Study Session

SS

Milwaukie City Council

MILWAUKIE CITY COUNCIL
STUDY SESSION

City Hall Conference Room
10722 SE Main Street
www.milwaukieoregon.gov

REVISED AGENDA
February 18, 2016
(Revised February 17, 2016)

A light dinner will be served. **Page #**

1. 6:00 p.m. Comprehensive Plan Update: Community Visioning **1**
Staff: Denny Egner, Planning Director, and
Steve Ames, Community Matters

2. 7:00 p.m. Solar Goals and Projects **4-1**
(Attachments added February 17, 2016)
Introduced By: Mayor Mark Gamba

3. 8:00 p.m. Volunteer Appreciation and Earth Day Events
Staff: Mitch Nieman, Assistant to the City Manager

4. 8:30 p.m. Draft Tree Ordinance **5**
Staff: Mitch Nieman, Assistant to the City Manager

5. 9:00 p.m. Adjourn

Meeting Information

The time listed for each item is approximate; the actual time each item is considered may change due to the length of time devoted to the previous item. The Council may vote in Work Session on non-legislative issues.

Public Notice

Executive Sessions: The Milwaukie City Council may meet in Executive Session immediately following adjournment pursuant to ORS 192.660(2). All Executive Session discussions are confidential and those present may disclose nothing; representatives of the news media may attend as provided by ORS 192.660(3) but must not disclose any information discussed. Executive Sessions may not be held for the purpose of taking final actions or making final decisions and they are closed to the public.

The Council requests that mobile devices be set on silent or turned off during the meeting.

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MILWAUKIE CITY COUNCIL
STAFF REPORT

Agenda Item: **SS 1.**
Meeting Date: **Feb. 18, 2016**

To: Mayor and City Council

Through: Bill Monahan, City Manager
Alma Flores, Community Development Director

Subject: **Milwaukie Comprehensive Plan Update**

From: Denny Egner, Planning Director

Date: February 8, 2016, for February 18, 2016, Study Session

ACTION REQUESTED
Refine direction to staff regarding the scope, extent, and timeline of a visioning process that will set the course for any needed changes to the Comprehensive Plan.

HISTORY OF PRIOR ACTIONS AND DISCUSSIONS
January 19, 2016: Council asked staff to explore a visioning process that would include an action plan component to address issues that may not fit into the comprehensive plan and to include a more robust outreach element.

December 15, 2015: In a worksession, Council directed staff to initiate a 2 ½ to 3-year effort to update the City's Comprehensive Plan, including a 6-month long community visioning process.

BACKGROUND
At the January 19, 2016, Council worksession, staff presented a work plan approach that was designed to complete the Comprehensive Plan update by the fall of 2018. The approach included an aggressive, and somewhat abbreviated, visioning process to kick-off the process. At the meeting, Council members expressed concern that, as proposed, the process did not include enough outreach to the community. In addition, Councilors expressed interest in having an action plan accompany the vision, especially for those visioning issues that are not directly addressed in the Comprehensive Plan. The Council asked staff to return with an approach that included both more public outreach and an action plan component.

DISCUSSION
In response to Council direction, staff contacted visioning consultant Steven Ames and arranged for Mr. Ames to attend the February 18 Council Study Session. Mr. Ames is an Oregon-based, internationally-recognized visioning consultant. He will present an overview of his approach to visioning (see Figure 1) and provide examples of action plans that have been used to implement community visions in different jurisdictions. In addition, Mr. Ames has been asked to discuss various approaches to public outreach and engagement during the visioning process.

Key issues to be discussed include the following:

1. **Scope of the Vision** – Based on the January 19 work session, there was some discussion about whether the visioning effort should be more open-ended to allow

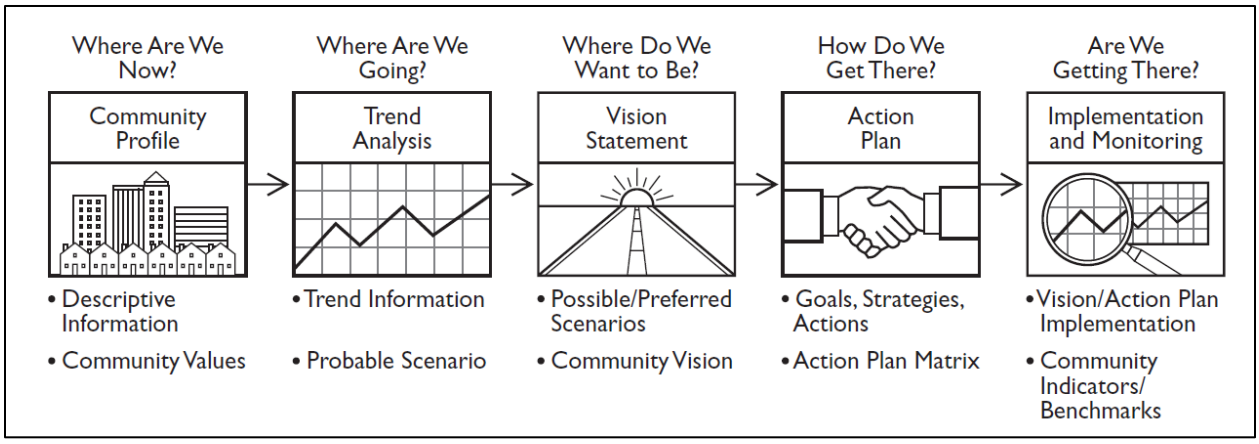
participants to provide input on the full range of City services, rather than strictly focus on land use and the Comprehensive Plan. What are the advantages and disadvantages of a more open-ended approach?

2. **Community Values** – To follow the Oregon Model for visioning (see the January 19 Council packet), it is important to determine community values. What are the best options available for this work? Is it worth the effort to have a scientific survey completed?

3. **Action Plan** – The most successful vision plans tie actions to the vision statements and describe specifically what must be completed to reach the future desired state described in the vision. The action plans describe who is responsible for carrying out the actions and set specific time frames for completion. For land use and Comprehensive Plan issues, the action plan will guide planning efforts. For other non-land use issues, the action plan can drive Council goals and priorities. What type of action plan might best fit the needs of Milwaukie?

4. **Outreach** – As with any long range planning effort, public outreach and engagement are integral to creating a successful vision and plan. Staff is proposing that an advisory committee will be formed to guide the development of the vision and that up to four community events be held to collect input. A web presence is also envisioned, along with an outreach campaign to let the neighborhood district associations (NDAs) and civic groups know about the efforts. What other strategies might the City of Milwaukie employ to ensure that there is adequate outreach and involvement in the process, and that underrepresented groups are engaged?

Figure 1. The Oregon Model for Visioning



Source: Steven Ames, Ames Planning, excerpted from "Planning and Urban Design Standards," published by the American Planning Association, 2006.

Questions for Council Consideration

Staff is seeking Council direction on the following questions:

1. Should the visioning process address the full range of City services, or focus only on land use-related issues?
2. Should the vision include an action plan?
3. What outreach tools should be employed?

CONCURRENCE

No other departments have reviewed this report.

FISCAL IMPACTS

The Planning Department has included funding for a visioning effort and Comprehensive Plan update in the proposed 2016-2018 budget. Choosing a visioning approach that involves the full range of City services will require a higher level of participation from all City departments and may result in new program or project suggestions.

WORK LOAD IMPACTS

It is anticipated that the visioning process will require 1+ Planning Department FTE, and Comprehensive Plan update process will require 1-2+ Planning Department FTE, for the duration of the project, depending on the scope of updates selected. In addition, if we choose to address the full range of City services, staff from other departments will be involved in visioning events and action plan development.

ALTERNATIVES

Direct staff to draft a visioning process that focuses on land use issues.

Direct staff to draft a visioning process that addresses the full range of City services.

Direct staff to draft a visioning process that includes an action plan.

Direct staff to draft a visioning process that does not include an action plan.

ATTACHMENTS

1. Steven Ames resume

Steven Ames, NXT Consulting Group, LLC

Steven Ames is a consulting long-range planner and a founding principal of NXT Consulting Group, LLC. He is also principal of **Steven Ames Planning**, a private consultancy providing long-range planning services for an international urban planning clientele.

Much of Steven's work has focused on development of **long-range and strategic plans** for public agencies and institutions. In this capacity, he has advised local, state, provincial and federal government agencies, state court systems, health advocacy and aging care organizations, and institutions of higher education.

Steven's work for NXT focuses on **process design, facilitation and communication**. As a planner, he develops alternative scenarios, mission, values and vision statements, and strategic plans. As a facilitator, he designs and facilitates stakeholder surveys, focus groups, tasks force meetings, and visioning and strategic planning workshops.

In the area of higher education, Steven was consultant to *Pacific 2000*, a groundbreaking long-range planning process for **Pacific University** in Oregon. Subsequently, he worked with the **Pacific University College of Education** and Pacific's Board of Trustees.

As a principal of NXT Consulting, he has facilitated long-range planning projects for **St. Ambrose University**, Davenport, Iowa, **Linfield College (Portland Campus)**, Portland, Oregon, **Portland State University** College of Liberal Arts and Sciences, and **Indiana University School of Public and Environmental Affairs** at its **IUPUI** campus in Indianapolis and its **IU Bloomington** campus in Bloomington, Indiana. He also participated in development of visionary concepts for a four-year campus for **Oregon State University Cascades** in Bend, Oregon.

Described as "an architect of public process," Steven is recognized internationally for his work in **long-range city planning**. He has advised visioning projects for more than 60 cities in Oregon, across the Western U.S. and Canada, Australia and New Zealand, including two generations of visions for the **City of Portland, Oregon**. His projects have won local, state, national, and international awards. He is author of the American Planning Association's (APA) *A Guide to Community Visioning*, and a contributor to its urban planning reference work *Planning and Urban Design Standards*. His monographs also have been published in Europe and Australasia.

Steven is recipient of the Oregon **APA Award for Distinguished Leadership** by a Professional Planner. He was the first **Craig Byrne Fellow of the Orton Family Foundation**, a private foundation dedicated to promoting vibrant small communities. He is also a recipient of the **Sustainability Award for Vision** from Central Oregon Environmental Center.

Steven has an A.B. degree from **Drew University** CLA, Madison, New Jersey, and M.S. degree from the **University of Michigan** School of Natural Resources. He has also studied with faculty of the **London School of Economics**.

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OVERVIEW

With current growth trends, and with the policies to further stimulate growth, Milwaukie has the potential to significantly increase installed capacity in the near future. The following policy recommendations are intended to foster the growth necessary to triple Milwaukie's current solar capacity in the next five years.

I. SOLAR INSTALLATION TARGET

Recommendation: Set a goal of 2.2 MW photovoltaic solar installed by the end of 2020.

As a starting point, any city interested in promoting solar at the local level should set a solar installation target to assess success of such a program. The US Department of Energy identifies four key benefits of a municipal solar installation target[1]:

1. Clarifies the role solar energy will play in achieving a community's broader environmental, climate change, or sustainability goals
2. Helps create momentum for a solar program with stakeholders working toward common goals
3. Guides the strategy for increasing solar installations in a community and enables leaders to track progress against a published goal
4. Aids in attracting the solar industry to bring jobs and economic benefits to a community

2014 Solar Baseline: The City of Milwaukie currently has 732.93 kW of installed solar capacity.[2] Based on an average system size of 5kW per rooftop solar installation, Milwaukie has the equivalent of 147 solar rooftops. Extrapolating from the number of households in the city, this is the equivalent of 1.7% of all households within the Milwaukie city-limits with a solar roof.

Five-year growth rate: Solar growth has increased significantly in recent years. Nationally, installed solar capacity grew by 30%[3] in 2014. In Oregon, installed solar capacity increased by 10%[4] in 2014. Meeting the goal of 2.2 MW by the end of 2020 would entail a 25% annual growth rate in installed capacity. This would be the equivalent of 447 solar roofs, or just over 5% of households with a solar roof. With the cost of solar expected to continue to decease, Milwaukie has the potential to meet, and even exceed, this goal.

II. COLLECTIVE PURCHASING PROGRAM

Recommendation: Organize a local "Solarize" campaign as part of its effort to increase solar adoption in the community.

Collective purchasing mitigates three large barriers to entry for residents into the solar market by bringing down upfront costs, reducing complexity for consumers through educational workshops and targeted marketing, and customer inertia by setting a short timeframe in which discounts are available.

