



**INCREASE CASH FLOW WITH  
INVESTMENTS IN CLEAN TECH AND  
SUSTAINABLE UPGRADES**



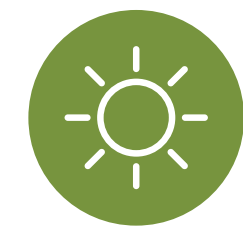


# **WHAT** ARE CLEAN AND SUSTAINABLE UPGRADES?



# Think **Green**

## Technologies for Increasing Cash Flow and Building Value



### **ROOFTOP SOLAR GENERATION**

Sell electricity back to the grid.  
Payback in 5 to 10 years depending on location



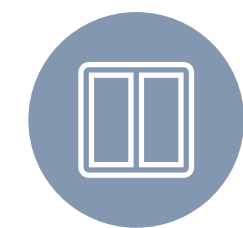
### **CAR CHARGING**

Generate income as an electric gas station for your residents and guests



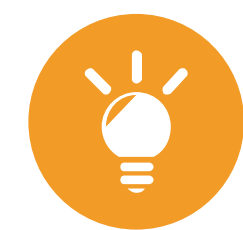
### **AIR BARRIER TECHNOLOGY**

Save Energy by Impeding air flow to reduce heat loss and minimize mold



### **EFFICIENT AND QUIET WINDOWS**

Save energy by Impeding air flow and reducing noise intrusion



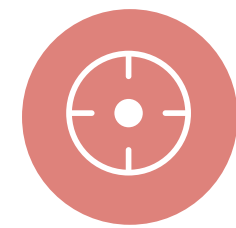
### **LED AND LIGHTING UPGRADES**

Save Energy with efficient lighting technology



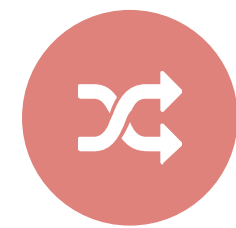
### **LOW FLOW FIXTURES AND AERATORS**

Reduce water, sewer and electric costs by reducing flow



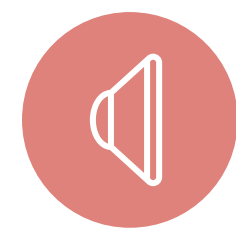
### **LOW VOC FINISHES**

Reduce turnover costs and create a healthy Living environment



