Energy and Connectivity:
Towards a Low Emission University Campus

Mennan Selimi

Associate Professor, Max van der Stoel Institute,

South East European University, North Macedonia

https://mvdsi.seeu.edu.mk/mselimi/

IETF 108, GAIA WG

28th of July 2020

UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY

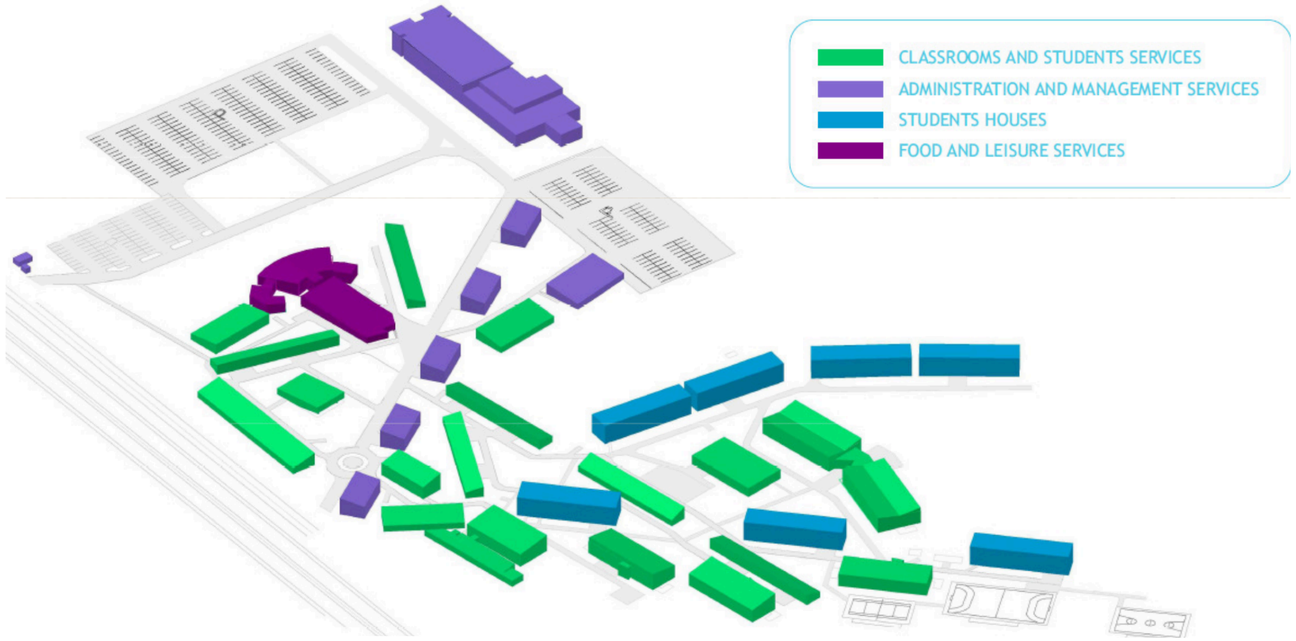
MVDSI
Max van der Stoel Institute

South East European University (SEEU)

- **Private, public**, not for profit higher education institution in North Macedonia sponsored by **OSCE**, **EU Commission** and **USAID**
- The Campus has started the path to sustainability a few years ago with the aim to manage carbon and energy more efficiently.
- **Low Emission University Campus** through the Implementation of a Climate Action Plan (CAP).

The Climate Action Plan (CAP)

- The project, launched on March 2010 aimed at introducing high energy efficiency measures and **renewable energy technologies** in the South East European University, with the purpose of realizing a low emission campus through the implementation of a CAP.



