SPONGE Microgrids

Battery Control for Wilson Residence

Proposal

Residential Net Metering

2025.XX.XX

Problem

Capture maximum value from **Batteries**
in a **Net-Metering** scenario.

Solution

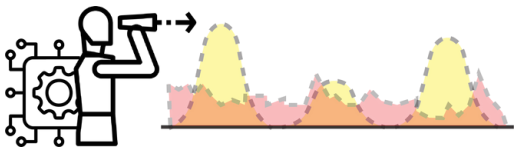
Battery Optimization

Intelligent Control

Balance **Rate Arbitrage** $ with **Outage Protection**
to boost savings by up to 30% and safeguard your energy.

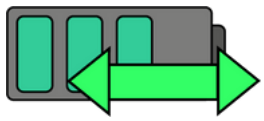
How it Works:

Forecast



Sponge EMC generates consumption forecasts and monitors energy rates...

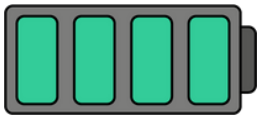
Control



to charge and discharge batteries when it is most cost effective.

Protect

If Sponge detects at Outage Risk...



it makes sure your battery is fully charged...

so your family or business is protected.

Understand Sponge Optimizations

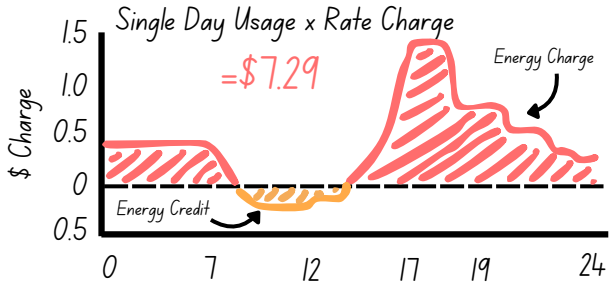
Ontario Net-Metering (Rate Arbitrage)

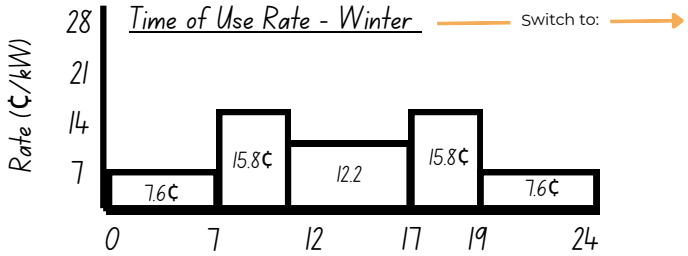
Net Meter Solar

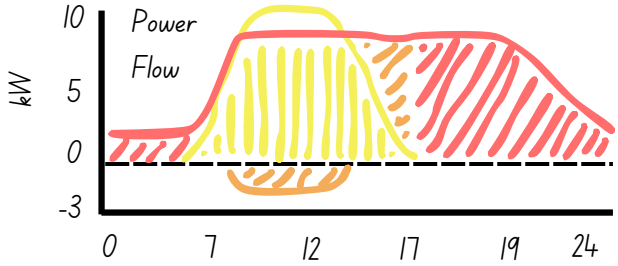
	Reg Energy Cost	–	Solar + Net Meter Credits	=	New Cost
Annual	**$4,726**	–	**$2,066**	=	**$2,660**
Daily	**$12.95**	–	**$5.66**	=	**$7.29**