### **AIR VENTILATION & HEAT RECAPTURE**

Reduce turnover costs and let customers breathe easy



### **MINIMIZE SOUND TRANSFER**

Reduce turnover costs and let customers sleep well







# GENERATING POWER THROUGH SOLAR

*Watch the meter turn backwards as solar power flows back into the grid*



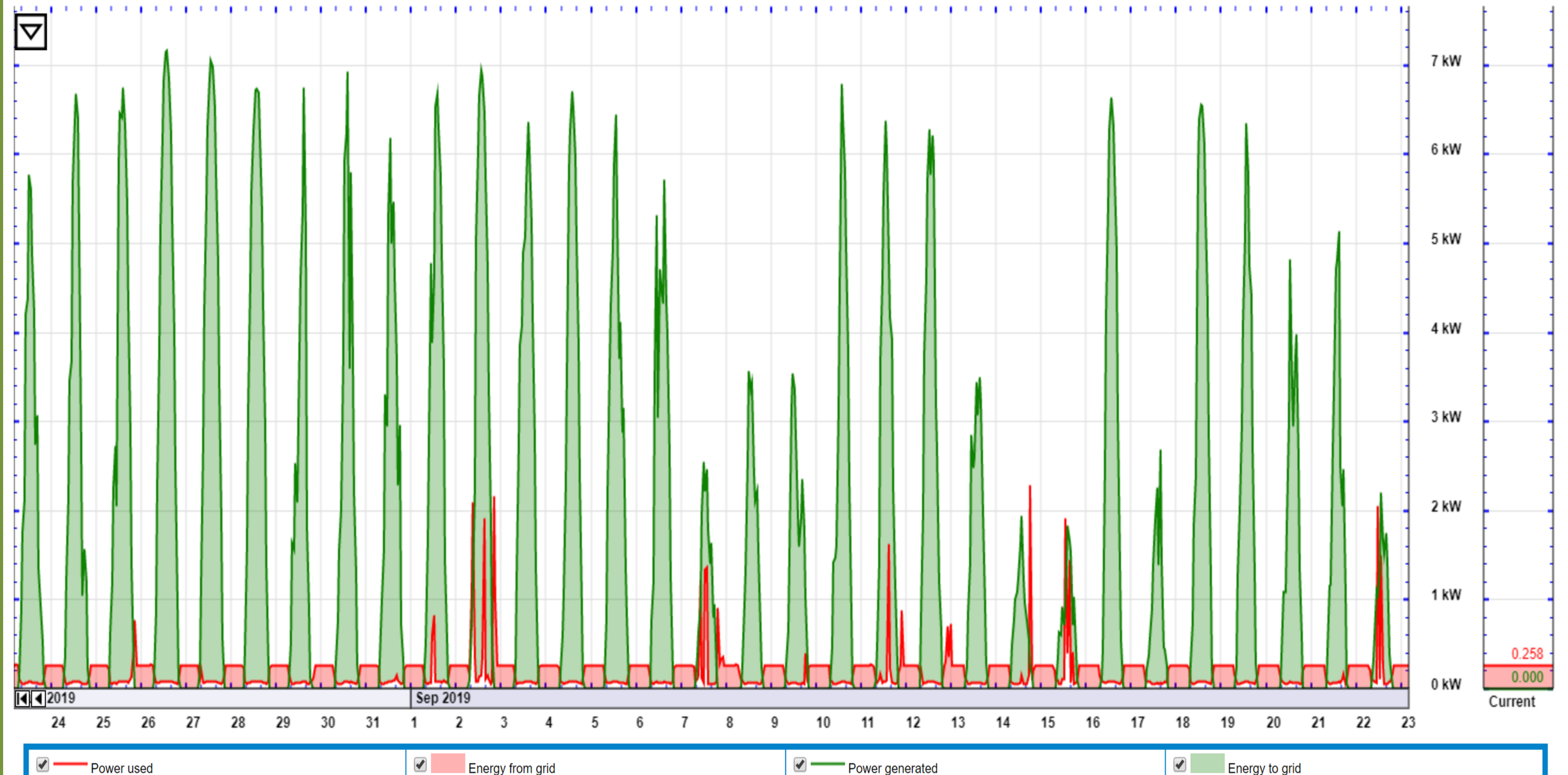
## Summary for time-period shown in graph

Energy Used	143 kWh	(approx. \$11.80 used)
Energy Generated	1.09 MWh	(approx. \$320.51 saved)
Net	952 kWh sold	(approx. \$308.71 earned)

## Summary over last 30 days

Energy Used	139 kWh	(approx. \$11.51 used)
Energy Generated	1.06 MWh	(approx. \$309.68 saved)
Net	919 kWh sold	(approx. \$298.16 earned)

All 1y 6M 3M 1M 3w 1w 3d 1d 12h 6h 3h 1h 10m Auto 500kW 100kW 50kW 10kW 5kW 1kW 500W 100W 50W





# Investment Payback & Increased Savings

The payback for solar panel varies from state to state. For Washington state the payback is about seven years. See the calculation for a 33 panel installation in Seattle.

**Purchase Price** \$38,500

Tax Credit of 30%	\$11,730
Production Incentive	<u>\$17,270</u>
Total Credits and Incentives	\$29,000