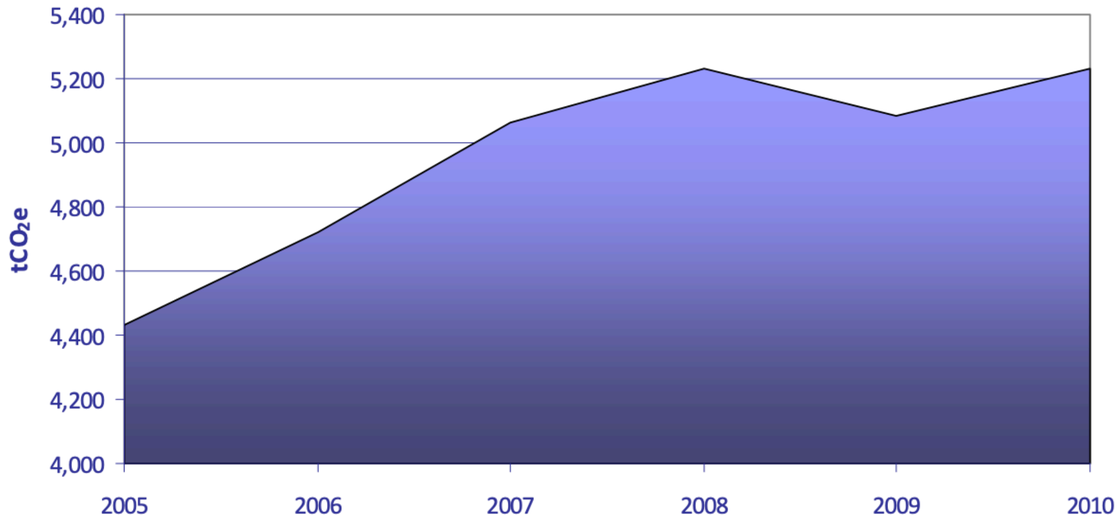


Figure 1: Total Campus Emissions

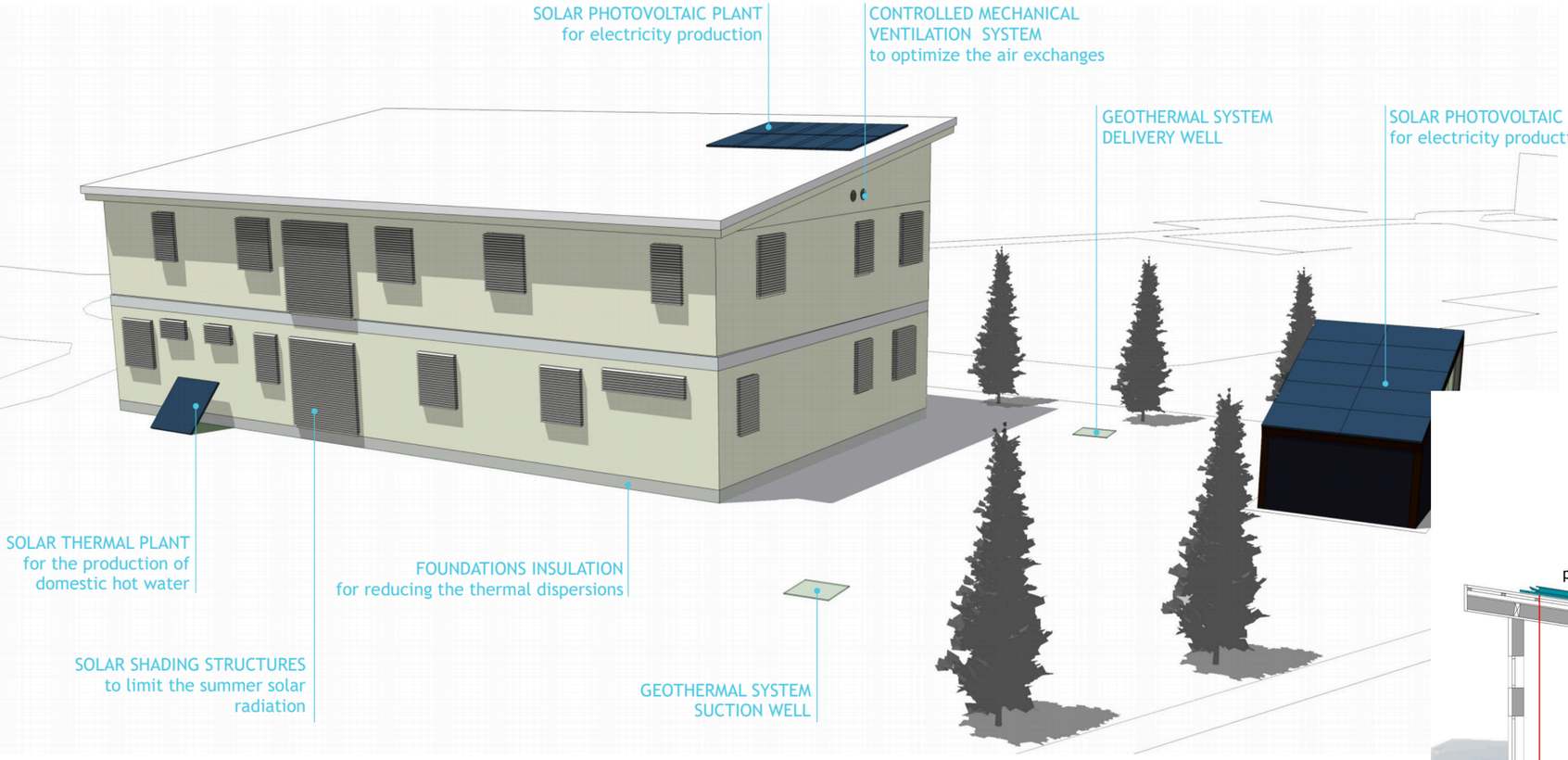
The Climate Action Plan (CAP)