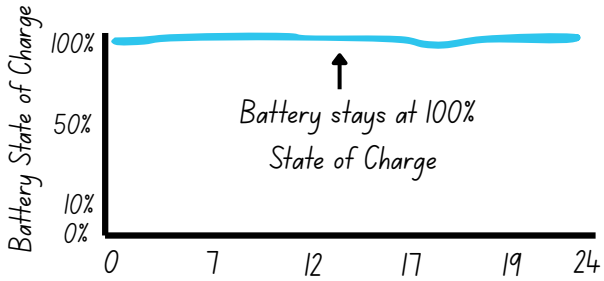
Battery ptimization

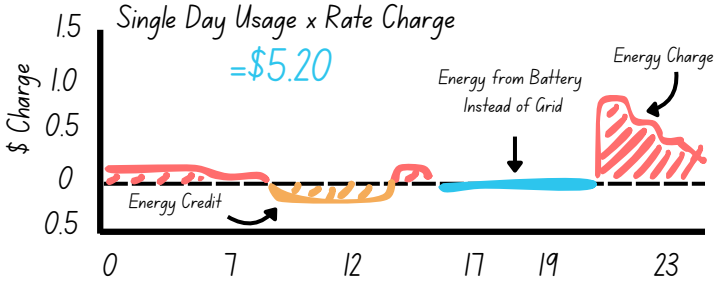
Reg Energy Cost	–	Solar + Net Meter Credits	–	**Sponge Optim.**	=	**New Cost**	
$4,726	–	**2,066**	–	**$761**	=	**$1,899**	Annual
$12.95	–	**$5.66**	–	**$2.09**	=	**$5.20**	Daily

