sharply focus on its markets, participants, potential participants and stakeholder needs. The Energy Trust must proactively improve the effectiveness and efficiency of its internal operations, with the primary objective of serving its participants and potential participants with cost effective energy products, programs and services, and renewable energy supplies.

As the Energy Trust has become mature as an organization there is a need for more streamlined operations to keep up with the organization’s evolution. What was once a successful method of doing business during the Energy Trust’s start-up phase is now burdensome as the need for faster paced and more complex operations have developed.

The primary challenge for organizations moving out of the start-up mode is to maintain flexibility and quick response, while developing routine policies to support more efficient operations. The organization must develop organizational structures that allow for rapid decisions and actions based on established policies, developing management and operational systems and processes that can allow the organization to function without decision or operational bottlenecks. The organization also needs to clarify members’ roles and responsibilities across all levels of the organization so that there is a clear understanding of who is responsible for what and who is responsible to whom. This is where the Energy Trust needs to move its organizational and operational structures and systems.

The Energy Trust must move into a more efficient steady state condition with efficient organizational and operational process. Failure to do so will mean the Energy Trust will continue to experience staff resignations and continued conflict in its operations at the Board, executive and staff levels. Appendix A of this report provides an expanded, more detailed assessment of this topic and allows the reader to better understand the need for the Energy Trust to streamline its operational processes.

In summary, the Energy Trust is now at a critical phase in which the success of the organization will depend to a significant degree on how well the Energy Trust moves into a more structured implementation process with clearly defined processes for guiding the Energy Trust's decision making efforts that are implemented as a matter of course. The key professional staff are already on board to handle the program planning, approval and implementation processes and need only minimal oversight and interaction from the Board at a level necessary for the Board to fill its oversight and accountability functions. However, because the Board itself does not agree on what level of oversight is needed, or the level of detail at which the Board should operate, a critical step for the Board is to come to a formal agreement on the minimal level of involvement the Board needs to meet its fiduciary accountability and oversight functions so that the Energy Trust can move into a more streamlined outcome-focused operational approach.

Recommendations for the Organization of the Energy Trust

8. **Evolve the Roles, Responsibilities and Decision Authority to be More Efficient:** This is a key area where the Energy Trust must now focus. As the organization is evolving to become more efficient, lines of responsibility and roles need to be clarified across all levels of the organization (Board, executive management and operations) to avoid confusion, misunderstanding, and duplication of effort or gaps in needed efforts. The Energy Trust needs to focus on the following areas.

Energy Trust's Response to Recommendation 8

The Energy Trust agrees with this recommendation. We understand that the Energy Trust is transitioning from a start-up to a more mature and established organization with more predictable work flow, established procedures and routines. We acknowledge that growth has been rapid over a short period of time and that both Board and staff roles, responsibilities and authority continue to evolve.

- a. **Creating an environment where people feel valued and respected:** Based on interviews with various levels of staff, they feel overworked and not necessarily valued or respected by all of the management team. Executive management needs to identify and implement strategies for instilling perceptions of value and respect across staff positions.

Energy Trust's Response to Recommendation 8a

We recognize that what determines feeling valued and respected is often highly personal and individual. The Executive Director is committed to working with the management team and all employees to identify what specific actions would demonstrate value and respect at both the personal, individual level as well as collectively for all employees. As a related part of this commitment, an employee satisfaction survey has been planned for and included in the 2005 budget.

A new human resource role and function has been added through the office manager which in part will emphasize recognition activities for individuals, teams and the organization as a whole. Individual employees are being asked to define the types of feedback and recognition they personally would find most meaningful. Quarterly and annual accomplishments are now shared with all staff and celebrated. These and other collective activities are part of the emphasis for this and coming years.

- b. **Clearly defining the “needs” of the Board:** All internal operations that serve the needs of the Board, including reporting and information sharing between the Energy Trust and the Board, should in some way be directly or indirectly related to improving the ability of the Energy Trust to acquire energy resources or support the Board's needs related to high-level accountability. At this organizational stage, the Board should be decreasing its involvement in operational problem solving and decision-making. Ultimately, the Board must take on more of a high-level fiduciary oversight, advisory and governance role as the Energy Trust staff grows in competency and experience. The Energy Trust staff will need to carry more of the load for program planning, approval, implementation, evaluation and modification.

Energy Trust's Response to Recommendation 8b

The Board agrees with the Audit Team's assessment that the Energy Trust is moving from a start-up operation to a more steady-state condition. The Board recognizes the need to review and revise its role as the Energy Trust moves forward. The Board will continue to work with staff to more clearly define working relationships and to shift operational functions to staff, as appropriate. The Board, however, anticipates that at least over the short run, it will continue to be the approval authority for the initial launch of new programs, whether through the consent agenda process or otherwise.

- c. **Clarify Management and Organizational Roles:** The Energy Trust has the organizational foundation to operate efficiently and effectively, but now needs to clarify individual roles and responsibilities across the organization and with the Board and the executive structure.

Energy Trust's Response to Recommendation 8c

The Energy Trust agrees that clarification of management and organizational roles is an important next step to assure efficient operations. Internally, this is being addressed as part of the annual staff performance review cycle by updating individual position descriptions and by clarifying individual authority and responsibility among staff. In addition, we believe the organization is well positioned to evolve into a more efficient structure able to achieve a balance between staff responsibilities for management and operations and Board responsibilities for policy, planning and oversight. Toward this end, a revised approach for Board-approved programs (BAPs) is slated for the February 2005 Board meeting and if adopted, should assist both Board and staff in further clarifying roles and responsibilities for program design and concept review, approval of contract terms and budget, contract management and monitoring and reporting results.

- d. **Develop the Management Skills of Senior Staff:** The Energy Trust needs to build staff management and operational process management skills into its management team as part of its evolution and clarify the roles and responsibilities of positions.

Energy Trust's Response to Recommendation 8d

This recommendation is strongly supported. Management training opportunities have been included in the 2005 budget for all program managers and management team members. Project management training has already occurred and management team members also participated in a separate leadership development session. Additional training options are currently being identified and will be matched with specific training needs for managers and the management team and incorporated as part of annual work plans now being prepared.

- e. **Develop Standard Policies and Operational Procedures:** The Energy Trust has some foundation policies and procedures that are well established for fiscal accountability. Other standard procedures will need to be refined as new control and management systems are developed to improve the efficiency of operations and to make routine the decision making processes at lower levels. The Program Integration Team should help develop these procedures.

Energy Trust's Response to Recommendation 8e

The Energy Trust concurs with this recommendation and is moving in a consistent direction to achieve related improvements. A policy and procedures manual is currently being updated, beginning with the expansion and update of the employee handbook, currently underway. A finance and administration procedures manual is slated to be developed this year. Through the recent hire of a new office manager, strong

organizational development skills and human resources expertise has been added to the position. The Chief Financial Officer (CFO) is now also the management team liaison for the Program Integration Team, a cross-functional interdisciplinary group focused on operational efficiency and organizational effectiveness. Because the CFO is responsible for coordination of all Energy Trust administrative functions, the relationship is better aligned to assist with effective operational procedures and standard policy enhancements.

- f. **Conduct a Functional Analysis of the Positions and Responsibility Needs for More Efficient, Longer-Term Operations and Establish Positions and Responsibilities Based on this Analysis:** The Energy Trust needs to conduct functional analyses to determine what needs exist in the management and operational areas of the organization, e.g., what tasks are necessary to achieve what results with respects to program approvals, planning, design, implementation and evaluation, as well as in administrative support areas. The Energy Trust needs to analyze its structure for long-term success. The Energy Trust has a great foundation but the audit finds that its staffing levels and responsibilities can be further refined and focused. Use the results of the functional analyses to create distinct and clear position descriptions in the management and operational areas. Define roles and responsibilities for the Executive Director and her Directors that both limit and focus the activities of each to increase effectiveness and efficiency. The essential task is to take a fresh, critical look at existing positions and their current functions, and determine how they can be more effectively utilized to support a more streamlined operation. The Energy Trust needs to more clearly define roles and responsibilities within the growing organization and clarify delegation.

Energy Trust's Response to Recommendation 8f

The heart of this recommendation is currently being addressed through an update of individual position descriptions, a process intended to clarify roles, responsibilities and authority throughout the organization. The Energy Trust has recently retained the services of a human resources consulting firm to update our salary structure. We will consider expanding this scope of work to include an objective analysis of organization structure, functions and work flow with the purpose being to further increase operational effectiveness and efficiency. This effort should also be combined with related steps to clarify staff and Board roles, responsibilities and functions.

- g. **Establish a Formal Position Responsible for Human Resources:** Human resources deal with how the business attends to the so-called personnel issues, compensation and benefits, etc., as well as training, organizational and individual development. The Energy Trust should establish a formal Human Resources function as part of the internal crosscutting responsibilities. (Note: It is the Audit Team's understanding

that the Human Resources function has recently been assigned to the new Office Manager thereby addressing this finding.)

Energy Trust's Response to Recommendation 8g

We agree human resource responsibilities are critical to the success of the organization. The function is currently being met through a variety of ways. Both the new office manager and the Chief Financial Officer bring extensive human resources skills and experience to the organization, filling a previous gap. In the last year, the organization has also added an employee relations function provided by a legal contractor, retained a human resources consultant under contract and joined an employer association. Training, recognition and internal communications are all elements to be strengthened through this combination of resources now in place.

h. Assess Training Needs and Incorporate Training into the Staff

Development Efforts: As functional responsibilities for existing positions change, assess training needs and provide training opportunities specific to the new responsibilities undertaken. The Energy Trust should first focus on the directors and then continue to move through the organization to develop training and development plans for staff.

Energy Trust's Response to Recommendation 8h

We concur with this recommendation. Please note earlier mention of management training and professional development opportunities stemming from our annual performance review process and preparation of work plans (response to recommendation 8-d). Related training opportunities may be identified in the course of conducting an organization structure, function and work flow review, should that be formally undertaken.

Commission Administrative Performance Measures

Performance Measures

The final Commission benchmarks (Docket no. UM1158 effective October 6, 2004) include a 'Performance Measure', which in the Audit Team's opinion appears inappropriate as stated:

Program Delivery Efficiency: The Commission expects the Energy Trust to demonstrate program delivery efficiency by keeping its administrative and program support costs below 11 percent of annual revenues.

The Audit Team supports the overall goal of low administrative costs and agrees that the Commission is correct in having the expectation of the Energy Trust operating efficiently without unnecessary or excessive administrative costs. However, the Audit Team feels the energy performance measure set by the Commission is set at an arbitrary level that may be counter-productive to meeting the energy savings goals of the Energy Trust. A more general performance metric is stated in the Grant Agreement of the Energy Trust and provides broader but more appropriate language, as follows.

Administrative Costs. The costs of operating the Energy Trust will be reasonable and support efforts toward cost effectiveness. Costs of operating the Energy Trust will balance the lowest possible administrative costs with overall organizational effectiveness. Subject to generally accepted accounting principles, the Energy Trust will allocate administrative costs in a manner to avoid cross-subsidies between programs that are supported by the Funds and programs that are not.

The new performance goal relative to administrative costs limits the Energy Trust's options because it establishes an upper level for these costs and acts to unnecessarily discourage creative thinking and program innovation regarding programs that may be more cost effective, but have higher administrative cost associated with their operations. The Audit Team believes it is the responsibility of the Energy Trust Board to determine the policies and oversee the administrative spending as part of its fiduciary responsibility, rather than the responsibility of the Commission. Performance criteria that include the specific levels of administrative or overhead costs provide little if any value in determining the true delivery efficiency of the Energy Trust. The inclusion of administrative or overhead costs as an effectiveness metric may, in some cases, cause the Energy Trust to be less effective than it would be without the metric. Administrative costs are one component of an organization and program, and needs to be kept flexible to match the type of programs provided, the method of providing programs, the conditions of the market in which the programs must operate, and other considerations. A program that is quite cost effective due to Energy Trust stimulated changes in the marketplace without incentives may have a high proportion of administrative costs as the market begins to bear the actual costs and reacts to the intervention. In addition, administrative costs are typically higher as a percentage of program operations during organizational and program start-up phases. Lastly, flexible administrative costs not dedicated to a specific program, but to the organization as a unit allows resources to be available for innovation, public input, and market development. During interviews, the Audit Team

received comments about this topic pertaining to appearance issues or the sensitivity of the subject as a political issue. Indicating that while the Energy Trust was established as a 501(c)(3) organization to be outside of the bureaucratic and political arena, the oversight authorities appear to be establishing targets that are disconnected from the cost effectiveness of the performance of the Energy Trust, but rather are associated with appearance issues. Under this metric a program with a 20 percent administrative overhead rate that brings in long-term energy savings at \$0.005 per levelized kWh could be considered as a poorly performing program, even though it may be among the most cost effective programs in the portfolio.

In the Audit Team's opinion, setting administrative limits, staff levels, and/or marketing budgets are arbitrary metrics that limit the ability of the Energy Trust to be responsive to the market and the savings opportunities required to meet the Energy Trust's primary goal of cost-effective energy savings. The most important issue concerning the Energy Trust's ability to capture cost effective savings is not the level of administrative costs or the number of staff positions, but how effective the organization is at capturing cost effective energy resources. This is the primary measure of performance for any energy efficiency organization charged with the responsibility of achieving cost effective, environmentally friendly energy supplies for the people of the State of Oregon. Other metrics can stand in the way of this goal.

Relating to the use of metrics, the Auditors experienced confusion among interviewees, as well as documents reviewed from the Commission, the ODOE, and the Energy Trust pertaining to the use of the term "benchmarks" with different individuals using the term differently. The Commission has used the term benchmarks to describe a wide range of metrics, some of which may result in a Notice of Concern. The Audit Team recommends that the Board change the terminology it uses to describe the Board's performance measures to be other than "benchmarks".

Recommendations for Administrative Performance Metrics

- 9. Work With The Commission on Administrative Performance Metrics:** The Energy Trust should work with the Commission to explore ways to demonstrate that costs of operations are reasonable as outlined in the Grant Agreement without setting an administrative metric that can restrict the energy efficient acquisitions of the organization. The Energy Trust should discuss with the Commission the potential to eliminate the administrative metric as a percent from the Commission ruling, and instead maintain a tracking system on the total cost of conserved energy at the program level so that the focus is on cost effective energy acquisition and supply rather than the administrative costs to achieve that supply.

Energy Trust's Response to Recommendation 9

While the Energy Trust understands the Audit Team's conclusion and concern, we also recognize the Commission's need to establish minimum performance measures, especially for a newer organization. At this time, we do not find the minimum performance measures to be constraining. The Commission and Energy Trust recognize that the minimum administrative cost measure may need

adjustment in the future. We will continue to monitor how the performance measures impact our ability to reach our goals in an effective and efficient manner. We are fully prepared to request a review by the Commission if at any time we believe such measures negatively impact our ability to operate and achieve our goals.

10. **Move Away From Using the Term Benchmarks in Action Plans:** The Energy Trust should revise its annual action plans so that they use a term other than “benchmarks”.

Energy Trust’s Response to Recommendation 10

The more accurate term used in our most recently adopted action plan is "OPUC performance measures," further defined as minimum requirements to be accomplished. Neither the Commission nor the Board uses the term benchmarks any longer.

Staff Operations

The Energy Trust appears to be experiencing some growing pains with respect to staff operations. Re-evaluating the use of the director's time, and the responsibilities and expectations from the program managers will allow the organization to continue to take on more and more responsibilities. Better communication and some training in management will also assist in the organizational transition that is underway in the Energy Trust. Some additional positions to address the needs of information technology and the realignment of the program evaluation function will build the capacity of the organization. Finally a more flexible environment for senior management to make staffing decisions will allow the Energy Trust to operate as efficiently as possible.

Program Development – Director's Time

The Energy Trust's modeling and design process to target, select and implement a program is appropriate. However, the process to develop and approve programs or program changes is cumbersome and inefficient. There are two issues associated with this finding: the dependency on one director within the staff to do most of the design and analysis for the efficiency programs, and the review and approval system for these programs.

The person who provides this function is very knowledgeable and is clearly a leading expert in the field. The Energy Trust is fortunate to have this expertise. However, this person has many responsibilities and these responsibilities act as a bottleneck to the efficient operations of the Energy Trust. This finding is not to blame this dedicated individual who appears to be working very hard and devoting countless hours to this important position. However, this position has too many responsibilities and as a result, the operations of this position have led to significant workflow bottlenecks.

This condition, linked with the Energy Trust's operational structure that has unclear definitions of responsibility and authority, seems to cause most work products to move through this single position for review and approval. The effect from this bottleneck is time delays, mistakes, and often a perceived lack of time to function efficiently. In addition, this same individual bears much of the executive support responsibilities providing numbers and analysis to the Board to help with the Board's program analysis and approval activities. However, the issue is not a lack of time to efficiently operate the Energy Trust, but a lack of effective delegation of responsibility and staffing restrictions that cause the condition to persist. This planning and analysis function is a key to the Energy Trust's success and must not be diluted with too many other responsibilities or lack of support.

Program Manager Staffing & Support

Another source of inefficiency for the Energy Trust may be the result of lack of support at the program manager level. Some of the key positions contributing to the success of the Energy Trust are the program managers. These positions not only are 'contract managers', they are the main interface and implementation positions overseeing program operations and performance. While this audit did not conduct a time study to look at the

workload and efficiency of performance by position, it appears that the program manager positions have been understaffed and under-supported. This is especially important during the Energy Trust's start-up and rollout periods. Similar positions with comparable responsibility, authority, and program scopes in other organizations have program managers focusing on one or two primary programs (with multiple contractors) and they typically have a program/administrative assistant to support them in their operational needs. From the Auditor's perspective it appears that the Energy Trust's program managers have less human resources available to them to support their program planning, development, deployment, management, monitoring and oversight responsibilities, than other organizations with which we are familiar.

Management Communications

The Audit Team has also found a broad concern within the Energy Trust's management and staff about management communications and delegation. This has been at least partly responsible for the levels of turnover experienced by the Energy Trust's staff. While some turnover is expected when transitioning from an entrepreneurial start-up to an ongoing enterprise, the level of turnover appears to be related to communication approaches and systems as well as the delegation of authority. The Audit Team received different views on this issue from most of the interviewees who expressed a range of causes for this finding. However, the frequency of the expression of these concerns across all levels of staff indicates that the Energy Trust has a management communication and delegation problem that needs to be addressed. This has been recognized and identified by the Energy Trust Board and the Executive Director. The establishment of the Program Integration Team should help with this issue, but this team is only part of the solution.

The Audit Team acknowledges that the Energy Trust management is trying to improve communications through all-staff meetings, distribution of the Executive Director's reports and management team meeting notes. These issues were not discussed specifically during the interviews so specific responses cannot be provided. The Audit Team notes however, that these concerns were identified during the audit interviews even after some of these items were being provided, indicating that in general, these tools may still not be meeting the communications needs.