Electric Savings over 7 Years	\$ 9,500
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Total Cash Outlay after incentives, Credits & Savings after 7 Years	\$0
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Annual Energy Savings	<b>\$1800</b>
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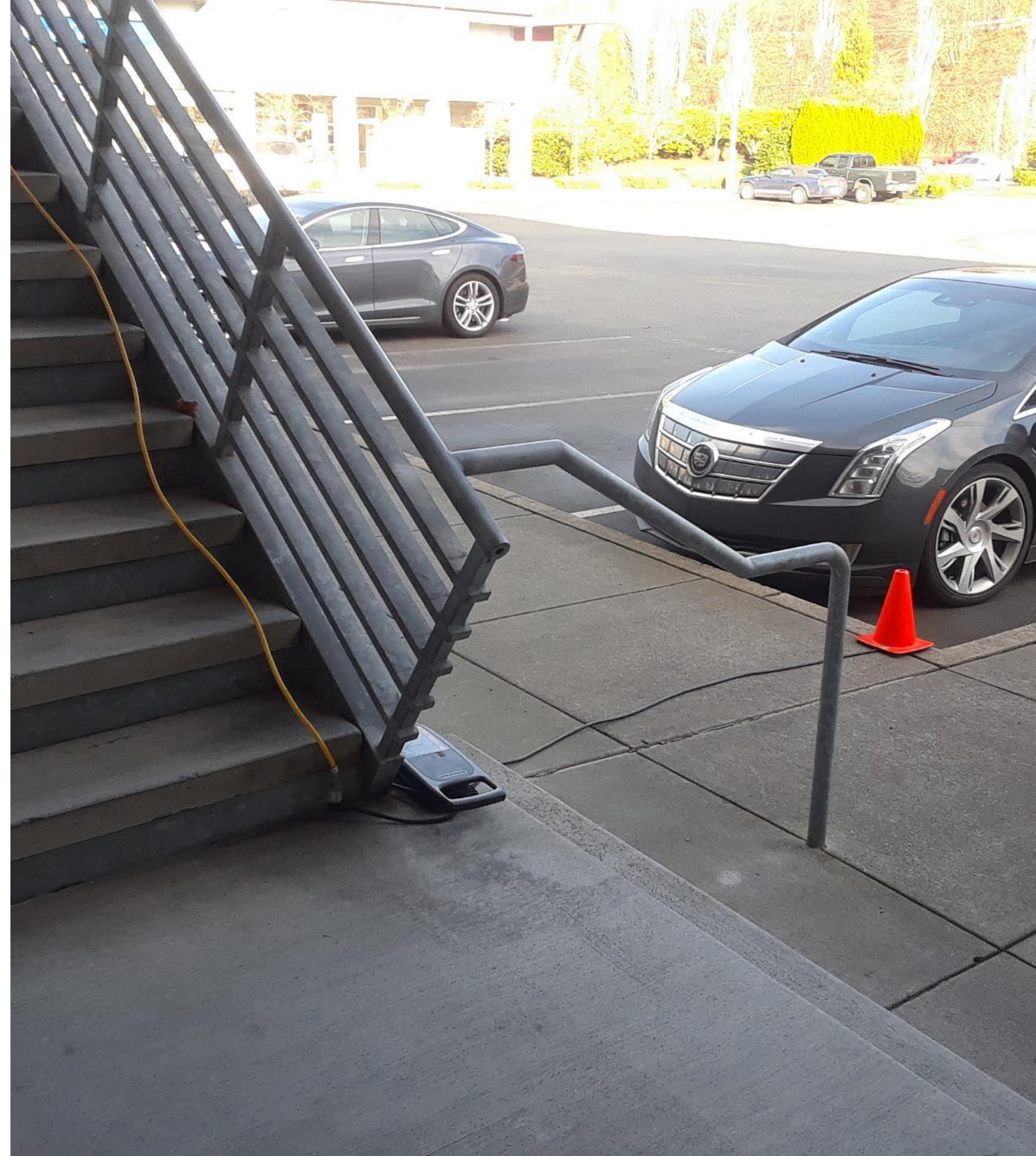




It's not **TOO** much of  
a trip hazard.....



.....**Right?**





# Electric Car Charging With **Power Allocation**





# Where and How We

Our Garages are the G



## CHARGE TIME

Many drivers depend on leaving their cars **overnight** for their next day commute



## LOCATION

Drivers want to charge at **home**



## ON THE GO

EV owners want to be able to charge in **convenient** locations on extended trips



# OUR GARAGES are the Gas Stations of the FUTURE







# Become the Gas Station of the Future

Charge up to 100 vehicles per load management controller with no electric service upgrade. The more energy efficient the units the more available for car charging.

Cost of 20 Chargers with Installation \$75,000

Annual Additional Rent for Charging Stalls \$14,400

Annual Cost of Monitoring Chargers \$ 4,800

Annual Net Income from Charging Stalls \$ 9,600

Annual  
**Return on Investment 12.8%**





## UPGRADING TO **LEDs**



# Reduce Costs

Your residents and common area electrical costs will be reduced by installing LED lighting



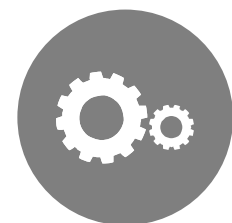
## REDUCE LIGHTING COSTS

New technology in lighting can reduce lighting costs by up to 90% versus incandescent.