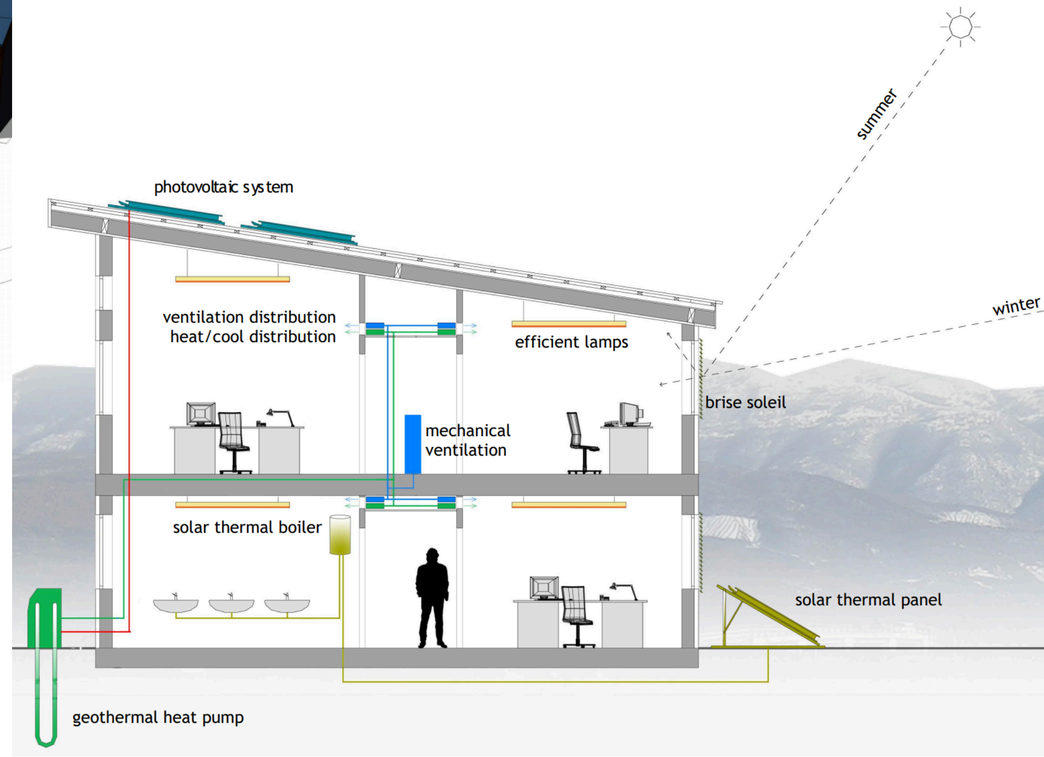
SEEU PV Plant 100kWp

SEEU Building PV Plant 22kWp

By 2020, SEEU is able to cover **28%** of the current electricity demand through the installation of PV Plants

