

# RESOURCE STEWARDSHIP COORDINATION

ANNUAL REPORT & SUMMARY OF BEST PRACTICES TO IMPROVE AIR QUALITY - JULY 12, 2016



STATE OF UTAH GOVERNMENT  
WORKING TOWARD CLEAN AIR

## ABOUT RESOURCE STEWARDSHIP

The State of Utah Coordinator of Resource Stewardship helps state agencies implement best practices to improve air quality. Strategies include:

EDUCATING AGENCY LIAISONS  
IDENTIFYING GRANTS & FUNDING  
SUPPORTING CLEAN AIR POLICIES  
CREATING WAYS TO SET & TRACK AIR QUALITY GOALS

## AGGIES USE SOCIAL MEDIA TO SHARE A RIDE

Using an online social network-based carpool tool, Zimride, Utah State University (USU) launched a program in January 2015 to save USU community members money while improving air quality. **The program has created a network of over 4,000 people actively organizing ride shares.**

IMPACT SAVINGS IS CALCULATED AT:

168,951 MILES  
\$92,923  
6,625 GALLONS OF GAS  
128,535 LBS OF CO<sub>2</sub>  
71,635 GRAMS OF VOC  
90,895 GRAMS OF NO<sub>x</sub>  
1,858 LBS OF CO  
36,831 GRAMS OF PM  
11,995 GRAMS OF SO<sub>2</sub>

## UDOT GREEN LIGHTS DRIVE UTAH TOWARD IDLE-FREE

The Utah Department of Transportation uses technology to maintain flow & reduce idling at redlights.

On Riverdale Road in Ogden for example, the percent of drivers arriving on green is tracked and maintained. Reducing idling time also reduces emissions near residents and businesses in the Riverdale area.

# TRANSPORTATION

State Employees & Division of Fleet Operations Travel Clean

## 79 Vehicles

*Number of older cars removed from State Fleet because of move to On-Demand Motor Pool.* State employees can access newer cars with lower emissions rates, through a partnership with a private vehicle rental service. **Additional long-term emissions reductions result from program abilities to “right size” for daily demand, “right size” the vehicle type, and move more quickly to a tier 3 vehicle fleet.**



## 40 Reservations

*Electric bicycle trip reservations for the Capitol Hill Ebikes Pilot period.* UCAIR partnered with the Department of Administrative Services and funded a grant to introduce electric bicycles into the State Fleet in April 2016 at the Capitol Hill campus. Pedal assisted motors make work travel on a bike reasonable to do in a business suit. **Electric bicycles are a zero tailpipe emissions transportation.**



## 95 Test Rides

*Electric bicycles test rides expose many people to a new type of transportation.* **As a result of the demonstrations, the electric bicycle program is expanding to three additional state locations.**



## 595,717 Trips

*UTA Eco Pass Trips taken by State of Utah employees in FY 2015.*

- Express Bus 30,548 & Regular Bus 173,304
- FrontRunner 160,233
- Streetcar 3,257
- TRAX 228,375



## 141.2 Tons

*Tons of emissions saved by state employees participating in the Winter TravelWise Challenge in 2015 and 2016.* The challenges use a tracker hosted by the Department of Transportation's TravelWise Program. For more info visit <http://travelwisetracker.com/s/state>





# FACILITY ENERGY & FUEL

State Building Energy Efficiency Program Reduces Emissions

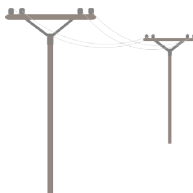
## 14 Million kWh

Kilowatt hours (kWh) not purchased each year because of energy efficiency upgrades implemented by the State Building Energy Efficiency Program (SBEEP) from 2010 to 2015.



## 2,377 KW

Kilowatt (KW) capacity left on the grid because of energy efficiency efforts in state facilities.



## \$1.8 Million

Value of bill credits or cash incentives received from Rocky Mountain Power incentive programs from projects completed between 2010-2015. The incentives help pay for energy efficiency upgrades.

## \$7.6 Million

Renewable energy grants funds obtained with support from the State Building Energy Efficiency Program (SBEEP) in 2015.



## \$338,300

Value of engineering services received on state projects completed between 2010 and 2015 using Rocky Mountain Power incentive programs like Wattsmart Business.

## \$1,604,336

Projected costs avoided annually because of energy efficiency improvements. \*Energy cost rate used to calculate costs avoided is an average blended rate for state facilities for 2016. \*\* Data sources only account for electrical kWh savings on projects within Rocky Mountain Power area, do not include natural gas savings, and are therefore lower than actual.