Senior Technical Staff Need Training in Effective Management Practices

One source of the difficulties in management communications could be coming from a lack of management training for the senior technical staff. A significant number of interviewees indicated that the senior technical staff at the Energy Trust is exceptionally skilled at understanding energy efficient and renewable technologies and in designing effective programs. These same interviewees indicated that the senior technical staff are under a great deal of stress to design and roll out programs while at the same time providing significant amounts of internal and external support efforts. Interviewees indicated that these conditions have resulted in excessively high levels of employee stress and higher than expected staff turnover rates. Interviewees indicated that the senior management team at the Energy Trust, while technically brilliant, are not meeting the significant management challenges associated with an organization that is moving to more of an ongoing entity rather than a start-up organization. The management time,

approach, and skills required for an ongoing entity are different than a start-up organization and need to be reinforced.

Evaluation Manager Position in the Energy Trust

The evaluation function in an energy efficiency and renewable energy organization is an important and critical responsibility. The results of the evaluation efforts have profound impacts on the organization and are often the primary (or only) method for documenting the actual energy impact performance of the organization. Programs and program budgets are often increased, decreased or modified to reflect the results of an evaluation. In extreme cases the evaluation results can lead to the termination of a program or alter the measures included in the program. Likewise, a program can be greatly expanded when the evaluation documents excellence or exceptional cost effective performance.

The evaluation function of the Energy Trust is located under the Director of Planning and Evaluation. This structure places the Evaluation Manager under a director whose performance is judged by the success of the programs documented by the evaluations and who has a vested interest in the evaluation results. This location violates sound management and control practices and removes the evaluation function from a location high enough in the organization that results can be directly placed into the executive decision process.

Pressures to Control Staffing Levels May Impact Goal Attainment

The Board, the Commission and other groups have placed a significant focus on minimizing staff levels at the Energy Trust. All Board members and staff interviewed are cognizant of this issue. However, the Board is significantly divided on the importance of this issue and on how to address staffing levels. Some Board members firmly believe that the Energy Trust should be treated as any other start-up 501(c)(3) organization and be allowed to staff the organization at the level needed to plan and operate energy efficiency and renewable energy programs and to cost effectively acquire energy resources. These Board members agree that the Executive Director should be in charge of determining what staffing levels should be and that the Board should be focused on the ability of the Energy Trust to accomplish its legislative objectives and to provide policy oversight and guidance. At the same time, other Board members indicate that the Energy Trust staff is the staff of the Board and that the Board is responsible for the attainment of cost effective resources and is therefore responsible for staffing levels and all other aspects of the operations of the Energy Trust. During interviews with the Board members, no single Board member expressed an opinion that the staffing levels are set or planned using an approach consistent with the guidance of a business development plan nor are they set at levels consistent with the results of a professionally conducted staff needs assessment. Almost without exception, Board members agreed that the staffing levels approved by the Board reflect the results of “political concerns and appearances” about the Energy Trust being seen as building staff during a time when governmental agencies are experiencing staff and budget reductions. Yet these same members report that the Energy Trust needs to be staffed and operated in a way that cost effective resources can be acquired, rather than having “appearance to legislative members” drive staffing decisions.

Recommendations for Staff Operations

11. **Restructure the Program Planning Director's Responsibilities:** Assess the level of responsibilities associated with this director, obtain additional internal expertise, and delegate responsibility to allow for more efficient operations. This assessment of duties and responsibilities should be done internally with the involvement of that director. However, from our observations of this position and knowing about this function within other organizations the Audit Team believes the Energy Trust should consider the following changes:

- a. **Remove the responsibility for IT from this position.** Note: The Audit Team has been informed that this has occurred in early 2005.

Energy Trust's Response to Recommendation 11a

The responsibility for IT was transferred from the Director of Planning and Evaluation to the Chief Financial Officer effective at the start of 2005. The assignment of IT to the Planning and Evaluation Director was necessary during the time a new CFO was being recruited and shortly thereafter while he focused on preparing our annual budget.

- b. **Move the evaluation function**, now under the Planning and Evaluation Director, to a position that is not directly responsible for the design and performance of the programs being evaluated.

Energy Trust's Response to Recommendation 11b

The Energy Trust understands the reasons underlying this recommendation. We believe that the independence of Energy Trust evaluations is secured by the use of independent third party contractors and by our reliance on those contractors to write the final draft of every evaluation. However, based upon the perception of a conflict of interest within our current structure and the importance of maintaining appropriate checks and balances over time, independent of the individuals involved in this function, Board and staff will discuss options to change the reporting relationship.

- c. **Clarify the authority of the program managers (PM)** to make changes without review by the Planning and Evaluation Group but within pre-established guidelines (example: if incentives levels change more than 20% or if there are significant technology type changes in a program, then these need to be reviewed and approved beyond the program manager).

Energy Trust's Response to Recommendation 11c

We agree with this recommendation. Such clarification is helpful and will be fully addressed in the course of completing current performance reviews, updating position descriptions and developing annual work plans.

Historically, program managers relied more upon the planning director and his contract consulting resources to develop initial program structure and enhancements. More recently, there has been a shift to program managers overseeing their assigned programs and corresponding contracts, with less involvement and participation by the planning and evaluation group. A portion of every energy efficiency program manager's time remains allocated to planning support, specifically to assess new measure development and/or incentive changes based upon program implementation experience, evaluation results and other factors. Ultimate authority for program changes does rest with the program manager in consultation with the energy efficiency director and not with the planning and evaluation group.

- d. **Have the PMs and PMCs take on more of the modeling and research efforts** needed to bring a proposal up for Board consideration, (versus having the Planning and Evaluation Director do the analysis). The use of external experts for modeling and analysis is a limited option. Utilizing consultants does not work if there is little time for the director to develop the contracts and scopes of work, and supervise the external work. Consider delegating more of the Energy Trust's analysis efforts to others within the Energy Trust or hire individuals to help streamline the workloads.

Energy Trust's Response to Recommendation 11d

The Energy Trust initially relied heavily on planning staff and contractors to develop cost and savings estimates. We have since shifted to PMCs being more responsible for much of the work, with planning staff and independent contractors playing a role to: 1) develop new measures, 2) assure a fair analysis, 3) assure reasonable consistency with regional estimates, 4) address long-term program development needs and 5) assure solid and consistent documentation. This is necessitated by the dynamics, timing, and structure of the Program Management Contractor's organization.

By necessity, PMC goals are based on projections of savings from efficiency measures. Their focus is on a particular two-year contract period. Accordingly, the PMC is not necessarily motivated to take a conservative view of per-measure savings estimates. Additionally, because PMC contracts cap the amount of funding for program operations, PMCs are particularly motivated to develop those measures and program approaches that help meet their near-term goals.

These matters are now being addressed within the structure of future program management contracts. The Energy Trust is moving toward a model whereby PMCs would be compensated in response to meeting multi-level savings goals and improving program efficacy using a levelized cost indicator. The latter compensation factor is intended to reward PMCs for developing forward and long-term program strategies.

In addition, a third year contract extension criteria would encourage innovative approaches to program delivery to be demonstrated. Such changes would require Board review and approval prior to being adopted.

- e. **Examine the standard for accuracy demanded in the Energy Trust's pre-evaluation projections** and thus the requirement for the director to analyze a measure in unnecessary detail. The determination of savings levels for program measures is not an exact science and seldom are program planning projections identical to post-implementation net savings identified via the evaluation function. Trying to develop highly detailed calculations for program-specific results is time consuming, costly, inefficient and typically wrong - until significant field experience is acquired to improve the efficiency of operations and the accuracy of field estimates, and until evaluation results provide more accurate net effects estimates. The Energy Trust might be more efficient in its operations if they built more of a range around the potential savings and depended more on post evaluations to refine the numbers and 'after launch' design changes to improve effectiveness.

Energy Trust's Response to Recommendation 11e

The Energy Trust supports this recommendation. We believe that the underlying problem has been a reporting and oversight process that implicitly presumed that precision in forecasting was feasible and could be the basis for oversight. As the Board has gained more experience, and staff has been more adept at providing ranges for expectations, this situation has become less onerous. We also believe that the revised Board approved program process being proposed to the Board for its consideration in February will help by reducing the necessity to re-examine costs and savings due to minor fluctuations in program trends. In addition, new quarterly report formats for the Board and Commission will emphasize variances, designed to provide more specific updates where projections have changed and explanations as to why.

12. **Review Work Loads of Program Managers and Consider Hiring Additional Support Staff if Indicated:** Management needs to review the balance of work and responsibility of the program manager positions and consider additional staff and/or administrative assistance. The benefits of such increases can be: improved quality assurance and quality control, faster response to problems or changes, more network building with trade allies, and more planning and analysis time to alleviate other bottlenecks within the organization. Note: The Audit Team has been informed that two administrative positions (Program Assistants) have been added to the operations.

Energy Trust's Response to Recommendation 12

Staff believes that this recommendation has been addressed with the hiring of two new program support staff last fall, one each to serve the needs of the renewable energy program and the other dedicated to energy efficiency programs.

- 13. Improve and Strengthen Internal Communications:** The Executive Director and the management team need to look at internal communications and communication systems within the organization including both top-down information flow and bottom-up flow. The Executive Director and the management team should also examine the distribution and delegation of responsibilities and the transition of authority needed to carry out these responsibilities so that responsibility and authority are consistent and communication systems are designed to support the distribution of responsibility and authority. Without good communications flow, all parts of the organization do not get the information they need to perform their jobs well. Likewise, without effective delegation of responsibility and authority, effective communication systems provide little benefit. The Audit Team recommends the continued development of the Program Integration Team and the use of an outside organizational consultant to assist with solutions to this issue. This issue must be addressed or the turnover rates associated with the previous periods may continue.

Energy Trust's Response to Recommendation 13

We agree with the need to strengthen internal communications and believe that such communication should be well-timed and two-way. A number of mechanisms are currently in place to provide informational updates and share the status of programs, accomplishments and plans with all staff. Specific feedback from staff will be sought on whether such approaches are working or should be modified, changed or added to be more effective. We also see this recommendation corresponding to the human resources role and management training options, described in our response to recommendation 9, above.

- 14. Provide Professional Management Training:** The Executive Director should provide management training for the first and second tier levels of the Energy Trust's management staff, including Energy Trust directors and program managers who need to work with staff and others to accomplish their objectives. This training should be customized and occur after a professional assessment of the management skill levels of each director or manager.

Energy Trust's Response to Recommendation 14

We agree with this recommendation and have committed both time and resources to address it. The Executive Director dedicated additional funds for formal skills assessment and management training in the 2005 budget. As already mentioned in our discussion of recommendations 8-d and 8-h above, the Energy Trust has begun to provide and identify further opportunities for group courses in management, leadership and communication for our employees. This emphasis will be further developed through individual professional development plans stemming from the current performance review process now underway.

- 15. Move the Evaluation Function:** Move the evaluation function under the Executive Director or a director-level position that has cross-cutting high-level executive responsibility associated with the structure and operations of the Energy Trust but not associated with program planning or performance. The Evaluation

Manager can report to the Board, the Executive Director, the CFO or other position that is high enough in the organization to be responsible for the performance of the Energy Trust's programs and services, but not directly reporting to individuals that have direct design and program operational decision responsibilities.

Energy Trust's Response to Recommendation 15

Please refer to Energy Trust response to recommendation 11b above.

16. **Assess Staffing Needs and Transfer Hiring Approvals**: The opinion of the Audit Team is that the Board should work with a Board-selected independent entrepreneurial-focused organizational consultant to set operational staffing levels (see previous recommendations 8.f) and transfer hiring decisions to the Executive Director of the Energy Trust. The Executive Director must then come to the Board and justify hiring above or below the levels identified by the Board-hired consultant. This allows for an independent view of the staffing needs and provides credibility to the organizations staffing plans when viewed by outside parties and extends authority to the Executive Director to implement those staffing plans.

Energy Trust's Response to Recommendation 16

The Energy Trust Board is fully confident in the Executive Director and the management team's ability to determine the appropriate staffing needs for the Energy Trust. While we see the benefit of having a neutral party make recommendations that might lend further justification to staffing decisions, we believe the dollars that would be spent could be put to a better use. The Board's goal from the beginning has been to keep administrative costs as low as possible so that we have the most funds available for programs. We recognize this creates a delicate balance between maintaining low administrative costs and the Energy Trust's ability to efficiently and effectively operate. While the Board is cognizant of political perspectives, we continue to support hiring decisions being left in the hands of the Executive Director. We will work hard to shift such discussion out of the political arena and keep all parties focused on the ultimate goals of the organization.

The Board further believes that with the Commission's establishment of minimum administrative performance measures, hiring decisions will likely not be a separate issue for discussion. The past two budgets have had hiring as a separate line item open for debate separate from the context of the overall budget. The Board would prefer that any discussion of new positions be tied to the overall consideration and decision-making on the budget so that requests for new positions are reviewed within the proper context.

In any case, neither the Board nor the staff should cede authority to make Energy Trust staffing decisions to the Commission. In the event the questions are raised by the Commission regarding staffing levels or the need to increase them, the Board must continue to provide its best judgment on that subject.

- 17. Establish an Objective, Needs Based, Staff Assessment and Hiring Policy for the Energy Trust:** The Board needs to establish a formal procedure for objectively and professionally setting Energy Trust staffing levels based on operational effectiveness. It is the opinion of the Audit Team that the individual legislators and other stakeholders who are critical of the Energy Trust will be critical of staffing at any level. The most important goal for the Energy Trust is to reach the organization's cost effective energy savings goals. Based on other findings within this report two priority positions that should be considered immediately are a position and/or adjustment to help the Director of Planning, and a program manager adjustment or addition along with program administrative assistants.

Energy Trust's Response to Recommendation 17

Please refer to Energy Trust response to recommendation 16 above.

Program Design

The Energy Trust's programs are effective in design and are comparable in success with those of other states in terms of cost effectiveness. The Program Management Contractor model has helped the Energy Trust get efficiency programs out the door quickly, but there needs to be more consideration of when to use the PMC approach. The Energy Trust is making very effective use of outside experts to supplement and enhance their existing expertise and has been open in accepting input from external sources in designing programs.

Program Design and Comparative Effectiveness

In conducting the review of the Energy Trust's programs the Audit Team finds that the programs are well designed and operating effectively and compare very favorably with other programs we have audited or evaluated and with which we are knowledgeable. In comparing the Energy Trust's programs to other programs, the Audit Team finds the Energy Trust's approach to be consistent with the type of sound planning practices that are representative of other approaches and planning efforts. The Energy Trust takes great care and utilizes significant expertise in the program design and implementation of their programs. Items considered by the Audit Team while reviewing the program planning and design are listed in Appendix C.

Within Appendix A, Issue 9 of this report the Audit Team provided comparisons of the Energy Trust's programs with programs in Wisconsin, New York, and Vermont to allow the Energy Trust to compare and contrast their programs with other organizations conducting similar activities. These comparisons suggest that the Energy Trust is providing comparable cost effective programs with other jurisdictions providing similar sets of programs across multiple markets and participant types. In some cases the Energy Trust is providing more cost-effective energy resources. However, some jurisdictions are providing program services at a lower cost of conserved energy than the Energy Trust's programs. Wisconsin appears to have the lowest cost of conserved energy, at near a penny per kilowatt-hour, with the Energy Trust coming in just above the Wisconsin programs. Other states have higher costs of conserved energy. However, the Audit Team cautions the use of these metrics because the Audit Team has found that different providers calculate their cost of conserved energy using radically different approaches and technology lifetimes and operational assumptions. For example, a recent study found that Vermont's lighting impact estimates may be over-estimated by about 50% compared to the evaluation results, roughly doubling the cost of their conserved lighting energy. Likewise, different assumptions are made about the lifetimes of different technologies. For example, some providers count the savings from furnace replacements for 12-15 years while others count the savings for much longer periods of time. The Audit Team does not think it is wise for any public benefits program to compare its programs with other states unless they are sure that the calculations are grounded on the same assumptions and calculation approaches. In conducting program studies for over 25 years, the Audit Team has not seen multiple jurisdictions use an identical approach once. Likewise, it is often difficult to determine the estimation approach taken because

organizations will sometimes not fully document the calculations used to drive their estimates. This is also an issue with the Energy Trust.

The Audit Team feels that the most relevant comparison between these organizations and the Energy Trust will be to look at their approach to program delivery structure. Of the four programs – Wisconsin, Vermont, California, and New York – all have adopted different delivery structures based on the historic nature of the program mandate, and adaptations to the existing energy efficiency and renewable markets.

The Audit Team has also reviewed the document known as “Screening for New Opportunities” reviewed at the September 2004 Board Meeting. The Audit Team found this screening process prudent and it fits well into the ongoing planning process for the Energy Trust. After adoption, a more detailed process with a schedule should be developed. One suggested addition to the process would be a review of programs from other states and reviews of “best practices” available in the literature. (Note: The Audit Team would like to inform the Energy Trust Staff that a \$600,000 Best Practices Study is near completion in California and will be available in report form on the CALMAC.org website, and a National Best Energy Program Practices website is currently being Beta tested by Pacific Gas and Electric Company.)

In summary, the Energy Trust’s programs are well-planned, well run and compare favorably with other programs offered in other states.

Program Management Contractor Model

The Program Management Contractor (PMC) model has been an effective model to move early ‘off the shelf’ efficiency programs out the door quickly. It is appropriate to utilize the PMC approach for some programs but not necessarily for all programs. The Energy Trust has recognized this with the Renewables programs being delivered primarily through internal resources. While the PMC strategy allows some flexibility for Energy Trust staffing levels and builds external expertise in the state, the decision to use the PMC model for efficiency programs should be determined by market maturity, market skills, participation risk and program and market-related infrastructure. The Energy Trust should consider which model to use, not based on the desire to keep staffing at or below a specified level, but rather on the market needs and barriers being addressed by the program and by identifying the most effective delivery approach to achieve savings, (the primary goal of the Energy Trust). Suggested guidelines for the determination of the appropriate model to apply under different market situations are provided in Appendix B.

Use of Outside Experts in Designing Programs

The results of the interviews indicate that the Energy Trust takes advantage of outside experts on specific issues and technologies when the need develops. Both the directors and program managers indicate that they can access others from across the United States or elsewhere to obtain information and advice when needed. The Energy Trust also will occasionally invite experts to present and discuss program or technology issues with the Board and key Energy Trust staff as needed. No interviewee indicated that they could not obtain expert advice or counsel when needed and most staff indicated that they have peer group relationships with experts in their field that they can call on for advice when

needed. It should also be noted that the Audit Team found the directors, managers and key staff within the Energy Trust to be exceptionally knowledgeable experts in their areas and may not have a large need for outside expertise.

Input Into Programs

The Energy Trust has done a good job trying to obtain broad input and ideas for programs through their public meetings, and from the Renewable Advisory Council (RAC), the Conservation Advisory Council (CAC) as well as through Board and trade allies.

However, there is not a standard process for consideration and review of ideas, except for the open solicitation for renewables. Appropriately, due to the need to get programs operating quickly, many ‘off the shelf’ programs were implemented first. Now that those programs are in the field, more opportunity exists to look at these new concepts in a structured manner. There are four types of inputs to consider: 1) new programs for implementation, 2) new technologies within an existing program, 3) cross-over technologies that can benefit multiple programs, and 4) customer-specific *projects* that provide significant benefit and are cost effective but are unique to that customer or application. Programs for this definition are related to delivery systems that target markets, while technologies might be new or different measures within an existing program delivery structure. New customer-specific *projects* are applications or concepts outside of the programs that save efficiency or provide added renewable resources. These are usually unique applications to unique customer situations (i.e. Renewables open solicitation).