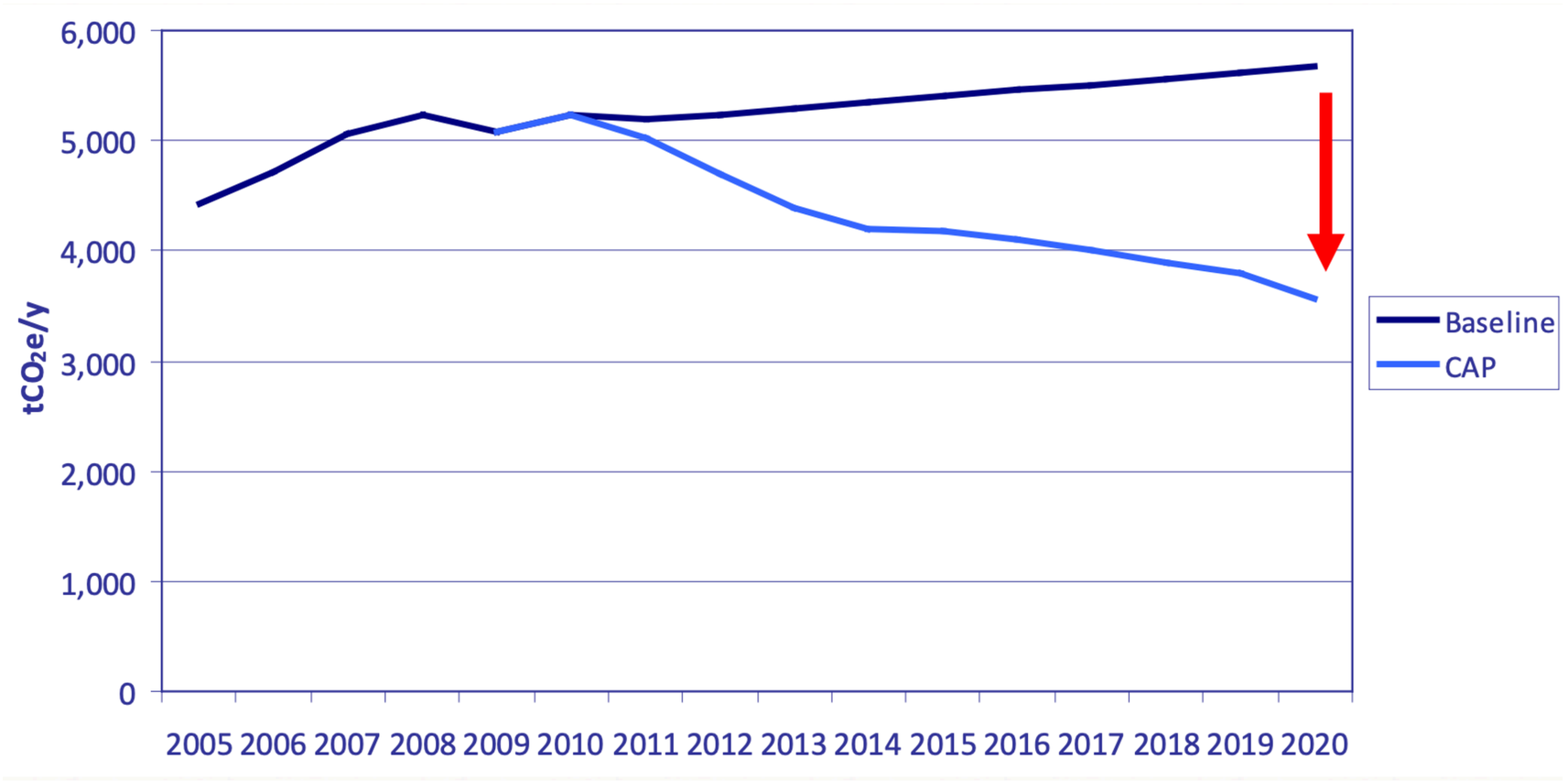
The Sustainable Energy Building





Overview of the Sustainable Energy Building and adjacent shelter showing the sustainable technologies applied