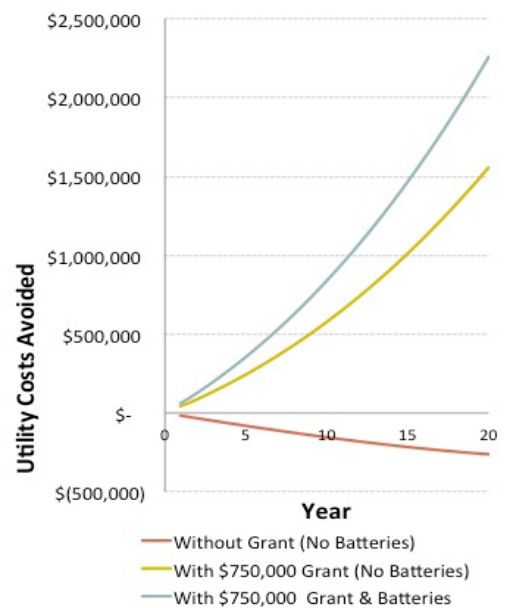


## 11,810,645 kWh

Kilowatt hours (kWh) generated annually from solar photo voltaic projects on state facilities. Solar arrays range in size from several dozen KW to some that are just under two megawatts.



### 1.2 MW Solar Facility – OWATC Example



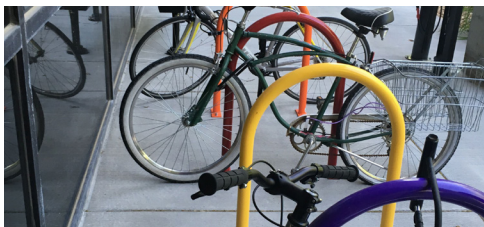
## POWER PURCHASE AGREEMENTS (PPA's)

The State Building Energy Efficiency Program (SBEEP) helps state entities leverage grants to maximize the return on solar energy development. Using grants with a PPA structure, increases the amount of solar energy produced, reduces risk from non-generation hours, and avoids asset maintenance costs.

**Ogden Weber Applied Technology College & Solar City's PPA provides energy to the campus at a rate of \$0.045/kWh.** The project is piloting a battery storage component that reduces peak demand costs, and increases the positive cash flow from the project. Reducing peak demand may also help the college maintain a cheaper utility rate.

## BOILERS TUNED WITHOUT TAX DOLLARS

By assigning the available Questar commercial gas boiler incentives to a private vendor-partner, 20 state building boilers were tuned up with no additional appropriations. Tuned boilers will reduce emissions from natural gas burned to run state facilities.



## PLANNING CLEAN AIR

State agencies have initiated Resource Stewardship Plans and continue to implement efforts for clean air. Strategies range depending on agency size, but many have taken on common efforts:

- COMMUNICATING IDLE-FREE
- PROVIDING STATE EMPLOYEES WITH ECO PASSES
- ENCOURAGING PARTICIPATION IN CLEAR THE AIR CHALLENGE AND WINTER TRAVELWISE CHALLENGE
- WRITING GRANTS TO HELP FUND CLEAN AIR STRATEGIES
- COMMUNICATING THE AVAILABLE ON-LINE STATE SERVICES TO THE PUBLIC
- ALLOWING FLEXIBLE SCHEDULES
- PROVIDING TELECONFERENCING TOOLS & REDUCING BARRIERS TO E-WORK
- INCREASING AMENITIES FOR EMPLOYEES AND VISITORS WHO BIKE, TAKE TRANSIT, OR DRIVE AN ELECTRIC VEHICLE TO A STATE FACILITY
- IMPLEMENTING ENERGY EFFICIENCY UPGRADES

# EMERGING EFFORTS

Leading by Example

## More Productive With Less Emissions

The Division of Risk Management is leading a collaborative effort with the Department of Workforce Services, the Department of Transportation and the Department of Administrative Services to provide an enterprise tool for online training, communication and virtual meetings. The tool will reduce the need to travel, and increase online collaboration in a high quality online environment at a low cost to agencies.

## Energy Data Automated

The State Building Energy Efficiency Program (SBEEP) is initiating a partnership with a private service provider to enhance energy management abilities through automated **building energy benchmarking**. Centralizing the data provides both the agency and SBEEP a single source of truth for energy use. The state can spend less time collecting data and more time pursuing the right energy efficiency strategies. The services will:

- Automate energy utility data collection
- Store energy data in a centralized location
- Identify best and worst performing buildings

## First & Last Mile Commute Solutions

Through a grant from UCAIR, the Utah Developmental Center is **piloting a vanpool** to increase use of Eco Passes and transit ridership to the American Fork Front Runner station.

Using the same grant, the **Department of Natural Resources (DNR)** received **30 new bicycle lockers** for employees who ride to work to safely and securely store their bicycles. DNR is within a quarter mile from a TRAX station. The storage increases an employees' ability to make connections to transit via a zero emissions transportation.

# CONTRIBUTING TO A HEALTHIER UTAH



UTAH DEPARTMENT OF  
ADMINISTRATIVE SERVICES

Connect to the Coordinator of Resource Stewardship  
<http://das.utah.gov/resource-stewardship.html>

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