Recommendations for Program Design

- 18. Continue to Provide Well Designed Cost-Effective Programs:** The Energy Trust should continue to provide well-designed programs that focus on cost effective savings and high customer satisfaction, with equity offerings across market sectors and customer types consistent with the Energy Trust’s performance measures and the legislative intent.

Energy Trust’s Response to Recommendation 18
The Energy Trust supports this recommendation.

- 19. Select a Program Implementation Approach Based on Market Condition and Energy Trust’s Ability to Achieve Results:** The Energy Trust should be open to the use of other models for efficiency program delivery based on the specific market needs associated with a specific program and the barriers associated with different approaches rather than basing delivery approach decisions on a perceived need to control staff levels. Delivery effectiveness should increase with the flexibility of the approach if structured on sound market and program delivery concepts. Suggested guidelines for the determination of the appropriate model to apply under different market situations are provided in Appendix B.

Energy Trust’s Response to Recommendation 19
Staff concurs with this recommendation and plans to assess the effectiveness of the PMC program delivery approach. Such a review is likely to focus on cross-

program referral and coordination and the efficiency of program delivery over time. The decision to consider internalizing program delivery will be made after the second contract cycle is completed for programs, providing time for process and impact and evaluations to assess program delivery effectiveness for programs, once they are mature.

It is important to note that the PMC model helps meet Energy Trust strategic plan goal 4, designed to create a stable environment for businesses to succeed by promoting energy efficiency and renewable energy. Staffing levels have significantly grown at all PMC businesses and in many cases energy related expertise has been imported to Oregon, strengthening the network of expertise available in the state.

The PMC model also allows for lower Energy Trust staff numbers and higher flexibility to respond to program changes or terminations that may otherwise result in redeployment or elimination of staff positions. It is far easier to employ PMCs, whose resources often support related activities beyond Oregon. For these reasons staff believes the PMC model will likely be retained for certain programs.

- 20. Continue to Use Outside Experts When Needed:** Continue to have an open information seeking approach to operations when outside experts and advice is needed.

Energy Trust's Response to Recommendation 20

The Energy Trust supports this recommendation.

- 21. Establish a Process for New Program and Technology Reviews:** A process for program and technology idea review should be structured with a formal review process to assure ideas are addressed properly and with similar basic criteria. A feedback mechanism on the outcome of that review should also be included in the process. The Audit Team recommends that "program ideas or cross-program ideas" be reviewed at certain times of the year utilizing a 'planning cycle' so that they can be considered with other program ideas and budgets. For technologies within existing programs, this process can be more structured with specific standards required for idea consideration. These ideas would then be reviewed by the RAC and CAC on a periodic basis after staff review, if there are major and different measures, or involve an elaboration on the delivery mechanism. For customer specific efficiency projects, the Energy Trust should implement an open solicitation similar to Renewables. These would be special customer projects outside the Energy Trust's major programs. However, to keep the resources required to review these items to a reasonable level, there should be a policy relative to a minimum size or a minimum anticipated cost effectiveness ratio that warrant staff attention. The Audit Team has reviewed the "Screening New Opportunities" proposal from the September 2004 Board meeting and believes the proposed process is a good start to address this recommendation, however, once adopted this process will need further refinement.

Energy Trust's Response to Recommendation 21

The Energy Trust supports the concepts underlying this recommendation. In fact, we are currently proposing a revised "new ideas" approach to the Board for their consideration that links to this recommendation. In addition, we believe that multiple processes are needed to address new ideas depending upon their relationship to existing programs, scope, and scale. Several examples are provided below:

- a. **Custom measures for commercial, industrial, or multifamily:** Eligible through existing programs, where a process is already established.*
- b. **New program delivery ideas in markets where Energy Trust is already operating:** Considered when programs are re-bid, through discussions with the CAC and RAC at the time of program redesign, and through the proposals themselves.*
- c. **New Prescriptive Measures:** Generally prioritized for action by Energy Trust staff and PMCs. Open to outside suggestions from vendors and others. (Note: we anticipate that formalizing this process may add little value and would consume considerable time at the CAC or RAC, distracting from more significant matters.)*
- d. **Cross-cutting issues that do not readily fit into the scope of Energy Trust programs:** The Energy Trust would benefit from a more transparent process to prioritize and explore these issues, and we are working to develop this in 2005.*

As to the recommendation that the Energy Trust issue an open solicitation for new energy efficiency ideas, we question whether a new, broad open solicitation would be either productive or efficient because:

- a. Current efficiency programs address all major markets*
- b. Program management is regularly re-bid and provides avenues for new ideas*
- c. Current program budgets are expected to more than expend available funds*
- d. Flexibility exists within current programs to consider including new approaches and technologies and precedent has already been set to do so*
- e. Market transformation planning has been largely relegated to the NW Alliance, which does have an open solicitation process. The Energy Trust has a strong partnership with the Alliance and is represented on their Board and committees.*

The experience of the NW Alliance and of similar efforts elsewhere is that operating an open solicitation program is a significant undertaking. Results indicate that many of the resulting projects could indeed have come through via existing programs. The one exception where an open solicitation approach might be warranted would be for market transformation for gas. Knowing that open solicitations are resource intensive, a significant portion of an FTE would be needed to manage such a process, along with contracted engineering expertise to

help review proposals. With current resource constraints, this would likely not emerge as a high priority for a new staff position.

Operations and Procedures of the Energy Trust

Operations of the Energy Trust

The Audit Team found the operations of the Energy Trust to be consistent with an organization moving from a start-up organization to an organization with an established set of procedures and guidelines. The Energy Trust is to be complimented on its successful deployment of cost effective programs and services that were developed and successfully fielded in a short period of time. In reviewing the activities associated with the day-to-day operations of the Energy Trust the Audit Team identified several potential improvements that will allow the organization to operate more efficiently and effectively and help the organization move to a more streamlined, more effective operations.

Program Review & Approval Process

One issue that hinders efficient program operations is the current system to review and obtain approvals for the programs. Currently programs must go through an in-depth Board review process for approvals resulting in a resolution or a Board Approved Program (BAP). Early in the life of the Energy Trust, the Board was involved in all aspects of the program design approvals, review and final approval of the contracts. While this was important during the formation of the Energy Trust and building of the staff, the Audit Team believes that the expertise within the Energy Trust staff is such that the Board can now delegate some of this activity, within given operational guidelines and policies. The opinions given to the auditors by the Board members acknowledges that this ‘evolution’ is taking place over recent time but there is a difference of opinion among Board members as to how far this delegation should go, and Board minutes and resolutions show little change in actual practice over time. In addition, Board minutes reflect that there are times when the Energy Trust’s “procedures and requirements” have slowed the program rollout process. Likewise, Board minutes indicate that while some authority is moving from the Board to the Executive Director, these minutes also state “although the Executive Director’s signature authority is \$500,000 the [Board’s] review process for all projects, including those less than \$500,000 is the same”. As well, the minutes reflect that the Board has specifically indicated that, “signature authority limits should not be the basis for [program] decisions.” Likewise, Board members themselves “expressed frustration over receiving multiple revisions to resolution text and numbers” delaying the ability to roll out programs in a timely way.

While the Audit Team acknowledges that the Board has the fiduciary oversight responsibility for delivering the savings goals as established in the agreement with the Commission in a cost effective manner, and responsibility to ensure that the funding from the ratepayers is spent appropriately, the Audit Team recommends that this can and should be done at the overview, policy and overall Energy Trust budget approval level and not at the specific program operational level. By giving the Energy Trust staff the authority and accountability they need to effectively operate programs, these programs

can be developed, designed and adjusted in real time to respond to market and implementation issues and opportunities.

In the Audit Team's opinion, it is important for both the Management and the Board to clarify the level of communications and support that is required for appropriate policy and budget oversight and for the staff to develop systems to efficiently and efficiently allow for and support that oversight. The proposed approach outlined in the September 2004 Board meeting accomplishes much of this change.

The Audit Team wants to be clear that it is not recommending shifting policy formation, strategic planning, budget approvals or fiduciary review responsibilities to the Executive Director; this is still the Board's responsibility. While Sarbanes-Oxley does not apply to the Energy Trust, the federal legislation can be considered as a guidance document for exempt organizations such as the Energy Trust. That is, Sarbanes-Oxley can be viewed as an opinion provider on the appropriate activities and efforts associated with providing oversight and meeting fiduciary responsibilities. However, a review of Sarbanes-Oxley finds no provisions suggesting that Executive Directors or Boards need to operate at the program operational level, despite Board interviewees' suggestions that it requires the Board to operate at this level. Instead, Sarbanes-Oxley focuses on financial disclosure and reporting, and provisions associated with financial auditing, controls, conflicts of interest, personal loans and other activities not associated with the "level" at which Executive Directors or Boards should operate.

As outlined in Sarbanes-Oxley the Executive Officer is responsible for:

1. Establishing and maintaining financial controls,
2. Assuring internal information availability,
3. Evaluating internal control effectiveness,
4. Presenting conclusions about control effectiveness,
5. Identifying significant deficiencies,
6. Reporting fraud,
7. Not misleading audits,
8. Adhering to an issued code of ethics,
9. Discloser of financial interests, and
10. Other similar items.

What the Audit Team is recommending is that the responsibilities for program design, program operations, and contract review should be the responsibility of the Executive Director and her staff with summary reports provided to the Board. By making this change the Board can focus on policy issues such as geographic and sector equity. It can also focus on budget balance and cash flow, high-level organizational progress and overall energy saving and renewable energy generation. Of course the Executive Director and her staff still need to provide appropriate Board reports showing spending, energy savings, and overall activities so that the Board is comfortable with progress and can exercise their oversight and guidance responsibilities. The most important benefit of this change will be in increasing the efficiency, flexibility and timeliness of the Energy Trust to meet market changes and reach its energy goals, while letting the Board focus on

its fiduciary priorities and high-level strategic policy direction. It will also allow the Board to help with needed coalition building with other entities within the State of Oregon. Examples supporting this finding can be found in Appendix A, Issue 2.

Transparent, Open Operations

The Energy Trust is to be commended on its efforts to be open and transparent while gathering input from its advisory groups and from the public in the program review and approval process and other activities. The Energy Trust has an open and transparent system that gives reviewers access to all Board meetings, all advisory council meetings and periodically holds special public meetings or takes part in other public forums to present the efforts and activities of the Energy Trust.

Working and operational documents associated with the Energy Trust are made public via the web site. The Audit Team finds that the Energy Trust is also receptive to outside participation in the Board meetings and in the advisory council meetings. The public can also send comments and suggestions to the Energy Trust through e-mail and web communication links. There are a few minor but related areas where transparency can be improved that are discussed elsewhere in this report, including documenting energy impact estimation calculations so that they can be understood and replicated by others, and expanding public involvement in the RAC, and to a lesser degree the CAC, if the Energy Trust wants the council to fill part of the public input goals.

The Audit Team finds that the Energy Trust is structured and operated in a way that provides, encourages and accepts public input and most programs and operational structures associated with the Energy Trust are presented in the Energy Trust's documents and that the Energy Trust operates in a way that is consistent with open, transparent approaches.

Executive Director Signing Authority

The efficiency of the Energy Trust operations can be limited by the contract signing authority of the Executive Director. This limitation and potential problem has been resolved at the September 2004 Board meeting with the adoption of the following resolution:

- 4.11 Executive Director. The Executive Director shall: (a) serve at the pleasure of the Board; (b) execute contracts, agreements and other instruments consistent with the policies and directions of the Board of directors; and (c) subject to Board policies and resolutions, act as the Corporation's principal executive officer with general supervision, direction and control of the business and affairs of the Corporation.
- Contracts over the amount of \$500,000:
- No contract will be executed unless the Board of Directors has first reviewed and approved its basic terms.
 - When it approves basic contract terms, the Board may instruct the Executive Director to bring a final contract back to the Board for review and approval before the contract is executed.
 - The Executive Director shall not execute contract amendments that make major changes in contract terms (e.g., more than 10% change in funds obligated, more than 20% change in energy saved or produced, time by which savings will be achieved) unless the Board of Directors has first reviewed and approved the basic terms of the change.

(As a comparison, in Wisconsin, the Wisconsin Energy Conservation Corporation Executive Director has a \$1 million authority limit.)

While this addresses most of the Audit Team's concerns, there still exist the delays associated with the Board approval of basic contract terms and conditions. The Audit Team believes that a contract term template should be pre-approved by the Board for standard services and PMC contracts that require Board involvement in the approval process only when those terms are substantially revised. However, exceptions need to be made for special or unique contracts, such as large utility-scale energy or renewable energy investments that would require unique contracts.

The Audit Committee of the Board should also review periodic contract agreements to assure they are within Board and accounting guidelines. The Audit Team makes one additional suggestion. When contracts are amended, the current limit of 10% of obligated funds may not be appropriate for smaller contracts. In Wisconsin, for example, they have successfully used a decision rule that says funds can be moved or changed between programs and contracts by sector (Residential or Business Programs) up to \$100,000 if total dollars are within the overall sector budget for the year. The Board should consider establishing both a percent and a dollar amount to trigger a review to avoid unnecessary time spent on small contracts that need changes that amount to more than 10%. The following language might be considered.

For contracts over \$500,000, the Executive Director shall not execute contract amendments that make major changes in contract terms (e.g., more than a 10% change in funds obligated, a change of more than \$100,000, more than 20% change in energy saved or produced, or time by which savings will be achieved) unless the Board of Directors has first reviewed and approved the basic terms of the change.

Program Manager Authority

In addition to limited authority of the Executive Director, there is a mixed understanding of the program managers' authority to make adjustments within their programs and their level of budget accountability under which they operate. While it is clear that the program managers are responsible for managing the program, and the program manager and PMCs are responsible for reaching their goals within budget, it is unclear and not uniformly understood as to how much authority the program managers have to make adjustments within their programs, or adjustments within their budgets.

From the budget standpoint, the program managers also report that they are responsible for the cost effectiveness of their programs but do not have full authority over the charges that go against their programs (i.e. marketing and evaluation costs are two examples). This is both a communications and process problem. For the evaluation dollars, clear budget allocations need to be communicated and adhered to by the Evaluation Manager. If variances arise, the Evaluation Manager needs to discuss these with the program manager to inform them of the changes. For the marketing dollars, the process should be

adjusted to where the program managers have joint decision authority over the direct marketing activity when dollars are utilized from their budget. When marketing budgets are shared among programs for general marketing, communications must be clear as to how it impacts their budgets. Again if variances arise, the Marketing Manager should clearly communicate these changes and their impacts on the program budgets.

However, there may be a need to segregate budgets, for example the evaluation budgets should not be considered part of the program's operational costs. The evaluation function is a management and oversight tool to make sure programs are operating efficiently and that cost effective savings are being achieved across all programs, rather than a component of the operations of the program.

The Renewable Energy Advisory Council and the Conservation Advisory Council

The RAC and CAC, which are important sources of information and technical support for the Energy Trust, can benefit by implementing a couple of changes in their operational procedures to make them more effective contributors to the activities of the Energy Trust. The Audit Team found that the RAC and CAC are useful tools for gaining valuable opinions and ideas from a number of representative perspectives. The CAC is significantly larger than the RAC and has a better cross representation from Oregon as a whole. The RAC is smaller and is made up of mostly stakeholders who have special interests and knowledge about renewables. Interview results regarding how the Energy Trust obtains public input indicates that several interviewees consider the CAC and RAC as general public information streams to support the transparency needs of the Energy Trust in addition to their Board advisory role. The auditors only somewhat agree with this suggestion and note that public input is not the primary purpose of the CAC or the RAC. While the CAC can be considered more of a body of advisors and citizen representatives, the RAC is a body that is not nearly as representative of the citizens of Oregon, but is more of a body of technical experts to help guide and potentially support the operations of the Energy Trust's renewable energy programs. As a result, while the CAC can be viewed as a technical advisory body that also provides some level of general public input into the Energy Trust's operations, the RAC, under the current membership structure, may be able to claim being only a technical advisory council. In making this statement the Audit Team is not suggesting that a function of the RAC and CAC should be to obtain general public input. The audit recognizes that the primary purpose for forming the RAC and CAC is to advise the Board, and to a lesser degree the staff, on technical issues relative to specific technologies and program offerings or operations. However, the Audit Team agrees that the CAC is structured in a way that provides more open public input when compared to the RAC. If the Energy Trust wants the CAC and RAC to serve in a public advisory capacity, and the auditors are not suggesting that they should, the RAC would need significant restructuring to serve in this role.

The Audit Team also notes for the audit record that both the RAC and CAC routinely invite others (guests, other stakeholders and experts) to attend the public meetings and both council managers report being open and interested in hearing additional input, perspectives and guidance. In addition, the Audit Team notes that the RAC and CAC

meetings are posted on the Energy Trust website and these meetings are open to the public, and as a result, do provide for increased public input to the operations of the Energy Trust.

The Audit Team's investigation of the RAC and CAC resulted in the following findings:

- a. RAC members, and to a limited degree CAC members, advised the auditors that some technology discussions are not fully considered by the councils or reported to the Energy Trust Board if the Energy Trust staff do not support the technologies or think the technologies are inappropriate for consideration by the Energy Trust. While it is appropriate to screen concepts and technologies from consideration, these technologies should typically be reviewed for potential or documented as to why they should not be considered.
- b. Both RAC and CAC members report that they do not have enough input into the agenda of the monthly meetings.
- c. RAC members and periodically CAC members report that agenda items and discussion topics are not provided in enough time for members to review the materials and fully consider or investigate the relevant issues prior to the meetings.
- d. RAC members and, to a limited degree, CAC members report that their recommendations and concerns are not fully formalized or documented in Energy Trust minutes or in presentations and discussions to the Board.
- e. RAC members report that feedback from the Board meetings relative to their discussion topics "is sketchy" and may or may not be provided at follow-up meetings.
- f. RAC members report that council input is filtered when presented to the Board so that the Board hears what the staff wants the Board to hear. The CAC, with its newly adopted operating principals (see below) appears to have addressed this issue.
- g. RAC members report that they are not a full part of the program planning and development process and that the Energy Trust's planning process is structured so that the RAC does not have much influence. This may be a reflection of a misunderstanding by these members that the RAC is an advisory group and not a decision making body. It may also be that these members have a self-interest in the outcome of these decisions and disagree with past decisions. The Audit Team could not determine whether these are self-serving motivations, communication problems or a misunderstanding of the role of the RAC, however clarification of the members' roles would be helpful.

