

Talent Clean Energy Action Plan 2017-2018

Prepared for the City of Talent
By Rogue Climate Talent Community Members

Executive Summary

It is now an accepted reality that climate change is upon us. Resolving the challenges it brings will require significant changes to our overall approach toward energy. Over the last few years, cities around the globe have taken the initiative to change their sources of energy and how they use it. Local governments have an indispensable role to play in reducing greenhouse gas emissions, in developing the fundamental shape of buildings, in helping individuals make informed choices about their energy use, and in shaping policy at the county and statewide level.

Talent, Oregon (The City), is one of those communities wanting to make a difference. A group of residents assembled to create a Clean Energy Action Plan, with the hope that an adopted Action Plan will be incorporated into The City's Comprehensive Plan. Following a kick-off event in October 2015, many residents have labored many hours to consult with experts, other cities and towns, and to do the basic research that has resulted in this plan. This plan includes both clearly implementable immediate steps that can take advantage of existing programs and opportunities, as well as other proposals that need substantial research and may or may not be feasible depending on what funding is available.

The **Talent Clean Energy Action Plan 2030**, which we hope will be incorporated into the 2038 Talent Comprehensive Plan, addresses four major areas:

Energy Conservation. In 2015, incorporated Talent consumed 37 GWh (one Gigawatt is equivalent to 1×10^6 Kilowatts). The plan proposes that The City reduce its energy consumption by 30% by the year 2020. Since most of this energy use comes from the residential sector—a full 71%, Pacific Power—the first year's emphasis will be on engaging residents and landlords through programs to install LED bulbs, upgrade older home insulation, install ductless HVAC systems, and implement simple energy conservation measures. Thus, education and disseminating information are a major component in the first year.

Renewable Energy Generation. The plan recommends a goal of replacing 100% of fossil fuel power with clean, renewable energy by the year 2030. The Renewable Energy Assessment for Jackson and Josephine Counties Report (Good Company, Eugene, OR, 2011) identified solar as the main option

for renewable energy for the Rogue Valley. Solar panels would be installed on residential, business, and public roofs, or as part of larger, utility- or community-scale installations. Capital expenditures for this project will be significant (about \$30-60 million), so the long-term plan—the 2030 Plan—identifies potential funding sources and strategies to reduce this cost. The plan also proposes taking advantage of existing clean energy sources like Blue Sky (Pacific Power) and Arcadia (wind energy) to expedite a transition to clean, renewable energy while transitioning to solar energy.

Resilience. As the cost of fossil fuel energy continues to rise—both in dollars and in damage done to the environment—it is critical that Talent break away from using it in the future. As capacity, grid, and other anticipated issues arise, it is also important that Talent create an energy infrastructure that makes it less dependent on the current electric grid network for its electrical power. The actions in the 2030 Plan are consistent with reducing Talent’s dependence on fossil fuels and long-distance energy transmission.

Local Economy. Currently, the City of Talent sends away over \$4 million each year to pay for energy costs. One action plan goal is to find ways to keep those dollars in the local economy. This is achieved by:

- Ensuring that the jobs created by conservation and renewable energy projects are filled by local companies and workers when possible.
- Evaluating the creation of a Talent Utility District and/or partnering with an existing local Utility Company so that permanent jobs, revenues from selling energy to Talent, and the increase in discretionary income generated by lower energy costs in the future remain in Talent and stimulate the local economy.

What is being submitting here is a short form of that 2030 Plan, covering what can be accomplished during the 2017-2018 budget year cycle. The full plan is available on request and will be submitted separately for adoption as part of the Talent 2038 Comprehensive Plan.

Introduction to 2017-2018 Plan

The 2017-2018 activities are designed to slowly ease Talent into a new era of energy generation and use. They will also allow us to increase our knowledge of the complex requirements of the longer-term 2030 goals. Guided by a Talent Clean Energy Action Plan, the City of Talent will look to help conserve energy,

transition to clean, renewable energy, and ultimately generate its own sources of energy. The task of achieving this vision is both a challenge and an exciting opportunity.