Examples:

1. ***This model was pioneered by the City of Portland****: from 2009 and 2011, six "Solarize Portland" campaigns supported by the City added 1.7 MW of solar power on 560 homes. In 2010 alone, the number of total PV installations was almost 400% over the previous year.*
2. ***The City of Happy Valley is currently running a program with a goal of 60 new solar installations by March****. If successful this would mean an approximate increase in total solar installed by 300 kW (based on an average size of 5 kW for a typical residential rooftop system), or what would represent more than a 40% increase over Milwaukie's current installed-capacity.*

III. CITY-LED SOLAR PROJECTS

Recommendation: Engage in municipal-driven community solar projects and investigate potential for solar on government buildings.

Solar on Government Buildings: Installing solar on government buildings can save municipalities money while at the same time providing an example to residents that solar works in their city. One avenue for cities to pursue is a Power Purchase Agreement (PPA). With a PPA, cities work with a third-party that installs and owns a solar system on the city's empty rooftop space in return for energy at a guaranteed rate below retail. Additionally, by allowing a for-profit third-party to own the system, the city is able to take advantage of federal tax credits that would otherwise be unavailable.

Example:

Metro is currently installing a 2 megawatt rooftop solar array on the Oregon Convention Center financed through a PPA with SolarCity as well as grants from Pacific Power and the Energy Trust of Oregon. When completed, the installation in expected to generate the equivalent energy of 184 Portland homes in its first 20 years.[5]

Community Solar: The Oregon Public Utility Commission is currently designing a program that would allow consumers and businesses not currently able to put solar on their roof an opportunity to share in the costs, risks, and benefits of solar projects through their utility bills. The program, if adopted by the legislature, would allow municipalities, among other entities, to own community solar projects on city property and sell individual panels to members of the community. **Note: this is not currently actionable without further state legislative action.**

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[1] Solar Powering Your Community: A Guide for Local Governments; US Department of Energy, 2011
[2] Data provided by Energy Trust of Oregon & Portland General Electric
[3] Solar Market Insights Report 2014 Q4; Solar Energy Industry Association
[4] Lighting the Way: The Top States that Helped Drive America's Solar Energy Boom in 2014; Environment Oregon Research & Policy Center, 2015
[5] Ambitious rooftop solar array planned for Oregon Convention Center, Oregon Convention Center

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Energy Efficiency &
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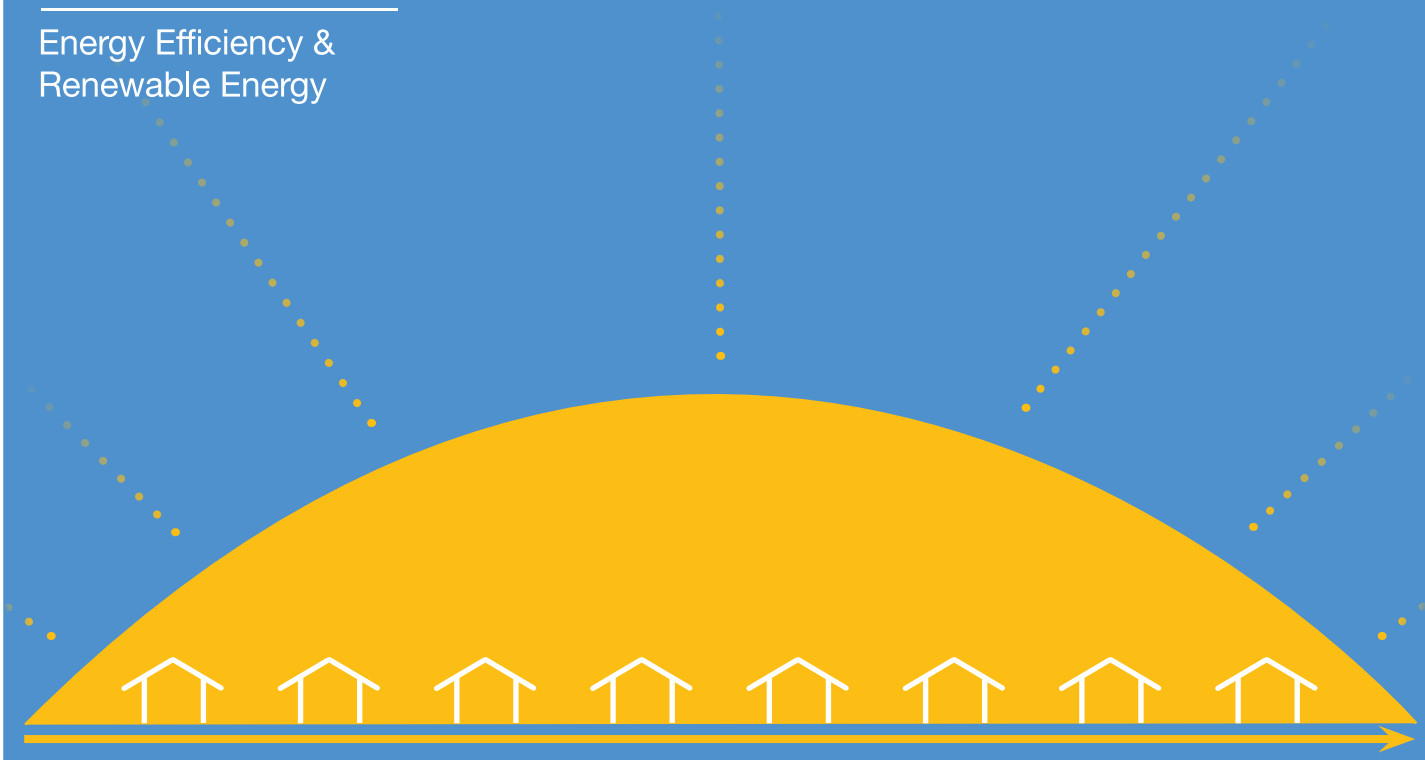

THE SOLARIZE GUIDEBOOK:

A community guide to collective purchasing of residential PV systems

SOLAR AMERICA
COMMUNITIES

ACKNOWLEDGEMENTS

The Solarize Guidebook was developed for the National Renewable Energy Laboratory and the City of Portland. The Solarize campaigns were initiated and replicated by Portland's Neighborhood Coalition network with help from the Energy Trust of Oregon, City of Portland, and Solar Oregon.

AUTHORS

Linda Irvine, Alex Sawyer and Jennifer Grove, Northwest Sustainable Energy for Economic Development (Northwest SEED). Northwest SEED is solely responsible for errors and omissions.

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SPONSORS

Solar America Communities
This guidebook was made possible through funding from the U.S. Department of Energy's Solar America Communities program. www.solaramericacommunities.energy.gov

City of Portland, Bureau of Planning and Sustainability (BPS)
BPS develops and implements programs that provide environmental, economic and social benefits to residents, businesses, and government, which strengthen Portland's position as an international model of sustainable practices. The BPS took on a management role in several Solarize campaigns and funded replication efforts including this Solarize Guidebook. www.portlandonline.com/bps/solar

Energy Trust of Oregon
Energy Trust of Oregon is an independent nonprofit organization dedicated to helping utility customers benefit from saving energy and tapping renewable resources. Their services, cash incentives and energy solutions have helped customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas save nearly $660 million in energy bills. Their work helps keep energy costs as low as possible, creates jobs and builds a sustainable energy future. Energy Trust created the program blueprint for the first Solarize Portland campaign and provided technical support, incentives, and program evaluation. www.energytrust.org

Solar Now! Campaign
Solar Now! connects Oregonians with the resources and assistance they need to choose solar energy. Partners are Solar Oregon, Oregon Department of Energy, Energy Trust of Oregon and City of Portland Bureau of Planning and Sustainability. They have conducted workshops and other events to catalyze solar across Oregon State, since January 2007. www.solarnoworegon.org

Prepared for NREL Subcontract No. AGG-0-41034-01. Published January 2011.
Available online at www.portlandonline.com/bps/solarizeguide

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INTRODUCTION

Communities are abuzz with interest in solar power. In Portland, Oregon, known for bicycling, recycling, and all things "green", the interest is especially intense. But interest is not a guarantee of action. Although Portland and its educational outreach partners conducted popular Solar Now! workshops for several years, the high attendance at workshops did not translate into high numbers of solar installations.

Enter the Solarize campaign: a grassroots effort to help residents overcome the financial and logistical hurdles of installing solar power. Over two years and multiple campaigns, residents of Portland installed over 600 solar electric photovoltaic (PV) systems. Although the success seemed to come out of nowhere, it didn't just happen overnight. It took a concerted effort by many partners —neighborhood volunteers, a neighborhood coalition, Energy Trust of Oregon (Energy Trust), the City of Portland, Solar Oregon and solar contractors— to convert customer interest into action.

Purpose

This guidebook is intended as a road map for project planners and solar advocates who want to convert "interest" into "action," to break through market barriers and permanently transform the market for residential solar installations in their communities. It describes the key elements of the Solarize campaigns in Portland, and offers several program refinements from projects beyond Portland. The guidebook provides lessons, considerations, and step-by-step plans for project organizers to replicate the success of Solarize Portland.

The guidebook is funded by the U.S. Department of Energy (DOE) Solar America Communities program, as part of a broader program to accelerate the adoption of solar energy technologies for a cleaner, more secure energy future. Under this umbrella, Portland and other communities are partnered with the DOE to identify barriers to solar energy use, and to collaboratively develop solutions to overcome those barriers.

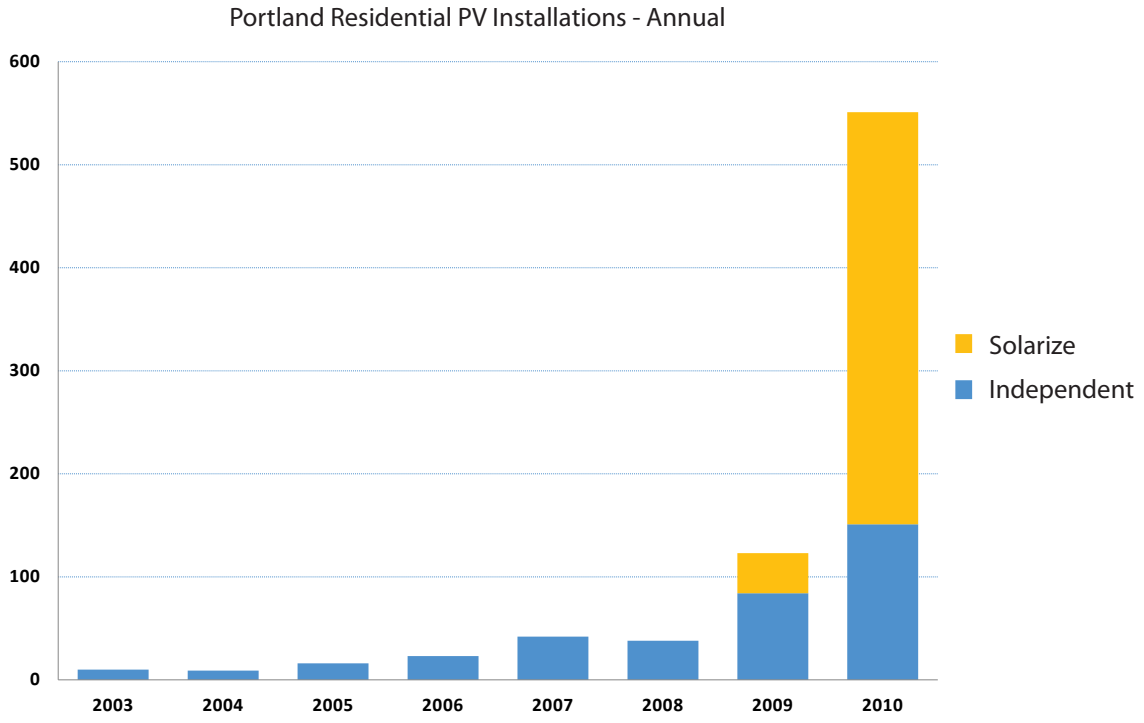
Source: Energy Trust of Oregon and Solar Oregon

BACKGROUND AND OVERVIEW OF MODEL

The First Solarize Campaign

The first Solarize campaign started with a simple wish: Stephanie Stewart, a resident of Mt. Tabor neighborhood in Southeast Portland, wanted to install solar power, but she didn't know what to ask for, whom to trust, or where to start. She imagined that if she could organize a group of neighbors to "go solar" together, they could collectively make an informed purchase and possibly negotiate a volume discount. She turned to her neighborhood association and the local neighborhood coalition, Southeast Uplift, for assistance. Southeast Uplift was willing to help and approached Energy Trust for technical and program planning support. Energy Trust developed a volume purchasing program to meet the needs of the neighborhood coalition and the Solarize Southeast campaign was born.

Within six months of starting their campaign, Solarize Southeast had signed up over 300 homes and installed solar on 120 homes. The 120 installations added 350 kilowatts of new PV capacity to Portland, and will produce an estimated 359,000 kWh of electricity per year. The project also helped provide 18 professional wage jobs for site assessors, engineers, project managers, journeyman electricians, and roofers.