While many of these findings apply to both the RAC and the CAC, these findings apply more to the RAC than the CAC as a whole. The CAC has already placed several of these issues on their agenda for discussion and resolution and has developed a set Operating Principles that were finalized on September 15, 2004. These Operating Principles have 11 key points including:

1. To meet monthly.
2. Distribute agendas, discussion papers and notes at least one week in advance of the meeting.
3. Identify agenda items as discussion.
4. Make presentations short and succinct and provide ample time for discussion. Strive to invite guest presenters.
5. Provide at least two rounds of discussion on topics before asking for a recommendation (to allow time for research, opinion building and full consideration of the issue).
6. Solicit technical experts as appropriate to inform discussions before final recommendations.
7. Poll members for opinions on recommendation topics and document minority and prevailing opinions.
8. Provide program information updates quarterly.
9. Provide more complete summaries of council recommendations, including split recommendations in Board decision documents.
10. Include Board members on council distributions to allow Board members to review and to attend meetings if interested.
11. Include time for open discussion and suggestions for future agenda items.

These Operating Principles are effective and should help address both CAC and RAC concerns, if adopted by the RAC. The one item that still needs clarification is principal #5. Not every item is of significant importance to warrant a two-meeting review. This extended review, while warranted on key issues, could hinder time efficiency on non-key items. The Audit Team suggests that each Advisory Council outline guidelines on which items warrant a two-meeting review timeframe.

The RAC and CAC are critical and necessary technical advisors on programs, markets and technology concepts, and helping to assure that the Energy Trust's decisions reflect expert input, market realities and local sentiment. These Operating Principles will significantly improve the operations of the RAC and help solve some of the issues noted by the auditors.

Improving Relationships Between the ODOE and the Energy Trust

The Energy Trust also has the opportunity to improve its effectiveness in its operations by successfully collaborating with entities like the Oregon Department of Energy (ODOE). The Audit Team found a consistent thread of comments from interviewees on the level of tension between the ODOE and the Energy Trust. While there have been some obvious successes in working together, the need to improve this relationship was noted by almost all of the interviewed Board members, the interviewed staff and others. While this relationship is reported to be improving, there appears to be unnecessary restrictions on communications within the ODOE, and a less than optimum working relationship between the two organizations. This finding does not attempt to confirm or

reject the reasons for the conflict as reported by the interviewees, but does note that the condition of the current relationship places a barrier in the road to achieving maximum support between the two organizations that have similar (not identical) goals.

While both the Energy Trust and the ODOE personnel report improved coordination on several program and implementation initiatives over the last several months, especially at the staff and program levels, there needs to be additional improvement in the relationship between these two organizations, especially at the senior management levels. The Audit Team has reviewed the Memorandum of Understanding on how the Commission, the Energy Trust and the ODOE will work together, and the Audit Team believes that this is a good start to building a foundation that will improve the relationships between the Energy Trust and the ODOE. Through this structure, the Audit Team also notes that the Innovation Team (Three-Person Team) is established to help address these issues. It also notes that there have been quarterly meetings on coordination that receive significant staff support on both sides. These are good beginnings for accomplishing this improvement, but the Audit Team also observed and received comments from interviewees pertaining to how the cultures of the two organizations are different, employing different approaches to the markets and holding different opinions on process and program details. While these improvements are encouraging, there may need to be additional professional or higher-level support provided to the senior management of the two organizations if the relationships do not improve under the Memorandum of Understanding.

Cross-Program Integration

The effectiveness of the Energy Trust's programs could also be improved with more cross-program integration within markets. At the time of the audit there were no incentives for the PMCs (besides goodwill to the Energy Trust) to perform cross-program marketing or referral activities. There are also differences in forms and methods for participating trade allies and customers. Customers can participate in one program with a PMC, but must then move to another PMC providing another program to take advantage of that program's offerings, creating a participation barrier. This is counter-productive to acquiring cost effective resources because it requires multiple enrollments and processing for the same participant because they elect to take multiple actions. It also acts to limit program effects. A participant in one program may have no exposure to the opportunities in another program simply because of the segregated approach to program offerings. This is not just a problem of the Energy Trust, but is a problem across the industry and this barrier needs to be addressed by the Energy Trust for their programs.

There is no one answer to this difficult question of how to accomplish this within an overlapping and 'matrix' market. Markets are inherently messy. The first item to address is consistency in forms and participant sign-ups for both trade allies and customers.

Other programs of which the Audit Team is aware have used different tactics to accomplish cross integration. Vermont has pulled programs in-house and away from the PMC model. Some of the reasons motivating this change are to address the integration problem, improve the effectiveness of their operations, and lower participation barriers.

In the Business portion of the Wisconsin Focus on Energy program, which uses a PMC-type model, they divide and contract their ‘programs’ by customer types or ‘sectors’ – Commercial, Industrial, Agriculture, School & Government – so that programs can serve customer sectors rather than by the types of technologies or services provided. Whether the offering is for equipment through prescribed incentives, custom incentives, new construction or retrofits, participants come through the same delivery contractor. This reduces the integration issue, though trade allies or other market actors often cross sectors. Also, Wisconsin has established a single form for trade ally sign up and for single or multiple program participation. California programs have addressed this issue through its statewide programs that offer somewhat wider technologies, as in the Express Efficiency Program. However, even in California there is not a well performing system serving all customers’ needs through a single program. Other approaches to consider include goals attribution incentives for referrals or monetary rewards for leads that result in savings.

Program Problem Resolution

The Audit Team identified program problem resolution as another source of inefficiency in the Energy Trust’s operations. Program problem resolution responsibility is unclear within the Energy Trust. Authority for making program changes is shared among program managers and with two different directors creating confusion about who is responsible for what. This matrix approach, while allowing creativity and flexibility, also hinders decision-making and efficiency. There needs to be different levels of problem resolution so that a director or multiple directors do not need to be involved in problems that can be solved by a manager. While the Audit Team recognizes there is a point at which a director must be involved in the decision making process, as more programs are implemented, more decisions will need to be delegated to the managers. Consequently, a more structured process with guidelines on the types of issues that should be handled by the program manager and the issues that need to be pushed up the chain of command, especially as the volume of programs increase and as program offerings and delivery approaches become more complex. While the interviews did not provide specific cases that can be used as examples, some generalized examples are provided below.

- Incentive changes such as the incentive or ‘spiff’ to furnace dealers and weatherization contractors needed to go too far up the organization for review and approval at a level beyond the program manager. Then in order to implement the decision, the change has to be reviewed for priority before it could be designed and implemented through the FastTrack system.
- All changes to program incentive levels must go through the organization and frequently need to go through the RAC and CAC no matter how small the change.
- Several layers of managers must review minor changes in marketing materials, even if they are within guidelines.
- Interviewees described individual participant customer issues and complaints, that when called in, are sometimes taken up the organization across several layers of managers and are sometimes coordinated with the utilities for resolution.

Interviewees noted that this cumbersome process involves too many managers for what are sometimes noted as simple customer problems that can be resolved by the implementation field staff. The Audit Team agrees that there should be problem/issue/complaint resolution guidelines that allow problems to be solved at the lowest level possible, with problem resolution tracking procedures so that the problem and the resolution can be documented.

- Interviewees report that adjustments to contracts take months no matter what the issue because of the “cumbersome way” in which the Energy Trust handles contracts. It is reported to the Audit Team that this may be an artifact of earlier problems. The Audit Team cannot verify or confirm this issue but reports feedback from interviews.

PMC Contracts

Consistency in contracts with PMCs would likely enhance the effectiveness and accountability of the contractors in implementing Energy Trust programs. Currently contracts with PMCs have different levels of penalties and rewards for performance. Early contracts had 10% retention until goals are met with no bonus if they are significantly exceeded. Newer contracts have 5% retention and a bonus if goals are exceeded. The new levels are more appropriate and should be applied to all program contracts. The level of bonus needs to be determined in a logical and consistent manner across the Energy Trust’s contracts so that contractors are treated equally. However, performance assessments should continue to be determined individually by program. As discussed earlier, there are no contract incentives for cross-program referrals and integration. The Energy Trust should consider the development of financial or energy bonuses recognizing program referrals and results.

Call Center Impacts on PMC

The success of the PMCs is also connected to the success of the Call Center. There needs to be a better path for accountability between the two organizations than currently exists. The Call Center is an important part of the face of the Energy Trust and needs to have consistent, high quality performance and serve all programs well. The new Customer Service guidelines should help assure some level of consistency and, to some degree, a more uniform quality of service. However, the Energy Trust needs to understand that the PMCs are responsible for the final delivery of their program goals under the provisions of their contracts and that the PMC’s performance is directly affected by the Call Center’s performance. As a result, the PMC needs to have the capability to employ direct customer contact through their own call center to complete their sale, or the Energy Trust’s Call Center must have PMC-associated performance requirements that directly support the PMC’s need for fast, accurate information needed to develop and close a sale. At the current time the PMCs have goal accountability to the Energy Trust. Yet the Energy Trust’s Call Center has a direct effect on the PMC’s ability to acquire cost effective resources as a result of the way in which the Call Center’s operations are performed. While the Call Center has been provided with guidelines for handling calls and transfers (August 2004), the Call Center needs to have performance accountability to the PMCs, and the Call Center’s performance needs to be, at least in part, formally judged by the PMCs.

QA/QC Guidelines

Another inconsistency within Energy Trust programs is that Quality Assurance/Quality Controls (QA/QC) are inconsistent across programs with procedures that are developed individually for each program. While each program manager provides some level of QA/QC on their programs, each manager determines the types and frequency of the QA/QC efforts for their program and deals with the results of these efforts on an ad hoc basis. While the audit did not reveal specific problems, the Audit Team notes that no QA/QC audits verifying the accuracy of program records were conducted (beyond the scope of the audit).

Marketing

As a central tool for encouraging participation, the Audit Team found that existing marketing materials and activities are of high quality. Support materials and collateral materials have a consistent look and content, and are overall clear in their messages. Marketing plans are developed for all programs, but the quality, depth and consistency of these plans vary.

Recommendations for Program Operations and Procedures

- 22. Improve Operational Efficiency by Moving More Authority to the Executive Director and Staff:** The Board must continue to give more authority and accountability to the Energy Trust Executive Director and staff, allowing them to make program designs and implementation adjustments quickly and efficiently. It should approve the proposal from the September 2004 Board meeting on this issue and act to identify additional changes to the Board and Management Staff's operational procedures to improve efficiency and effectiveness of programs in the field. The Board should approve sector-level budgets and overall program concepts and provide operational guidelines for the Energy Trust staff as outlined in the September resolution. Balance, equity, policy and other oversight issues should be addressed in the Board's annual strategic planning and budget process. These changes would allow the Energy Trust Management staff to focus on key goal-oriented operational activities while serving the needs of the Board.

Energy Trust's Response to Recommendation 22

The Board in general agrees with this recommendation and will work with staff to improve operational efficiencies. An improved process is needed for program adjustments and this is a part of the Board-approved program approach that has been revised for consideration in February 2005. Major program changes, however, should still involve Board notice or authorization and we will work with staff to develop those trigger points. The Board, however, anticipates that at least over the short run, it will continue to be the approval and authority for the initial launch of new programs.

The Board acknowledges that its members have diverse opinions on the appropriate authority levels for the Executive Director and staff. The Board will quickly identify those issues it can agree upon and ensure related processes are

established. Further, the Board will continue to engage in discourse with management to explore the more complex areas, and how approval processes can satisfy the Board's responsibility for proper oversight while maintaining the shared interests in overall operational efficiency.

- 23. Document How Public Input is Used:** There is a need to document the input and ideas that are provided to the Energy Trust and to document how these ideas are used in the Energy Trust's decision making not only from the councils, but also from public input outside of the councils.

Energy Trust's Response to Recommendation 23

The Energy Trust retains written records of comments solicited and received when strategic plans, action plans and annual budgets are drafted for review. Notes are made of key points from stakeholder meetings, including utility meetings and quarterly coordination meetings with ODOE as well as RAC and CAC meetings. Board decision documents and briefing papers summarize public input, including that from CAC and RAC. Most recently, RAC and CAC meeting notes have been included in Board packets and this action is appreciated. At the Board's direction, staff is also incorporating more detail in the public response section of the Board documents, reflecting public input solicited and highlighting different opinions on matters presented for Board consideration or action.

- 24. Continue External Involvement and Public Meetings:** The Energy Trust should continue its efforts to attend other organizational meetings associated with a wide range of customer groups to present the Energy Trust to these groups and to obtain their advice and involvement. The Audit Team realizes that this is an important, challenging, and continuing activity.

Energy Trust's Response to Recommendation 24

We agree with this recommendation. From the outset, external involvement from public meetings and soliciting feedback from key stakeholders have been a hallmark of our business approach and viewed as invaluable for the Energy Trust. We strive to understand and serve the needs and interests of ratepayers, stakeholder organizations, important community institutions and groups throughout the state.

Energy Trust staff and Program Management Contractors routinely create opportunities to participate in meetings with customer and stakeholder groups. We have also obtained memberships in local chambers of commerce across the state, serve on numerous committees and boards, including the Association of Professional Energy Managers and the League of Oregon Cities Energy Committee, and pursue many leverage opportunities with diverse partners. When appropriate, workshops of interested parties are convened to assure all viewpoints are brought to bear on ideas for and the design of new programs and initiatives. Examples include our Klamath Irrigation and Combined Heat and Power initiatives. This approach will only be strengthened and replicated over time.

- 25. Develop Efficient Standard Contract Approaches:** Develop templates for uniform contracts that standardize, simplify and streamline the contracting process. Utilize the Audit Committee or legal counsel to review contracts to assure compliance with the simplified contracting process so that as much contracting moves through the simplified templates as practical. Move decision authority in addition to financial signature authority for contracts following Board policies and guidelines to the Executive Director with oversight by the Board.

Energy Trust's Response to Recommendation 25

The Energy Trust contracting process has been streamlined, largely simplified and standardized. Legal counsel handles all drafting, while program managers monitor compliance, improving the efficiency of the process and clarifying responsibilities. Board and staff will consider whether it is desirable to delegate more authority to the Executive Director to enter into contracts without further Board approval, provided such contracts adhere to established Board policy and guidelines.

- 26. Document How RAC & CAC Recommendations are Used:** The information provided to the Energy Trust via the RAC and CAC should be complete, accurate, represent the nature of the discussion or recommendation considered and be documented. The Energy Trust should maintain some level of documentation of the key ideas and issues it considers so that the public and council members can understand how Energy Trust staff considered their ideas. There is a wide range of options available to the Energy Trust for accomplishing this goal, ranging from simple idea category classification/descriptions and response notations to detailed analytic assessment of the ideas provided. The Audit Team suggests that the concepts and ideas provided by the council members or the public attending a council meeting be documented and made available for review and discussion at council meetings. Advisory resolutions or other documentation of the results of council discussions can be provided to and maintained by the Energy Trust staff. This would allow the Energy Trust to receive a formal document when a recommendation from a council is supported by a majority of members. When not supported by a majority, the consideration should be documented in meeting minutes. The councils should expect the Energy Trust to provide feedback on council ideas and discussions so that the council members understand how their input was considered and the results of that consideration.

Energy Trust's Response to Recommendation 26

The Energy Trust maintains advisory council web pages that include meeting agendas, discussion documents, presentation and meeting notes. The meeting notes document all meeting discussions, recommendations and actions stemming from both RAC and CAC meetings and are used by staff when making related recommendations to the Board.

Staff agrees that there may be further opportunities to expand and clarify meeting notes, especially where diverse advisory council opinions are present, and to highlight such opinions to the Board. Staff also agrees that advisory council

members should routinely be updated on follow-up actions taken by the Board that pertain to items of council interest. Staff proposes to achieve this by briefly summarizing outcomes of Board meetings at subsequent advisory council meetings. Council meeting notes will also be more comprehensive and members will be expected to have read them in advance of meetings.

- 27. Establish RAC and CAC Operating Procedures:** Both the RAC and CAC should have standard operating procedures that detail how the RAC and CAC should operate beyond the current CAC's Operating Principles. This document should clarify that the RAC and CAC are advisory and provide detailed operational procedures. These procedures should clearly articulate the members' roles, and describe how information will be documented, managed and processed. The CAC Operating Principles are a good start to this effort. While the Audit Team understands that some of the council member recommendations may be self-serving, the public and the council members themselves have a need to understand how the councils work, what council members and the public need to do to provide ideas and concepts, how to get on the agenda, how the information provided will be considered by the Energy Trust, and what decisions are being made to use or not use the input provided. Operating Principal #5 should be clarified within each council as to the key issues or items that need a full two-month review discussion.

Energy Trust's Response to Recommendation 27

Staff believes the adopted CAC Operating Principles provide positive guidelines that result in effective meetings while allowing flexibility to maximize the councils' technical contributions. These guidelines were proposed by the CAC members themselves and in practice, have strengthened the role and contributions of individual participants. Staff also supports consideration of the CAC Operating Principles by the RAC members.

Development of additional operating procedures such as clarification of advisory council roles, a description of how information gathered is to be documented, managed and processed, and other meeting guidelines and expectations can be explored with council members. Staff believes council member contributions are highly valuable and that meetings are very open and advantageous. Staff is committed to seeking direct input from council members as to whether further operating procedures are needed and desired.

- 28. Provide Fair and Balanced Reviews to the Board:** The Energy Trust's RAC and CAC managers should make sure that information sent to the Energy Trust Board is fair, balanced, and reflects the different opinions within the council so that full consideration can be provided to the Board. This information should indicate staff's position relative to the ideas provided, but must be objectively provided to reflect the discussions and recommendations developed. When the RAC or CAC produces recommendations that require policy or high-level budget considerations these should be presented to the Board by the Energy Trust staff for consideration and resolution.

Energy Trust's Response to Recommendation 28

Both Board and staff members have recently begun representing more details from advisory council discussions, particularly where unanimity is not present. As noted above in the response to recommendation 26, staff is taking care to provide more detailed narratives on council recommendations when information is prepared and presented to the Board. Council meeting notes are also included in (public) Board meeting packets and posted on the web site. In the future, staff will provide notification of Board meeting agendas to those council members who wish to receive it.

29. **Provide Notice on Subjects to be Discussed:** The Energy Trust should provide ample notice of the subjects to be discussed in the RAC and CAC meetings and allow the public and council members to place items on the agenda.

Energy Trust's Response to Recommendation 29

Staff has initiated a policy of providing materials at least one week in advance of council meetings. Agenda items are solicited from council members and to ensure additional communication, items for future discussion are listed on the RAC agendas.

30. **Continue improving the Relationship Between the Energy Trust and the ODOE:** The Audit Team recommends the Energy Trust continue to build more trusting and open relationships with the ODOE. Specifically, both organizations need to allow open and unrestricted communications between the organizations at the staff levels dealing with programmatic, non-policy issues. At the policy level, the Energy Trust and the ODOE need to work in partnership when appropriate to coordinate program service to avoid overlapping, or duplicative efforts and to maximize program benefits. In particular, everyone involved needs to work towards successfully implementing the Memo of Understanding.

Energy Trust's Response to Recommendation 30

The last year has resulted in significant positive progress toward establishing effective working relationships between the Energy Trust and the ODOE. Formalized through the Memorandum of Understanding between the two organizations and the Commission, the Energy Trust and ODOE have held several full and half-day quarterly meetings to update one another on shared initiatives and to identify opportunities for further joint collaboration. In addition to the quarterly meetings, interim work sessions have proven to be highly productive, resulting in greater understanding and coordination between the two organizations. Continuation of this successful approach will surely benefit all parties and those we serve.

