



*Mass Megawatts Wind Power Inc. (OTCBB:MMMW)*

**Advanced Solar-Power System (SPS)**

A

Advanced solar power generation...

[www.MassMegawatts.com](http://www.MassMegawatts.com)

Corporate Sales: 508-751-5432

# Advanced, Solar-Power System (SPS)...

Complete  
Solar-Power  
System with  
innovative  
technology

Solar Tracking  
Increases  
solar-power  
generation by  
25%

Suited for  
Residential &  
Commercial  
sites, ground-  
level and  
rooftop

Scalable from  
5 kW to 10+  
megawatt with  
30 year  
useful-life

Operational  
performance  
is fully  
guaranteed

Installation,  
maintenance  
and repairs  
fully covered

# The Mass Megawatts Solar Power Advantage...



Benefit from reduced energy costs.  
Avoids expensive grid electrical rates, including demand charges.



Substantial Tax & Solar incentives can recoup over 50% of the total cost after the first year.



Net Metering captures full value of all solar energy produced.  
Minimizes retail/grid energy usage.



Maintenance and repairs are fully covered.  
Mass Megawatts provides a full, operational performance guarantee.



Mass Megawatts oversees all aspects of design, installation, and maintenance.



Solar power does not harm the environment by producing harmful CO2 emissions.

# Patent–Pending Innovation: Solar Tracking System (STS)

- ▶ STS is a complete Solar Power System that automatically adjusts the position of solar panels throughout the day to optimize direct sunlight exposure.
- ▶ Utilizes an innovative structural design that combines a simple, yet robust, A–frame design with a low–cost, protective outer–wall.

Solar Tracking System	Impact
Solar Power Generation	Increased 25% (from 20 to 25 kw)
System Cost	Increased only 10%
Operational Performance	Fully Guaranteed



# Reducing Energy Costs with Solar Power



Supply charges are reduced as more expensive energy from the utility is replaced with solar power you generated onsite.



Demand charges are also avoided for users who exceed the usage threshold defined by the utility. This typically applies to small businesses.



Federal, State, and Local Solar Incentives can reimburse close to 50% of total costs after the first year.



Switching to solar power can produce savings of 20 to 50% on your current electric bill.



# Demand Billing Charge

Energy demand is measured and billed when energy usage exceeds levels set by the utility.

E.g. Using more than 2000 kWh for 4 consecutive billing periods qualifies for a demand charge. Typically applies to small businesses.

A demand meter is installed to record the max level of energy required (or demanded) over any 15–30 minute interval during the billing cycle.

Once demand billing is started, it typically remains in effect until you fall below the demand threshold for an extended period, such as 12 consecutive months.

A demand charge is then calculated based on this peak level, which can add a considerable amount to energy costs.

Energy costs can increase 30 to 50% with a demand charge.