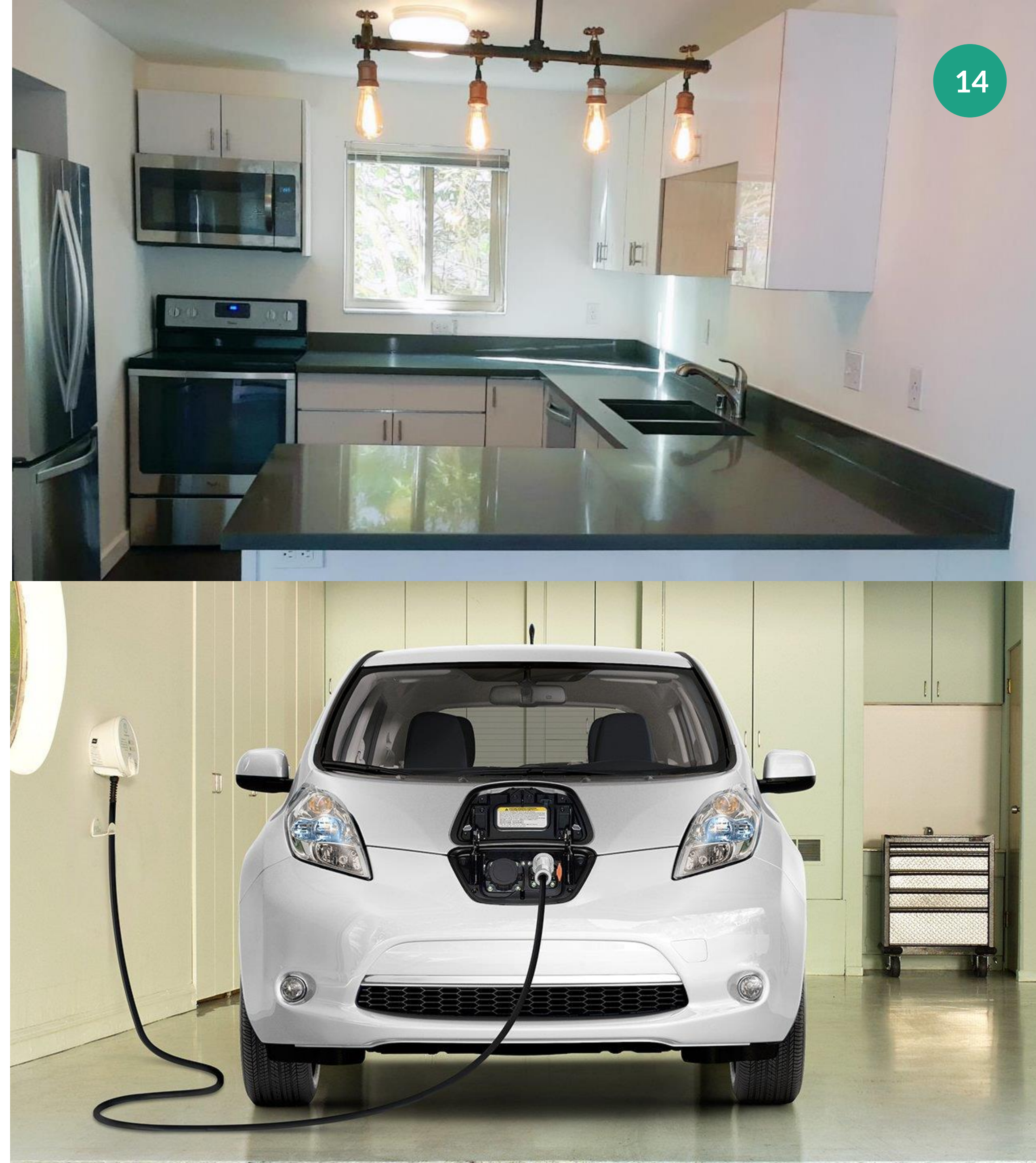
## INCREASE CAR CHARGING CAPACITY

All electrical usage reduction in units and common areas translates directly into more capacity for car charging.