31. **Monitor the Relationship between the Energy Trust and ODOE:** In view that a significant majority of all interviewees identified the relationship between the ODOE and the Energy Trust as problematic to the smooth operations of the Energy Trust, the Energy Trust should monitor the evolution of the relationship under the Memo of Understanding to determine the degree of improvement. If

the relationship does not improve the Energy Trust should take additional efforts to build a positive working relationship between the organizations.

Energy Trust's Response to Recommendation 31

The Energy Trust, ODOE and Commission staff appear to be working well together from the Board's point of view. The Innovation Team of the Board also provides further insight and assistance, enhancing cooperation between ODOE and Energy Trust. Further assistance has been provided by the Commission liaison to the Energy Trust and her specific role on the Innovation Team. The Board will continue to monitor the relationship.

- 32. Develop Ways to Generate Cross-Program Referrals:** Look for ways to provide cross-program referrals, leads generation, and enrollments. Continue to move the program design and integration services to be more integrated so that the focus is on customer and participant efficiencies.

Energy Trust's Response to Recommendation 32

Staff agrees with this recommendation and recognizes the importance of moving away from individualized and targeted programs to more comprehensive and sector-based ways to reach participants. PMCs and production development contractors are already emerging as a potential mechanism for cross-program referrals in the field. As a result, there are an increasing number of instances where participants in energy efficiency programs learn about and pursue renewable energy opportunities and vice versa. Program managers are also working with PMCs to cross-refer between different residential programs and between existing and new construction programs. Incentive payments or "spiffs" are included in the current year budget as a way to encourage and recognize such cross-program referrals when they occur. Utility account representatives and data sources also provide important means for reaching customers served by more than one Energy Trust program.

Internally, the IT department is currently working with program staff to improve and tap the Goldmine customer data base to provide a "one-time" data entry for both participants and program service providers. An initiative to standardize forms is also in process, designed to allow essential data to be consistently captured and made available for use by any program. Such improvements are expected to further enhance cross-program referral capabilities in the near future. In addition, new Energy Trust programs and contracts will be required to integrate standard forms and processes as a part of program delivery. Lastly, proposed changes to the structure for future program management contracts would include cross-program referrals as a part of third year contract extension criteria.

- 33. Develop Program Problem Resolution Procedures:** Develop a structured process with guidelines for program problems/complaints and issues to be addressed with specifications identifying who has the authority to make different types of decisions, at specific levels of involvement across Energy Trust staff and

contractors. However, leave enough flexibility and discretion within this structure to be quick and nimble at addressing the problems. Push this authority as low within the organization as possible while still maintaining accountability and documentation.

Energy Trust's Response to Recommendation 33

We believe this recommendation relates to other recommendations regarding clarifying roles and responsibilities internally among staff and between staff and Board. We support the Audit Team's recommendation that the approach used should emphasize flexibility and responsiveness at the lowest levels in the organization. We are committed to exploring options such as a decision tree, designed to identify types of decisions and corresponding levels of authority within the organization. Such guidelines should highlight when managers have discretion to address problems at their level and when judgment should be exercised and discussion elevated for resolution by directors, the management team or the Board.

- 34. Develop Consistent PMC Contracts That Reward Performance:** Contracts need to have consistency and allow for the PMCs to gain recognition and financial reward as well as financial penalty for non-performance. Change all PMC contracts when they are extended or renewed to include a balanced retention and bonus agreement. Also consider cross-program referral and performance incentives within the contracts.

Energy Trust's Response to Recommendation 34

As noted, recent Energy Trust contracts include smaller retention amounts. Energy Trust is now in the process of re-bidding two of its major PMC contracts. The experience of programs being in the field for two years provides an opportunity to re-examine program approaches, corresponding contracts and the PMC model. We are in the process of exploring these issues, particularly the value of performance incentives, in the context of these two new PMC contracts. Options to change or expand incentives that reward performance are being explored and considered. See recommendations 11-d and 32 for examples.

- 35. Develop Standard Quality Assurance – Quality Control Processes:** Establish guidelines and structure for QA/QC so that this process can be standardized across programs to the extent practical. These standards might include guidelines such as:

- ✓ Commercial and Industrial (C&I) customer projects with incentives over \$50,000 should have 100% field verification of installation to confirm the specifications of the funded measures.
- ✓ C&I project incentives between \$25,000 - \$50,000 should have 20% verification.
- ✓ C&I project incentives between \$10,000 - \$25,000 should have 10% verification.
- ✓ C&I project incentives less than \$10,000 should have 5% verification.

The above points are provided as examples and can be adjusted to best fit the Energy Trust's needs; however, the structure of a formal verification effort is a sound practice. The Audit Team would also like to point out that this structure should be sector-dependent, not program-dependent. For example, the same structure can be applied for all residential programs.

Other guidelines should be created to inspect the quality of work for new trade ally partners. Field inspection of the first three or four projects for a new trade ally or contractor is a suggested guideline in addition to routine follow-up inspection to help assure continuing performance.

Energy Trust's Response to Recommendation 35

We are committed to making improvements in this area to balance structure with effectiveness and efficiency. From its inception, the Energy Trust has instituted guidelines consistent with those suggested in this section as part of its quality control process. Quality assurance -- Energy Trust oversight over quality control -- remains more selective and focuses on likely problem areas. The Energy Trust believes quality assurance should be more formally structured and that we should maintain flexibility to focus the most resources on areas where the likelihood of problems are largest. Toward this end, we are developing quality assurance guidelines to provide more explicit direction without tying down the details in a way that would compound the work and essentially replicate quality control.

In addition, the Energy Trust is considering hiring an internal auditor who would report to the CFO. This position would conduct external audits to test approaches and evaluate processes used by contractors, insuring that appropriate internal controls are in place and being used. This position would also be responsible for documenting and standardizing those processes where appropriate. New requirements for certification of internal controls and financial statements by both the chief financial officer and the Executive Director translates into assurance that these functions are consistently performed.

- 36. Establish PMC-Judged Call Center Performance Standards :** Establish program oriented goals and performance standards for the Energy Trust's Call Center to be judged by the PMCs and the program managers.

Energy Trust's Response to Recommendation 36

We recognize the importance of the Energy Trust call center performance to the success of programs and welcome the use of performance standards that apply to both PMCs and the Energy Trust. We also note that 70% of calls received are from potential participants in the Home Energy Savings Program. To best serve such customers, we are planning to shift to an automated call routing system effective in mid-June, when the PMC for the Home Energy Savings Program contract is awarded. From this point forward, those contacting our call center would hear a recorded message and if interested in home energy programs, be transferred to the PMC responsible for residential program delivery. The draft request for proposals for the Home Energy Savings PMC contract specifies that

Energy Trust call center performance standards will apply. The two call centers will exchange monthly reports, and the Home Energy Savings Program PMC will be expected to comment on Energy Trust performance. These actions would directly respond to this recommendation.

- 37. Continue Improving Marketing Plans :** Continue to refine the marketing plans among the programs and strive for more consistency and quality between the programs.

Energy Trust's Response to Recommendation 37

Energy Trust has created a single calendar of 2005 marketing activities occurring across all residential programs. These include events, promotions, incentive changes, advertising, collateral and utility collaborations. We are working to develop a similar calendar for commercial and industrial marketing activities. In addition, we have been invited to jointly plan marketing and customer service activities in concert with our utility partners and this will be a major emphasis in the current year.

Budgeting and Internal Controls

Budget is Allocated Effectively

The Energy Trust has allocated its budget across a wide range of administrative, overhead, management, oversight support, incentives, and program operational expenses. At the time of the audit examination, the Audit Team found that the budgets have been allocated and distributed appropriately with only minor adjustments that should be considered. The budget distribution represents a balance across a wide market-based set of program services, internal development efforts, and external efforts aimed at providing long-term operational strength to the Energy Trust. These distributions appear to be in accordance with the legislative intent to place priority on acquiring energy resources and above-market cost renewable energy. Budgets appear balanced among programs and sectors appropriately based on potential in the market and the need for equity among sectors.

The Audit Team also found that the expenditures for obtaining operational staff were unnecessarily restricted during the initial start-up and rollout phases of the Energy Trust and hampered the timely rollout of programs.

While the Energy Trust has spent a significant part of the budget on developing and integrating the tracking systems, these costs appear to be very much in line or lower than other organizations. The Audit Team notes that other organizations have spent considerably more in accomplishing the same function to support fewer programmatic and oversight functions.

The marketing budget however, does not appear to be getting the attention it deserves. Marketing is, in effect, the process of entering the market and achieving program participation. There are no savings without participants who know about the organization and trust the organization to provide services. Without strong marketing and organizational recognition, participation and resulting energy savings can be limited, restricting the ability of an organization to accomplish their energy savings objectives. Early in an organization's or program's life, marketing as a percentage of the budget requires higher investment to build awareness and brand trust and to stimulate market networks that ultimately help drive energy acquisition. Marketing dollars should not be arbitrarily limited to a fixed percentage of the budget, but should be driven by the requirement to establish the organization and its services into the market in a way that supports the need to acquire cost effective energy resources.

The Energy Trust segregates its marketing budget in two ways. First, the Energy Trust has a general marketing budget that is used to build organizational and brand awareness. This budget is to help establish the Energy Trust as a legitimate and trusted service provider. This budget is now capped as a result of the Commission's performance measures. The second budgeting approach is at the program level. At the program level there is no cap for marketing costs and each program is allowed to budget marketing expenses at the level needed to successfully operate the program.

The overall budget identified specifically for general organizational marketing is 4.7%. This level of funding appears low based on the Audit Team's experience, especially for a new organization that must first establish itself in the market. While in later years participant networking can begin to erode the general marketing budget, new organizations must establish themselves, their brand and their service offerings in the market in a way that captures the attention of the potential participant. New organization must establish themselves as a legitimate and trusted organization. While the Audit Team understands that there are promotion, outreach and communications resources in the program budgets, the general organizational marketing budget may still be low. Typical energy program organizational marketing budgets with which we are aware are set in the 5-10% range, but can be up to 15% or more during the early organizational development period.

Organizations, especially new organizations, should establish their marketing budgets at levels necessary to accomplish their organizational goals (including cost effectiveness goals) without artificial caps that may work against the goals of the organization. New organizations need to consider their marketing budgets from the perspective of entering a market and becoming a legitimate part of that market. Placing an artificial cap on general marketing expenses should be considered the equivalent to placing a cap on an organization's ability to effectively enter the market. Instead, the general marketing budget should be a carefully planned and structured process in which the budget is set to achieve a balance between the cost of entering a market and the cost to acquire cost effective resources over the longer-term.

In developing this finding the Audit Team also wanted to convey a potentially damaging trend the Audit Team noticed during our interviews and discussions, and to a limited degree in the Board minutes. There appears to be some key stakeholder opinions that marketing expenses are less valued ways to spend Energy Trust resources. The Audit Team has seen other organizations in which executive management has held this somewhat negative view of marketing expenses, leading to lower or slower program enrollments as marketing dollars were lowered. The Audit Team strongly encourages all of the Energy Trust's stakeholders to understand that marketing costs are the equivalent to opening the door to participation and that marketing efforts are among the most important operations of the Energy Trust.

While the audit found that program budget splits among sectors to be appropriate it should be noted that this management audit did not conduct a fiscal/compliant or fiscal appropriateness audit of expenses disbursed and spent. From a management perspective, the budget distributions examined seem appropriate and consistent with the objectives of the Energy Trust. However, the Audit Team also notes that there may need to be ongoing adjustments to acquire sector-specific resources across the portfolio as the Energy Trust's programs evolve.

In reviewing the energy savings achieved to date, the energy resources acquired to date, and the spread of the programs providing these savings, the Audit Team sees no issues with the current distribution of Energy Trust resources as long as the current distribution provides resources at or below the cost effective performance measures and marketing

budgets reflect marketing needs. Of course, this statement rests on the assumption that program energy savings records are accurate and that the budget records provided to support this reviewed are accurate. The Audit Team has no reason to suspect that these records are anything but accurate. However, the Audit Team is not sure of the final effects of the energy impact true-up efforts that are currently underway. If this true-up effort results in significantly changed energy savings, this finding may need to be revised.

In summary, the Energy Trust is allocating its budget effectively across the programs and operations of the organization effectively to achieve its legislative objectives and operational requirements. However, this distribution will require sector-level cost trend monitoring and portfolio balancing to maintain total costs at or below the Commission's performance measures.

Internal Financial Controls Appear Strong

This audit did not conduct a test of the internal control systems nor did it conduct a detailed on-site review of internal control performance. However, in conducting the audit the Audit Team examined the controls of the general operations of the IT system and the incentive payment system. This cursory examination found the internal controls of the IT system rigorous yet not overly restrictive.

The incentive payment process and the incentive payment controls were also examined. As these controls were described and demonstrated to the Audit Team, they appear to be rigorous and restrictive requiring incentive payment approvals by different individuals within both the internal and external program teams. While no system is foolproof, the Energy Trust's incentive payment controls are consistent with generally accepted control systems and require different people to approve payments at different points along the payment process. Larger incentives require additional review and higher signature authority.

The new bylaw change adopted in September of 2004 requires the Executive Director and Chief Financial Officer to certify the integrity of the organization's internal control procedures, and requires Energy Trust's management and auditors to address internal control issues in an audit report. This change is supported by the Audit Team and is consistent with the requirements of Sarbanes-Oxley Act of 2002.

Recommendations on Budgeting and Internal Controls

The Audit Team makes no recommendations for changes to the controls established within the incentive payment process at this time. The Audit Team finds the controls strong and with rigorous segregation of authority.

38. **Continue to Allocate Funds Effectively but Monitor and be Ready to Adjust Budget:** Continue to allocate funds to support the primary programmatic objectives of the Energy Trust consistent with the provisions of the enabling legislation and the Grant Agreement to obtain cost effective resources. Monitor savings and energy acquisition costs and adjust budget allocations so that a balanced portfolio is provided consistent with the agreements with the

Commission and considerations for equity distribution of program benefits. Monitor sector-specific budgets, allocations and accomplishments so that total portfolio cost effectiveness goals are achieved and enough large projects, achieving low-cost supplies, are acquired to reduce the cost of acquired energy for the portfolio. Maintain this balance so that residential, hard-to-reach and small commercial customers still obtain their share of benefits.

Energy Trust's Response to Recommendation 38

The new budget format designed in 2004, combined with the enhanced reporting by program in the 2005 budget, provide improved monitoring and reporting capabilities. Program reports will be prepared on a quarterly basis in 2005 and provided to the Board and the Commission. Savings and energy acquisition costs will be monitored and compared to budget and program description estimates, with narrative commentary provided on variances. This reporting approach is expected to serve both Board and staff needs and to simplify and enhance our ability to track results and flexibly adjust budgets where needed.

- 39. Set Marketing Budgets to Reflect Organizational Needs :** With respect to the Energy Trust's marketing budget it is important to build these consistent with market needs, market research, customer awareness, technology awareness, and brand identity. Do not place arbitrary limits on marketing. Evaluate marketing's effectiveness on results achieved and the overall cost effectiveness of the organization rather than on the percent spent. Continue to build Energy Trust brand awareness or co-brand awareness, as appropriate, through brand awareness dual-purpose messages that also promotes program related actions, events, opportunities and cost effective, utility brand support.

Energy Trust's Response to Recommendation 39

The Energy Trust supports this recommendation. We have developed a central marketing budget of approximately \$1 million for 2005. This amount is included in the Commission performance measure for Energy Trust administrative costs and appears reasonable. Additional marketing funds are part of program budgets and designed to spur awareness and target participation. Such program-specific marketing budgets are outside the Commission performance measure for administration, allowing flexibility for program marketing budgets to be established at a level deemed necessary to meet energy savings and generation goals at the program level. In addition, staff is seeking authority from the Board to shift funds between such budget categories as marketing and incentives based upon actual program needs and response. This would further enhance flexibility to meet program marketing needs and maximize program outcomes.

Data and Data Tracking

Overall, the data tracking system used by the Energy Trust is well designed. Some early program information has not yet been included in the data, but the Energy Trust is currently on task to move this information into the system, providing a more complete, longer-term picture of program achievements. FastTrack is a very useful tool that could be made more useful with additional reporting capabilities, query options and with greater access to the system by program managers. Limited access and lack of reporting functionality is causing duplication and unnecessary waste in the Energy Trust's operations. Much of the data housed in these systems has been provided by the participants however, as the program grows and recruitment continues, it is essential that participant privacy be ensured across the Energy Trust's reporting and evaluation efforts.

Data Tracking – Tracking System is Well Designed

The audit found that the systems for tracking the program are capturing all appropriate information, and has adequate back up and security systems in place. The systems used (Goldmine, FastTrack, and Great Plains) are integrated, appear to function well together, and contain a wealth of valuable management, reporting and accounting information. The development of this system occurred in collaboration with staff to ensure that it contains necessary information and functions for optimal utilization and security of the system.

With few exceptions, users appreciate the system and the system's functions that allow easy data access. Many users report that they are enthusiastic about the completion of the system and the system's reporting capabilities.

There are currently ninety users of FastTrack indicating that it is more than a tracking system for a small office, but rather is a tracking system across a wide variety of users. While a recently completed internal audit of the system found some discrepancies in the system data, these discrepancies were minor and have been corrected. When completed, the tracking system will track all of the projects and project measures, and will calculate savings and the incentive payments, and track performance against costs.

Some interviewees indicate that the reports are becoming more valuable and concise, while others question the investment in FastTrack and the program tracking system in general. Most interviewees reported that they are looking forward to the time when the integrated system can provide the type of information that managers indicate they need to monitor their programs or fill their Energy Trust-related responsibilities. This is not to suggest that managers report that the investment in the tracking systems is not valuable or worth the investment, but rather that managers are looking forward to applying the system's capabilities once the system is providing the reports that managers need.

The system is user-friendly and training is provided to the users on an as-needed schedule. Users report being provided with instruction on the specific parts of the system with which they need to work. The documentation provided on the system (such as the IT Design Document) is clearly written and extensive. The most significant issues with the tracking system are that it has yet to provide the detailed management reports that

managers and directors need to monitor and manage their programs, and it has limited ability for managers to query and download reports.

The data fields were not completely populated at the time of the audit, and early program data (legacy) has not been entered into the system limiting historical reporting. During the audit Energy Trust managers reported that the entry of legacy data is not a high priority and is being entered into the system as “time allows”. The Auditors accept this response, as the lack of historical data does not seem to be a significant issue to anyone interviewed. In conducting the interviews and document reviews the Audit Team did not hear or see indicators that the absence of legacy data has negatively influenced the Energy Trust’s cost effective performance or that the information is being withheld. Rather, the absence of the legacy data appears to be a function of the legitimate priorities of the Energy Trust’s needs to get the newer systems up and functioning in as short a period of time as possible. However, the Audit Team does note that current Energy Trust on-line records are incomplete without the legacy data.