The neighborhood bulk purchase concept spread quickly. With support from their Solar America Cities grant, the City of Portland's Bureau of Planning and Sustainability helped other neighborhood organizations take Solarize Portland citywide, completing projects in Northeast and Southwest Portland and a second round in Southeast. Taken together, these follow-on projects produced another 400 Solarize installations in 2010, increasing total PV installations almost 400% over the previous year.

Overcoming Market Barriers

Although the volunteer organizers of the first campaign did not set out to transform the market, their program design resulted in spectacular market growth. The Solarize Portland model tackles three major market barriers: **cost, complexity**, and **customer inertia.**

High Up Front Cost
Residential solar installations have high up front costs. By presenting the full package of federal and state tax credits and the Energy Trust cash incentive, the Solarize campaign showed that the final costs were much lower than the initial sticker price. In addition, the contractor savings on marketing costs and volume pricing drove costs down by 30-35%. A typical 3 kW installation in the first Solarize project cost only a couple thousand dollars after tax credits and incentives.

Complexity
For many, a solar purchase seems a dauntingly complex decision, involving choices about technical issues such as inverter efficiency, PV modules, and optimal array tilt. Even choosing between contractors can be an overwhelming task for those not technically inclined. Every aspect of the Solarize program was designed to provide actionable information while reducing complexity. A committee of neighbors pre-selected the contractor through a competitive bidding process and negotiated the cost. Workshops and Q&A sessions focused on the practical steps to making a purchase. The program reduced a dizzying array of technical choices to one simple question for participants: yes or no?

Customer Inertia
The sales cycle for solar is usually more than two years from first inquiry to installation. The Solarize project overcame customer inertia to get installations in three to six months. By offering a highly competitive price in a limited time offering, the campaign motivated customers to act. In addition, the spirit of group endeavor afforded safety in numbers, so that people didn't feel that they were making a decision on their own.

By tackling cost, complexity, and customer inertia, the Solarize campaign succeeded in transforming interest into action.

Essential Elements of the Solarize Model

In Portland, each successive Solarize campaign looked slightly different, reflecting the different priorities and goals of the differing neighborhoods, but there were some common elements that led to success: competitive contractor selection, community-led outreach with a trusted community partner and a limited time offering.

Competitive Contractor Selection
Selecting the contractor(s) through a competitive process led by community volunteers is essential on several fronts. First, it affords homeowners the simplicity of a pre-selected contractor while building confidence that the contractor was selected from a range of options. Second, it provides a transparent process that builds customer and contractor trust. Although the criteria for selection may vary from campaign to campaign, they should reflect the particular values of the community, whether they are creating local jobs or driving prices down. By having a competitive process with clear criteria, the project organizers can justify their choice, while sending a clear market message about customer and community values.

Community-led Outreach and Education
Another element of a successful campaign is community-led outreach supported by a trusted local organization. In Portland, neighbors distributed flyers, built and updated the program website, and spoke at workshops, delivering a direct appeal from one friend to another to join the campaign. The volunteers were supported by a Neighborhood Coalition, which had a long history of helping people and a high level of community trust. Harnessing community power in this way has many benefits: the community becomes invested in

"Thanks to the community outreach, we saved 30% on marketing!"
Rob LaVigne, Solar City

the success of the project, the scope and scale of the outreach is amplified, and neighbors are more responsive to the appeals. Community-led outreach also allows the contractors to save on marketing costs because they do not need to spend as much time generating leads. With neighborhood volunteers generating hot leads, the contractors can focus on site assessments and installations.

Limited-Time Offer

Nothing motivates people like a deadline. A Solarize campaign is a limited-time offer, creating a sense of urgency among residents who don't want to miss a good deal. The limited time offer also keeps the program true to its market transformation goals: to jump-start the solar market and then step aside. Some contractors may object to the perceived "monopoly" awarded to the contractors selected for the project. The limited-time offer may help mitigate that contractor concern. In fact, a successful Solarize campaign can increase business for non-Solarize installers as well. Installation numbers from Energy Trust demonstrate that Portland actually experienced an increase in non-Solarize installations during the Solarize campaigns.

SOLARIZE 1.0

The Basic Program

The Energy Trust's volume purchase program for Southeast Portland was designed to lead the customer through a simple process, from awareness to installation, over the course of six months. The process included:

- **Awareness:** The Solarize Southeast campaign was advertised in flyers, emails, newsletters, blogs and by word of mouth. Even TV and radio media took notice late in the program.
- **Education:** Workshops and Q&A sessions were offered throughout the community to allow all interested neighbors a chance to ask questions in a supportive environment and to lay out the steps to participation.
- **Enrollment:** Residents enrolled in the program through a simple email to Southeast Uplift. In subsequent projects, this became an on-line application. In some projects, a short questionnaire helped enrollees self-screen for solar suitability.
- **Site Assessment:** The installation contractor provided a site assessment and bid to all enrollees. The Energy Trust also provided an optional Solar Energy Review for participants who wanted consultation before deciding whether to get a contractor bid.
- **Decision:** The customer decided whether to accept the contractor's bid at the Solarize program price. A descending price, depending on the volume of installations, encouraged the community to promote the program in order to get the lowest price possible. There were few variables, other than system size and in some cases, a choice of modules, so the customer's decision usually came down to a simple yes or no.
- **Installation:** The contractor installed the system and helped the customer through the paperwork for the Energy Trust cash incentive and state and federal tax credits.

The program offered a significant discount, enabling people to go solar for as little as a few thousand dollars after tax credits and cash incentives. This chart shows the 2011 pricing for a typical Solarize project.

3 kW PV System	Cost	Notes
Solarize Installed Price per Watt	$6.00	
Total System Cost Before Incentives	$18,000	
Energy Trust of Oregon Cash Incentive	$5,250	$1.75/watt
Out of Pocket	$12,750	
Federal Tax Credit - 30%	($3,825)	Calculated after Energy Trust incentive
Oregon Residential Tax Credit	($6,000)	$2.10/DC watt; taken over 4 years
Final Cost After 4 Years	**$2,925**	

The Partners

While volunteers propelled the project forward, the project required the coordinated efforts of many community players. These partners worked together through all of the Solarize campaigns in Portland:

- **Neighborhood Coalition Office:** A staff member devoted a portion of their time for six months to manage the program. They played a crucial role in managing volunteers and reaching out to involve other supporting partners.
- **Energy Trust of Oregon:** In addition to providing the template for program design, Energy Trust created a Request for Proposals (RFP) and presented the technical tax credit and financing workshops. On the back end, Energy Trust verified that each installation met its solar requirements and issued cash incentives.
- **City of Portland:** The City created a program to provide project coordination for budding Solarize projects across Portland. The City designed additional outreach materials and presented the introductory workshop series. In addition, the City provided technical support on the RFP and created a streamlined on-line process for solar permitting, with a one-day turnaround on prescriptive path systems. The City's Bureau of Development Services inspected all systems.
- **Solar Oregon:** As the local chapter of the American Solar Energy Society (ASES), Solar Oregon offered support in several ways. They created a database for capturing enrollees and monitored customer progress. In addition, they provided staff and volunteer Solar Ambassadors to present and offer testimonials at workshops.

Community Feedback Spurs Innovation and Improvement

"Our mission is community-building. The Solarize project allowed people to get their hands on something and work together to make great things happen."
Tim O'Neal, Sustainability Coordinator, SE Uplift

The first neighborhood volume purchasing effort, run out of Southeast Portland in 2009, was an unprecedented success, resulting in 130 new residential PV systems in six months. Although the community response was overwhelmingly positive, there were inevitably some lessons learned. A formal program evaluation commissioned by the Energy Trust showed that project organizers were unprepared for the sheer volume of customer interest. Organizers held all the enrollee information until the end of the enrollment period, and then gave the leads to the contractor in one batch. While this allowed the contractor to know the final price (which depended on the volume of sign-ups) before contacting the customers, it meant that the contractor received the 300 sign-ups at once. This led to several issues:

1. Customer follow-up time suffered. The number one suggestion for future programs, expressed by 42% of respondents, was that contractor follow-up could be faster. 32% hoped for a more responsive contractor.
2. The solar installer and electrical subcontractors faced a boom and bust cycle rather than a sustainable modest increase in jobs. Although the solar installer could handle the surge by reassigning internally, the electrical subcontractors actually faced time off.
3. The Coalition office had a hard time processing customer information manually due to the high volume. An electronic process was needed to automate data collection and reporting.

Subsequent projects took these lessons to heart and created refinements, including an on-line registration process and a strategy to send leads to the contractors as they came in, allowing for a more steady stream of contractor referrals and quicker follow-up times. The following case studies show how the program has evolved since the first project, with innovations and adaptations for each neighborhood.

VARIATIONS ON THE CONCEPT

Since the first project in Southeast Portland, each successive Solarize effort has carried the stamp of its particular community values. Indeed, allowing for this expression of values is what makes the Solarize model so attractive and empowering for participants. The first few examples that follow were directly inspired by the first Solarize campaign. Other examples, from San Jose, CA and 1BOG, were devised independently and are included to show a breadth of possibilities, including workplace and commercially-led campaigns. The installation numbers for Portland projects reflect sales reported by Solarize contractors in 2010, although some of the systems may not have been placed in service by year's end.

NE Portland: Addressing Equity Issues, Hiring & Weatherization

Installations: 204 homes

Total Installed Capacity: 549 kW

The Northeast Coalition of Neighbors (NECN) led the effort to ensure that their Solarize campaign benefitted everyone in the community. Northeast Portland has a higher proportion of low-income residents that would be unlikely to participate in a project requiring several thousand dollars out of pocket. However, they could benefit by weatherization services and job training.

"Solarize appeals to homeowners, not renters. By including weatherization and local job training in our campaign, we made sure it would benefit the entire community."
David Sweet, Board member, NECN

NECN's RFP asked contractors to demonstrate a commitment to diversity in hiring and they partnered with the Community Energy Project, a non-profit specializing in education and support for do-it-yourself weatherization projects.

Lessons and Considerations:

- *Contractor Memorandum of Understanding (MOU)*: NECN signed an MOU requiring the installation contractor to coordinate with three community-based pre-apprenticeship programs that train people to enter the construction trades. The contractor ultimately hired eight of their 18 hires from these programs.
- *Weatherization*: In keeping with the goal of program simplicity to accelerate the sales cycle, project organizers chose not to deliver weatherization services. Instead, they partnered with the Community Energy Project on weatherization workshops. They also provided a check box on the enrollment form, for customers to request more information on weatherization, allowing them to make "warm leads" to Portland's comprehensive energy retrofit program, Clean Energy Works Portland, while focusing their own efforts on delivering the solar installations.

SW Portland: Working with Smaller Contractors & Local Manufacturers

Installations: 168 homes

Total Installed Capacity: 450 kW

Southwest Neighborhoods, Inc. (SWNI) decided to open up the playing field by encouraging the smaller contractors to band together and pool resources to respond to the RFP. They hoped that smaller contractors would form alliances to deliver the large number of jobs anticipated. In practice, although they received several "collaborative" proposals, the volunteer RFP committee was not convinced that the contractors had worked out the details enough to handle the collaborative work.

The committee ultimately chose a local contractor who experienced a steep increase in customer service load. The contractor expressed reservations about the profitability of such a boom and bust workload, though they would definitely participate again.

Lessons and Considerations:

- *Using small contractors*: Small contractors need support to develop customer service mechanisms such as a customer tracking database. In addition, contractors are independent businesses and do not generally partner with one another. Rather than ask for collaboration, the RFP committee might decide to award half the jobs to one contractor and half to another, as they did in Salem, Oregon.
- *Assuring unbiased contractor selection*: The volunteer RFP committee signed a Non-Conflict of Interest so that there would be no question of bias in selecting the contractor.
- *Using local manufacturers*: Project organizers in Southwest Portland wanted to "buy local." The contractor suggested using panels and inverters made in Oregon. While customers were offered an option to purchase out of state parts (because the locally manufactured products were more expensive) almost all chose the locally manufactured products, magnifying the economic impact of the program in Oregon.

SE Portland Round 2: Contractor Driven

Installations: 109 homes

Total Installed Capacity: 358 kW

Southeast Portland was the first neighborhood to run a Solarize campaign. As such, the intense media coverage began just as registration was closing, leaving many people eager to participate. Rather than go through the entire RFP process again, the project organizers at Southeast Uplift chose to give the late registrant leads to the installing contractor who won the first RFP. In this round, the contractor required that participants attend a workshop, and Southeast uplift was much less involved. From a customer service standpoint, the customers received the same product as the first round, without the intensive time commitment from the project organizers.