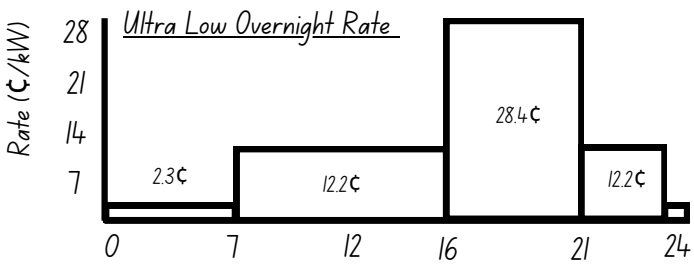


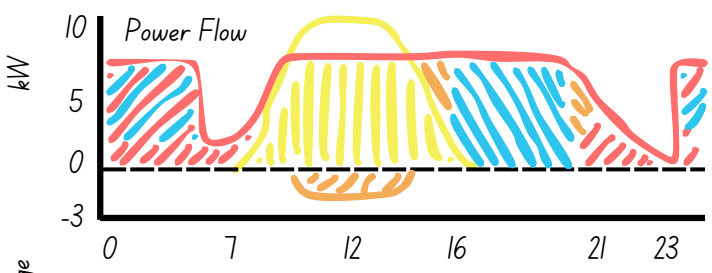


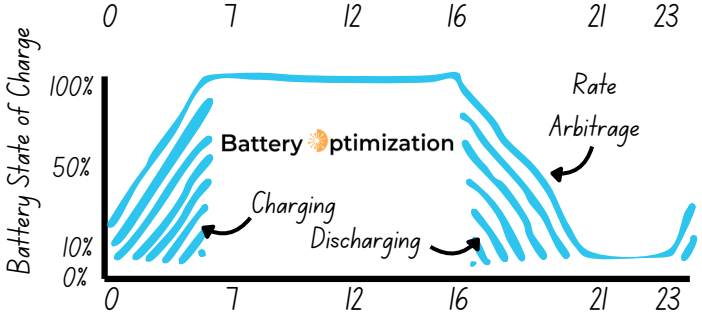


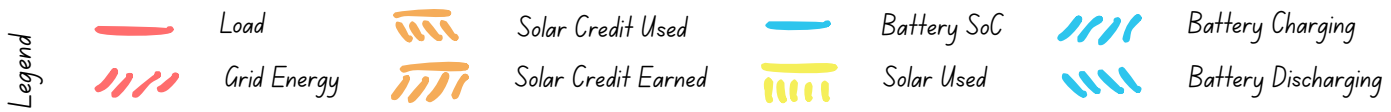






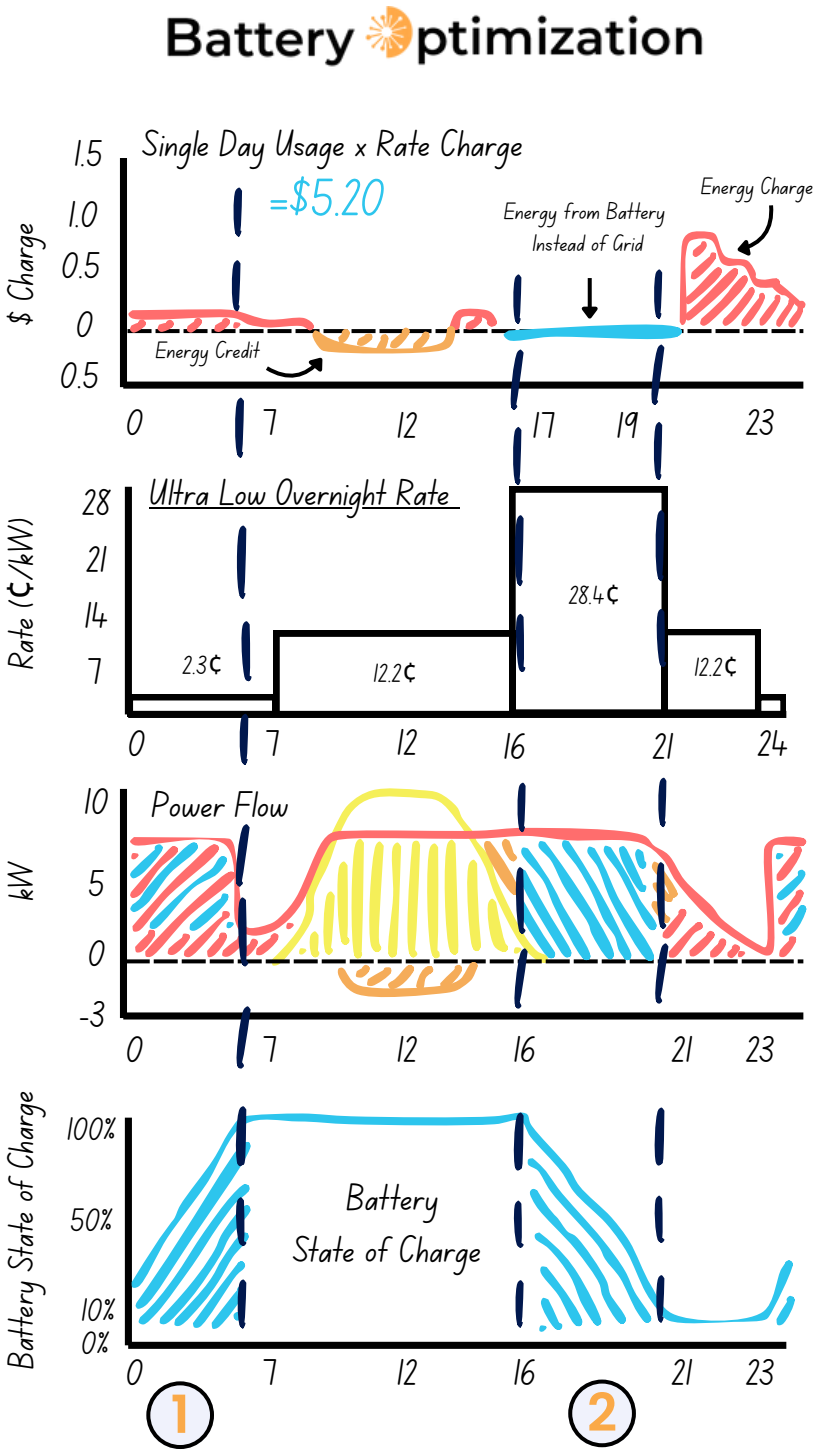






Understand Sponge Optimizations

Ontario Net-Metering (Rate Arbitrage)



1. Sponge Optimization uses your battery to store energy from Ontario's 2.8¢ *Ultra-Low Overnight Rate (11:00p.m. - 7:00a.m.)*...

2. ...and use it during the expensive 28.4¢ *On-Peak Rate (4:00p.m. - 9:00p.m.)*.

Sponge Battery Optimization allows you to capture Ontario's best energy rate without the trade-off of being exposed to its worst. The net result is an up to **30% reduction in your energy bill.**

Remember

If Sponge spots a power outage risk, it will make sure your battery is charged so that your business and family are protected.