Thus, the **Talent Clean Energy Plan 2017-2018** is being presenting for the approval of City Council. This plan includes both clearly implementable immediate steps that can take advantage of existing programs and opportunities, as well as other proposals that need substantial research and may or may not be feasible, depending on what funding is available. It contains specific actions to be taken to achieve the following goals:

- Reduce overall energy use in Talent by 5%;
- Document the current state of renewable energy generation in Talent and identify options for expansion;
- Initiate research/actions for interim renewable energy use and generation.

Overall Vision for Clean Energy in Talent

Vision

Talent becomes a leader in Oregon by transitioning to 100% clean renewable energy. As a community, we want to reduce the inefficient use of resources and reduce energy costs, create sustainable businesses and jobs that strengthen Talent’s local economy, and prepare for the impacts of climate change while preserving our rural way of life.

GOAL: Conservation

- **Reduce energy consumption by 30% by 2020 from 2015 levels**

GOAL: Renewable Energy

- **Achieve 100% clean renewable energy source for Talent by 2030 while keeping prices affordable and preserving our rural quality of life**

GOAL: Resilience

- **Protect against increasing costs of energy by transitioning from fossil fuels to reliable renewable sources**

GOAL: Local Economy

- **Strengthen Talent’s local economy by keeping dollars spent and dollars saved on energy in Talent**

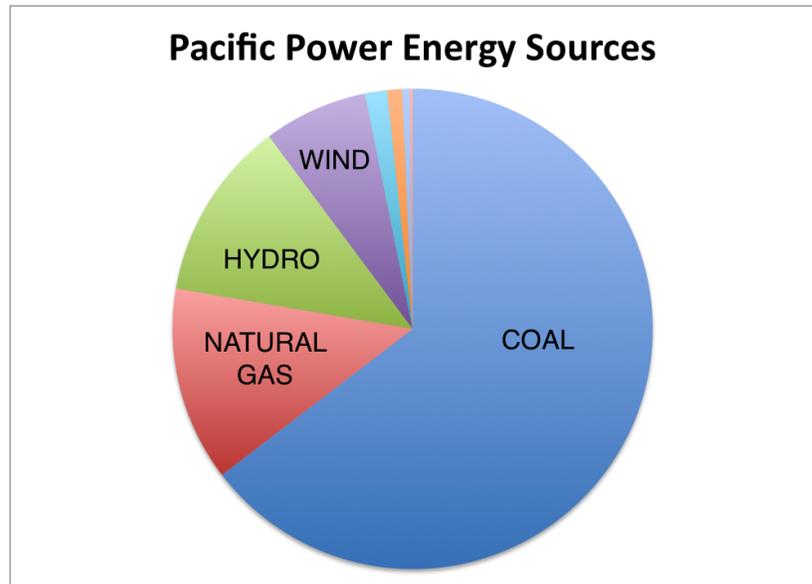
Talent Energy Profile

Where does Talent's energy come from?

The City of Talent receives its energy from the investor owned utility Pacific Power (68.38%) and the natural gas provider Avista (31.27%). (Comparison made using kBTUs.)

Focusing in on electrical energy

Pacific Power's electrical energy mix for Talent is generated from 64.6% coal, 13.1% gas, 12.1% hydro, 7.1% wind, and the remaining 3.2% comes from a mix of other sources¹. Coal and gas are two of the largest contributors to climate change in Oregon and also have multiple negative health and environmental impacts to communities that live close to extraction.