A high-quality functional tracking system is critical to operations of the Energy Trust. With the Energy Trust’s data management and progress reporting requirements, and the numerous system users (estimated at about 100 individuals), the system needs to have adequate resources and management attention. Long-term operational support of this system is critical to the Energy Trust and system expertise should be maintained within the employees of the Energy Trust, supplemented with IT contractors as needed. Using internal employees to support the tracking systems provides more reliable dedicated continuity across the system designs and operational uses. However, IT contractors can be efficient for enabling system enhancements and changes. In the Audit Team’s opinion, too much dependence on outside IT contractors increases the risk to the Energy Trust for such a mission critical system.

To accurately report results and manage the progress of programs, the Energy Trust must have accurate data in the tracking system. While the system does employ a limited set of range checks and list restrictions, erroneous data can be entered into the tracking systems and left uncorrected unless an individual happens to notice the error while in the process of using the information. At that time the error can be corrected. As a result, it is possible for data entry errors to be entered into the tracking systems and not detected at all, or only detected when the data is used. The Audit Team was informed that there are a limited set of error range checking routines incorporated into the systems, with additional field list restrictions for specific fields. However, these data quality checks are not routinely programmed into the tracking system to the extent necessary to serve a strong data quality control function. An internal audit was completed by the IT staff finding data accuracy discrepancies. These discrepancies were minor and have since been corrected, however, this inaccuracy represents a potential data quality issue and should be addressed as soon as practical. This data quality control system should be automated to the extent possible so that it self-identifies inaccurate or out-of-range data but also employees the power to safely override controls to cover participant, project, technology, and financial entries when out-of-normal-range data is required.

The Energy Trust should examine the current quality control efforts to identify additional fields and information checks that can be employed to help assure data accuracy.

Reports and FastTrack and Budget Tracking & Reports

The Audit Team found that access to the reporting functions and capabilities of the IT system are limited (as discussed earlier). Managers need to have direct access to accurate and timely reports and have the capability to create their own reports for their internal analysis by searching, aggregating and exporting real time data to other applications to meet individual user needs. It is the Audit Team's view the data available from the tracking system should be available via a process that would allow for real time report generation.

In addition, not all of the PMCs are online, and are therefore handling payment data using different, non-integrated systems. These PMCs have little ability to use the tracking system to support their operations; likewise, there is a limited number and type of summary reports on the website. These reports are difficult for managers to locate and use effectively. Both internal and external managers indicate that the reporting system needs to be structured to provide custom financial and program monitoring reports that allow managers to manage and monitor their program. The Audit Team agrees.

Some managers interviewed indicated they currently keep their own duplicate tracking systems so that they have the information they need to manage their production, essentially adding costs to the programs. This is a duplication of effort and is wasteful. It is expected that once all programs and their legacy data are within FastTrack, these duplicate systems will not be needed

All managers should have direct report writing and query capabilities in FastTrack in real time. The Audit Team recommends that the Energy Trust put systems in place that will allow all managers and directors (internal and external) secure access to the functions that would allow for real time report creation. This would also allow managers to utilize and make additions to the tracking and payment information as needed and as appropriate and to obtain program management information. Putting these reporting and operational systems in place should be a high priority for the Energy Trust. IT staff have reported to the Audit Team that these efforts are currently underway and should be providing needed services within a year.

The Energy Trust should continue to work with managers (internal and external) to design and develop a set of management reports that are valued by each of the users. IT should initiate meetings with report users and managers to discuss their reporting, information, and training needs while establishing development timelines. The goal should be to have the reports generated and delivered automatically as requested/needed by the managers and directors.

Confidential Customer Information

While the Energy Trust has been open and transparent in its communications, it must be careful to protect the privacy and rights of the participants within the program. The Audit Team heard differing opinions on the appropriate level of public availability of

information on participants, particularly information on the incentive levels received. The Audit Team has reviewed the data transfer agreements with the utilities and finds them appropriate.

Through its experience, the Audit Team has found that protection of customer information is important even in a ratepayer-funded program. Typically, customer-specific information is available only to the program operational staff, the evaluators, and the oversight and governance organizations, with information on savings and participation reported publicly only at the average savings levels by various groupings of participants. Customers themselves typically view their participation information as private and confidential and businesses often see this information as proprietary. The Audit Team has found in other programs that making participant information public can harm participation rates and cause potential target groups – particularly commercial and industrial customers – to decline participation in the programs, essentially adding an alienation factor as another participation barrier.

It is the Audit Team's understanding that the Energy Trust is currently discussing a confidentiality policy with the Commission. As described, the policy would protect program participant information except: 1) name; 2) city or county of residence; 3) incentives or services provided by the Energy Trust; and 4) energy to be saved or generated as a result of the Energy Trust services or incentives. The Audit Team agrees with providing this information to the program and operational staff, the evaluation professionals and to the oversight and governance organizations (Commission) but does not agree that this information should be made public without the consent of the participant. It is the Audit Team's experience that commercial and industrial customers view this information as potentially competitive information and could hesitate to participate if this they knew that this information would be made public.

It is the Audit Team's view that the disclosure of personal, private and often confidential information on participation will negatively impact participation in the commercial and industrial programs and to a limited degree in the residential programs, and, as a result, limit savings. Disclosure can also increase costs by eliminating part of the market as a potential participant (those sensitive about public disclosure of private information). Likewise, program marketing and outreach expenses may be increased as marketing efforts capture the interests of customers only to have those customers become disinterested when they learn that their participation information will be made public. In the opinion of the Audit Team, the acquisition of cost effective energy resources is a public benefit, while the customers that provides that benefit via participation should not be considered public information unless approved by the participant. In making this statement the Audit Team is not suggesting that the information should not be made available for audit, evaluation, oversight and governance purposes to make sure public benefit funds are spent properly and equitably and that the funds spent are going to legitimate projects that provide energy resources. Nor is the Audit Team saying that participation information should be withheld from the verification efforts needed to confirm participation and project completion. It is important that participation information be available for these important functions. However, the Audit Team does

not agree that individual participation information needs to be made public unless the participant approves the release of that information.

The Wisconsin programs handle this issue in a way that the Energy Trust should consider. Every participant who signs a participation agreement in Wisconsin signs the agreement under the following clause:

I am providing the requested information solely to be eligible to participate in this program and request that the personal information supplied by me be treated as confidential to the maximum extent possible.

Signed: _____

Participation forms could also include a method for approving the public release of individual participation information, if necessary.

Recommendations for Data and Data Tracking

- 40. Complete Improvements and Focus on Reporting Needs:** The Energy Trust should continue to refine the IT tracking systems, but begin to focus more effort on the reporting needs for both internal and external users. The IT staff needs to work with users to design reports that allow managers to easily obtain the reports, and to query the tracking system for special needs.

Energy Trust's Response to Recommendation 40

We agree that we need to expand upon initial capabilities and the foundation of the reporting system. The IT group, in conjunction with finance staff, continues to improve the reporting and query capabilities of the tracking systems and significant upgrades have been completed. A limited field implementation of an enhanced reporting system that allows both internal and external users ad-hoc, real-time reporting capability is now in place. This system will significantly enhance the ability of PMCs, managers and evaluators to quickly access critical data required without the need navigate through the formal report development process. Full implementation of this system is expected by the end of the first quarter 2005. Additionally, the IT steering committee will be re-organized with representative users, both internal and external, asked to ascertain user needs and establish department priorities.

- 41. Continue Entering Historic Data:** Continue to enter early program data into the tracking systems, so that metrics can be tracked over time and trends can be monitored and reported. The Energy Trust needs to balance internal IT employees with outside IT contractors to reduce the risk of losing critical knowledge on the design, operations and application of the tracking system.

Energy Trust's Response to Recommendation 41

The IT system currently contains over 40,000 contact records corresponding to 31,000 projects and is substantially complete with respect to existing programs. Additionally, there are over 55 million readings of utility usage in databases representing all three utilities whose ratepayers provide Energy Trust funding. A substantial effort was made in 2004 to complete entering of all legacy data into the system. The New Building program will soon be added to FastTrack, completing this process as of June of this year.

Both the IT manager and CFO are relatively new to the Energy Trust and require sufficient time to fully assess the ongoing IT needs of the organization and the appropriate resource levels for both employees and contractors. Initial plans include seeking to convert two of the remaining four IT contractors to full time employees by the end of 2005 for reasons identified and supported in the management audit.

42. **Continue to Improve Data Accuracy:** Formulate a system for ensuring that the data in the tracking system is as error-free as possible within the resources available for this function. Employ the use of range data limits for key fields that must be manually overridden by a "shift-key" entry if out of range data is needed in a specific field.

Energy Trust's Response to Recommendation 42

We concur with this recommendation. The IT staff is investigating upgrades and improved system controls to automatically identify and correct data entry information. Specifically, our FastTrack program vendor has presented a system to allow IT staff to develop data checking rules separate from the program source code. This program would allow rules to be added and edited without having to recompile the FastTrack program each time a change is made, saving substantial development costs. Data accuracy would also improve as the system enables creation of more timely reports for review by the program management staff. Completed implementation of this system is estimated by spring 2005. The IT group is also developing an ongoing outreach training program for daily system users focused on common data entry errors and ways to prevent them.

43. **Keep Customer Data Confidential to Increase Participation and Reduce Participation Barriers:** The Audit Team recommends that personal information on participants and the incentives they receive are kept confidential, and not disclosed to the public. The Audit Team recommends participation forms adopt language that reflects this intent. The Energy Trust should work with the Commission to provide needed information to support the Commission's oversight and governance responsibilities, including the need to review, audit, and assess individual participants and their participation-related conditions, but this information should be treated as confidential within the oversight and governance organizations unless participants approve the release of information. There is a difference between information provided to support oversight and governance responsibilities to confirm the cost effective, legitimate and equitable operations

of the Energy Trust, and posting individual participant information on the World Wide Web or in public documents.

Energy Trust's Response to Recommendation 43

We understand the importance confidential customer information and the sensitivity of related issues raised by the Auditors. The Energy Trust has a draft confidentiality policy under discussion with the Commission and the Board. The most recent draft would protect program participant information except: (1) name; (2) city or county of residence; (3) incentives or services provided by Energy Trust; and (4) energy to be saved or generated as a result of Energy Trust services or incentives. The intended and primary use of such information would be to present it in aggregated form for reporting purposes. Prior to mentioning or highlighting any individual or business by name, permission would be specifically sought and would have to be granted. Further discussions with the Commission and the Board will consider this management audit recommendation and specifically how information pertaining to program participants can be provided to the Commission yet remain confidential.

Evaluation

Evaluations are Objective, Appropriately Scoped, and Timely

To date there have been nine evaluations of Energy Trust programs. All evaluations appear to be objective, appropriately scoped, and timely. The Energy Trust staff all indicated that evaluation information was appropriate and useful in redesigning, reconfiguring or restructuring specific aspects of the programs. The Audit Team agrees with these staff findings.

The evaluations all used appropriate, objective and several times multiple methodologies to address the researchable issues, using widely accepted analytical methods within the evaluation field. The Audit Team found the evaluation approaches as well as the market assessments to be structured to provide reliable information. The Audit Team found the evaluations completed by Research into Action (process evaluations) particularly well done, providing findings on each researchable issue. The Audit Team found that the impact studies provide the information needed to understand the impacts of programs and to true-up program and measure impacts.

In general, evaluation sample sizes are consistent with the need for the information and the available budgets, and that the analytical approaches used are sound. The Audit Team found no indication that the evaluation approaches are biased or provide biased information. The evaluation contractors conducting the studies are expert evaluators, both skilled and practiced in their field. However, while some impact evaluations provided error bands around their estimates, some of the impact studies do not, and all of the evaluations do not adequately discuss the implications of the error bands.

To strengthen the evaluations completed, the Audit Team recommends that future studies more clearly discuss reliability issues associated with the evaluation's ability to document energy savings. All evaluations should contain an assessment of reliability from two perspectives. First, the report should discuss the reliability of the evaluation's approach to document savings. This will be a subjective assessment, but will advise the reader if the approach is reliable, or if it is a standard or current practice or best practice. Second, the reports should discuss the reliability of the estimate of savings. There is a very significant difference between a technology that saves a million kilowatt hours a year and one that saves a million kilowatt hours, plus or minus 500,000 kilowatt hours. Program managers need to know the level of risk they are taking by including or excluding technologies from the Energy Trust's programs.

The evaluations appear to be appropriately scoped for the researchable issues being investigated and for the type of programs examined. The results appear to be pertinent for both determining the actual net effects of the programs being studied, and provide recommendations for changes to the programs to improve program operations or cost effectiveness. The Audit Team found no studies that were improperly scoped for the researchable issues on which the study focused. However, each evaluation should clearly present the researchable issues that the Energy Trust hired the evaluation consultant to

address and the presentation of the findings should specifically identify which researchable issues the findings address. Energy Trust managers should be able to go directly to the parts of the report that deal with each researchable issue rather than needing to hunt through the report to find the answers for which they are searching.

All evaluations were done in a reasonable amount of time, allowing for their use in program improvement and design. The process evaluations appear to be completed in time so that the results can be used to inform program changes and help think through program design and planning issues with the Energy Trust's partners and trade allies. The impact evaluations use approaches to help refine net effect estimates and to true-up the Energy Trusts projections of program effects.

Evaluation System and Approach are Well Planned and Structured and Staff Response to Evaluation is a Good Policy

The Audit Team found that the evaluation approaches are well planned and structured. The evaluation reports provide meaningful information on both the results of the program's efforts and on how the programs can be improved. Energy Trust managers who have reviewed the reports indicate they are getting the information they need. The Audit Team finds that the evaluations provide valuable information for the Board, the Energy Trust directors, the Oregon Department of Energy, the Commission and the public in general, relating to the performance and abilities of the Energy Trust's programs. These evaluations provide valuable information to understand how programs work, how programs can be improved, how markets work and how to structure and manage programs within the types of markets in which the Energy Trust operates.

In reviewing the evaluations conducted to date, the Audit Team notes that staff responses to the evaluation findings were included within the documents. This is a practice that less than half of our clients typically perform, but in our opinion is a best practice. When directors and managers are required to formally respond to the evaluation findings, program improvements are typically incorporated into the operations sooner and more effectively. The Audit Team commends the Energy Trust for the use of this best practice.

Key Evaluation Stakeholders Need to be Involved In Planning

Additional consideration of the evaluation needs of managers will lead to more useful information from the evaluation efforts. Energy Trust program managers and PMCs all report that they would like to see their needs incorporated into the evaluation planning process. Managers report that they would like to take a more active role in identifying the researchable issues on which the evaluations focus, having the evaluation function formally consider their requests when the evaluation approach is planned and conducted.

PMC managers report that they feel left out of the evaluation planning process, are not informed as to the timing or plans for evaluations, and are not given the opportunity to inform the Energy Trust of their evaluation or market research needs. While these managers understand that their needs may or may not be able to be included in the evaluation or market research efforts, they report that they are typically not given the opportunity to inform the Energy Trust of their evaluation or market research related needs. Typically, the evaluation approach specified by the Energy Trust for any given

evaluation can be adjusted to incorporate at least some of the research needs of the PMCs without significant effects on the research budget or on the ability of the research to address the Energy Trust's needs.

Recommendations for Evaluation

- 44. Involve Others in the Evaluation Planning Process:** The Audit Team suggests that the program managers, PMCs and other key evaluation information consumers be more involved in evaluation planning efforts. These managers can help define researchable issues to help them manage more effectively. Include these stakeholder issues in the evaluation approach when they can be cost-effectively incorporated into the study. Establish a formal process by which key Energy Trust program managers and PMCs needs are incorporated into the evaluation planning process. The Evaluation Manager can then identify which researchable issues can be structured into the evaluation approach, or determine how the evaluation approach can be changed to meet the additional needs to the extent possible. When planning an evaluation, examine the evaluation resources available and, where possible and practical, adjust or supplement the research to incorporate methodologies that support the managers needs. When evaluation bids come in under budget, negotiate with the evaluation contractors additional approaches that can fit under the budget cap that can address the expanded needs of the managers.

Energy Trust's Response to Recommendation 44

The Energy Trust supports this recommendation and has been taking steps in 2004 and 2005 to achieve this result.

- 45. Reports Should Discuss Reliability of Approach and Findings:** Require all impact evaluations to present and discuss the reliability of the evaluation approach to document savings and the threats to validity embedded in the approach. Have all evaluations present and discuss the reliability of the savings estimate itself and the threats to validity of the savings estimates, along with a discussion of the implications on the reliability of the impact findings.

Energy Trust's Response to Recommendation 45

The Energy Trust supports this recommendation and will implement it as new evaluations are completed.

- 46. Have Reports That Clearly Present the Tasked Researchable Issues:** Have all evaluation reports, where appropriate, clearly present the researchable issues and present the findings in a way that corresponds to the researchable issues. Make it easy for managers to find relevant information (see Research into Action's Energy Trust process reports for examples).

Energy Trust's Response to Recommendation 46

The Energy Trust supports this recommendation and will work on future evaluations to make sure that this is more clearly defined.

47. **Continue to have Managers Respond to Findings:** Continue to evolve the evaluation function to deliver useful and timely evaluation reports and continue to have Energy Trust directors and managers formally respond to all evaluation reports identifying the findings that can be used to improve programs. Have these responses also identify, to the extent possible, the way in which the evaluation findings will be used to improve programs.

Energy Trust's Response to Recommendation 47

The Energy Trust supports this recommendation.

Appendix A: Scope of Work, References and Expanded Discussion

The Audit Firm was provided with a scope of work for this project that was developed by the Audit Committee of the Energy Trust of Oregon with input, review and approval by the Oregon Public Utilities Commission. Addressing the issues contained in the scope of work constitutes the primary objectives of the audit effort. This appendix is organized according to the researchable issues identified in the Scope of Work. In an attempt to avoid duplication, the appendix provides reference as to where each researchable issue is discussed in the main body of the report and it also provides additional information for several findings as noted in the main body of the report. This additional information, while ancillary to the discussions and findings in the main body of the report, is supportive of these discussions and allows the reader to have a more complete understanding of some of the issues presented.

The Audit Committee-Commission Scope of Work Issues

The following scope of work issues were identified by the Energy Trust's Board of Directors, Audit Committee and the Commission and represents the issues addressed in the audit report. Appendix A of this report provides the reader a reference to these issues in the body of the report in the order in which they appear in this scope of work.

1. Is the Energy Trust meeting the legislature's objectives for the public purpose charge?

- Interview key external stakeholders (Commission, Board, Utilities, potentially others).
 - An inclusive list of stakeholders will be provided to assist the auditor in determining who to interview. The auditor will make final selections on who to interview, but the ETO will provide contact information as requested by the Auditor.
 - *Note: The vendor should recognize that some stakeholders (e.g. RAC and CAC members) have financial interests that may differ from the mission of the Energy Trust. While we still want these individuals represented as stakeholders, the vendor should evaluate their input in the proper context.*
- Review relevant documents to include:
 - Applicable laws and the grant agreement,
 - Applicable non-profit law,
 - The two previous studies/analysis commissioned in Energy Trust's initial organization,
 - Stakeholder survey.
- Based on all inputs, make an assessment of whether the actions and activities of the Energy Trust are in line with the stated objectives.

