New Buildings DRAFT Action Plan, October 2015

Program Description

Energy Trust New Buildings serves new construction, major renovations and tenant improvements, including multifamily and some new industrial core and shell. Working directly with building owners, developers, business owners and design professionals, New Buildings targets and delivers technical and financial resources to accelerate market adoption of high-performance equipment, buildings, advanced technologies and building design practices. The program team engages with projects in early design, working directly with the project team, owners and allies to incorporate energy efficiency early in the building design and development process. New Buildings will continue to drive significant changes to how buildings are designed and constructed, resulting in sustained market practices that promote high-performance buildings and the benefits of energy-efficient places to live, work and do business in Oregon.

Aggressive energy savings targets are feasible in today's market, creating one of the greatest market advantages for major initiatives aimed at deep energy-efficiency. This long-term strategic vision guides energy program savings goals, market development, innovation in delivery and the development of cost-effective measures and decision-making tools to transform the market.

New Buildings will drive deeper savings by deploying program resources in three delivery methods, or tracks:

1. **System-based measures**
2. **Custom modeled savings**
3. **Packaged incentives**

Three initiatives will be continued: Path to Net Zero, Market Solutions targeted to 8 small commercial markets, and Allies for Efficiency for program training and education. Achievement of deep savings and the delivery of simple solutions will be supported with early design assistance, technical assistance, installation incentives and building commissioning.

With a mature program and ally network, paired with a strong economy, New Buildings plans to deliver increased project activity and savings over the next two years. To achieve utility-specific savings goals in 2016, and lay the foundation for future savings in 2017-2018, New Buildings will use the following strategies, delivered by Program Management Contractor, CLEAResult, and subcontractors.

2016 Strategic Focus

1. New Buildings' goal is to transform building design and construction practices for low-energy and net-zero building to become commonplace. Two critical pilots—Path to Net Zero and Small Commercial Efficiency—led to two innovative program offerings now standardized in the program, and these pilots helped shape how to deliver savings opportunities to a wide range of building owners and project teams and how to target deep energy savings. As some building owners lead with advanced designs and technologies, program staff capture early learnings then incorporate the emerging savings opportunities into approachable standard offerings for many market actors to adopt. This connection allows new Path to Net Zero design strategies to transfer to projects taking a prescriptive approach and that need simple, packaged solutions. Since the launch of Path to Net Zero and Market Solutions, New Buildings has begun to capture the synergies occurring in the

market, leveraging net-zero strategies and solutions to further serve under-participating market segments, helping these customers make bigger leaps and save more energy.

2. Build a market advantage for advanced buildings and enable broad adoption of advanced design strategies and technologies. With the emergence of net-zero design practices on a national level, there is greater interest in Path to Net Zero and energy-efficiency. However, achieving net-zero goals will remain a challenge for most projects and allies in these early stages of market adoption. Many owners and allies need increased familiarity with how to approach a net-zero design, energy modeling and systems selection before applying these strategies to their projects, but many are beginning to emerge and embrace net zero.
3. Increase owners' ability to target, achieve and sustain deep energy savings. To expand the application of net zero design strategies across a wide range of building types, sizes and climate zones, New Buildings will build capacity and knowledge among owners and developers to create high-performance buildings that achieve deep energy savings. This requires deploying more tactics that support owners, including: high-level, easy-to-use tools that support early decision making and help them set requirements for their building; case studies of building strategies and occupant satisfaction; and recognition and reward for their accomplishments. But the program will also help owners and professionals address challenges with value-engineering by providing owners with examples of performance-based contracting alternatives. Introduce and begin to standardize energy modeling and analysis tools that inform early design decisions, and empower allies designing next-generation buildings with better analytic tools that support the business case for owner-driven decision making.
4. Build knowledge and market momentum to accelerate the adoption of Path to Net Zero, putting Architecture 2020 milestones within reach for customers. Continue with two long-running training series building upon the Allies for Efficiency and the Building Energy Simulation Forum, and add Allies for Efficiency Level II trainings to provide in-depth lessons on technologies and tools and resources on complex analysis and decision-making. The program will continue to use the forums to build better bridges between contractors, designers and owners. As awareness of high-performance building design grows, empowering allies to successfully design and construct becomes critical. To encourage greater understanding and application of design and savings strategies, research on high-priority topic areas will be supported and results shared with the design community, through Allies for Efficiency and disseminated to project teams. As the number of buildings grows, the program will promote higher-level achievements through Allies for Efficiency and enhance the successful long-term training and education initiative to expand learnings.
5. Continue supporting small commercial building owners and businesses with streamlined building-type-specific incentive packages, called Market Solutions, that make it easy to participate. Eight Market Solutions, each with a Good/Better/Best incentive options, are available to customers and allies including office, retail, primary schools, small multifamily, large multifamily, grocery, restaurant and office tenant improvements. The program will support business owners occupying very small spaces with tips and guidance to access services through the Trade Ally Network.
6. Maintain and grow opportunities for core savings in buildings related to lighting, building controls, heating, cooling and ventilation, and IT equipment. Continue support for advanced lighting design and lighting controls, with the objective of driving reductions in lighting power density across a wide range of buildings and applications. Update the lighting calculator to include new controls. Collaborate with Northwest Energy Efficiency Alliance on their Luminaire Level Lighting Controls