## REDUCED MAINTENANCE COSTS

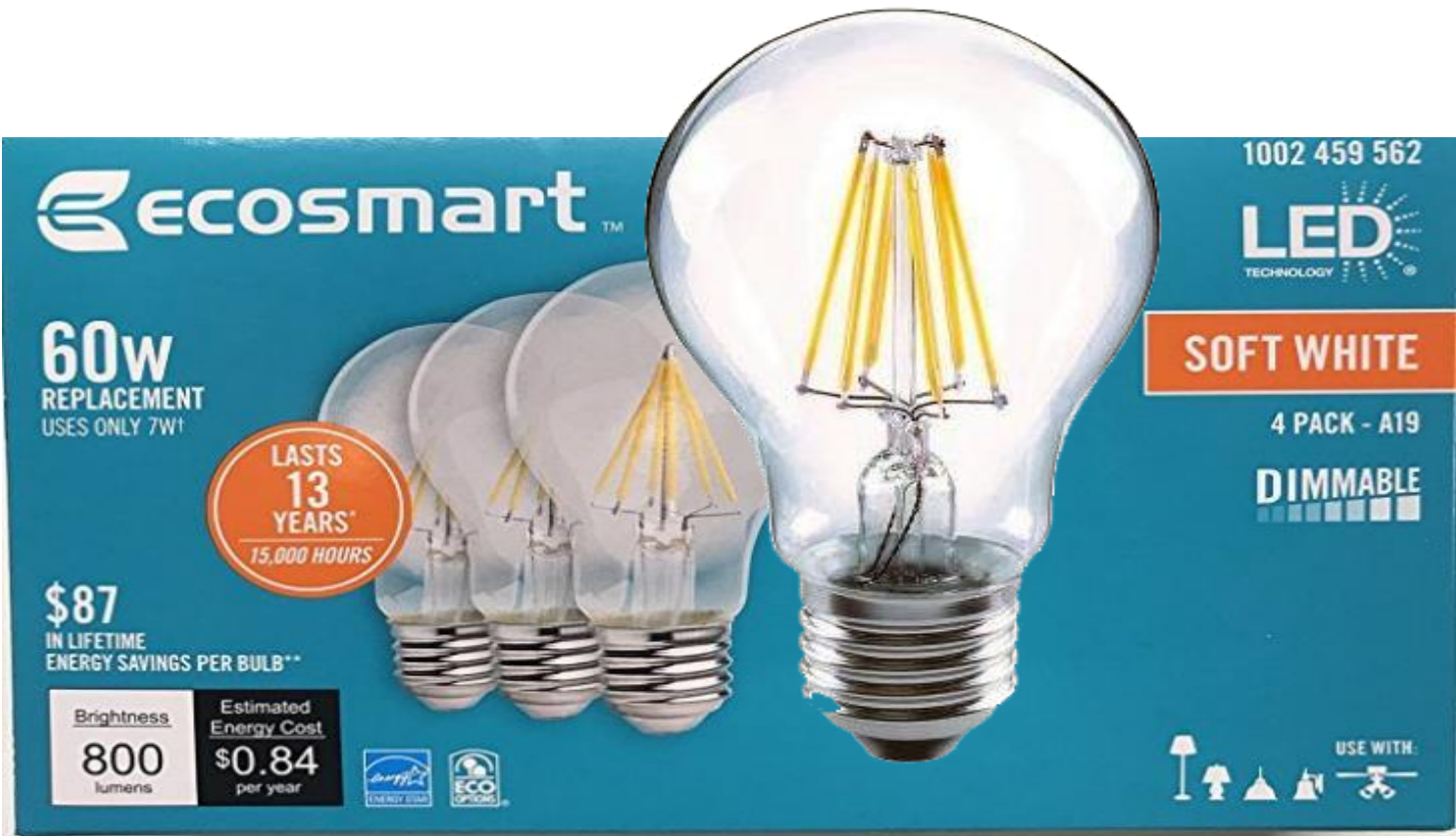
LEDs long lifetime reduces the amount of maintenance required to switch old bulbs.