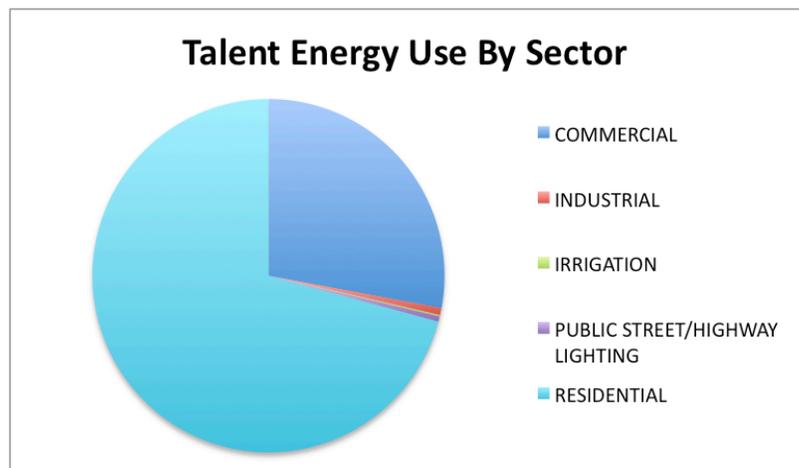


In 2015, the City of Talent used 37 GWh of electrical energy, costing over **\$4 million**. At this point, information regarding how much money was spent on natural gas, solar or other renewable energy installations is not available.

Where does our electrical energy go?

In 2015, Pacific Power listed 3,055 accounts for the City of Talent. Of these, 2,847 (93%) were residences, 198 (6.5%) were businesses and the rest (0.5%) were listed under industrial, irrigation and public street lighting.

Most of the electrical energy purchased by Talent was consumed by residences (71%) and by commercial use (28%). Industrial, irrigation, and public street lighting accounted for only 1% of the total energy use. The data thus suggest that the plan should target residential use, prioritizing older homes, manufactured homes and low-income residences, followed closely by businesses to achieve the 5% energy conservation goal for 2017-2018.



¹ Pacific Power & Avista, 2010-2012. Oregon DOE.

Actions for Year One: ENERGY CONSERVATION

Year One Goal: To reduce energy use by 5%

| Talent Citizens With The City of Talent | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Action | Baseline | Goal | KWh Saved | Cost |
| Support programs and policies to retrofit and save energy in residential buildings. | | | | |
| Maximize participation in Access programs and Energy Trust of Oregon (ETO) free duct sealing program for manufactured homes by organizing educational events within manufactured home communities and connecting them with ETO representatives. | To date, 219 homes have participated in this program. | There are approximately 306 additional homes in Talent that could qualify for this program. 10% of eligible manufactured homes updated in year 1 (30 additional homes). | TBD | Cost to City: RARE Participant Free to residents for installation. |
| Increase uptake in Free Energy Saver kits and Free LED Lights through the direct install program with ETO. | Usage of LED lights in Talent is unknown. | Install up to 16 LED lights in 20% of Talent homes (750 homes) through the direct install program, or through receiving the ETO Free Energy Saver Kits in year one. | Up to 39,020 kWh/year saved (0.75%) ² | Cost to City: RARE Participant FREE for installation. Energy savings for Talent equal \$67,260 in energy savings per year. |
| Educate Talent residents on energy saving actions they can take, including promoting programs offered through ETO. | N/A | Target: 5% reduction in energy costs, saving \$274,397+ annually Dedicate 2017 Harvest Fest to 2030 Plan education | Unknown. | Cost to City: RARE Participant No additional Harvest Fest costs |
| Increase HVAC / ductless heat pump installations in Talent by promoting and recruiting participation in the Energize Rogue Program. See website: www.RogueClimate.org/EnergizeRogue | Unknown. | 10 additional HVAC installations in Talent as a result of the Energize Rogue Pilot Program ³ . | 25,300 kWh/year (0.05%) | Cost to City: RARE Participant The average cost to a homeowner of installing an HVAC system is \$4,000. |

² If ALL the residential lights in Talent are upgraded to LED lights, we will save 3.7% of total energy use in Talent.

³ Transitioning from gas heat to electric can have a big impact as we begin to clean up our electrical grid.

Make utility data easily accessible for residents and businesses and encourage energy saving challenges.