Lessons and Considerations:

- *Contractor driven projects*: SE Uplift noted that the project was a success from the standpoint of solar installations, but less of a community building opportunity. They felt it was worth getting more solar installed for little effort on their part, and it was beneficial to have a contractor who "knew the ropes" for the program.
- *Required workshops*: While contractors would like all potential customers to attend a workshop before the site assessment, any "required" element will produce resistance. Some homeowners complained.
- *Second round campaigns*: Running a second round with the same contractor could open a project to criticism on the grounds of creating a monopoly. Clearly, the data from Portland show that non-Solarize installations rose as well, but project organizers should be aware that running a second campaign with the same contractor in the same neighborhood could cause some hard feelings in the other contractors.

Salem, OR: Using a Co-op Model

Installations: 52 homes

Total Installed Capacity: 165 kW

The structure of Solarize Salem, spearheaded by the non-profit Salem Creative Network (SCN), was modified to address one key barrier: program funding. Lacking the Neighborhood Coalition staff or city funding, SCN adopted a co-op model to fund their Solarize efforts in Salem, charging program participants a fee of $0.10 per watt (e.g. $250 for a 2.5 kW system) to join the co-op. The fee covered program management, database administration and outreach. SCN selected two contractors to carry out the solar installation and negotiated identical pricing packages. Both contractors gave customers the choice between in-state modules and foreign modules. Customers were assigned to one of the two contractors and could choose to switch if desired, although in practice almost all customers were satisfied with the assigned contractor.

Lessons and Considerations:

- *Fee for service*: Solarize Salem was the first Solarize project to require a fee for service. Homeowners were required to write two checks: one to the contractor for their solar system and the other to SCN for the co-op fee. This fee was enough to partially fund the management and database administration, covering about one month of the three-month operations. SCN had to rely on marketing funds from contractors to pay for the outreach materials.
- *Multiple contractors*: Solarize Salem was also the first Solarize project to use two contractors to carry out installations. Customers were evenly split between the two contractors. Contractors were provided leads every three days throughout the enrollment period. As such, customers were contacted promptly, which helped to maintain enthusiasm and prevent a backlog.

For More Information: Ross Swartzendruber, Salem Creative Network, ross@solarizesalem.org, (503) 551-2818

Pendleton, OR: Providing Financing

Installations: 55 homes

Total Installed Capacity: 135 kW

The City of Pendleton took the lead in advancing a Solarize project in this Oregon community. They provided a paid AmeriCorps volunteer to manage the project and made available 50 zero-interest loans of $10,000 to finance Solarize installations. However, the rural location of Pendleton meant that there were no qualified local contractors in the area to complete the installations. To address this issue, Pendleton required that the selected contractor partner with local electricians and roofers to train them in installation and racking. This developed local expertise and assured that solar systems would be maintained even after the project ended. In addition, the contractor provided marketing support to the project, facilitated by an increase in their initial per watt rates.

Lessons and Considerations:

- *Financing via loans*: The 50 zero-interest loans of $10,000 offered by the City of Pendleton proved invaluable to the success of Solarize Pendleton. Funds were borrowed from an existing wastewater treatment facility rate stabilization fund, with loan repayment structured over four years: half paid back the first year and the remaining half paid back over the remaining three years. These funds were vital in bridging the gap between the customers' payments to the

contractor and their receipt of state and federal tax incentives. Ultimately, the loans were used to finance two thirds of the program's solar installations.

- *Contractor marketing*: Solarize Pendleton benefitted from substantial marketing by the contractor. The contractor, in partnership with Solar World panel manufacturers, assisted with marketing by funding the website, performing outreach at farmer's markets, and funding newspaper inserts and advertisements.
- *Solar Oregon outreach*: Solar Oregon provided substantial pro-bono support in Pendleton, creating the customer database and delivering many of the workshops.

For More Information: Lindsey Hardy, City of Pendleton, Lindsey.Hardy@ci.pendleton.or.us, (541) 966-0248, www.pendleton.or.us/

Columbia Sportswear's "Lighten Our Load": Workplace Campaign

Installations: 5 homes

Total Installed Capacity: 14.3 kW

The Solarize model was, in fact, originally developed by Energy Trust for Columbia Sportswear in 2008. Columbia Sportswear had installed solar on its Beaverton headquarters, and they approached Energy Trust interested in developing a workplace-centered solar option for their employees. From this partnership emerged the "Lighten Our Load" campaign, a group buy program for Columbia Sportswear employees. "Lighten Our Load" focused on the complete energy picture, not just solar, and offered a "Home Energy IQ" series to educate employees on conservation, efficiency, and renewable energy.

Lessons and Considerations:

- *Workplace-limited participant pool*: Instead of focusing on a residential community, Columbia Sportswear's "Lighten Our Load" campaign focused on a work-place community. This dilutes the geographic focus of the program (as compared to the Solarize projects that followed), because employees did not necessarily live in the same area. Furthermore, the "Lighten Our Load" campaign held workshops and information sessions during the work day, meaning that household members who were not Columbia Sportswear employees were not present. Project organizers should consider when and where to target decision-making change: Who should be present? What mind frame should they be in? What "community" are you targeting?
- *Broad emphasis*: The "Lighten Our Load" campaign went beyond the traditional scope of Solarize projects to include energy conservation and efficiency measures. While participants received valuable education on these issues, they were not offered any "product" or "package" to accompany energy conservation and efficiency similar to the group buy benefits offered for solar. As such, program clarity was compromised. Program organizers should be clear about what the program is asking people to do, and delineate who is going to be responsible for what.

For More Information: Energy Trust of Oregon, www.energytrust.org

San Jose Credit Union: Workplace Campaign with Financing

Installations: 38 homes - 88 homes (anticipated)

Total Installed Capacity: 52 kW - 120 kW (anticipated)

The City of San Jose undertook solar market transformation through a partnership with the San Jose Credit Union. The resultant "San Jose Employee Solar Group Buy" program offered bulk purchase solar savings for San Jose employees and retirees, in addition to a 3.99% interest home equity loan through San Jose Credit Union to help homeowners finance solar installations. The employee group ultimately ran the program, with technical support from the City and financial support from the Credit Union. Participants had the option to install both solar PV and solar thermal, and a separate contractor was chosen for each.

Lessons and Considerations:

- *Workplace-limited participant pool*: Similar to the Columbia Sportswear campaign, the "San Jose Employee Solar Group Buy" targeted people in the workplace rather than the household. Especially since the program included retirees, this meant that installs happened all over California rather than being geographically limited to San Jose. SunPower, the contractor chosen for solar PV installs, had a network of dealers dispersed throughout California and thus could manage this demand. Consider your contractor's capacity to perform state-wide installations, and the economies of scale preserved or lost with a geographic expansion of the program.
- *Financing via trusted lenders*: Although San Jose Credit Union is not limited to City of San Jose employees, it is the bank used by most of them. Hence, there was already a substantial amount of trust established between program participants and the Credit Union prior to the group buy. Using trusted entities to forward your project will advance its credibility and opportunities for community engagement.

For More Information: Jesse Denver, City of San Jose Office of Sustainability, Jessie.Denver@sanjoseca.gov, (408) 975-2588

One Block Off the Grid: Commercially-Led Projects

Installations: 1,300 homes

Total Installed Capacity: 7,800 kW

One Block Off the Grid (1BOG) is a San Francisco based for-profit company that aims to figuratively take one city block "off the grid" by installing solar. 1BOG establishes programs in target cities with promising solar markets, and aims to address three major barriers to widespread solar energy implementation: 1) high cost, 2) confusing process, and 3) lack of trust between potential customers and installers. 1BOG's city-based programs feature ongoing solar campaigns that run for three months at a time. To initiate a campaign, 1BOG issues a Request for Proposals to local contractors. Rather than tiered pricing, chosen contractors offer campaign participants a low, flat-rate fee. Residents of targeted cities can choose to sign up for solar at the given price offered by the chosen installer.

Lessons and Considerations:

- *Ongoing campaigns*: 1BOG targets promising solar communities in which to launch programs. Currently, there are 20 1BOG programs throughout the United States. Within each of these programs, 1BOG runs ongoing campaigns of three-month duration. Consider whether you

want your project to be a one-time offer or to be ongoing. If ongoing, will you keep the same contractor or issue a new RFP for each iteration?

- *For-profit fee for service*: To finance their business model, 1BOG charges a $0.25 per watt installed fee to the chosen contractor. This adds approximately $1,250 to the price of a five kilowatt system, about five percent of the overall system cost. The customer never "sees" this fee, because it is built into the flat-rate price offered by the contractor. Consider how a fee for service will affect solar prices and play into the customer experience. How does this reflect the mission and goals of your project?

For More Information: 1BOG, www.1bog.org/

Make Mine Solar H_2O: Solar Hot Water

Project organizers need not limit themselves to solar PV. Minnesota Renewable Energy Society recently initiated a volume purchase solar hot water program called "Make Mine Solar H_2O". Make Mine Solar H_2O hopes to install 1,000 solar hot water systems in the Twin Cities by the end of 2012. Consider how the bulk purchase model might be applied to other renewable energy technologies: solar PV, solar hot water, and beyond!

For More Information: www.mnrenewables.org/MakeMineSolar

GENERAL LESSONS AND CONSIDERATIONS

The following lessons and considerations are based on the feedback from all of the Solarize campaigns in this guidebook.

Tap the Grassroots

The Solarize campaigns are successful because they tap the grassroots to design and market the program. In a positive feedback loop, the process of creating and deploying the program builds community pride that encourages higher levels of participation in the community.

Involve the Community in Decision-Making
The RFP process is an opportunity for the community to create an empowering statement of values. With guidance from technical experts, volunteers craft the contractor selection criteria and exercise choice in the selection of the installer(s).

Use Community-Based Marketing
Solarize is a classic example of community-based social marketing: Information reaches people through face-to-face encounters with friends and neighbors, house parties, and other social interactions. Although the campaign uses the web and other traditional media, the thrust of the marketing appeal is personal. In contrast to a plea from the government or the utility, the appeal comes directly from a friend or neighbor.

"Solarize Southwest was perhaps the single most satisfying project I've worked on at SW Neighborhoods. The shared experience of residents attending workshops together and installing solar energy equipment at the same time helped to create a strong sense of community amongst those who participated, and helped us fulfill our mission to the community: to empower citizen action to improve and maintain the livability of southwest neighborhoods."
Leonard Gard, Project Coordinator, Southwest Neighborhoods, Inc.

Collaborate with a Trusted Local Organization & Find a Project Manager

A successful campaign collaborates with a trusted local organization that has a history of helping people. In Portland, the neighborhood coalitions served this role. In Pendleton it was the City and in Salem the non-profit Salem Creative Network was the trusted organization. Regardless of the organization, each campaign had a dedicated project manager to orchestrate the effort.

Plan for success

The first Solarize effort set a goal of 25 installations. When 350 residents signed up, the manual process of entering enrollee information into a spreadsheet quickly became untenable, and the contractor realized that they needed a customer service plan to keep in touch with customers over the several months that they would have to wait to get through the installation queue.

Project organizers should plan for success, and put efficient systems in place for capturing enrollment information, sharing information with contractors, and following up with customers. Consider selecting more than one contractor, so that no single contractor is overwhelmed with jobs.

Support Contractor Systems
Smaller contractors in particular may need support to build their administrative systems to handle a database of customers and a program of regular follow-ups to keep warm leads "warm" until they can reach the customer. Project organizers can help contractors by ensuring that they have thought through their customer service plan, requiring specific plans in the RFP response.

Make Contractors Responsible for Site Assessments
The early Solarize campaigns offered an optional free site assessment in which Energy Trust helped

residents determine their home's suitability for solar and consider energy efficiency options. Although attractive in principle, in fact, offering these third party reviews created a bottleneck, slowing the installation process as contractors had to wait for the reviewers to complete their assessment before meeting with the homeowner. The first program evaluation showed that homeowners who requested the optional site assessment actually installed solar at a lower rate than those who did not. (It may be that they were requested by homeowners who suspected that their home was unsuitable.) In any case, the contractor must ultimately visit the home to advise on the system size and sign the contract, so the site assessments can be part of the contractor's plan.

Consider Trademarking the Solarize Name

The first Portland campaigns were so popular that contractors wanted to use the Solarize brand beyond the campaign. For project organizers, eager to preserve the grassroots nature of the effort, "Solarize" means a competitive process of limited time duration. To use the Solarize brand in Oregon, project organizers need a service agreement from the City of Portland. They have a sublicense agreement with Ms. Stewart, who controls the service mark. Outside of Oregon, project organizers should consider filing with the appropriate state department to ensure that the Solarize brand remains associated with the grassroots process of selecting a contractor.