# Generating Savings

Switching from Interior Incandescent to LED Lighting for **15 Bulbs per Avg. Unit per Year**



Per Unit Costs	
LED Light Bulbs	\$60
Total Energy Cost	\$246
<b>Total Cost</b>	<b>\$306</b>



Per Unit Costs	
Incandescent Light Bulbs	\$60
Total Energy Cost	\$2169
<b>Total Cost</b>	<b>\$2229</b>

Total Annual Energy Cost Savings	\$1923
Total Annual Energy Savings	19,230 KW
Miles Gained for a 50 KW Tesla 3 Electric Vehicle Annually	96,150



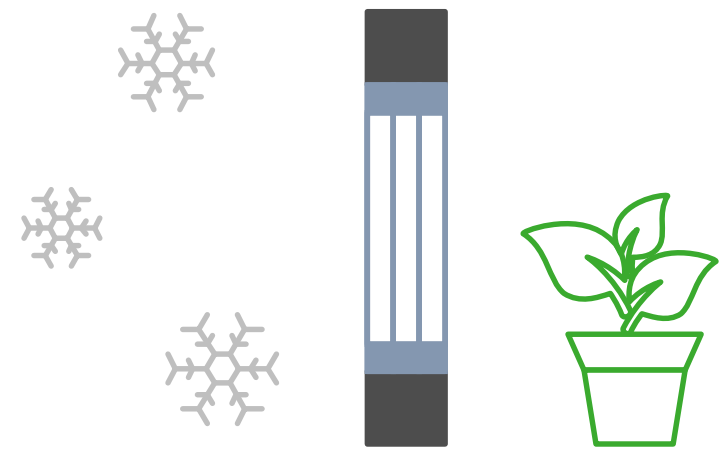
# Energy Saving Measures for the Building Envelope





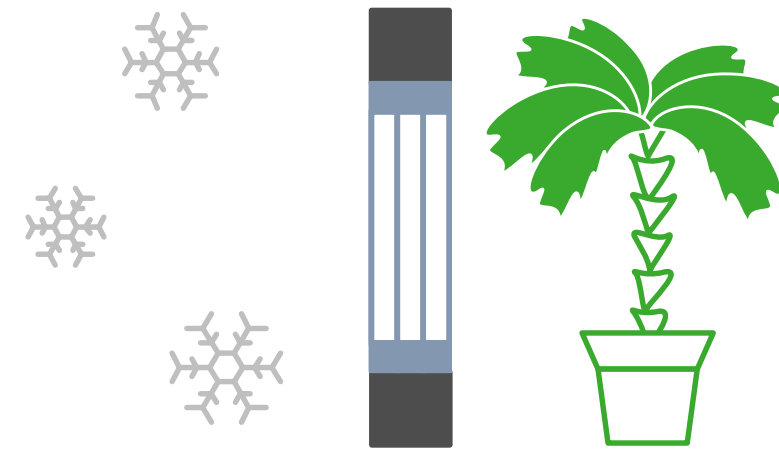
# BENEFITS

## of Energy Efficient Windows



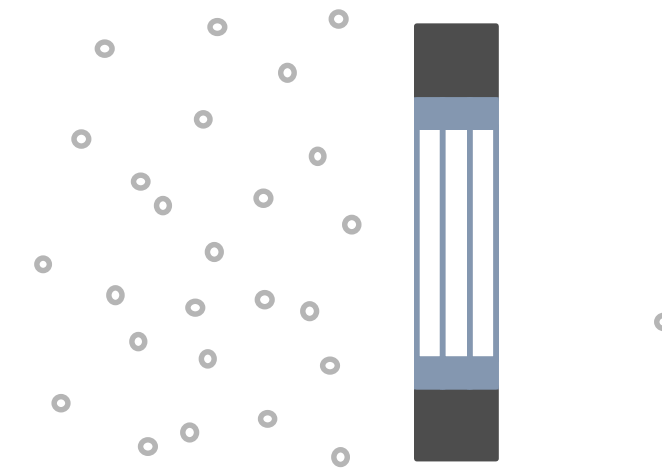
### Reduced Energy Cost

Reduced energy costs allow for less resources to be used for heating and cooling.