Highlights

$31,005
Est. New Savings over 25 Years

30%
Less Grid Energy Cost

3.5 Year
System Payback Reduction

	Description	Annual Utility Cost	Total Annual Savings
Baseline	Demand	$4,726	$0
Net-Metered Solar	Demand - Generation	$3,243	$1,483
Solar + Sponge	Battery Optimization	$2,482	$2,244
Sponge Savings		**-**	**$761**

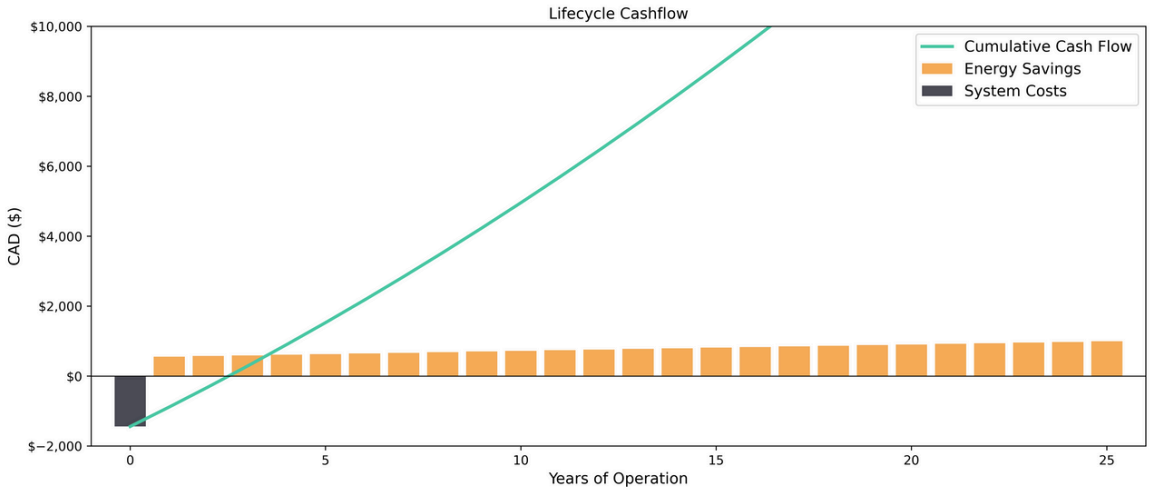
PROPOSAL

SPONGE EMC

Sponge Energy Management Controller	$1,275
HST	$166
TOTAL	**$ 1,441**

Financial Analysis

At Sponge, we pride ourselves on providing a sound financial solution. In this case, we are able to achieve an equipment investment payback period of **2 years**. Incorporating the EMC cost into your total investment, we calculate that we could **reduce your system payback period by up to 3.5 years**. In the renewable energy world, a value proposition like this is a true no-brainer.



Wilson Project Commentary

To the Wilson Household,

Thank you for taking a look at Sponge Microgrid's Proposal to add Battery Optimization to your solar and battery system. We hope that you will see that this addition is a sound financial investment, backed by an innovative Canadian company that is here to support you on your solar journey.

Your Savings Simulation:
Our simulation of your savings is derived from the load data that you shared with us. It assumes that you are currently enrolled Time of Use pricing and that, upon installation of the Sponge EMC you will switch to the 'Ultra-Low Overnight' rate. Your original True Beacon proposal showed that you had been on 'Tiered Pricing' rate. If you are still on this rate your savings should still be materially similar to those shown above.

On Sponge Optimization:
Sponge Battery Optimization is an adaptive tool. Should any changes in Ontario rate structure occur the optimization algorithm will be updated to ensure that it is always saving you the maximum amount possible. We will also reach out to you should a more beneficial rate structure become available. In complement to the arbitrage optimization, Sponge is always monitoring grid and weather forecasts to ensure that your battery is charged in the event of an outage.

Integration with your Inverter

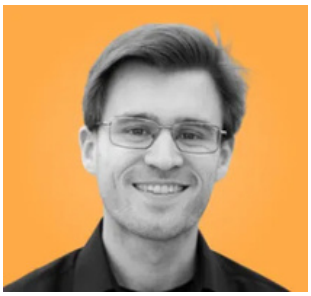
- Sponge EMC will leverage Modbus TCP or TRU to connect to your inverter.
- The Sponge EMC will communicate locally with the inverter to alter inverter set points.
- The Inverter portal will remain the central hub for system performance monitoring.
- The Sponge Monitor Base, available on the EMC touchscreen interface as well as online on our webapp will remain available to you to view savings derived by the Sponge EMC, as well as system status and yield, should you choose to view it there.