Pricing Considerations

To what extent was the success of Solarize due to the low price? The campaign results suggest that project organizers should consider several points when designing the price of the offer.

Absolute Price is Less Important than the Perception of a Good Deal
Few people know what a solar installation is supposed to cost, so they have no price yardstick to evaluate the program offering. More important than getting a good deal is the assurance that they are not getting a bad deal. As long as the price is set the same for everyone, and it is demonstrably less expensive than the "going rate" for individual solar installations, people perceive the cost as "a good deal." In fact, many RFP committees selected final bids that were not the lowest price, but the best value, providing a reasonable price for high quality service.

Fixed Price vs. Descending Price: Pros and Cons
The Solarize campaigns in Portland used a descending price scale to encourage higher participation. While a descending price can motivate early enrollees to recruit others, it also adds complexity: it delays the time when you know the final price, so the contractor cannot quote a final price to early enrollees. Contractors might quote the highest price, and collect payment in three installments, with a contract clause that the final installment will be adjusted to reflect the final price. However, organizers might consider fixed flat pricing from the start, and use other means to encourage recruiting. For example, in Salem, the contractors each pledged to donate a system to a local organization if the installations reached a certain goal. Fixed pricing allows installers to start work right away, and avoid the boom and bust cycle.

Another argument in favor of fixed pricing is that the contractor's ability to offer a lower price is not due to the savings on volume purchases of equipment as much as the savings in time and effort in marketing. Larger contractors often have access to volume equipment pricing even without the group purchase, so their savings are more likely to be realized in the community-run sales and marketing. They can commit to their lowest price knowing that the grassroots community based social marketing effort will bring them hot leads with a high conversion rate.

Program Funding Considerations

Deploying a Solarize campaign costs money. Despite harnessing volunteer labor for everything from

planning to marketing, to contractor selection, a successful campaign will need the oversight of a project manager and will incur costs for marketing materials, database administration, graphics, and communications. The Portland campaigns relied on the staff at the neighborhood coalitions, as well as paid staff from Energy Trust and City of Portland, who were supported in part by a federal grant. Communities without paid neighborhood coalition staff or federally funded grants should consider options for funding that can make the program self-sustaining.

Collecting a Per Watt Fee

Project organizers could consider building a small per watt fee into the contractor's scope of work. The contractor can still offer a competitive price, because they are saving money on marketing, while the program maintains an important source of funding for everything from staff time to outreach materials to venue rentals.

Salem took another approach, creating a buyer's co-op that homeowners must join for an up front fee. The co-op fees supported the campaign organizing staff for about a month. It may be more palatable to customers to have the per watt fee rolled into the contractor fee, so that they only write one check.

Tapping Contractor Marketing Dollars and Expertise

As noted, the community-led marketing campaign saves contractors money. In return, the selected contractors may have marketing materials and expertise that they can share with the campaign. For example, in Pendleton, Oregon, the installing contractor provided yard signs, marketing flyers, rented a booth at the farmer's market, and covered other incidental marketing costs.

PLANNING YOUR SOLARIZE CAMPAIGN

The following section describes the steps to carry out a successful Solarize campaign.

Step 1a: Develop Partnerships and Initiate Planning (Months 1 – 3)

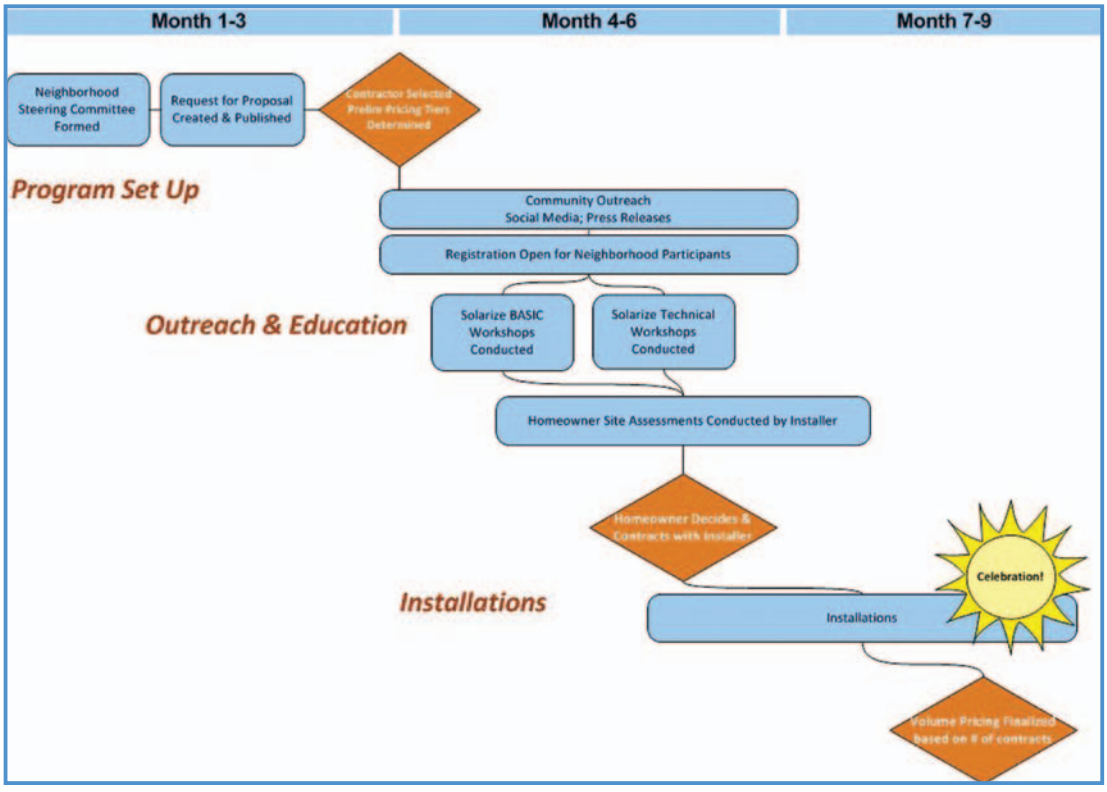
A successful campaign begins with strong planning and partnerships. The institutional project organizer should enlist key allies and support starting with a primary project manager (one very dedicated individual who will oversee all the moving parts). Usually, the initial campaign organizing involves these players:

- Primary project manager (may be a neighborhood volunteer)
- Institutional project lead (such as a Neighborhood Coalition Project Manager)
- Technical support lead (a solar specialist such as utility or city staff)

These project players collaborate to build the project work plan and timeline, identifying all the tasks, responsible parties, and community partners. Potential community allies include:

- ASES chapter
- Local non-profit
- City government
- Local utility
- Neighborhood coalitions or associations
- Local manufacturer of solar equipment
- Churches
- Rotary or other service clubs
- Credit Union or local bank

Sample Project Timeline



Sample Roles in a Solarize Campaign

The following chart shows sample roles and responsibilities in a typical Solarize campaign. The Project Organizer is an essential role and could be a neighborhood coalition, a municipality, a local ASES chapter, or any organization with the capacity to devote a half time person to leading the charge.

	Project Organizer	Volunteers	Contractor	Utility/ Municipality
Planning	Manage program; Provide resources	Provide ideas		Provide tech support; Provide resources
Volunteer Recruitment	Recruit & organize committees			Advise committees
Request for Proposal (RFP)	Issue RFP; Advise on RFP and contractor selection	Draft RFP; Select contractor	Respond to RFP	Advise on RFP
Outreach	Manage outreach campaign; Create and print flyers; Lead workshops	Build website; Distribute flyers, outreach materials; Schedule workshops; Identify venues	Teach Nuts & Bolts and Q&A session	Provide workshop curriculm; Teach workshops
Enrollment	Compile database of enrollees; Engage customers	Recruit neighbors	Conduct preliminary assessment and schedule site assessments	
Site Assessments	Track contractor turnaround time and signed contracts		Conduct site assessments with homeowners; Prepare bids	
Installations	Track contractor turnaround time and customer experience		Execute contracts; Install systems; Complete paperwork	Streamline solar permitting process; Inspect installations; Interconnect systems
Celebration!	Issue press release; Promote, evaluate and replicate	Plan and/or host party	Plan and/or host party	Evaluate

Step 1b: Build Database and Customer Interface (Months 1 – 3)

A customer service database is a gold mine for contractors and project organizers to track customer follow-up, schedule installations, and capture project results. The project organizer should provide the database structure and protocols to the contractor. (Some contractors may have their own customer relationship management software, but they should also update the database supplied by the program.) This way, the contractor's process is transparent to the project organizer, and if there are delays in implementation, the project organizer can see these and plan accordingly. Solar Oregon has developed a database for use with Solarize projects and is available on contract to build, manage, administer a customized database for a reasonable fee. Other Solarize projects have used CRM software such as Salesforce to manage customer enrollment. The project organizer, as the agent of public trust, must be sensitive to the privacy of participants, and take care not to disclose information beyond the program or misuse information submitted by participants.

Step 2: Volunteer Recruitment (Months 1 – 2)

Whether paid or volunteer, every project needs a primary project manager. This manager is the point person to ensure that the overall project tasks and timeline are moving forward as planned. There is no substitute for a dedicated project manager and this program is too complex to move forward without one!

One of the first tasks of the primary project manager is to host a meeting to recruit core volunteers. The core volunteers can be organized into two committees:

- Outreach committee: Manage the communication and outreach to all neighbors. Members should be media savvy people who can get articles in the newspaper, build a website and recruit neighbors.
- RFP committee: Write the RFP, review contractor submittals, interview, and select a contractor. Members should include at least one solar professional or tradesperson and preferably non-voting technical support from the institutional sponsor (city, neighborhood coalition, etc.)

The neighborhood recruitment meeting should be advertised in neighborhood papers, by talking personally with neighborhood association chairs/community groups and generally casting a wide net. This will be the core group to get the ball rolling, so don't leave anyone out!

Step 3: Request for Proposal Process (Months 2 – 3)

Writing the RFP and creating the RFP scoring rubric is a chance for the community to express their values. The volunteer committee, acting as the agent of public trust, is creating a defensible, open process to select the contractor. Usually, at least one solar professional or person with solar expertise supports the committee. It is important to have a clear method of scoring the proposals, and to communicate this to the bidders. It is best to use a low number of points (3 – 5) for each desired category so that score variations are significant.

> *"The RFP process was extremely important for our committee. We learned more about the contractors than we ever could as individual customers, and we communicated our values to the contractors."*
> *Todd Farris, Volunteer Program Manager, Solarize Southwest*

The RFP should be issued widely. Give the contractors several weeks to respond, and post all questions and answers to a public website, where all of the bidders see the same information. After proposals are received, the committee members begin evaluation. Even where the project receives many excellent proposals, it is best to interview only the top two or three contractors, as a courtesy to the volunteers and to keep the time manageable.

When a contractor is selected, you may receive inquiries from contractors who did not get selected. If you have followed your RFP evaluation criteria, your response is simple: the committee scored the applicants and chose the one or two that scored the highest on the rubric. Keep your conversations positive and do not try to explain why the committee chose one over the other.

Step 4: Outreach and Education (Months 4 – 6)

Once the contractor is selected, the outreach begins in earnest. The outreach committee creates or adapts material – flyers, buttons, stickers, yard signs, etc. and a website to help spread the word. In the Portland campaigns, the outreach materials had a signature sunflower and a strong "brand" appearance, to help convey the message. Elements of the outreach campaign should include:

Website
A program website serves as a central location for updates on the campaign, a calendar of events, and a place to enroll. It is essential for volunteers to direct people to the website for timely information. Having a dedicated volunteer to update the website regularly helps build and maintain program momentum.

Print Materials
A colorful campaign logo and photo on a flyer help lend legitimacy and spread the word. Flyers, posters, door hangers and other print materials should be distributed widely.

Blogs and Emails
Electronic media provides an affordable and convenient way to increase the outreach of the campaign. The outreach committee in the first Portland campaign submitted information on blogs, wrote letters in their neighborhood newsletters, and sent emails to friends, neighbors and family members encouraging them to join the campaign.

Workshops
All interested homeowners are strongly encouraged to attend at least one basic workshop. A contractor representative should attend each workshop to answer questions. This will provide technical support to workshop presenters, while building a relationship of trust between the contractor and the homeowners. The group setting is important, to build trust and neighborhood cohesion while encouraging attendees to enroll in the program

Basic Workshop
This is an introductory, one-hour workshop, held at multiple locations throughout the community. The basic workshop explains how the project works, the benefits of buying in bulk, how to participate and a brief introduction to solar PV. In Portland, the City, Energy Trust, Solar Oregon and neighborhood leads all helped deliver workshops.

