



The Pastvina Garden (Pasture Garden)



In 2020, we came across an interesting project for a community garden on our favorite crowdfunding server. The aim of the campaign was to collect money for a photovoltaic system. The garden is cut off from the electrical grid and chances of getting the utility company to run electricity to the area are basically zero since the property is a historical site. The owners were therefore dependent on a power generator, which is quite expensive, noisy and unecological.

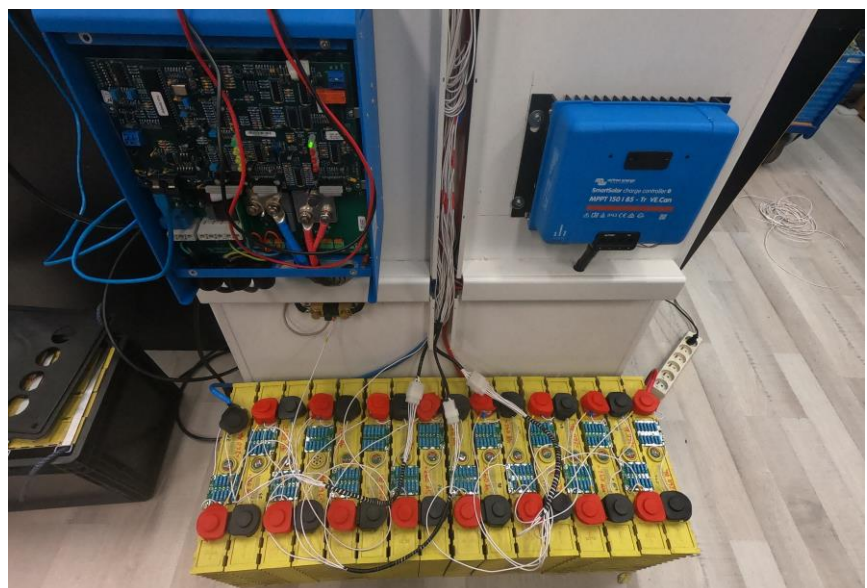
The Pastvina Garden (Pasture Garden) adopts and cares for unwanted animals such as horses, hens, sheep, pigs, rabbits etc. They also organize excursions for schools, they've formed their own forest preschool, and offer animal adoption where you receive fresh eggs or a jar of honey as a reward.

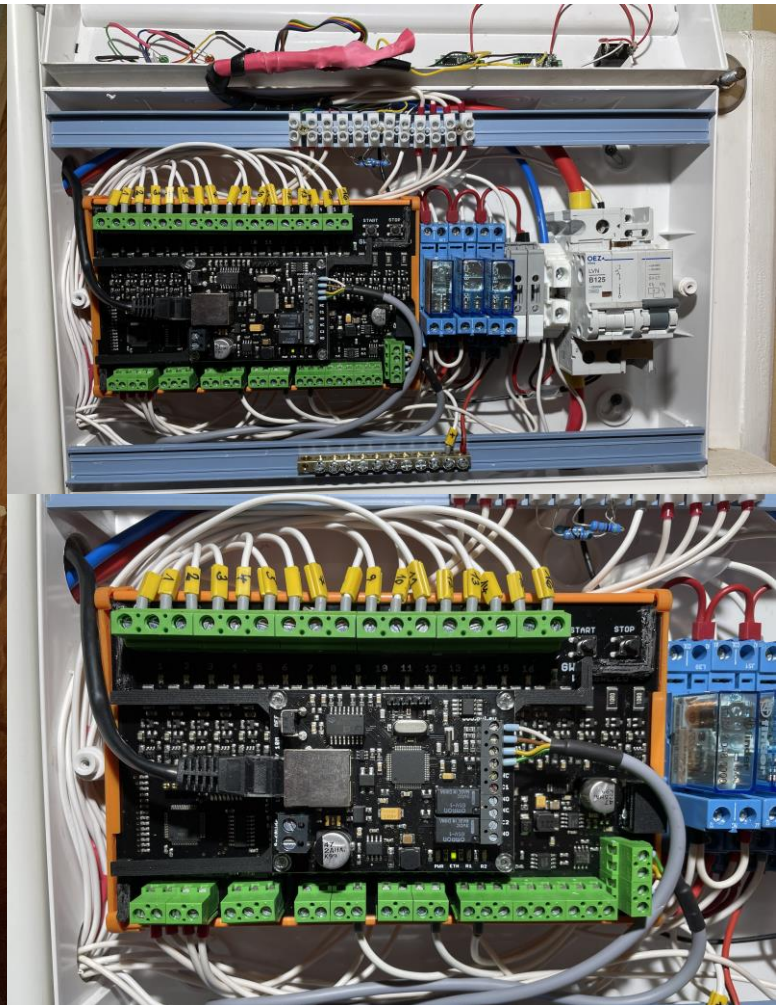
We at GWL decided to support this project and help them out with a photovoltaic system installation.