2. Is the Energy Trust operating efficiently? Are there places where the Energy Trust can trim costs without affecting results?

- Interview staff and PMC representatives.
 - The Energy Trust will develop a list of staff and PMC representatives to interview.
- Review available documentation.
- Review program QA reviews and marketing surveys (e.g. stakeholder survey).
- Review the process to target, select, and implement programs.
 - *Note: The Vendor should treat this as a general review of all programs. In particular the following three programs are suggested for deeper analysis as they represent a spectrum of program types and focus:*
 - Solar (PMC = Internal)
 - Home Energy Savings (PMC = Ecos Consulting)
 - Building Efficiency (PMC = Aspen Systems).
- Review how programs are being supervised.
 - *Note: The Vendor should treat this as a general review of all programs. In particular the following three programs are suggested for deeper analysis as they represent a spectrum of program types and focus:*
 - Solar (PMC = Internal)

- *Home Energy Savings (PMC = Ecos Consulting)*
 - *Building Efficiency (PMC = Aspen Systems).*
- Within programs, review how projects are targeted, selected, funded, and managed.
 - *Note: The Vendor should treat this as a general review of all programs. In particular the following three programs are suggested for deeper analysis as they represent a spectrum of program types and focus:*
 - *Solar (PMC = Internal)*
 - *Home Energy Savings (PMC = Ecos Consulting)*
 - *Building Efficiency (PMC = Aspen Systems).*
- Look at internal controls, specifically the incentive payment approval process.
 - *Note: The area of internal controls is of interest to the Board of Directors and Energy Trust Management. Does the vendor recommend other areas of focus given the scope and timeline of this review?*
- Review and assess the overall appropriateness of key Energy Trust technical systems based on an understanding of similar organizations.
 - The key systems are:
 - GoldMine (off-the-shelf CRM system used for contact tracking)
 - FastTrack (custom developed Program and Project Tracking system)
 - GreatPlains (Financial System with WenSoft contract tracking component)
 - *Note: The scope does not include an audit of system data but whether if the functionality provided by the systems is appropriate given the needs of an organization like the Energy Trust.*
- Is the tracking system (FastTrack) capturing the correct information? Focus is on the information collected, how it is maintained and reported, and the overall appropriateness of these data to the successful understanding of the operational status, progress, and organizational information needs, including information needed to successfully monitor and guide the activities of the ETO and to accurately assess and report ETO accomplishments.
- From interview results, organizational observations and documentation reviews, identify if there are opportunities to reduce costs without negatively influencing the ability of ETO to accomplish the organization's goals and operational objectives.
- Based on vendor's experience is the Energy Trust operating efficiently?
- Based on vendor's exposure to other similar organizations, are there different alternatives that the Energy Trust should consider?
 - *Note: The scope does not include an in-depth survey or investigation of other organizations but rather comments and observations based on the vendor's existing knowledge of other similar organizations.*

3. Has the Energy Trust allocated its budget effectively among different functions?

- Review appropriate Energy Trust budget documents, interview results, document review results, and program accomplishments to date.
- Obtain budget documents from similar organizations.
- Based on Energy Trust's goals, are the budget allocations appropriate?
- Compare the Energy Trust budget allocations to that of similar organizations.
- *Note: the scope does not call for an audit of actual expenditures.*
- *Note: the timeframe is current operations.*

4. Does the Energy Trust have open, transparent and inclusive decision-making processes, and**a. Obtains and makes appropriate use of information from advisory committees and the general public, and****b. Puts appropriate reliance on outside experts in designing its programs?**

- Interview key stakeholders (Board, RAC, CAC, potentially others).
 - An inclusive list of stakeholders will be provided to assist the auditor is determining who to interview.
 - *Note: The vendor should recognize that some stakeholders (e.g. RAC and CAC members) have financial interests that may differ from the mission of the Energy Trust. While we still want these individuals represented as stakeholders, the vendor should evaluate their input in the proper context.*
- Review operational documents including meeting minutes and decision documents.
- Document and assess how decisions are made, what input is considered, how it is considered, and the visibility of stakeholders in the decision process.
- Document and assess how outside input is considered and incorporated, specifically in the design of programs and the establishment of program goals.
- How well are Board decisions communicated to various interested parties?
- Are decisions made at higher levels (e.g. Board level) communicated to, understood, and acted upon at lower levels of the organization (e.g. Board and/or Advisory level -> Senior Management -> Management -> General Staff -> PMCs and Contractors)?

5. Does the Energy Trust have well-designed, effective programs achieving conservation and renewable resources at cost-effective levels, and if not:**a. How can programs be improved, and****b. Are there more efficient and effective ways to achieve conservation and renewable resource development?**

Note: Renewable projects are subjected to an “above market cost” basis; Efficiency projects are subjected to a cost-effective basis.

Note: When offering feedback, ideas, and suggestions on programs the vendor is requested to comment from both perspectives below:

- *Existing Programs: perspective is what can the Energy Trust do better?*
- *Potential/New Programs: perspective is what are new or different areas the Energy Trust should consider?*
- Interview directors, program managers, PMCs.
- Program documentation.
- Review how are programs developed.
- Review how measures, savings, and incentives are developed.
- Assess whether reasonable standards/practices are used in the planning of programs.
 - E.g. avoided cost methodology.
- Comment on overall effectiveness and efficiency of programs. As possible, compare and contrast to programs of other organizations.
 - *Note: The scope does not include an in-depth survey or investigation of other organizations but rather comments and observations based on the vendor’s existing knowledge of other similar organizations.*

- *Note: The Vendor should treat this as a general review of all programs. In particular the following three programs are suggested for deeper analysis as they represent a spectrum of program types and focus:*
 - Solar (PMC = Internal)
 - Home Energy Savings (PMC = Ecos Consulting)
 - Building Efficiency (PMC = Aspen Systems).

6. Has the Energy Trust established appropriate structures and procedures during the start-up period necessary for long-term success?

- Interviews.
- Document reviews and systems reviews.
- Review “structures and procedures.”
 - *Note: The Auditor should examine overall operations and operational systems and selected program-specific operations and operational systems and assess how well these are set up and functioning to serve as long-term operational structures and guidance systems. Test if the methods, approaches and systems in place are designed and functioning to serve beyond the short-term start-up needs and the changing focus of a start-up period/process such that current operations, tools and systems provide on-going, long-term management monitoring, support and guidance-assistance capability.*

7. Is the Energy Trust conducting evaluations that are objective, appropriately scoped, and timely?

- Interviews (specifically Fred, Ben, potentially an evaluator as well).
- Copies of past evaluations reports and related Energy Trust follow-on documentation.
- Review process of identifying when, how and why evaluations are planned, how vendors are selected, how the researchable issues are defined and how the evaluations are conducted.
- Are evaluations comprehensive, timely, independent?

8. Has the Energy Trust established evaluation procedures that are geared to produce results that meaningfully inform the Energy Trust, the Public Utilities Commission and others what Energy Trust programs are achieving, and whether course corrections are needed?

Note: Points 7 and 8 are similar. While Point 7 focuses on how evaluations are conducted, Point 8 focuses on how new/better information (from evaluations and potentially other sources) is used going forward.

- Interviews (specifically Fred, Ben, Commission, Board members)
- Copies of past evaluations, and associated management reports, documents, etc.
- Review the true up plan and 2004 residential true up.
- Assess whether reasonable benchmarks/standards/practices are used in the evaluation of programs.
- Review evaluation results.
- Review how the results are used.
 - How are they reported?
 - Are appropriate modifications to programs made based on newer/better information?

- Assess whether the evaluation process is sufficient to meet Energy Trust and stakeholder needs.

9. How does the Energy Trust compare to other similar organizations?

Note: It is not anticipated that this item will entail significant additional effort. The vendor was selected in part due to its extensive experience with and knowledge of similar organizations. It is anticipated that information required to complete this item is either already known by the vendor or available via public means.

Note: When comparing the Energy Trust to other organizations multiple perspectives should be applied:

- *The first: compared to other organizations at the some point of their lifecycle (e.g. just coming out of start-up) how does the Energy Trust compare? Is the Energy Trust where it should be?*
- *The second: compared to established organizations, in what ways should the Energy Trust consider changes and refinements to become a better organization?*
- Information collected about the Energy Trust as part of this review.
- Information vendor already has about similar organizations.
- Information publicly or easily accessible (e.g. websites of similar organizations).
- Compare the Energy Trust to similar organizations on factors such as:
 - Total budget, “overhead” vs. “incentive” budgets, organizational model, participants served, energy saved, energy produced, scope and focus of programs, staff size, staff allocation to functional areas, salary ranges of comparable staff positions, etc.
- *Note: For this point and all others that call for comparisons to similar organizations, the vendor is expected to use appropriate judgment and disclaimers if needed to account for program and mission variances between organizations.*
- *Note: At least three programs will be included in the comparison, including the NWEEA, NYSERDA, and Wisconsin’s Public Benefits Programs.*

In general: The “customer” of this management audit is the Board’s audit committee. The management of the organization is also looking forward to this review to assess overall status and provide areas to consider for improvement. As part of this analysis the Energy Trust management requests that the following points be addressed.

Note: These questions draw on the detailed points of scope above so these should not represent an increase in scope. The expectation is that in the final report the vendor will specifically address the questions below if not covered elsewhere.

- How does the Energy Trust compare to other similar organizations during their comparable start-up period?
- Is the Energy Trust where it should be at this point in time based on the organization’s evolution and maturity?
- What are the strategic opportunities to refine, modify, strengthen, and/or improve the efficiency and effectiveness of program delivery and results?
- What are the system and operational improvements that the Energy Trust should consider to enhance overall organizational efficiency and effectiveness?

Issues Identified and NOT in the Scope of Work

1. A test to ensure data represented in FastTrack matches data from the paper files.
2. Duplication of program evaluations performed by evaluation.
3. A specific audit objective to assess whether the current outsourced (PMC) model is the best model for the Energy Trust.
4. Audits of the financial system (except as specifically specified in the Scope of Work).

Issue 1: Is the Energy Trust meeting the legislature's objectives for the public purpose charge?

Report Sections with Issue 1 Audit Findings:

- *Addressing Goals,*
- *Assessing Goal Performance,*
- *Overly Aggressive Goals,*

Recommendations Related to Issue 1:

- *Recommendation 1*
- *Recommendation 2*

Supporting Documents for Issue 1:

- Interviews.
- Annual report.
- Quarterly reports.

Issue 2: Is the Energy Trust operating efficiently? Are there places where the Energy Trust can trim cost without affecting results?

Report Sections with Issue 2 Audit Findings:

- *Addressing Goals*
- *Organizational Structures*
- *Staff Operations*
- *Operations of the Energy Trust*
- *Budgeting and Internal Controls*
- *Data and Data Tracking*

Recommendations Related to Issue 2:

- *Recommendations 1 -16*
- *Recommendations 24-25*

Supporting Documents for Issue 2:

- Interviews.
- US Legislature HR3763 referred to as Sarbanes-Oxley.
- Enabling legislation SB1149.
- Board minutes in general, specifically October 1, 2003, February 4, 2004, and April 7, 2004.
- Memorandum of Understanding between ODOE and The Energy Trust.
- The ODOE's comments to the Energy Trust on benchmarks.
- Review of the Three Person Committee Coordination Meeting notes.
- On-site observations.
- New Benchmark and Original Proposed benchmark.
- Public Utilities Commission of Oregon benchmarks.
- Energy Trust Grant Agreement
- 2004 Action Plan
- IT Design Document.
- FastTrack Appendix.
- FastTrack Reference Manual.
- FastTrack Overview.

- FastTrack Overview Power Point Show.
- Review of the payment control system associated with the IT tracking system.
- Review of September Board Meeting Notes.

Expanded Discussion: Program Review & Approval Process

The Auditors provide these examples to further illustrate the need for some adjustments to the role of the Board:

- **Board Approved Programs** – As indicated in the September 2004 Board meeting, there is a proposal to have the Board change its level of oversight of the programs. This Audit Team supports that resolution and believes it is an appropriate step. Without this change there is a need to obtain Board approval through a formal resolution every time an energy savings result is adjusted, even those based on evaluation results.
- **Budgets** – Examples of the Board operating at too low a budget level include the amendment of the Ecos contract in which \$100,000 was added for outreach activities and the \$66,000 added for cross-program outreach, the resolution to authorize staff to move relatively small budget amounts between programs as in the resolution to move \$500,000 and \$250,000 between some of the renewable energy programs.
- **Contracts** – Examples of the Board operating at too low of a contract level include the resolution to have Nexus Energy Software provide web services, the resolution to the Ecos contract to change the energy savings goal from December 31, 2003 to March 3, 2004 and have their energy savings goal include commitments for future savings. Contracts such as these can be negotiated and finalized by the Executive Director and staff to follow Board approved policies and contractual guidelines.
- **Program Operations** – Examples of the Board operating at too low of a program operations level include the resolution to change the Efficient New Homes program to encourage efficient residential single-family, multi-family and mobile homes to encourage above-code design and construction practices, and the resolution approving the installation of 6,342 compact fluorescent light bulbs and the associated way in which bulbs will be installed by Five Star International.

Issue 3: Has the Energy Trust allocated its budget effectively among different functions?

Report Sections with Issue 3 Audit Findings:

- *Staff Operations*

Recommendations Related to Issue 3:

- *Recommendation 15*

Supporting Documents for Issue 3

- Interviews.
- Annual reports.
- Quarterly reports.
- Evaluation reports.

Issue 4: Does the Energy Trust have open, transparent and inclusive decision-making processes, and

- a. Obtains and makes appropriate use of information from advisory committees and the general public, and
- b. Puts appropriate reliance on outside experts in designing its programs?

Report Sections with Issue 4 Audit Findings:

- *Staff Operations*
- *Program Design*
- *Program Operations*

Recommendations Related to Issue 4:

- *Recommendations 16-23*

Supporting Documents for Issue 4

- Interviews.
- CAC and RAC meeting minutes.
- Calendar of events.
- Reviews of general hard copy and web page documents.
- Utility Data Transfer Agreements.

Issue 5: Does the Energy Trust have well-designed, effective programs achieving conservation and renewable resources at cost-effective levels, and if not:

- a. How can programs be improved, and
 - c. Are there more efficient and effective ways to achieve conservation and renewable resource development?

Report Sections with Issue 5 Audit Findings:

- *Addressing Goals*
- *Program Operations*
- *Budgeting and Internal Controls*
- *Data and Data Tracking*
- *Evaluation*

Recommendations Related to Issue 5:

- *Recommendations 1-7*
- *Recommendations 24-39*
- *Recommendation 44*

Supporting Documents for Issue 5

- Annual reports.
- Board minutes and resolutions.
- Board Retreat Presentation of July 2004.
- Budget reviews
- Demonstration of tracking system via Internet video.
- Discussions with other program service providers.
- Energy Trust organization document reviews.
- Energy Trust response to the TecMarket Works Audit memo, dated October 1, 2004.
- Interviews.
- Knowledge of auditors.
- Performance Measures for the Energy Trust of Oregon approved by the Commission and approved October 5, 2004.
- Program documents and offering materials and descriptions.
- Review of tracking system documents.

- Reviews of estimation processes used in the past.
- Reviews of installation counts.
- Reviews of marketing materials.
- Reviews of sample contracts.
- Staff E-mails of August 13 and August 16, 2004.

Issue 6: Has the Energy Trust established appropriate structures and procedures during the start-up period necessary for long-term success?

Report Sections with Issue 6 Audit Findings:

- *Data and Data Tracking*

Recommendations Related to Issue 6:

- *Recommendation 40*

Supporting Documents for Issue 6

- Interviews.
- Organizational documents and charts.

Expanded Discussion: Structures Needed for Long-Term Success³

The Energy Trust faces challenges that are both common and particular to small businesses that are moving from the entrepreneurial phase to the growth phase of an organization. In that the Energy Trust is a nonprofit ratepayer funded organization, it also has challenges with respect to its multiple aspects of accountability. Based on the observations from the audit, the Energy Trust is where it should be in its evolution and the organizational issues that are identified for attention are normal and important to address. A fundamental task for the Energy Trust is to evolve as it must to continue to be successful, building systems and processes while avoiding becoming encumbered by a growing bureaucracy or by cumbersome processes. While it is true that the Energy Trust “serves many masters”, now is the time in the organization to sharply focus on its markets, participants, potential participants and stakeholder needs. The Energy Trust must proactively improve the effectiveness and efficiency of its internal operations, with the primary objective of serving its participants and potential participants.

The Energy Trust is following a characteristic course of organizational growth. Across most business sectors, small organizations take remarkably similar paths. At the inception of a small organization, when there is a focused purpose or mission, when the organization may be both under-funded and under-staffed, a “seat-of-the-pants” anyone-does-anything-to-get-the-job-done method of doing business is both necessary and sufficient. At this entrepreneurial phase, an organization’s flexibility is key to the

³ Developed with council and review from Dr. Suzanne Maynard, Organizational Dynamics Consultant, Maynard Consulting, Cincinnati OH.

success of the organization. Opportunism, dedication, a sense of ownership, and high enthusiasm on the part of the staff members are vital to the initial success of the organization.

The good news and the bad news for any organizations that are successful in the entrepreneurial phase is that they experience growth and a need for more streamlined operations to keep up with the organization's evolution. What was once a successful method of doing business during the start-up phase can become burdensome as the need for faster paced or more complex operations are needed. In these cases the organization becomes less effective: redundancy and double work occur on the one hand; on the other, things begin falling through the cracks as the initial systems do not evolve quickly enough to match the new needs of the organization. At these points in time staff may experience burnout, which can lead to lower job satisfaction scores and excessive turnover of the experienced staff, which can further complicate the increased need for more effective operational systems. These conditions compound the problems as the organization begins to lose its experienced staff because individuals or small groups of individuals can no longer attend to it all or no longer want to attend to it all. Those comprising the "few key people" display growing signs of burnout. There is often role conflict on both the staff and Board levels as staff feel caught between Board direction and needs, and the staff's ability to accomplish it all during a time when streamlining policies and procedures are needed. Staff members begin to resent the time and energy required; they want a job, not a lifestyle. There are problems with discrimination and prioritization, i.e., what is really important, and in what order should staff attend to the important things. These conditions are part of the normal evolutionary process of small organizations moving through the start-up mode into periods of increasing operational activities. How organizations keep up with the changing needs directly affects their ability to function over the longer term.

It is incumbent upon the leadership of the organization to continue to pay attention to the organization's life cycle and manage the tension between *innovation* – identifying and utilizing the "new", and *adaptation* – perfecting and improving the existing. The primary challenge for organizations moving out of the start-up mode is to maintain flexibility and quick response, while developing routine policies to support more efficient operations, incorporating organizational structures that allow for rapid decisions and actions based on established policies, developing management and operational systems and processes that can allow the organization to function without decision or operational bottlenecks, and the clarification of members' roles and responsibilities so that there is a clear understanding of who is responsible for what and who is responsible to whom.

Issue 7: Is the Energy Trust conducting evaluations that are objective, appropriately scoped, and timely?

Report Sections with Issue 7 Audit Findings:

- *Data and Data Tracking*

Recommendations Related to Issue 7:

- *Recommendations 40-41*

Supporting Documents for Issue 7

- Interviews.
- Evaluation reports.