Technical Q&A Sessions
Participants who want additional, in-depth information can attend three technical Q&A sessions held three weeks in a row. These informal, open-format sessions allow potential participants to get their questions answered in a friendly and educational environment. Each session focuses on a topic presented by subject matter experts:

- Cash incentives, tax credits and financing (Presenter: financing partner/utility)
- Net metering (Presenter: utility)
- Technical nuts and bolts (Presenter: contractor)

Solar Ambassadors
A successful campaign will enlist the support of solar champions who already have solar on their homes. For example, Solar Oregon organizes a program of Solar Ambassadors, local residents who have gone solar. These supporters are strong advocates and positive examples for homeowners considering a solar purchase. Ambassadors can attend or present at workshops, providing an important validation to others looking to install solar.

Step 5: Customer Enrollment (Months 4 – 6)

The enrollment period, usually three months, should run concurrently with outreach and education. Kick off with a press release and a high profile community event, perhaps at a farmer's market or other publice venue. Ideally, enrollment occurs on-line, and participants enter their data directly into a database. Programs may make a provision for participants to register by phone if they have no internet access, in which case a project organizer could enter the customer data into the web interface. The on-line enrollment process should generate an auto-reply email, alerting the customer of the date on which their information will be given to the installation contractor, and telling them to expect a call within two weeks (or the agreed upon turnaround time.) At this point, the leads are hot and the sooner the contractor can act, the more likely the leads will convert to installations.

Throughout the enrollment period, the outreach committee volunteers drive people to the web site through various avenues that suit their own comfort level: hosting coffees, going door to door, sending emails, posting flyers on public message boards or submitting articles to the local press. As the enrollment period draws to a close, the media may take interest, if they haven't already. It is best to invite the media early on, so that they can help get the word out, rather than generate a lot of interest after the enrollment has closed.

Step 6: Site Assessments (Months 4 – 8)

In Portland, the systems applying for Energy Trust incentives were required to have 75% Total Solar Resource Fraction (TSRF), meaning the solar array had to receive at least 75% of the sunlight available to a completely un-shaded and perfectly oriented array on the same site.

As soon as people begin enrolling, the project organizer can begin passing participant information to the contractor. Although several Solarize campaigns waited until the end of enrollment to pass the leads to the contractor, passing leads as they enroll will help even out the contractor workload and improve the follow-up time. The contractor may perform an initial drive-by to screen out any obviously ineligible participants (e.g., with heavy shading) and then schedule an appointment to meet with the customer for a more detailed evaluation and system sizing. If all goes well, the customer and contractor sign a contract for installation.

Step 7: Installations (Months 5 – 9)

The contractor is responsible for installations, but the project organizer should stay on top of the customer database, to ensure that installations are occurring within an appropriate time frame. At this phase, the contractor should be updating the customer database as they contact customers and install systems. All customers should continue to get periodic messages from the program, offering updates on the status of the program. In Portland, the project manager coordinated weekly or twice monthly team meetings to discuss installations statistics, and address and issues or concerns that arose. Meetings built a strong team atmosphere and gave the City, neighborhood leads, and the contractor opportunities for increased project cooperation and correction when needed.

Some Portland participants expressed frustration with long waiting periods between enrollment and installation. This is a characteristic of a volume purchasing program but can be alleviated in part by choosing more than one contractor and/or releasing names to the contractor as soon as the homeowner enrolls.

Step 8: Celebrate and Reflect (Month 9)

After the installations were complete, the homeowners came together for a walking tour of neighborhood homes and a celebratory picnic. Another Portland neighborhood held their celebration at the local brewpub.

It's important to acknowledge the hard work of everyone who supported the program and celebrate the community effort. The contractor and/or manufacturer may be willing to sponsor a public celebration. The media will want to attend, and the positive energy generated by the celebration can help fuel the next project, in the next neighborhood. Equally important is reflection and evaluation. Project organizers can continue to build public trust by listening to feedback in order to improve future programs.

Sample Budget

Although every program will vary by location and population size, we provide a sample budget based on the experiences in Portland.

Labor Hours	Project Organizer	Volunteers	Contractor	Utility	Total
Project Management	250	250			
RFP Committee	40	80			
Outreach Committee	70	50			
Workshop Design/ Delivery	100	50	20	10	
Site Assessments			*		
Installations			*		
Celebration and Evaluation	30	30	20		
Total Hours	***490***	***460***	***40***	***10***	***1,000***
Materials Expenses					
Collateral (flyers, yard signs, etc.)	$1,000		$1,000		
Advertising	$150				
Database Development	$2,000				
Workshop Venue Rental	$400				
Speaker Fees	$300				
Booth Rental for Events	$100				
Web Hosting/Domain Name	$200				
Celebration Event	$200		$300		
Total Materials	***$4,350***	***$0***	***$1,300***	***$0***	***$5,650***

**Contractor hours for site assessments and installations will vary by number of participants and are not shown here because they are not unique to a Solarize campaign.*

The budget above reflects a possible scenario for a project lead, volunteers and program partners. Of course, labor costs will vary widely, depending on how much of the labor is volunteer.

Some communities have successfully leveraged AmeriCorps or other service learning volunteers to serve key program roles, while others have used volunteers primarily in outreach and the RFP process. In some municipalities, the existing staff in the office of neighborhoods or the office of energy or sustainability can take on the project lead hours as part of a special campaign.

As with labor, the materials budget will vary widely, depending on the media market and the amount of outreach materials that can be donated. The budget does not suggest a source for program funding. Each program planner will have to consider options discussed elsewhere in this guide, including grants, volunteer contributions, or a fee assessed on each installation.

ADDITIONAL RESOURCES AND REFERENCES

Solarize Portland

City of Portland Bureau of Planning and Sustainability (BPS)
The BPS took on a management role in several Solarize campaigns and funded replication efforts including this Solarize Guidebook with a grant from the U.S. Department of Energy Solar America Cities program. www.portlandonline.com/bps/solar

Energy Trust of Oregon
Energy Trust created the program blueprint for the first Solarize Portland campaign and provided technical support, incentives, and program evaluation. www.energytrust.org

Solar Oregon
Solar Oregon provided staff and volunteers to speak at Solarize workshops, and created an online database to track enrollees. http://solaroregon.org/

Supporting Organizations and Institutions

U.S. Department of Energy Solar America Communities
The U.S. Department of Energy (DOE) Solar America Communities program is designed to increase the use and integration of solar energy in communities across the United States. Through federal-local partnerships and nationwide outreach, DOE supports local governments' efforts to accelerate adoption of solar energy. www.solaramericacommunities.energy.gov

The American Solar Energy Society (ASES)
ASES is a non-profit organization dedicated to increasing the use of solar energy, energy efficiency, and other sustainable technologies in the US. Solar Oregon, the Oregon ASES chapter, contributed to the success of the Solarize campaigns in Oregon. www.ases.org

Northwest Sustainable Energy for Economic Development (Northwest SEED)
Northwest SEED empowers community-scale clean energy through targeted technical assistance, education and outreach. Northwest SEED authored this guide for the DOE and the City of Portland. They are currently leading a Solarize campaign in Seattle, WA. www.nwseed.org

Publications

Solar Powering Your Community: A Guide for Local Governments. U.S. Department of Energy, 2010. This guide includes case studies and lessons learned from Solar America Cities. Report: www.solaramericacommunities.energy.gov/resources/guide_for_local_governments

Solarize Portland: Community Empowerment through Collective Purchasing. Lizzie Rubado, Energy Trust of Oregon, August 2010. This paper provides more details on the success of Solarize Portland. www.energytrust.org/About/policy-and-reports/Reports.aspx

Evaluation of Energy Trust of Oregon's Solar Programs: Solarize Southeast Portland and Solar Energy Review. The Cadmus Group, November 2010. The evaluation contains detailed customer feedback and participation profiles for the first Solarize project. www.energytrust.org/library/reports/101101_SolarizeSE_Process_Eval.pdf

Smart Solar Marketing Strategies. Rosoff, L., and Sinclair, M., Montpelier, Vt.: Clean Energy Group 2009. The report offers valuable lessons in marketing solar. www.cleanegroup.org/Reports/CEG_Solar_Marketing_Report_August2009.pdf

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Prepared for the National Renewable Energy Laboratory (NREL), a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy; NREL is operated by the Alliance for Sustainable Energy, LLC.

DOE/GO-102011-3223 | February 2011

Northwest SEED Solarize Support Menu

Background

Since 2011, Northwest Sustainable Energy for Economic Development (Northwest SEED) has led ten Solarize campaigns in Washington, galvanizing over 700 homeowners to install solar and unleashing $17.5 million in local economic activity. We have also provided Solarize leadership training and back-end campaign support for four communities throughout the State, enabling them to leverage our expertise and spread Solarize. To date, our Solarize Washington program has resulted in over 3.5 MW of installed solar.

The following is a menu of Solarize support services that Northwest SEED can provide to communities that wish to lead a Solarize campaign. These services are meant to support, not supplant, the role of Campaign Manager, which would be filled by a local government staff person.

1: Campaign Manager Training/Kickoff $5,000

Northwest SEED can provide customized training to the designated campaign managers, utility partners, local jurisdiction staff, and volunteers. This three hour on-site training meeting equips the campaign partners to run a successful Solarize campaign and lays the groundwork for the team partnership. The training includes:

- *Solarize overview and best practices, including campaign goal setting, contractor selection process, and participant management*
- *Preview of Solarize educational workshop content*
- *Workbook with Solarize basics, informational resources, planning documents, and lessons learned*
- *Breakout sessions to brainstorm contractor selection criteria or outreach opportunities*
- *Overview of outreach materials, solar workshop PowerPoint, and more*

2: Grassroots Outreach & Solar Education $7,000

Northwest SEED will guide and support the grassroots outreach and education effort by the campaign manager. We will provide the contents for the solar workshop presentation. In addition, we will provide the messages and template materials that have worked in past campaigns, facilitate the Outreach Committee launch, and co-lead four educational workshops. This does not include printing or mailing of outreach materials.

- *Provide outreach material templates from successful Solarize campaigns*
- *Facilitate initial Outreach Committee meeting; determine volunteer roles and share proven outreach activities; develop outreach calendar.*
- *Update workshop curriculum and material with latest costs and benefits information*
- *Co-lead four workshops with Campaign Manager, selected installer, utility and lending partners*

Northwest SEED Solarize Support Menu

3: Installer Selection Support $5,000

A successful Solarize campaign works with the community to competitively select a solar installer or team of solar installers. Northwest SEED has developed a transparent, community-driven process to select one or more installers. Northwest SEED will support the Campaign Manager in this process:

- *Facilitate Installer Selection Committee Meeting to refine RFP and selection scoring process*
- *Provide transparent scoring rubric and instructions to Proposal reviewers*
- *Convene and facilitate Proposal review meeting to select interviewees*
- *Facilitate installer interview session and subsequent decision-making with Installer Selection Committee*
- *Create and sign a tailored MOU between Northwest SEED and selected installer(s) specifying the solar installation offering, customer service expectations, and campaign roles.*

4: Designated Webpage & Participant Tracking $6,000

Northwest SEED will host a dedicated campaign webpage with integrated Salesforce database to serve as the campaign homepage online. Tracking customer contact from initial registration through installation is essential for ensuring customer service and provides valuable metrics for campaign evaluation. Services in this package include:

- *Host and maintain a campaign homepage with information about the Solarize campaign*
- *Host and maintain online registration with a participant database in Salesforce*
- *Track participant status through Workshop, Site Assessment, and Contracting, with updates from selected installers*
- *Provide periodic registration reports to campaign organizers over a 4-month registration window*

5: Reporting, Metrics & Evaluation $3,000

Solarize Campaigns provide a valuable opportunity to connect with citizens and to track progress toward sustainability goals. Northwest SEED will provide reporting and evaluation to enable the Campaign Manager to measure progress. Services include:

- *Monthly Report to Campaign Manager outlining activities and progress*
- *Final Data and Reporting on Campaign Results*
- *Results of Participant Survey and Lessons Learned*

We are happy to work with project organizers to develop a customized support package specific to your needs. Please contact Northwest SEED's Program Director, Linda Irvine. Linda@nwseed.org 206-267-2215.

MILWAUKIE CITY COUNCIL
STAFF REPORT

Agenda Item: **SS 4.**
Meeting Date: **Feb. 18, 2016**

To: Mayor and City Council

From: Mitch Nieman, Asst. to City Manager
Through: Bill Monahan, City Manager

Subject: **Draft Tree Ordinance**

Date: **02/09/2016**

ACTION REQUESTED
Review and comment on draft tree ordinance.