# Energy Usage: Small Business Example (New York)

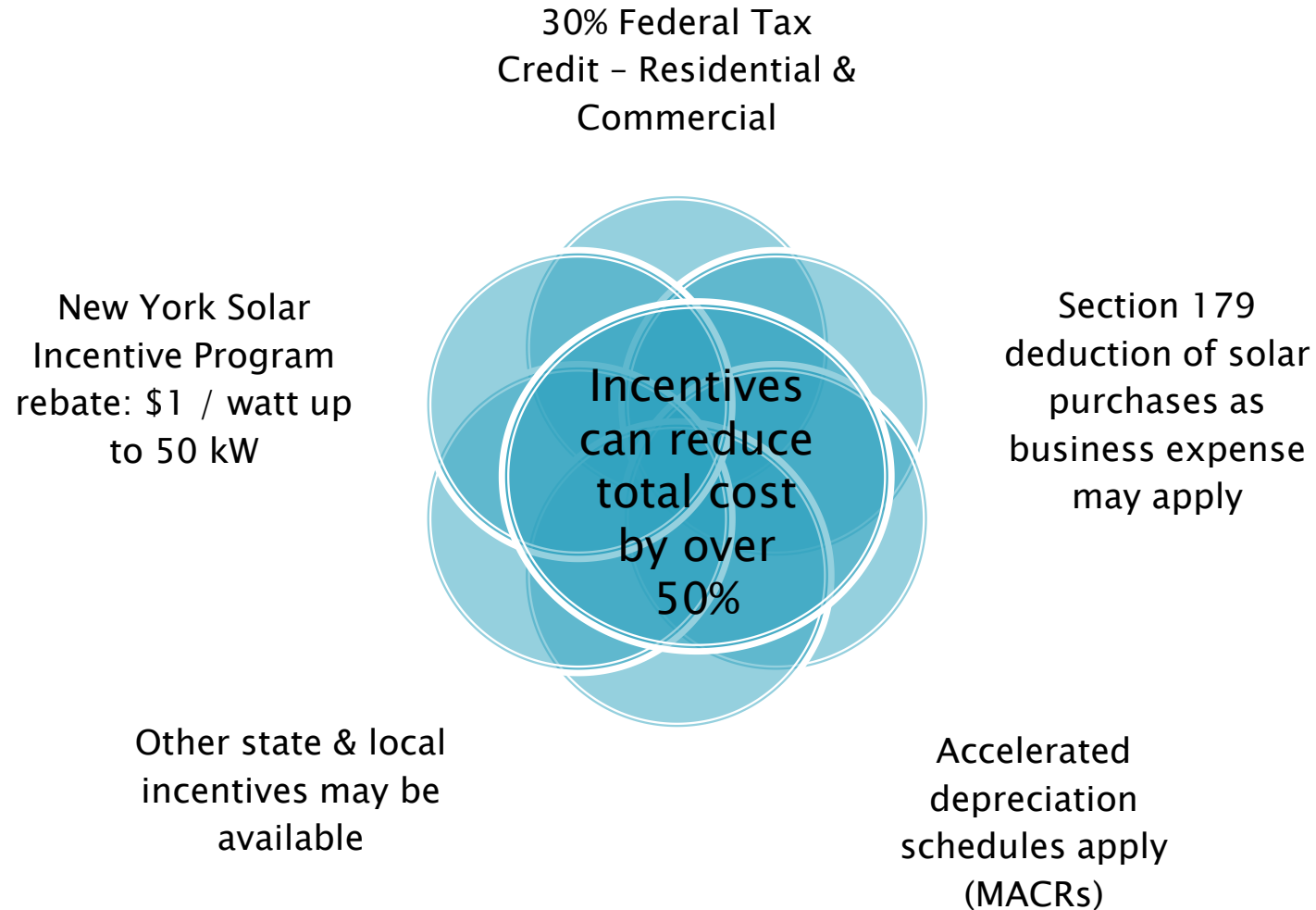
Total Annual Billed Amount	\$6,000 (approx.)
Average monthly cost	\$500
Average monthly usage	3400 kWh
Average cost per kWh	14.7 cents/kWh
Average Peak Demand	40 kW
Average Demand rate	\$6.50 / kW
Demand charge premium	<u>\$260 / month</u>

# Proposed Solar Power System for Small Business (NY)

Rated Capacity of SPS	20 kW
Annual energy production	28,800 kWh / year
System Cost (installed)	\$64,000
Cost per Watt	\$3.20 / watt
Cost per kWh	\$0.064 / kwh
Ground Level Installation	¼ acre of land, max sunlight exposure
Expected Useful Life	30 years



# Federal & State Incentives Reduce Costs by over 50%



# Favorable Impact of Incentives - Adjusted Cost after Year 1

20 kW Solar Power System with Net Metering, Installed price	\$64,000	
Less New York State Solar Incentive Program Rebate *	(\$20,000)	[Capped at \$1 / watt for first 50 kW capacity]
Less Federal Business Energy Tax Credit (ITC) of 30% , effective thru 2016 *	(\$13,200)	[= (\$64,000 price - \$20,000 rebate) * 30% tax credit]
Less first year Depreciation	<u>(\$2,618)</u>	[MACRs 5 year schedule with half year convention]
<b>Adjusted total cost **</b>	<b>\$28,182</b>	
<b>Cost Reduction</b>	<b><u>56% cost reduction, reducing total cost by \$35,818</u></b>	

\* Federal and State tax incentive information obtained from [www.dsireusa.org](http://www.dsireusa.org), including the New York solar portal. Tax credits not utilized in the current year may be eligible to be carried-forward to offset future taxable income.