As it so happens, we had spare 300Ah LiFeYPO4 cells available at the time. They had been running in an electric bus as part of public transportation in Prague for 6 years.

During the first stage of their life-cycle, the LiFeYPO4 cells helped transport hundreds of thousands of commuters every year in Prague.

In the next, they are ready to serve for many long years in a stationary OFF-GRID photovoltaic installation, which does not have such high demands for traction performance





With our help, the Pastvina Garden adopted our used Thundersky Winston 300Ah LiFeYPO4 batteries with an actual capacity of 12.7kWh after spending 6 years in the bus.

We selected our GWL/Sunny 280Wp solar panels, the LiFeYPO4 cells, Victron multiplus, MPPT, BMV and Venus as the main features for the OFF-GRID PV system installation. We chose the GWL + the BCC communication module and CBM1 cell balancers as protection of the entire system.

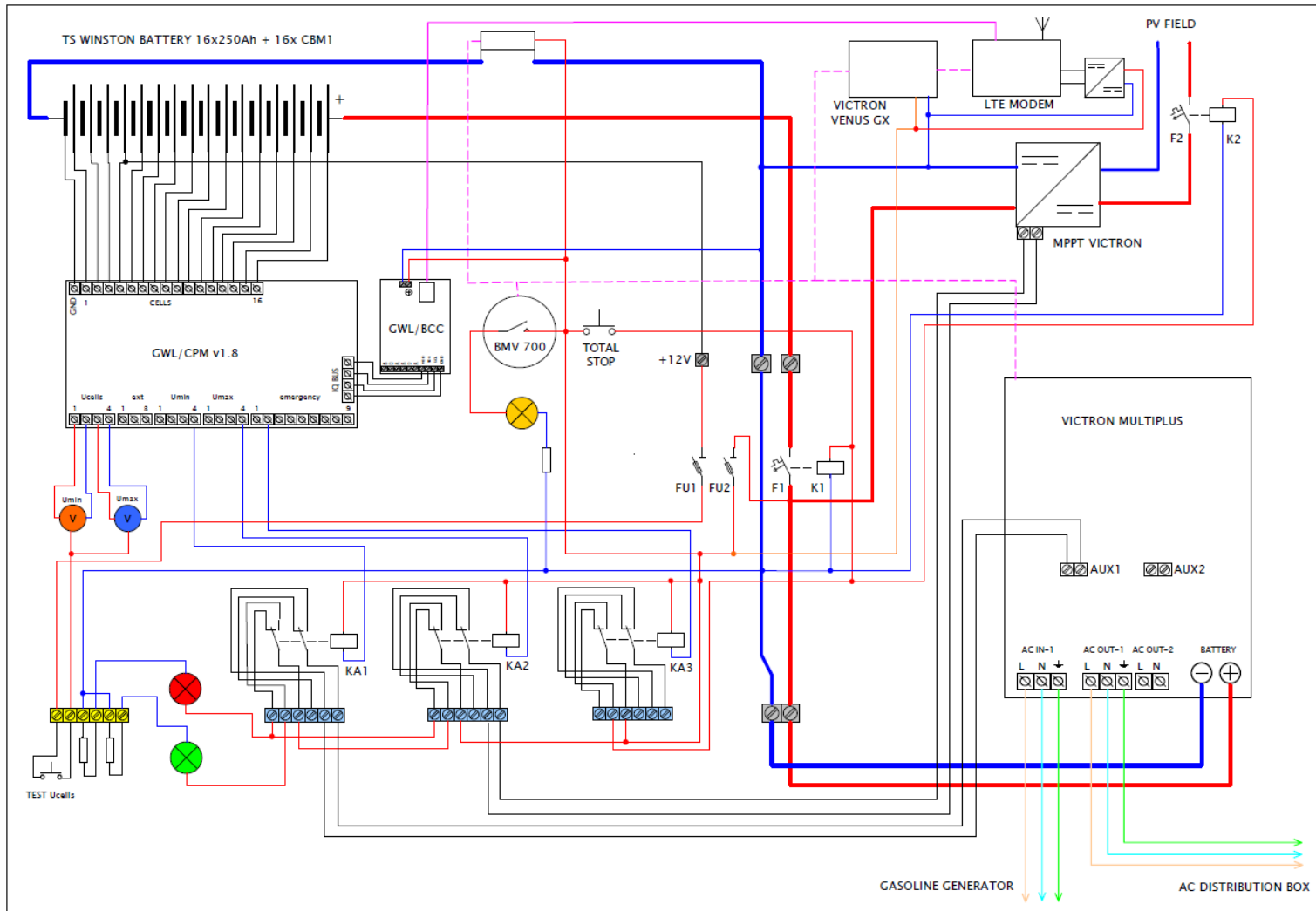
Important links:

[VRM live data](#)

[Check the battery status](#)



Diagram



[More informations about diagram](#)

Do you want help with a similar installation?

Contact us by email

Export@gwl.eu

or

+420 277 007 550



Calculation of Pastvina installation

Solar modules and accessories	pcs	Price / pc	Price
GWL/Sunny solar module 280Wp	9	€80,00	€720,00
Victron VE-MPPT-150/85S solar regulator	1	€500,00	€500,00
MC4 solar connectors	-		€100,00
the solar mounting system	-		€200,00
Total			€1 520,00

Batteries	pcs	Price / pc	Total price
Winston LFP300AHA	16	€315,00	€5 040,00
Terminal connectors LFP300CON	15	€5,00	€75,00
CBM1 balancing module	16	€4,00	€64,00
terminal covers COV-3-RED	16	€1,00	€16,00
terminal covers COV-3-BLK	16	€1,00	€16,00
Total			€5 211,00

Battery management system	pcs	Price / pc	Total price
GWL/Modular CPM Basic	1	€200,00	€200,00
GWL/Modular BCC	1	€52,00	€52,00
GWL/M-Cable-w4d12	1	€11,00	€11,00
GWL/M-Cable-w6d12	1	€15,00	€15,00
GWL/M-Cable-w8d12	1	€19,00	€19,00
Total			€297,00

Invertor and remote management	pcs	Price / pc	Total price
Victron MultiPlus 48V / 3000VA	1	€1 070,00	€1 070,00
DC/DC converter (48V -> 24V)	1	€20,00	€20,00
Victron Venux GX	1	€300,00	€300,00
Victron BMV 700	1	€130,00	€130,00
Victron CABLE VE.Direct (1x 0,9m, 1x 1,8m)	2	€15,00	€30,00
LTE/GSM modem Mikrotik SXT	1	€85,00	€85,00
MikroTik RB951Ui-2nD Wi-Fi access point	1	€37,00	€37,00
Total			€1 672,00

Instalation cost	pcs	Price / pc	Total price
other accessories		-	€400,00
labour cost		-	€800,00
authority certification		-	€100,00
Total			€1 300,00

Grand Total	€10 000,00
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