Issue 8: Has the Energy Trust established evaluation procedures that are geared to produce results that meaningfully inform the Energy Trust, the Public Utilities Commission and others what Energy Trust programs are achieving and whether course corrections are needed?

Report Sections with Issue 8 Audit Findings:

- *Data and Data Tracking*

Recommendations Related to Issue 8:

- *Recommendations 41-47*

Supporting Documents for Issue 8:

- Review of evaluation reports.
- Interviews.
- Examination of evaluation report support documents.
- Tracking system reviews.
- Annual reports.
- Quarterly reports.
- Review of organizational charts.

Issue 9: How does the Energy Trust compare to other similar organizations?

Report Sections with Issue 9 Audit Findings:

- *Program Operations*

Recommendations Related to Issue 9:

- *Recommendation 26*

Supporting Documents for Issue 9

- Personal communications with representatives from the programs examined
- Annual reports
- Other documents

Expanded Discussion: Program Design and Comparative Effectiveness

A comparison between other statewide efficiency initiatives funded through public benefits charges is difficult. Markets, population, budgets, weather, end-uses, utility program history, and organizational structure all affect the operations and results. The primary state programs the auditors are familiar with are Wisconsin, Vermont, New York and California. In general, the programs and results to date for the Energy Trust are comparable in design, offerings and resulting savings with the exception of California, which has concurrent utility, procurement and public benefits programs. The Energy Trust is to be commended on getting so many effective programs implemented in a short time and with significant results. The Audit Team feels that the most relevant comparison between these organizations and the Energy Trust will be to look at their approach to program delivery structure. The approach by each group is briefly described below.

In the Wisconsin Focus on Energy structure, programs use a mix of approaches: the PMC approach, the use of internal providers, and a hybrid approach for offering public benefits programs (see Appendix B). During the Focus on Energy start-up phase, the public benefits approach to efficiency was tested in one utility's service territory. That test concentrated on a limited set of pilot programs utilizing the PMC model. Then, after a couple of years of experience and a greater funding stream, Wisconsin moved to a statewide formation of programs administered through the State of Wisconsin Department of Administration and two non-profit organization (which has only recently been reduced to one overarching program administrator, the Wisconsin Energy Conservation Corporation – WECC). WECC selects the approach they use to implement programs using a mix of approaches depending on market needs. Utilizing a pilot to roll out and test a program before statewide implementation allowed Wisconsin to 'cut its teeth' on the limited pilot programs, then rapidly roll out full-scale programs based on the results and capabilities of the pilot programs. As these programs matured, Wisconsin

significantly pulled back on the level of executive and administrative involvement once the non-profit and private sector program providers demonstrated their ability to design and field cost effective programs. At this time the state of Wisconsin provides only limited oversight to these programs by withdrawing about 70% of its previous high-level and manager-level oversight and management staff. The results of this structural change is allowing for more rapid program design, redesign, approvals and fielding efforts in addition to more rapid and cost effective problem resolution.

On the other hand, Vermont rapidly initiated a set of programs across their target markets through contracts with private sector vendors administered by the non-profit organization overseeing these programs (Efficiency Vermont). However, Vermont is in the process of building staff capability to implement programs in-house with less contracted service providers. Vermont believes this change will enable them to streamline operations by keeping all key decisions in-house to make sure the programs are cost effective and are satisfying Vermont's customer needs. The initial outside contracting process allowed Vermont to rapidly roll out programs within two years, as did the Energy Trust, but then used the staff capabilities developed over the first two years of operations to gradually move programs in-house, significantly decreasing the time and cost needed to build in-house delivery capabilities. The Auditors are unsure of the extent to which Vermont's programs will be delivered in-house or via program contractors over the next several years. However, it is important to note that Vermont's markets, population and geography are significantly smaller than Wisconsin or Oregon.

California has a long and established history of providing energy programs, and more recently these programs have moved from utility funded programs to public benefits and procurement funded programs. California has implemented their programs using a process in which programs are provided three different ways. Utilities have continued to provide statewide programs across multiple utility territories funded with the utility's share of the public benefits funds. In addition, each utility is able to provide programs through vendor contracts (PMC model) within their service territory using their share of the public benefit funds. However, more recently California has allowed third party vendors to independently provide programs anywhere in the state, also funded by public benefit dollars overseen by the California Public Utilities Commission, but contracted and administered through the utilities. The rationale for allowing utility companies to continue to provide programs is that they are already close to their customers and have pre-established relationships with these customers. In addition, the utilities have years of expertise that the California Public Utilities Commission (Commission) did not want to waste by stopping the utility programs. However, the Commission also realized that there are other potential providers of energy efficiency services with experience and capabilities or that could develop experience and capabilities that should be given the opportunity to provide cost effective services. To capture these savings the state allowed almost any organization in California to propose programs that they wanted to offer. The Commission then decided which programs they would fund with public benefit dollars across these three types of service approaches. These three different approaches allowed programs to be continued, new programs to be fielded, and new programs designed and tested in a very short period of time. Proposals were received from the providers and approved by the Commission for implementation during the upcoming year, essentially

allowing a host of programs funded in the hundreds of millions of dollars to be offered, approved and fielded over a period of less than one year. California was able to accomplish this by having:

- An already entrenched set of programs that had been successfully operated for several years,
- An already entrenched set of providers in the state who had worked with utility companies for several years,
- Already entrenched energy efficiency experts on staff at the utilities and at the Commission for several years with significant experience in providing energy programs, and
- A process coupled with an open solicitation process that allowed any private, public or non-profit organization to propose new programs that they could deliver within their jurisdictions.

In most of these cases the programs were contracted to private, public or non-profit vendors, or provided to organizations with already on-board local staff or to organizations that could acquire staff rapidly (although several programs struggled in their efforts to mobilize their programs).

In New York, the New York State Energy Research and Development Authority (NYSERDA) initiated the public benefits programs primarily through public program solicitations (PMC model). Through this process NYSERDA was able to move an already established organization already involved with providing programs into the position of providing expanded public benefits programs, including energy efficiency, renewable energy and other energy research programs within the first two years of expanded operation. Similar to the Energy Trust, NYSERDA has continued to modify programs and roll out new programs as funds have become available to do so, and as the organization has identified opportunities.

Program Metric Comparison

The program metrics for the 2003 programs of the Energy Trust, Wisconsin's Focus on Energy, Efficiency Vermont, and New York's Energy Smart programs are presented here.

A word of caution about these comparisons: it is similar to comparing apples with oranges, as every program categorizes, accounts, and tracks its accomplishments in a different way. Many of the data points used by the Energy Trust are not used by the other programs, or are reported differently. For example, the program budget may not be split neatly into program and administrative categories. A much more extensive comparison of energy efficiency program metrics nationwide can be found in two papers authored by Martin Kushler: "A Revised 50-State Status Report on Electric Restructuring and Public Benefits," and "Five Years In: An Examination of the First Half-Decade of Public Benefits Energy Efficiency Policies," which was presented at the 2003 ACEEE conference. These papers are recommended reading for those who wish to attempt to

make further comparisons. Both of these reports can be downloaded from ACEEE at <<http://www.aceee.org/pubs>>.

Table 4 provides some metric comparisons between the Energy Trust of Oregon, Wisconsin Focus on Energy, Efficiency Vermont, and NYSERDA. The Auditors ask that the Energy Trust keep in mind that the data provided in this table is for the year 2003 calendar year, with the exception of Wisconsin in which the data is from fiscal year 2004 (July 2003 through June 2004). The reader is also reminded that the methods used by these programs to set the metrics reported are probably significantly dissimilar, rendering the use of the metric as a comparison to the Energy Trust's programs and accomplishments problematic.

Table 4 Program Metrics for Oregon, Wisconsin, Vermont and New York for 2003

	Oregon	Wisconsin (fiscal)	Vermont	New York
Service Area Population	1,200,000	4,596,731	619,107	15,800,000
Total Participants	16,202	211,782	28,871	289,000
Number of FTE	24.75	50	88	78
Cost per Therm	\$0.30 ⁴	\$0.051	-	-
Cost per kWh ⁵	\$0.023 ^{5,6}	\$0.011	\$0.026	\$0.024
Cost per kW	\$1,033 summer \$990 winter	\$60.91	-	\$765 ⁷
Participants and Budgets:				
Renewable Program – All Sectors				
Participants	78	57	NA	NOT BROKEN OUT
Program Costs	\$5,791,941	\$2,120,425	NA	\$11,904,000
Administrative Costs	\$310,113	\$144,986	NA	\$896,000
Percent Administrative	5.1%	6.4%	NA	7.0%
Mean Cost per Participant	\$78,231	\$39,744	NA	-
Participants and Budgets:				
Residential Energy Efficiency Programs				
Participants	15,484	199,921	28,058	NOT BROKEN OUT
Program Costs	\$6,936,199	\$18,653,617	\$5,249,782	\$42,594,000
Administrative Costs	NOT BROKEN OUT	\$919,958	NOT BROKEN OUT ⁸	\$3,206,000
Percent Administrative	-	4.7%	-	7.0%
Mean Cost per Participant	\$448	\$98	\$187	-

⁴ Lifetime levelized cost using 3% annual discount.

⁵ The mean cost per kWh for all Bonneville Power utility programs in the Pacific Northwest (excluding Oregon) is \$0.016. The median value found by Kushler in "Five Years In..." for 7 is \$0.03.

⁶ This amount is only for the energy efficiency programs, not renewable programs.

⁷ Excluding curtailable load reductions and renewable energy generation. Reflects peak kW (270MW) and cumulative spending for permanent reductions (\$207 million) through 12/31/03.

⁸ In 2003, Vermont had an administrative budget of \$139,714 out of a total budget of \$13,639,997 (admin = 1%), of which they spent \$99,589 (71% of allocated). They budgeted \$396,551 for IT, of which all but 8% was spent.

Participants and Budgets: Commercial, Industrial, Agricultural, and Other Energy Efficiency Programs				
Participants	644	11,804	813	NOT BROKEN OUT
Program Costs	\$15,928,576	\$14,267,919	\$6,918,895	\$53,196,000
Administrative Costs	NOT BROKEN OUT	\$192,160	NOT BROKEN OUT	\$4,004,000
Percent Administrative	-	1.3%	-	7.0%
Mean Cost per Participant	\$24,734	\$1,225	\$8,510	-
Net Energy Savings: Renewable Programs – All Sectors				
KWh	125,233,785	516,495	NA	778,000
Mean kWh per Participant	1,605,561	9,061	NA	-
KW	-	218	NA	270
Therms	NA	106,943	NA	-
Net Energy Savings: Residential Energy Efficiency Programs				
KWh	54,073,218	98,263,628	15,978,000	41,100,000
Mean kWh per Participant	3,492	492	569	-
KW	496.6 summer 1875.5 winter	11,854	2,504	400
Therms	202,939	1,670,928	2,780	750,000
Net Energy Savings: Commercial, Industrial, Agricultural and Other Energy Efficiency Programs				
KWh	99,366,798	80,342,229	33,837,000	269,000,000
Mean kWh per Participant	154,296	6,806	41,620	-
KW	16,443.9 summer 15,535.0 winter	13,126	4,335	52,000
Therms	5,284	10,489,635	11,271	9,360,000

The most noticeable differences in this type of comparison between these four program providers are the prioritization of renewable energy projects on the part of the Energy Trust and the relative age of the programs in producing per participant or per unit energy savings. The renewable energy program of the Energy Trust has saved a significantly greater amount of energy than Wisconsin's public benefits program due to the limitation of size of project allowed in Wisconsin. Comparisons of the per participant or energy unit savings are larger for the Energy Trust, which is a function of the front loaded investments required for getting the program off the ground.

The Wisconsin Focus on Energy, Efficiency Vermont and New York Energy Smart programs were in full swing during all of 2003, while the Energy Trust's programs were just getting rolled out. This type of exercise may be more meaningful after the Energy Trust has time to roll out their programs and gain experience in the offering these programs.

This information was gathered from personal communications with representatives from the programs examined, from annual reports and other documents.

Appendix B: When to Use a PMC Model

The purpose of this document is to provide some general consideration relating to the use of the PMC model compared to the use of internal staff for offering programs, or the use of a hybrid approach. It attempts to outline some general parameters that the auditors have seen within other organizations for determining which model to use. It is not driven by a need to establish what the auditors think is the optimal number of staff within the Energy Trust, but rather to help inform the Energy Trust's thinking about which organizational model is best suited for addressing market needs.

The following bullets provide an overview of when the use a PMC Model (a single contracted entity to deliver and implement the program) is appropriate:

PMC Model

- When a program is designed for savings acquisition and there is little need to change the way the market operates (does not transform the market for energy efficiency).
- When there is an established group of specialty delivery providers of these services within the market that can be chosen through a competitive bid process.
- When there is an established technology delivery infrastructure with market actors (contractors) in the delivery channel who can efficiently deliver products or services related to the efficient technology, and the barriers are primarily customer-based.
- When there exists low market risk to the market actors and the customers for participation such that participation will not harm their business or negatively impact the way in which they do business or are perceived in the market.
- When the program does not try or need to change the current market actors' business model, focusing more on technology change, not market processes changes.
- Can be structured to be a 'program or delivery service' focused (e.g. new construction or ENERGY STAR products) or 'customer segment focused' (small commercial or hospitals).

The next set of bullets provides an overview of when to use internal program delivery staff. (There are two ways to use internal staff, the first is to build infrastructure for a new market and the second is to implement with internal staff in the field).

Internal Resources

- When a market needs to build infrastructure and there are few or inexperienced market actors (e.g. solar PV).
- When there is a need to have close control over the delivery process.
- When the focus is on market preparation where there is little short-term reward for market actors within the current market.
- When the risk is high for either market actors or their customers to participate or there is a need for them to change their business model.
- When there are few established delivery contractors with needed experience.
- When new markets or technologies integration is important or critical to success.

The following bullets present perspectives on when a hybrid approach should be considered. A hybrid approach is appropriate when there are existing multiple sets of market players who operate independently from each other, and do not recognize the desired technologies or markets, or are not specifically trained or focused on those technologies or markets. The organization (Trust) then uses its staff to build the infrastructure and establish key relationships and contracts within and across these targeted market actors and industry experts (multiple contracts) to deliver services, instead of using one specific PMC. An example might be within the Residential New Construction market. Experts can be trained and certified to be field technicians to promote ENERGY STAR homes under contract to the Energy Trust. The Energy Trust would oversee multiple contractors that are embedded within the market. The Energy Trust trains builders and technicians, and supports them technically and financially while the market develops.

Hybrid Approach

- When there are existing capabilities within the market infrastructure that can provide unique services to implement the program and when the primary barriers are market based (as opposed to customer based).
- When market actors can be qualified to serve and where there is some level of financial support to pay for these extended services, though they may be subsidized.
- When there are mostly technical and educational barriers, but when the market infrastructure already exists.
- When there is a need to build market infrastructure capabilities rather than building new market structures.

In the following table the Auditors provide a matrix to help the Energy Trust see how the three types of models compare to each other relative to a set of market, program or actor characteristics. The three models are displayed across the top of the matrix with the comparative characteristics presented on the left hand side of the table. The Audit Team hopes this information is of value to the Energy Trust.

Table 5 Comparisons of the Three Approaches Relative to Different Market Characteristics

	PMC Model	Internal Staff Model	Hybrid Model
Speed of Delivery	Faster to market if contractors available. Not sustainable long term.	Have more internal controls and no external contracts. Usually slower to market, must build delivery infrastructure.	Uses some existing capabilities of the marketplace. Slower to market, need to find and build market capabilities.
Short Term Savings	Faster to market and early results.	Have direct control of efforts and can focus activities.	Uses existing market actors but takes time to build capabilities.
Long Term Savings	Not focused on market change so savings will likely not continue or will be at a slower rate once PMC has withdrawn from market.	Helps to build infrastructure, which is hopefully sustained.	Refocuses existing infrastructure into new areas and markets that have more likelihood for long-term savings.
Building Market Infrastructure	Does not build infrastructure.	Builds some infrastructure, or no infrastructure if staff is delivery mechanism.	Builds long-term capabilities of infrastructure and can change their business model.
Immature Technology in Market	Can help get delivery if there is infrastructure in place to deliver. Not as effective if infrastructure is not in place.	Can get installations in place if directly involved but may not have technical capabilities.	With existing infrastructure can introduce new technology, train and support.
Mature Technology or Market Structure – Customer Barriers	PMC contractor deals with customer issues and then coordinates the market.	Internal staff can deal with customer barriers. If existing infrastructure, then bring in the market actors.	Internal staff trains the existing market actors to deal with the customer issues.
Risk to Market Actors	PMC takes on market risk in hoping that in the long term the market risk will reduce but the program must operate independently.	If market risk and customer risk is high, then internal staff takes on risk. Need to build the market and reduce risk.	If risk is high, it is hard to get the existing infrastructure to take on the program. Not the right model.
Long Term Relationships Required	Best for short-term relationships .	Best for short-term relationships if the staff delivers. If they build the infrastructure over time, then will build long-term market relationships.	Best for long-term relationships as this utilizes existing market actors and infrastructure.
Budgets	Pushes the costs external to Energy Trust staff but may be higher cost in the long-term for duplicate administrative functions.	Holds these costs internal. Must establish the staff and capabilities but may lower administrative costs from reduced duplication.	Needs more support than just administration (as in PMC model) but not as costly as full internal staff model. Also over time market is expected to pick up some of the costs as transition to market driven services.
Administrative Issues	Coordination and decisions through more layers as contracts need to reflect appropriate activity.	Less administration for contracts but more internal administration structure needed.	Has more internal coordination but also many external contracts.
Program Integration	Integration is difficult as activity is contract focused.	Integration is easiest with internal staff.	Integration is in between other options.

Appendix C: Check List of Items Considered When Reviewing ETO Programs

Design

- Market Potential & Understanding – Analysis
- Barriers to the Market and Customers
- Best Practices Considered
- Breadth and Depth of Offering
- Sectors Targeted
- Sector Balance
- Portfolio of All Programs
- Budgets
- Incentives
- Goals & Savings
- Measures Included
- RAC/CAC involvement

Program Plans

- Flow Charts
- Forms Complete
- Tracking
- Technical Support
- Marketing
- Management Structure
- Manuals
- Budgets
- Communication Systems
- Guidelines/ Standards
- Market Provider Involvement
- Customer Incentives
- Market Incentives

Operations/Implementation

- Tracking
- QA/QC
- Contracts
- Customer Service
- Call Center
- Budget Tracking
- Financial /Incentive Processing
- Problem Resolution Processes

PMC

- Staffing
- Communication Systems
- Marketing

- Training
- Customer Service
- Handouts/ materials
- Sales Systems
- Sales Lead Follow Up
- Marketing Recruitment – Contractors
- Delivery Systems

Feedback/ Enhancements

- PMC feedback
- Evaluation
- Market Feedback
- Change Process
- RAC/CAC involvement
- Technical Review & Issues
- Market Research
- New Markets & Technology Opportunities
- Internal Trust Feedback Systems