HISTORY OF PRIOR ACTIONS AND DISCUSSIONS
On August 4, 2015, the Milwaukie Parks and Recreation Board (PARB) informed City Council that they were working on updating the City's tree ordinance to achieve Tree City USA recognition.

BACKGROUND
Members of PARB, City Staff, the City Attorney's Office, and representatives from the State of Oregon Department of Forestry have been working in unison to create an ordinance that meets Tree City USA application guidelines for future designation. Staff and PARB intend to make application in fall 2016.

Major details of this amendment include:

- It only applies to public rights-of-way and to city-owned properties
- It triggers establishment of a City Tree Board for technical oversight
- It clarifies the role of the permitting department (engineering)
- It establishes professional planting standards and tree designations

Over 30 redlined versions of the existing ordinance were compiled by multiple stakeholders to create this draft. Therefore, no final redlined version exists, so the attached draft includes yellow highlights to represent language added, and the attached original includes blue highlights to represent language deleted.

Also, current tree lists are outdated and disorganized, so PARB has been working with staff to update lists to make them more modern and user friendly and to coincide with the subject amendment. Tree lists are approved by the engineering director and are tied to issuance of the permit—not referenced in the ordinance.

FISCAL AND WORK LOAD IMPACTS

Financial and work load impacts of achieving this goal involves a combination of paid staff time, unpaid volunteer time, and approximately 20 hours of City Attorney time to prepare materials and/or correspondence for Council consideration, and any required follow-up action.

ALTERNATIVES

1. Review and provide feedback
2. Direct staff to place on a future agenda for first public hearing

ATTACHMENTS

1. Draft ordinance (yellow highlights represents proposed language)
2. Original ordinance (blue highlights represents deleted language)

CHAPTER 16.32 TREE CUTTING

16.32.005 PURPOSE

The purpose of this chapter is to encourage preservation of trees located on city-owned land and in the public right-of-way toward the larger goal of creating and maintaining Milwaukie's urban forest for the livability of its citizens. Trees on city-owned land and in the public right-of-way are a public resource that beautify the streetscape and provide ecosystem services such as reducing the urban heat island effect, reducing stormwater flows, and stabilizing soils. The City may allow the removal or pruning of trees in some situations including, but not limited to, removing hazards, avoiding damage to public and private property, and allowing for construction of right-of-way improvements. Preference should generally be given to authorizing the minimal amount of disturbance to the tree that is necessary to address the situation. The intent of this chapter is also to mitigate the authorized removal of trees within the public right-of-way and on city-owned land by replanting new trees in the public right-of-way and on city-owned land wherever practicable. (Ord. 2022 § 1, 2011).

16.32.010 DEFINITIONS

The following definitions shall apply for terminology, used in this chapter:

"ANSI" The American National Standards Institute is a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States.

"Arbor Day/Week" means a day/week designated by the City to celebrate and acknowledge the importance of trees in the urban environment, which can include a variety of public activities such as tree planting or tree maintenance.

"Crown" means area of the tree above the ground, including the trunk and branches, measured in mass or volume.

"City" means the City of Milwaukie.

"City Tree Board" means the City of Milwaukie Park and Recreation Board (Board) plus a certified arborist to be selected by the City Council, or a separate City Tree Board (including a certified arborist) appointed by the Mayor and approved by City Council.

"Council of Tree and Landscape Appraisers (CTLA)" – means the publishers of the Guide for Plant Appraisal.

"Cutting" means the felling or removal of a tree, or any procedure that naturally results in the death or substantial destruction of a tree. "Cutting" does not include normal trimming or pruning, but does include topping of trees.

"Dangerous tree" means the condition of the tree presents a foreseeable danger of inflicting damage that cannot be alleviated by treatment or pruning. A tree may be dangerous because it is likely to injure people or damage vehicles, structures, or development, such as sidewalks or utilities.

"Dead tree" means the tree is lifeless.

“Drip line” means the perimeter measured at the outermost crown.

“Dying tree” means the tree is diseased, infested by insects, deteriorating, or rotting, and cannot be saved by reasonable treatment or pruning, or must be removed to prevent the spread of infestation or disease to other trees.

“Engineering Director” means the Engineering Director of the City of Milwaukie or his or her designee.

“Hazardous tree” means the condition or location of the tree presents a clear public safety hazard or an imminent danger of property damage, and such hazard or danger cannot reasonably be alleviated by treatment or pruning.

“ISA” means the International Society of Arboriculture.

“Large trees” means trees that reach at least 65 feet in height at maturity.

“Major tree pruning” means removal of over 20% of the tree’s crown, or removal or injury of over 10% of the root system, during any 12-month period.

“Medium trees” means trees that at maturity are between 30 and 65 feet in height.

“Minor Tree Pruning” means trimming or removing less than 20% of any part of the branching structure of a tree in either the crown, trunk, or less than 10% of the root areas based on ANSI A300 and ANSI Z133 standards, within a 12-month period.

“Owner” means and includes, for the purposes of this chapter, any person with a freehold interest in land, or a lessee, agent, employee, or other person acting on behalf of the owner with the owner’s consent.

“Park Trees” are defined as trees, shrubs, bushes and other woody vegetation in named public parks or to which the public has free access as a park.

“Person” means any individual, firm, association, corporation, agency, or organization of any kind.

“Relative Value.” Relative value may be calculated using the methods described in the “Guide for Plant Appraisal” published by the CTLA. The values reflect the value to the public as a whole, rather than to the individual property owner. For example, a tree growing in full public view may have a high public value but be of low value to the property owner.

“Root zone” means the area of the ground around the base of the tree measured from the trunk to 5 feet beyond the outer base of the branching system.

“Small trees” are those that at maturity are less than 30 feet in height.

“Street tree” is defined as trees, shrubs, bushes and other woody vegetation on land lying within the City right-of-way on either side of all streets, avenues, or ways within the City and on all non-park properties owned or maintained by the City.

“Tree Removal” means the cutting or removing of 50% or more of the crown, trunk, or root system of a plant; the uprooting or severing of the main trunk of the tree; or any act which causes, or may reasonably be expected to cause, the tree to die, including without limitation damage inflicted upon the root system by machinery, storage materials, or soil compaction;

substantially changing the natural grade above the root system or around the trunk; excessive pruning; or paving with concrete, asphalt, or other impervious materials in a manner which may result in the loss of aesthetic or physiological viability.

"Topping" means the severe cutting back of the main stem and/or limbs to buds, stubs, or laterals large enough to undermine the tree's crown to such a degree as to remove the normal crown and disfigure the tree.

"Tree" means any living woody plant characterized by one main stem or trunk and many branches, or a multistemmed trunk system with a definitely formed crown at least 16 feet in height at maturity. (Ord. 1836 § 1 (part), 1998)

"Urban Forest" means the trees that exist within the City.

"Utility Tree" means a tree that is less than 20 feet in height at maturity and thus suitable for planting under overhead utility lines.

16.32.015 CREATION AND ESTABLISHMENT OF A CITY TREE BOARD

A. Creation

There is hereby created and established a City Tree Board (Tree Board) for the City of Milwaukie, Oregon, which shall consist of five members, at least four of which shall be residents of the City, and all five of which shall be appointed by the Mayor with approval of the City Council. The Tree Board may consist of the City of Milwaukie Parks and Recreation Board plus a certified arborist.

B. Term of Office

The term of the five persons to be appointed by the Mayor shall be three years except that the term of two of the members appointed to the first board shall be for only one year and the term of two members of the first board shall be for two years. In the event that a vacancy shall occur during the term of any member, his successor shall be appointed for the unexpired portion of the term. Tree Board members shall be limited to three consecutive terms.

C. Compensation

Members of the Tree Board shall serve without compensation.

D. Duties and Responsibilities

It shall be the responsibility of the Tree Board to study, investigate, develop and/or update annually, and administer a written plan for the care, preservation, pruning, planting, replanting, removal or disposition of trees and shrubs in parks, along streets and in other public areas. Such plan will be presented annually to the City Council and upon their acceptance and approval shall constitute the official urban forestry management plan for the City of Milwaukie, Oregon. The Tree Board will provide leadership in planning the City's Arbor Day/Week proclamation and celebration.

The Tree Board, when requested by the City Council, shall consider, investigate, make findings, report and recommend upon any special matter or question coming within the scope of its work. The Tree Board shall inform and coordinate with the North Clackamas Park and Recreation District (NCPRD) or the City of Milwaukie to ensure that the provisions of this ordinance are complied with during performance of maintenance activities.

E. Operation

The Tree Board shall choose its own officers, make its own rules and regulations and keep a journal of its proceedings. A majority of the members shall be a quorum for the transaction of business.

16.32.017 TREE PLANTING

A. Species

Tree species to be planted on city-owned land or in public rights of way are those approved by the Engineering Department of the City for different types of planting in those specified locations.

B. Spacing

The spacing of Street Trees will be in accordance with the permit issued by the Engineering Department and in accordance with Department standards and specifications. Spacing will be determined in the planting plan for each site as determined by the City's Public Works Standards. In addition, the Engineering Director may approve special plantings designed or approved by a landscape architect, or for ecological restoration projects where seedlings or whips are likely to be planted at a much higher density to mimic natural conditions in forest regeneration.

C. Distance from Curb and Sidewalk

The City's Public Works Standards shall provide the distance from which small, medium, and large trees may be planted from curbs or curblines and sidewalks

D. Distance from Street Corners and Fire Hydrants

No Street Tree shall be planted closer than 35 feet from any street corner, measured from the point of nearest intersecting curbs or curblines. No Street Tree shall be planted closer than 10 feet from any fire hydrant.

E. Utilities

No Utility Trees other than those species listed in in the City's Public Works Standards may be planted under or within 10 lateral feet of any overhead utility wire, or over or within 5 lateral feet of any underground water line, sewer line, transmission line or other utility.

F. Size

Street trees must meet the size requirements set forth in the City's Public Works Standards for utility, small, medium, and large trees, based on the tree's size at maturity.

16.32.018 PUBLIC TREE CARE

The City shall have the right to plant, prune, maintain and remove trees, plants and shrubs within the property lines of all streets, alleys, avenues, lanes, squares and public grounds, as may be necessary to ensure public safety or to preserve or enhance the symmetry and beauty of such public grounds.

The City Tree Board may remove or cause or order to be removed, any tree or part thereof which is in an unsafe condition or which by reason of its nature is injurious to sewers, electric power lines, gas lines, water lines, or other public improvements, or is affected with any injurious fungus, insect or other pest. This Section does not prohibit the planting of Street Trees by property owners adjacent to the street or right-of-way, provided that the selection and location of said trees is in accordance with Section 16.32.017 of this ordinance.

16.32.019 TREE TOPPING

No person, firm, or City department shall top any Street Tree, Park Tree, or other tree on public property. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical, may be exempted from this ordinance at the determination of the City Tree Board.

16.32.020 PRUNING, CORNER CLEARANCE

Pursuant to Milwaukie Municipal Code 12.12.010, every owner of any tree overhanging any street or right-of-way within the City shall prune the branches so that such branches shall not obstruct the right of way. Enforcement of this section shall be pursuant to MMC 12.12 and compliant with ISA Best Management Practices (BMPs).

16.32.021 DEAD OR DISEASED TREE REMOVAL ON PRIVATE PROPERTY

Owner shall remove all dead, diseased or dangerous trees, or broken or decayed limbs which may pose a significant risk to the safety of the public. If owner fails to do so, City shall have the right to cause the removal of such trees. The City Tree Board will notify, in writing, the owners of such trees. Removal shall be done by said owners at their own expense within sixty days after the date of service of notice. After removal is complete, the property owners shall notify the City in writing. In the event of failure of owners to comply with such provisions, the City shall have the authority to remove such trees and charge the cost of removal to the owners pursuant to MMC 8.04. In cases where the owner demonstrates extreme financial hardship, the City Council may grant a cost waiver. Some dead trees which provide wildlife habitat and are not a hazard may be left uncut.

16.32.022 REMOVAL OF STUMPS

All stumps of street and park trees shall be removed below the surface of the ground so that the top of the stump shall not project above the surface of the ground, except for circumstances where the stumps do not pose a hazard to the public and may be left to improve wildlife habitat structure.

16.32.023 INTERFERENCE WITH CITY TREE BOARD

No person shall prevent, delay or interfere with the City Tree Board, or any of its agents, while engaging in and about the planting, cultivating, mulching, pruning, spraying, or removing of any Street Trees, Park Trees, or trees on private grounds, as authorized in this ordinance.

16.32.024 ARBORISTS LICENSE AND BOND

All certified arborists operating in the City of Milwaukie shall be ISA-certified.

16.32.025 REVIEW BY CITY COUNCIL

The City Council shall have the right to review the conduct, acts and decisions of the Tree Board. Any person may appeal from any ruling or order of the Tree Board to the City Council who may hear the matter and make a final decision.