About Sponge

Sponge Microgrids Inc is leading innovator in predictive control for renewable energy systems based in Ontario, Canada. We have developed cutting-edge forecasting and optimization solutions that monitor, predict and enhance the performance of renewable energy systems, both off-grid and grid-tied.

Our technology is patent pending and has been deployed at numerous active projects across Canada.

Jeremy Lytle, MASc
CEO



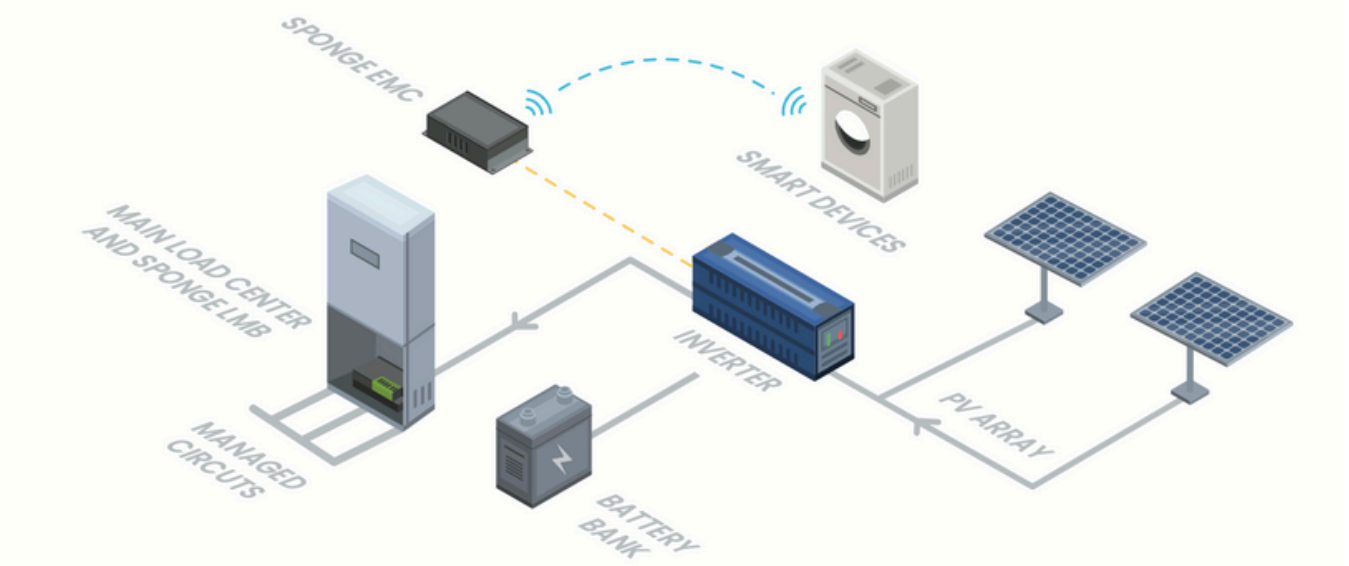
Bas de Bruijne, MSc
CTO

YOUR PROJECT

HOW IT WORKS

Sponge Offering

The Sponge solution includes the delivery, installation and commissioning of our Energy Management Controller, which operates our proprietary control algorithms. But it doesn't stop there. Our team has full remote access to every system we deploy, enabling over-the-air updates, remote monitoring, system maintenance and most importantly, quality assurance.



Control Philosophy

At Sponge, we respect that system reliability is paramount. Thats why our control approach is simple and nonintrusive. Our controls operate completely outside the loop of mission critical system operations and simply make adjustments to targeted set points as required in order to instigate the performance we want to see. After the control action, defaults settings are restored. This means that there is no incremental complexity or reliability risk introduced, just added value and improved performance.

Order Information

01. Reach out to your installer to confirm your decision to procure the Sponge EMC.

02. Your installer will provide you with a quote for installation of the Sponge EMC.

03. The Sponge EMC will be installed by your solar installer with commissioning support from Sponge Microgrids.

Thank you for considering our proposal.
We welcome your feedback and look forward to discussing next steps.

Paul.Kealey@sponge.to

519-362-2659

SPONGE Microgrids

Monitor | Control | Optimize