

## Idea: State Of Oregon No / Low Interest Energy Loan Program

**Concept:** Provide no / low interest loans for energy conservation projects with simple paybacks of less than 4 years. The loan could be paid back via electric bills starting at project completion.

The loan would pay back as the savings is realized per the below examples.

**Benefit:** Low cost reduction of GHG AND saving the user money making them stronger financially.

**Solar PV Comparison:** A major solar PV project can cost \$7,000k and deliver 1,633,768 kWh / yr saving 496 Metric Tons of GHG. Therefore, raw Cost Solar PV = \$14,000 / Ton of CO2 Saved.  
State of OR Cost: loss of revenue due to 50% BETC tax break (\$3,500k x .09 = \$315k)

**Cost to State of Oregon for PV installation = \$635 / metric ton.**

*Note that kWh saved, and GHG reduced, is similar to the one year payback \$100k project costing the state \$13k or \$7 / ton of CO2.*

As a concept, this loan program could be paid for by sunsetting the BETC tax credit for PV Solar or using existing Energy Trust funding.

**It is important that increases in the electric rate not be used to pay for this program.**

### \$100k Energy Loan - 1 Year Payback Project

|                            | \$ Dispersed | Energy Savings (\$) | Loan Remaining | OR Interest Paid | Energy Savings/ Yr (kWh) | GHG Prevented (Metric Tons) |
|----------------------------|--------------|---------------------|----------------|------------------|--------------------------|-----------------------------|
| Year 0 - Project Installed | \$100,000    | 0                   | 100,000        | 6500             | 0                        | 0                           |
| Year 1 - Savings           |              | 100,000             | 100,000        | 6500             | 1,428,571                | 434                         |
| Year 2 - Savings           |              | 100,000             | 0              | 0                | 1,428,571                | 434                         |
| Year 3 - Savings           |              | 100,000             | 0              | 0                | 1,428,571                | 434                         |
| Year 4 - Savings           |              | 100,000             | 0              | 0                | 1,428,571                | 434                         |
| <b>Total</b>               |              | <b>400,000</b>      |                | <b>\$13,000</b>  | <b>5,714,286</b>         | <b>1,737</b>                |
| <b>\$/Ton =</b>            |              |                     |                |                  |                          | <b>\$7</b>                  |

Energy Cost assumed to be \$.07 / kWh

### \$100k Energy Loan - 2 Year Payback Project

|                            | \$ Dispersed | Energy Savings (\$) | Loan Remaining | OR Interest Paid | Energy Savings/ Yr (kWh) | GHG Prevented (Metric Tons) |
|----------------------------|--------------|---------------------|----------------|------------------|--------------------------|-----------------------------|
| Year 0 - Project Installed | \$100,000    | 0                   | 100,000        | 6500             | 0                        | 0                           |
| Year 1 - Savings           |              | 50,000              | 100,000        | 6500             | 714,286                  | 217                         |
| Year 2 - Savings           |              | 50,000              | 50,000         | 3250             | 714,286                  | 217                         |
| Year 3 - Savings           |              | 50,000              | 0              | 0                | 714,286                  | 217                         |
| Year 4 - Savings           |              | 50,000              | 0              | 0                | 714,286                  | 217                         |
| <b>Total</b>               |              | <b>200,000</b>      |                | <b>\$16,250</b>  | <b>2,857,143</b>         | <b>869</b>                  |
| <b>\$/Ton =</b>            |              |                     |                |                  |                          | <b>\$19</b>                 |

**\$100k Energy Loan -****3 Year Payback Project**

|                            | <b>\$ Dispersed</b> | <b>Energy Savings (\$)</b> | <b>Loan Remaining</b> | <b>OR Interest Paid</b> | <b>Energy Savings/ Yr (kWh)</b> | <b>GHG Prevented (Metric Tons)</b> |
|----------------------------|---------------------|----------------------------|-----------------------|-------------------------|---------------------------------|------------------------------------|
| Year 0 - Project Installed | \$100,000           | 0                          | 100,000               | 6500                    | 0                               | 0                                  |
| Year 1 - Savings           |                     | 33,333                     | 100,000               | 6500                    | 476,190                         | 145                                |
| Year 2 - Savings           |                     | 33,333                     | 66,667                | 4333                    | 476,190                         | 145                                |
| Year 3 - Savings           |                     | 33,333                     | 33,333                | 2167                    | 476,190                         | 145                                |
| Year 4 - Savings           |                     | 33,333                     | 0                     | 0                       | 476,190                         | 145                                |
| <b>Total</b>               |                     | <b>133,333</b>             |                       | <b>\$19,500</b>         | <b>1,904,762</b>                | <b>579</b>                         |
| <b>\$/Ton =</b>            |                     |                            |                       |                         |                                 | <b>\$34</b>                        |

**\$100k Energy Loan -****4 Year Payback Project**

|                            | <b>\$ Dispersed</b> | <b>Energy Savings (\$)</b> | <b>Loan Remaining</b> | <b>OR Interest Paid</b> | <b>Energy Savings/ Yr (kWh)</b> | <b>GHG Prevented (Metric Tons)</b> |
|----------------------------|---------------------|----------------------------|-----------------------|-------------------------|---------------------------------|------------------------------------|
| Year 0 - Project Installed | \$100,000           | 0                          | 100,000               | 6500                    | 0                               | 0                                  |
| Year 1 - Savings           |                     | 25,000                     | 100,000               | 6500                    | 357,143                         | 109                                |
| Year 2 - Savings           |                     | 25,000                     | 75,000                | 4875                    | 357,143                         | 109                                |
| Year 3 - Savings           |                     | 25,000                     | 50,000                | 3250                    | 357,143                         | 109                                |
| Year 4 - Savings           |                     | 25,000                     | 25,000                | 1625                    | 357,143                         | 109                                |
| <b>Total</b>               |                     | <b>100,000</b>             |                       | <b>\$22,750</b>         | <b>1,428,571</b>                | <b>434</b>                         |
| <b>\$/Ton =</b>            |                     |                            |                       |                         |                                 | <b>\$52</b>                        |