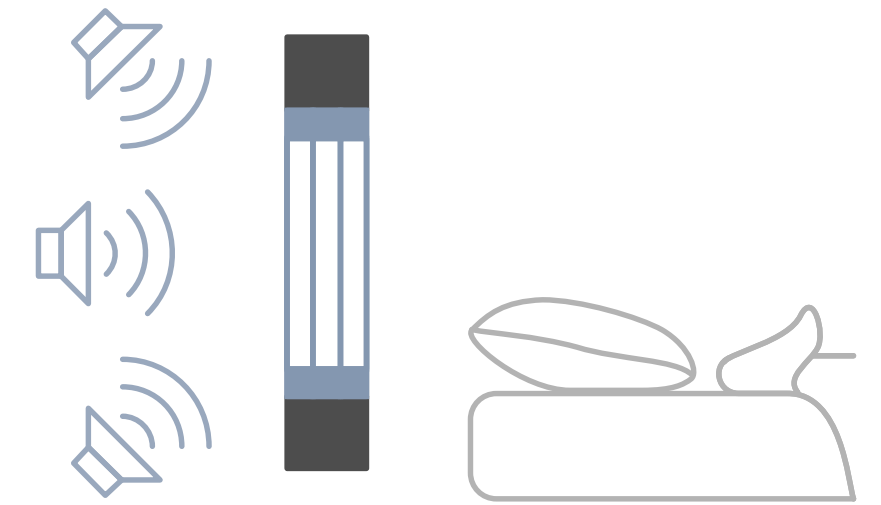
### Better for the Environment

With reduced heat transfer, less heating and cooling is needed to keep interiors of buildings habitable



### Reduced Maintenance & Health Risks

Lower risk of mold and/or repairs



### Silencing Noise

With highly insulated windows, noise pollution is dramatically reduced.



# Reduce Water Usage By **Restricting the Flow**

Replace aerators

Replace washers

Replace toilets





# Reduce Expenses

Decrease the usage of water and sewer

## Cost Savings for Implementing Low flow Faucet Aerators-50 Unit Building

100 Bathroom Faucet Aerators	\$500
50 Kitchen Faucet Aerators	\$250
75 Low Flow Showerheads	\$750
Installation Cost	\$750

Total One Time Cost	\$2250
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Water Savings	967,250 Gallons	\$14,400
Energy Savings	6,875 KWh	\$4,015
Total Water and Energy Savings		\$18,415

Annual Return on Investment	818%
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# Low flow Toilets

Cost Savings for Implementing

Reflects changing out 3.5 gallon toilets to 1.28 gallon toilets. Savings can be even more if you have legacy 5 or 7 gallon toilets

Replace 50 Toilets	\$7,500
Installation Cost	\$7,500
Total One Time Cost	\$15,000

Water Savings	657,000 Gallons	\$9,855
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Annual Return on Investment	66%
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HIGH-EFFICIENCY  
TOILET TODAY

20





# Washing Machines

Reduce Expenses by installing Water  
Saving Laundry Machines

Replace 50 Washing Machines                      \$30,000

Total One Time Cost                                      \$30,000

Water Savings                      350,000 Gallons                      \$5,250

Energy Savings                      12,500 KWh                      \$1,500

Total Water and Energy Savings                      \$6,750

Annual Return on Investment                                      20%







# Energy Savings Summary

## Cost Savings for Implementing Clean Tech Solutions- 50 Unit Building

Low Flow Toilets \$15,000

Faucet Aerators & Low Flow Showerheads \$2,250

Washing Machines \$34,000

Total  
**One Time Cost** **\$51,250**

Water Savings 1,974,250 Gallons \$29,505  
Energy Savings 19,375 KWh \$5,515

Total  
**Water and Energy Savings** **\$35,020**

Annual  
**Return on Investment** **68%**

Miles gained for a 50 KWh Tesla 3 electric vehicle annually 85,250 miles





# Window Retrofit

Replace windows for added insulation value and reduced noise		Miles gained for a 50 KWh Tesla 3 electric vehicle annually.....		528,000
Cost to replace 50 Units to double pane (Material and Installation) .....	\$90,000			
Total annual heating cost for standard windows .....	\$36,000			
Total annual heating cost for Double Pane windows .....	\$24,000			
Annual Resident Savings	120,000 KWh	\$12,000		





# Re-Siding Technology

- Add air barrier and rain screen technology **when residing** your building.
- New **vapor permeable** membranes that have replaced building paper limit air movement to **reduce heat loss** and **dry** the building faster.