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| Facilitate access to utility data for residential energy users by asking Pacific Power to accelerate the installation of smart meters. | Unknown. | Install 50 smart meters through a pilot program. | Average of 10% energy savings / home ⁴ = 52,104 kWh/year (0.9%) | Small cost to residents but not City |
|----------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------|

City officials and community groups advocate for climate-friendly energy policies at the county and state levels, and at the Public Utilities Commission and other state agencies.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Initiate the promotion of energy saving and climate friendly policies like the Healthy Climate Bill SB 1574 ⁵ and building code upgrades by working with the State at the legislative level to upgrade building codes. | N/A | Passage of policies that will support the overall clean energy goals and vision. | Unknown. | The scale of savings and costs will depend on specific policies. Many of the policies that impact the cost of energy, incentives available to retrofits, and building codes are set at the state level. It is vital that state policies align with energy-saving goals. |
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City of Talent

| Action | Baseline | Cost | KWh Saved | \$ Saved |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------|------------------------------------------------|-------------------------------------------------------|
| Set a visionary example of energy conservation and supply in city owned buildings. GOAL: Identify and complete actions to cut energy use by 10% in 2017-2018 Cycle | | | | |
| Complete an updated Energy Audit on all city owned buildings. | 2015-2016 Cycle energy usage | Staff time. | N/A | Potential savings depend on the results of the audit. |
| Accelerate transition of streetlights to LED bulbs. | 82 streetlights. | Less than \$16,000 | 25,000 KWh/yr | Savings = \$65,000 over lifetime of the bulbs. |
| Start collecting biannual data for City energy use and make available to the public. | 2015 electrical and gas data. | Staff time. | For monitoring purposes only | TBD. Depends on the findings. |
| Participate in Strategic Energy Management Program to teach staff how to manage energy ⁶ . | 2015-2016 Cycle energy usage | Staff time. | Up to 20% savings on City's total energy costs | Up to 20% savings on City's total energy costs |
| Funding for Year 2 RARE or on-going part-time staff position. | \$12,000 | \$22,000 | N/A | Staff time |

⁴ According to NEST, an ETO certified smart thermometer reader.

⁵ <https://olis.leg.state.or.us/liz/2016R1/Measures/Overview/SB1574>

⁶ <https://energytrust.org/commercial/equipment-upgrades-remodels/strategic-energy-management/>

Actions for Year One: ENERGY GENERATION

Year One Goals:

1. Document the current state of renewable energy generation in Talent and identify options for expansion
2. Initiate actions for interim renewable energy use and generation.

| Talent Citizens and City of Talent | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Action | Baseline | Goal | Clean Energy Impact | Estimated Cost |
| Enroll Talent high-energy users with clean energy utilities or energy providers (e.g., Blue Sky, Arcadia). | 17.8% | 25% | Reduces carbon footprint; increases awareness; establishes momentum. | Cost to the City: Promotional materials and distribution. |
| Investigate the feasibility of developing an independent utility company, implementing “Community Choice Aggregation,” partnering with another local city or purchasing renewable energy directly from producers. | Information-gathering stage | Final report including recommendations made available to the city. | Enable the city to develop one or more paths to achieve renewable energy goals. | Cost to the City: Travel costs for a city representative to attend presentations and visit energy brokers and providers, cost of the study. |
| Recruit community or larger renewable energy projects to the area, like a solar cooperative, micro-hydro project, or biogas digester. | There are no projects currently in development at this time. A biogas and a micro-hydro study was completed for the Rogue Valley ⁷ . | Achieve a partnership, contract, or other commitment with a clean energy provider. | Reduce carbon footprint; increase awareness, establish momentum. | Cost to the City: TBD The cost will be determined by the scope and feasibility of the project. |
| Make public a list of available financing programs to residents and businesses for solar installation as opportunities emerge. | N/A | By the end of the year, the Talent citizens are aware of all financial options available to them for solar installations. | Potentially increase the number of solar projects in our community. | Cost to the City: Research, promotional materials and distribution. |
| Contract, run and/or provide seed money for making solar installations available at little to no cost to qualified residents using the “Seeds for the Sol” model (see Web site www.seedsforthesol.org/). | N/A | The first round of solar projects is completed in 2017. | Potential increase in the number of solar projects for Talent, prioritizing low income residents. | City provides revolving loan of up to \$40,000 for “Seeds for the Sol” solar program |