work. Retool HVAC savings approaches to address the decline in roof-top HVAC units that are now becoming code baseline. Identify advanced savings measures that need to be piloted or made prescriptive for small businesses. Continue to support data centers, adjust baselines and identify market transformation activities targeting equipment sizing in facilities.

2016 Activities

1. Continue building market demand among commercial building owners and developers increasingly on the Path to Net Zero, and provide them with recognition and rewards in the early design phase as projects are getting underway. Work with current Path to Net Zero project teams to achieve their energy-savings targets, reward their success and begin to advance the program's community building strategy.
2. Grow the number of advanced energy savings measures available to the market. Aggressively standardize innovative savings measures into simple solutions ready for market adoption.
3. Pilot technologies and strategies that are viable and increasingly appealing to the market, but it has been difficult to determine their costs and savings.
4. Continue to couple early design assistance with Market Solutions Good/Better/Best packages targeting grocery, small multifamily, office, retail, restaurant and schools, large multifamily and office tenant improvement.
    - Expand the retail package to include a pathway for retail tenant improvements focused on lighting and control strategies
    - Examine ways to leverage the Best and Very Best options toward net zero energy design.
5. Continue regional program delivery to Eastern Oregon, Central Oregon, Southern Oregon and the Willamette Valley, and increase outreach activities to building owners along the coast and Columbia corridor. Expand project support in Southern Oregon and Central Oregon.
6. Continuously improve how customers tap into services and incentives, leveraging online processing and enrollment.
7. Expand delivery of training and education—under the umbrella of Allies for Efficiency—to reach new audiences, technical specialists, construction contractors and trades with enhanced content.
8. Update the data center offering to be more streamlined and design-focused. Develop training and education materials with the objective of shifting IT design practices and deliver content through new market channels.
9. Update solar and solar ready offering and market engagement strategy.
10. Adapt to reduced gas and electric avoided costs to provide cost-effective measures, providing more services as necessary to aid the customer's decision making and redefining recommendations to limit marginally cost-effective measures.
11. Work with other organizations to build market momentum for net-zero energy, advanced design and construction.
12. Increase code knowledge and compliance through training, education and project support, and increase access to resources that can be used by code officials to increase compliance of energy codes.

13. Coordinate with NEEA to leverage regional activity and content, and prepare for code updates.

2016 Assumptions

1. Statewide growth in construction will continue steadily and vacancy rates for large market segments are low, causing across-the-board demand for new construction and major renovation space. The program will manage to historically high levels of statewide construction activity and plans to deliver 70% more energy savings compared to 2015. Program staff assume that the program will continue to influence the market to build energy-efficient buildings when the pace of construction is so fast it may crowd out energy-efficiency.
2. Large volumes of projects from two market segments will close: multifamily pipeline contains 100 buildings that we assume will close in 2016 with significant electric and gas savings, and that distribution centers will continue to expand in 2016, tapering off in 2017. We anticipate that several significant distribution center projects will enroll and close in 2016.
3. The 2014 Oregon Energy Efficiency Specialty Code was not widely reflected in program offerings, but will limit available prescriptive HVAC offerings, which could have a ripple effect on market solutions packaged incentives.
4. Growth in major market segments will continue, including office, retail, schools and multifamily segments. Projects will complete within the timelines projected.
5. Project teams strive to reach deeper energy savings goals, tapping into program offerings such as Path to Net Zero and Market Solutions Good/Better/Best.
6. The state's first 30 Path to Net Zero projects will be successful as they undergo design and completion.
7. Large Projects: One large commercial project in Pacific Power territory will close in 2016, completing with today's projected savings estimates. Another large project in PGE territory is assumed to close in 2016, which presents a slight risk to our goal if delayed. As in past years, large projects could enroll in 2016 and close in 2016, but this scenario is unlikely and therefore it is assumed no unenrolled projects will close in 2016.