# Air Barrier Membranes

Add exterior insulation and an air barrier on walls and roofs when residing and reroofing (Material and Installation)

**\$200,000**

Total annual heating cost for standard insulation

**\$24,000**

Total annual heating cost for new insulation system and air barrier

**\$6,000**

Total  
**Annual Savings**

**\$18,000**

Annual  
**Return on Investment**

**9%**

Miles gained for a 50 KWh Tesla 3 electric vehicle annually

**660,000 miles**



## Total annual miles gained for all energy retrofit categories

Lighting	96,150 miles
Water Heating	85,250 miles
Window Retrofit	528,000 miles
Residing with Air Barrier	660,000 miles
Total Miles Gained	1,369,400 miles





**Sustainable** Options  
for **Maximizing**  
Resident **Health**  
and **Well Being**





# Landscaping

Invest in a soothing landscaping for residents to look out at

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Residents want a sense of calm when they look out the window.  
It should be softened with nature when possible



# Incorporating **Nature** On **Your Property**

- As technology becomes more prominent in people's lives they still cling to the warmth of the past
- Gemütlich\* is difficult and expensive to build into today's new buildings and is a distinct advantage for older buildings

\*Gemütlich is the state or feeling of warmth, friendliness,[1] and good cheer as well as coziness, peace of mind, a sense of belonging and well-being

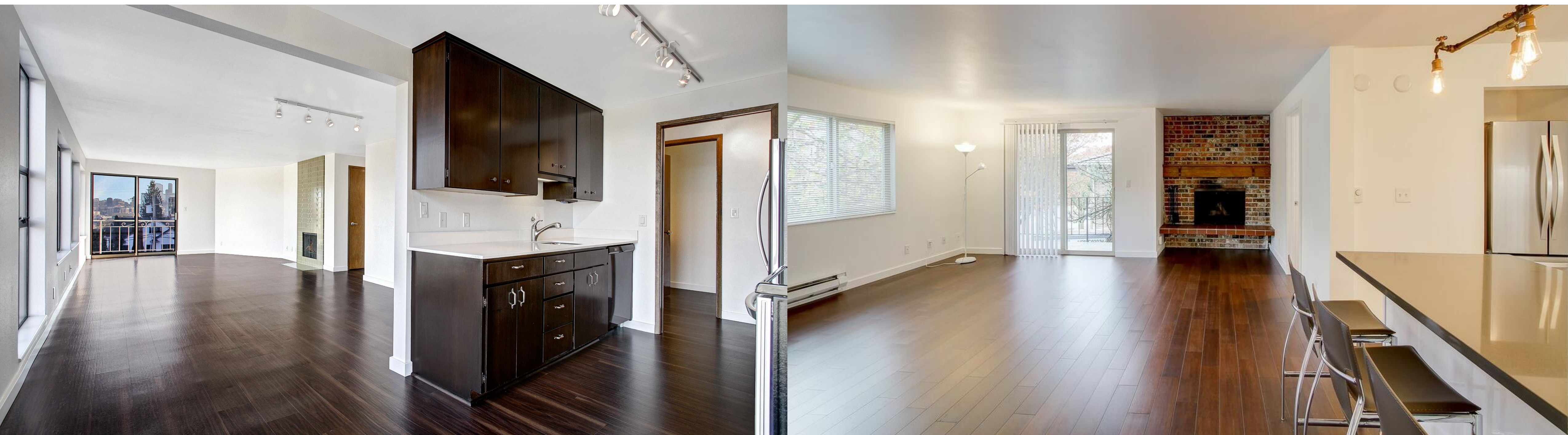




# Character

Preserving charm while upgrading for the future

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As technology becomes more prominent in people's lives they also cling to the warmth of the past.

History is difficult and expensive to build into today's new buildings and is a distinct advantage for older buildings



# Healthy Materials

Consider your residents health as you would your own.

- Incorporate low chemical materials and finishes when possible for **reduced cost and maintenance** as well.
- Look for products that are Green Seal certified especially for paints, paint thinners, and adhesives.
  - **Cabinets:** Cabinets are generally made of plywood, MDF, or particleboard. Opt for low VOC water based stains, finishes, and glues
  - **Carpets:** Carpet can emit VOCs. Opt for Green Label or Green Label Plus carpets.
  - **Flooring:** There are several choices in eco-friendly wood floors: FSC certified wood floors, Marmoleum, bamboo, cork, and recycle content tile.





# Sound insulation

Minimize sound transfer- STCs for various building materials



Be aware of the STC ratings that may be needed when remodeling walls ceilings and floors and especially when replacing windows. The seal around your window makes a difference too. **Air movement transfers sound!**

Operable STC Rating	Level of Speech Heard
STC-30	Loud speech understood
STC-35	Loud speech heard but not understood
STC-40	Loud speech audible as a murmur
STC-45	Some loud speech barely audible
STC-48	Hearing strained to hear loud speech
STC-50	Loud speech not audible