



## CAR WASH ENERGY UPGRADE PROGRAM

### BENEFITS OF UPGRADING

- Efficiency Upgrades for Lighting, HVAC, Water Recycling
- Increase Building Value
- Lower Utility Costs
- Innovative Financing Options – Utility Savings Pays Financing

### AREAS OF UPGRADING

<b>Carwash Building Energy Measures</b>	<b>Energy Saved GJ or kWh</b>	<b>Estimated Annual Savings \$</b>	<b>Estimated Install Cost</b>	<b>Payback Period (years)</b>
<b>Lighting</b>				
<b>Preheat Domestic Hot Water with Solar</b>				
<b>Soften Water</b>				
<b>Heat Recovery</b>				
<b>Recycle Water</b>				
<b>Air Curtains</b>				
<b>Water proof coating</b>				

## **DETAILS ON UPGRADING**

### **Lighting**

**Upgrade existing lights to LED high bay with gasket vapour/acrylic cover.  
4 lamp 240 watt fixture.**

### **Preheat Domestic Hot Water with Solar**

**Install solar thermal hot water heating system that feeds into a preheat tank.**

### **Soften Water**

**Install water softeners ahead of the hot water tank.**

### **Heat Recovery**

**Capture and recycle heated air to be used to heat new air coming into the building.**

**Heat recovery system recovers water from air as well up to 15 gallons per hour can be recovered.**

### **Recycle Hot Water.**

**Collect water before it goes to offsite drain from carwash where it will be cleaned and recycled. This water is usually hot so it is ideal to use as prewash water and can run on a separate pump. The water is cleaned of salt/soap and sand and any other particles before reuse.**

**The recycled water can be used for cleaning water with one additional filtration cycle where additional saving on heating water, are included.**

**Recycling of water can recover on average 80% of water utilizing cost effective systems including underground separation tanks and final filtration system, all water goes through process once used once for washing and water can recycled each day. But the water should be diluted with clean water by minimum 20% always**

### **Air Curtains**

**Creates up to 90% seal on open doors using facility air.**

### **Financing**

**All measures discussed here can be financed and paid for out of utility savings.**