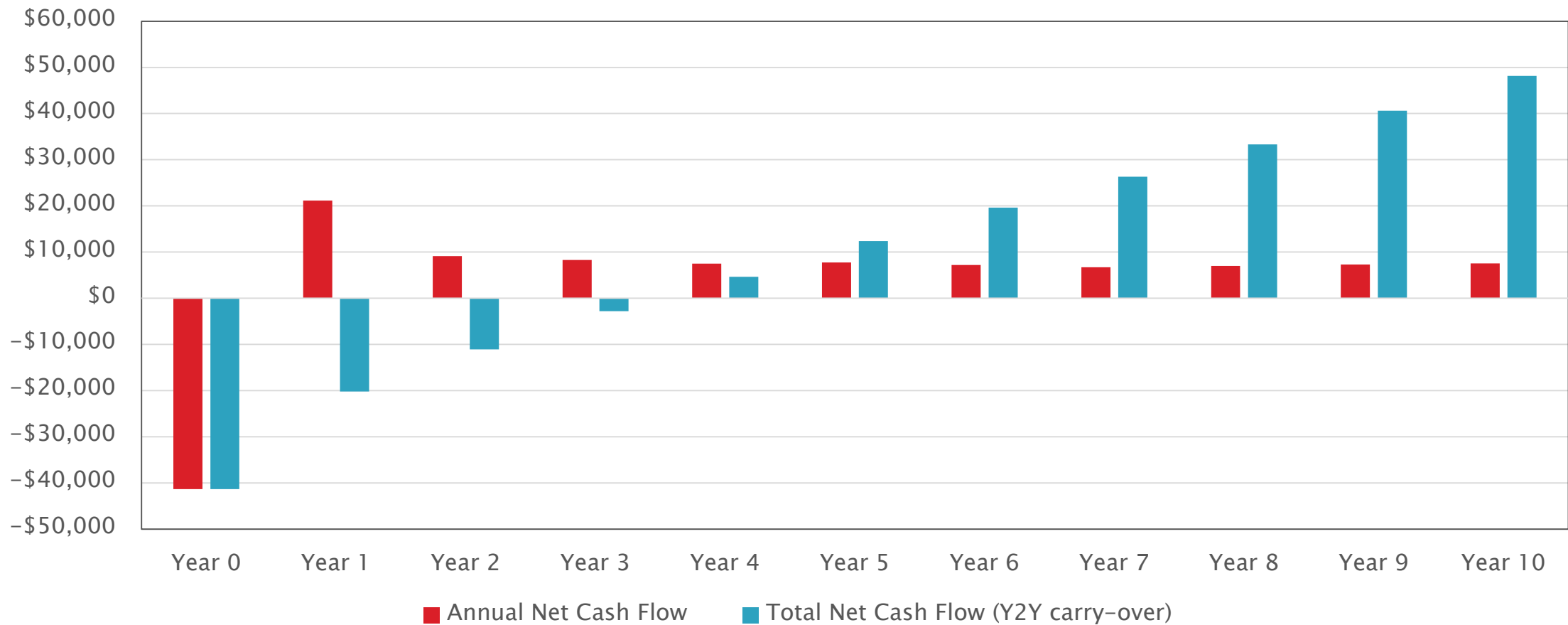
# Avoiding the Demand Charge

Solar Power reduces the usage of electricity from the grid/utility to a level below the demand-charge threshold. This allows the customer to eliminate the demand charge of \$260 per month, which is a 52% reduction in their electric bill!

Solar Power System Impact...	Savings...
Average payment before Solar	\$500 / month
Demand charge is eliminated	Saves \$260 / month
Supply charge is reduced	Saves \$20 / month
Total savings	\$280 / month
New projected payment with Solar	\$220 / month
Annual Savings	\$3,360 / Year
Savings over 30 year useful life	\$100,800

# Cash Flow – First 10 Years of Operation – 20 kW SPS

## Annual and Total Net Cash Flows



\* Year 0 assumes that installation of STS is completed at mid-year.  
Payback occurs in year 4.

# ROI: First 10 Years of Operation – 20 kW SPS

System Size	20 kW rated SPS	
Annual Energy Production	28,800 kwh	
Installed Price	\$64,000 USD	
Tax & Solar Incentives	\$35,818	Realized after Year 1
Annual Energy Savings	\$3,360	100% Net Metering capacity
Total Net Cash Flow	\$48,170	10 year carry-over
Payback occurs	<u>Year 4</u>	
ROI	<u>22%</u>	IRR



# Guaranteed Performance...