16.32.026 PERMIT FOR MAJOR PRUNING OR REMOVAL OF STREET TREES OR TREES IN PUBLIC RIGHT-OF-WAY AND OTHER PUBLIC LAND

A. Applicability

No person shall conduct major pruning or removal of any tree in a public right-of-way or on city-owned land, without first receiving a permit issued by the City, except as provided in chapter 16.32.030. Minor tree pruning shall not require a permit.

B. Review Process

1. A permit application for major pruning or tree removal shall be submitted to the Engineering Department on a Right of Way Permit Application.

2. The Engineering Department shall post notice of the major pruning or removal permit application on the property in a location which is clearly visible to vehicles traveling on a public street and readable by pedestrians walking by the property.

3. The notice shall state that the tree removal permit is pending for trees on the property marked by an orange plastic tagging tape, shall include the date of posting, and shall state that any person may request a meeting with the Engineering Director within 14 days of the date of the posting. The purpose of the meeting is to provide an opportunity to raise questions or concerns about the major pruning or removal prior to issuance of the administrative decision on the permit. The Engineering Director shall consider all concerns raised at such a meeting, but shall have final decision making authority over the issuance of a permit, based on the Approval Standards in Subsection C below.

4. The Engineering Department shall mark each tree proposed to be removed by tying or attaching orange plastic tagging tape to the tree 4 to 6 feet above mean ground level at the base of the trunk.

5. On the date that the tree removal notice is posted on the property, the Engineering Department shall send a letter to the neighborhood district association for the area, to notify the association of the major pruning or removal request.

6. The applicant shall file an affidavit stating that the property has been posted, the trees have been marked, and notice has been mailed pursuant to Section 16.32.026 or subsection 16.32.026.B.

7. The major pruning or tree removal permit shall not be issued for 14 days from the date of filing of the affidavit to allow for the filing of a request for a meeting. The applicant shall maintain the posting and marking for the full 14 days. When a meeting with the Engineering Director is requested, the Engineering Director shall not issue the permit decision until the meeting can be held.

C. Approval Standards

The Engineering Director shall issue a permit for major pruning or removal of trees in a right-of-way or on city-owned land only if the following criteria are satisfied. The Engineering Director will consult a certified arborist where necessary to evaluate the criteria.

1. The proposed work will be done according to ISA best management practices, and qualified persons will perform the work.

2. One or more of the following criteria are satisfied:

   a. It is determined that the tree is dead or dying and cannot be saved, according to current ISA standards.

   b. The tree has become a nuisance by virtue of damage to personal property or improvements, either public or private, on the subject site or adjacent sites, and that extraordinary maintenance is required to prevent damage to such improvements or property.

   c. The tree has lost its relative value as a street tree due to damage from natural or accidental causes, or for some other reason it can be established that it should be removed.

   d. The tree has been determined to be unsafe to the occupants of the property, or adjacent property, or the general public.

   e. Major pruning or removal is necessary to accommodate improvements in the right-of-way or on city-owned land, and it is not practicable to modify the proposed improvements to avoid major pruning or removal.

D. Performance of Permitted Work

All work performed on street trees pursuant to a permit issued by the Engineering Director under this section shall be done within a 60-day period from the issuance of said permit, or within a longer period as specified by the Engineering Director.

E. Replanting

The Engineering Director shall, wherever practicable, require tree replanting as a condition of approval for a major pruning or removal permit on city-owned land or in public rights of way. For major pruning or removal of trees in the public rights of way, replanted trees shall be planted within the right-of-way fronting the property for which the tree permit was issued. For major pruning or removal of trees on city-owned land, replanted trees shall be planted on city-owned land for which the tree permit was issued. The replanted tree shall be a species appropriate for the location where it is planted, as determined by the Engineering Director, in conjunction with the issued permit and in compliance with applicable ANSI standards and ISA best management practices. In addition to the tree maintenance requirements of Milwaukie Municipal Code Chapter 8.04.110, the abutting property owner shall be responsible for maintaining a replanted tree in a healthy condition for 3 years following replanting. (Ord. 2022 § 1, 2011; Ord. 1836 § 1 (part), 1998).

The optimal time of year for planting is the fall (September-November). If planting is necessary in other months, the Engineering Director may include conditions of the permit that require extra measures to ensure survival of newly planted trees.

16.32.030 PERMIT EXEMPTIONS

A. Dangerous Tree

If a tree is determined to be a dangerous tree, the Engineering Director may issue an emergency removal permit. The removal shall be in accordance with ANSI standards and ISA best management practices and be the minimum necessary to eliminate the imminent danger.

B. Maintenance

Regular maintenance or minor pruning which does not require removal of over 20% of the tree's crown, tree topping, or disturbance of over 10% of the root system during any 12-month period.

C. Non-City Owned Land

Tree cutting anywhere except in a public right-of-way or on city-owned land. (Ord. 2022 § 1, 2011; Ord. 1836 § 1, 1998)

16.32.040 PENALTY

Except where otherwise provided, any person, firm, or corporation violating any of the provisions of this chapter shall, upon conviction thereof, be punished by a fine not to exceed one thousand dollars ($1,000.00). (Ord. 2022 § 1, 2011).

CHAPTER 16.32 TREE CUTTING

16.32.005 PURPOSE

The purpose of this chapter is to encourage preservation of trees located in the public right-of-way. Trees within the public right-of-way are a public resource that beautify the streetscape and provide ecosystem services such as reducing the urban heat island effect, reducing stormwater flows, and stabilizing soils. The City may allow the removal or pruning of trees in some situations including, but not limited to, removing hazards, avoiding damage to public and private property, and allowing for construction of right-of-way improvements. Preference should generally be given to authorizing the minimal amount of disturbance to the tree that is necessary to address the situation. The intent of this chapter is also to mitigate the authorized removal of trees within the public right-of-way by replanting new trees in the public right-of-way wherever practicable. (Ord. 2022 § 1, 2011)

16.32.010 DEFINITIONS

The following definitions shall apply for terminology, used in this chapter:

"Canopy" means area of the tree above the ground, including the trunk and branches, measured in mass or volume.

"City" means the City of Milwaukie.

"Cutting" means the falling or removal of a tree, or any procedure that naturally results in the death or substantial destruction of a tree. "Cutting" does not include normal trimming or pruning, but does include topping of trees.

"Dangerous tree" means the condition or location of the tree presents a clear public safety hazard or an imminent danger of property damage, and such hazard or danger cannot reasonably be alleviated by treatment or pruning.

"Dead tree" means the tree is lifeless.

"Drip line" means the perimeter measured at the outermost canopy.

"Dying tree" means the tree is diseased, infested by insects, deteriorating, or rotting, and cannot be saved by reasonable treatment or pruning, or must be removed to prevent the spread of infestation or disease to other trees.

"ISA" means the International Society of Arboriculture.

"Major pruning" means removal of over 20% of the tree's canopy, or injury or cutting of over 10% of the root system, during any 12-month period.

"Owner" means and includes, for the purposes of this chapter, any person with a freehold interest in land, or a lessee, agent, employee, or other person acting on behalf of the owner with the owner's consent.

"Person" means any individual, firm, association, corporation, agency, or organization of any kind.

"Pruning" means trimming or removing any part of the branching structure of a plant in either the crown, trunk, or root areas based on standards of the ISA.

"Relative Value." Relative value may be calculated using the methods described in the ISA's "Guide for Plant Appraisal." The values reflect the value to the public as a whole, rather than to

the individual property owner. For example, a tree growing in full public view may have a high public value but be of low value to the property owner.

"Removal" means the cutting or removing of 50% or more of the crown, trunk, or root system of a plant; the uprooting or severing of the main trunk of the tree; or any act which causes, or may reasonably be expected to cause, the tree to die, including without limitation damage inflicted upon the root system by machinery, storage materials, or soil compaction; substantially changing the natural grade above the root system or around the trunk; excessive pruning; or paving with concrete, asphalt, or other impervious materials in a manner which may result in the loss of aesthetic or physiological viability.

"Root zone" means the area of the ground around the base of the tree measured from the trunk to 5 feet beyond the outer base of the branching system.

"Street tree" means any tree located within a street right-of-way.

"Topping" means the severe cutting back of the main stem and/or limbs to buds, stubs, or laterals large enough to assure terminal role within the tree's crown to such a degree as to remove the normal canopy and disfigure the tree.

"Tree" means any living woody plant characterized by 1 main stem or trunk and many branches, or a multistemmed trunk system with a definitely formed crown. (Ord. 1836 § 1, 1998)

16.32.020 PERMIT FOR MAJOR PRUNING OR REMOVAL OF STREET TREES OR TREES IN PUBLIC RIGHT-OF-WAY

A. Applicability

No person shall conduct major pruning or removal of any tree in a public right-of-way, without first receiving a permit issued by the City. Tree pruning, as defined in this chapter, shall not require a permit.

B. Review Process

1. A permit application for major pruning or tree removal shall be submitted to the Planning Department on forms provided by the Community Development Director.

2. The applicant shall post notice of the major pruning or removal permit application on the property in a location which is clearly visible to vehicles traveling on a public street and readable by pedestrians walking by the property.

3. The notice shall state that the tree removal permit is pending for trees on the property marked by a yellow plastic tagging tape, shall include the date of posting, and shall state that any person may request a meeting with the Community Development Director within 14 days of the date of the posting. The purpose of the meeting is to provide an opportunity to raise questions or concerns about the major pruning or removal prior to issuance of the administrative decision on the permit.

4. The applicant shall mark each tree proposed to be removed by tying or attaching yellow plastic tagging tape to the tree 4 to 6 feet above mean ground level at the base of the trunk.

5. On the date that the property is posted, the applicant shall send a letter to the neighborhood district association for the area, to notify the association of the major pruning or removal request.

6. The applicant shall file an affidavit stating that the property has been posted, the trees have been marked, and notice has been mailed pursuant to Section 16.32.020 or subsection 16.32.020.B.

7. The major pruning or tree removal permit shall not be issued for 14 days from the date of filing of the affidavit to allow for the filing of a request for a meeting. The applicant shall maintain the posting and marking for the full 14 days. When a meeting with the Community Development Director is requested, the Community Development Director shall not issue the permit decision until the meeting can be held.

C. Approval Standards

The Community Development Director shall issue a permit for major pruning or removal of trees in a right-of-way, only if the following criteria are satisfied. The Community Development Director will consult a certified arborist where necessary to evaluate the criteria.

1. The proposed work will be done according to ISA standards, and qualified persons will perform the work.

2. 1 or more of the following criteria are satisfied:

a. It is determined that the tree is dead or dying and cannot be saved, according to current ISA standards.

b. The tree has become a nuisance by virtue of damage to personal property or improvements, either public or private, on the subject site or adjacent sites, and that extraordinary maintenance is required to prevent damage to such improvements or property.

c. The tree has lost its relative value as a street tree due to damage from natural or accidental causes, or for some other reason it can be established that it should be removed.

d. The tree has been determined to be unsafe to the occupants of the property, or adjacent property, or the general public.

e. Major pruning or removal is necessary to accommodate improvements in the right-of-way, and it is not practicable to modify the proposed improvements to avoid major pruning or removal.

D. All work performed on street trees pursuant to a permit issued by the Community Development Director under this section shall be done within a 60-day period from the issuance of said permit, or within a longer period as specified by the Community Development Director.

E. The Community Development Director shall require tree replanting as a condition of approval for a major pruning or removal permit wherever practicable. Replanted trees shall be planted within the right-of-way fronting the property for which the tree permit was issued. The replanted tree shall be a species appropriate for the location where it is planted, as determined by the Community Development Director. In addition to the tree maintenance requirements of Section 8.04.110, the abutting property owner shall be responsible for maintaining a replanted tree in a healthy condition for 3 years following replanting. (Ord. 2022 § 1, 2011; Ord. 1836 § 1, 1998)

16.32.030 PERMIT EXEMPTIONS

A. Dangerous Tree

If a tree is determined to be a dangerous tree, the Community Development Director may issue an emergency removal permit. The removal shall be in accordance with the ISA standards and be the minimum necessary to eliminate the imminent danger.

B. Maintenance

Regular maintenance or pruning which does not require removal of over 20% of the tree's canopy, tree topping, or disturbance of over 10% of the root system during any 12-month period.

C. Tree cutting anywhere but in a public right-of-way. (Ord. 2022 § 1, 2011; Ord. 1836 § 1, 1998)

16.32.040 PENALTY

Any person, firm, or corporation violating any of the provisions of this chapter shall, upon conviction thereof, be punished by a fine not to exceed one thousand dollars ($1,000.00). (Ord. 2022 § 1, 2011)