⁷ Renewable Energy Assessment for Jackson & Josephine Counties, Oregon. Good Company, Eugene, OR. December 2011.

City of Talent

| Action | Baseline | Goal | Clean Energy Impact | Estimated Cost |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inventory current clean energy generation in Talent. Assess initial opportunities for clean energy generation in Talent. | There are believed to be 53 total solar projects in Talent as of August 2016. | Confirm current state of clean energy generation and establish a system to maintain visibility of capacity added. | Track progress to enable focus of effort to most promising methods. | Cost to establish new tracking program or modify existing building inventory program. Cost to add this responsibility to city staff, perhaps an intern. |
| Set short-term goals and targets for clean energy installation on city buildings. Develop emergency preparedness goals for key buildings using solar/battery backups. | N/A | Set targets for installing reliable, renewable energy solutions for key city operations and facilities. | Little impact on energy profile, but potentially critical impact on city services in the event of a prolonged power outage (e.g., earthquake). | TBD |
| Analyze the permitting process to identify opportunities to streamline clean energy installations. | Solar permitting can be done on-line. | Identify focus areas for future work to incentivize green energy projects. | Expedite the adoption of clean energy in Talent. | Cost to analyze processes to prioritize permit requests associated with buildings that include clean energy features. |
| Develop policies for renewable energy projects that ensure clean energy developed in Talent is equitable, environmentally sound, and creates local, living wage jobs. | No standards are currently defined regarding clean energy development. | Establish standards that encourage the equitable, local development of clean energy by the city, businesses, and residents. | Expedite the adoption of clean energy development consistent with triple-bottom line values (social, economic, environmental) and smart long term planning. | Staff time |

Recommended actions for City Council:

1. Request that the City staff reviews the proposed 2017-2018 Clean Energy Action Plan, submits comments, a budget and an action plan for implementation.
2. Once the budget is approved by City Council, incorporate the proposed 2017-2018 Clean Energy Action Plan into city operations and direct city staff to implement it.
3. Initiate the process to incorporate the Clean Energy Action Plan 2030 into the City's 20-Year Comprehensive Plan.
4. Partner with citizen groups to assist in implementing the plans.
5. Every six months, evaluate progress in implementing the plan and initiate action to prevent or correct shortfalls against achieving goals.
6. Communicate regularly with citizens regarding clean energy efforts (The Flash, TNR, website, or other visuals).
7. Advocate at the county and state level for policies that support an upgrade in building codes, resources for energy conservation efforts, rapid transition to clean energy, and the like.

What the citizens will undertake:

1. Commit to volunteer augmentation to City staff for assistance in areas like, but not limited to, the following:
 - a. Publication development
 - b. Community canvassing
 - c. Phone bank staffing
 - d. Community outreach
 - e. Survey development, distribution and analyses
 - f. Management of Town Hall monthly meetings
 - g. Management and execution of the Seeds for the Sol program
 - h. Liaison with solar vendors
 - i. Progress evaluation assistance
 - j. Research on upcoming programs
 - k. Hands-on assistance with other appropriate tasks
 - l. Staff activities which may apply to unincorporated Talent
 - m. Partner with the City to achieve the Clean Energy Action Plan's goals
2. Coordinate with the City regarding communications and outreach in the City.
3. Work in partnership with the City to advance the goals of the plan.
4. Advocate at the county and state level for policies that support an upgrade in building codes, resources for energy conservation and generation efforts, and the like.

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