SEEU Emissions by 2020



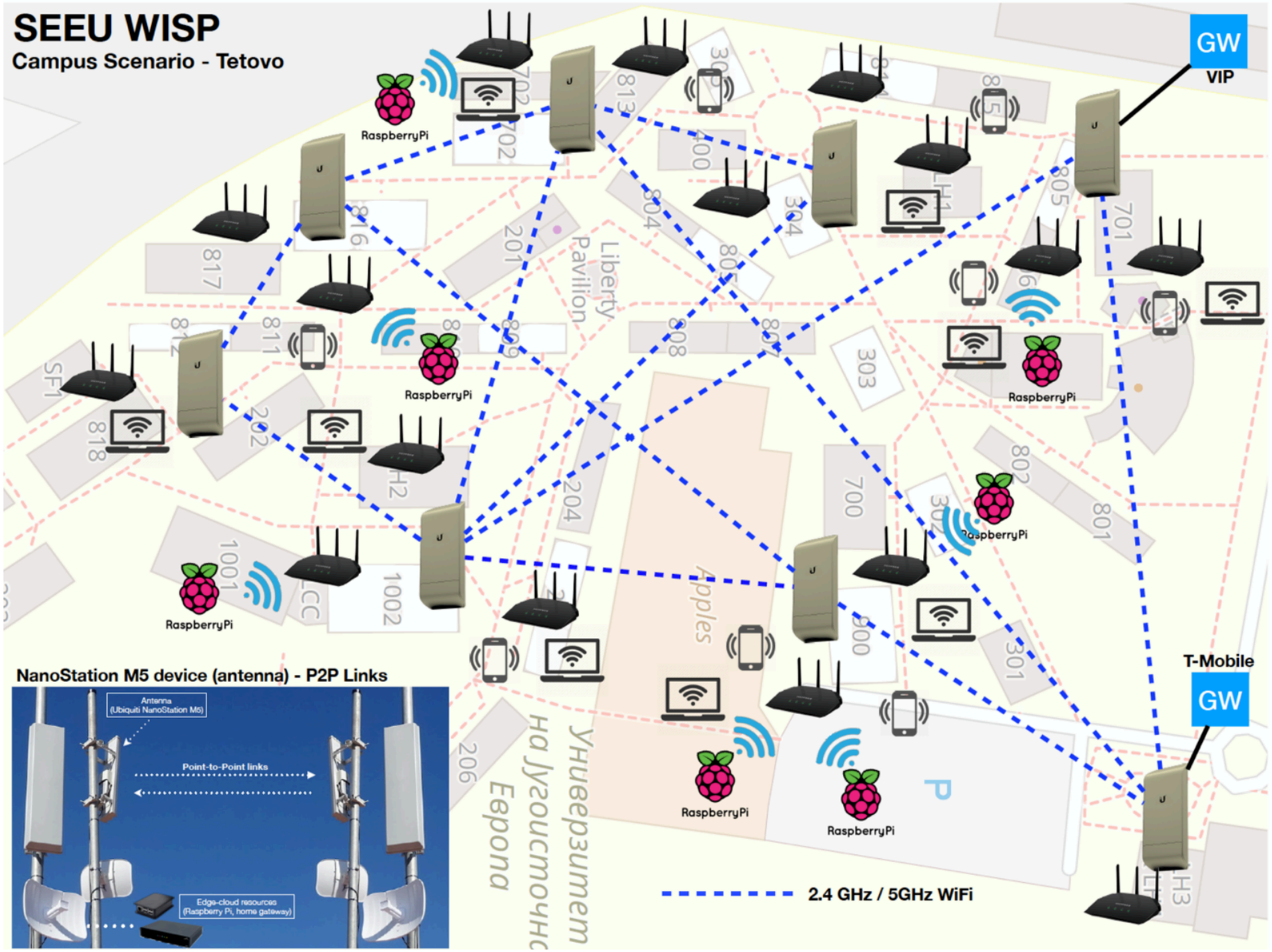
GHG emissions as of 2009: 5,085 tCO2e per year

GHG emissions forecast in 2020: 3,420 tCO2e per year

Emission Reduction: 35%

Sustainable Internet Connectivity

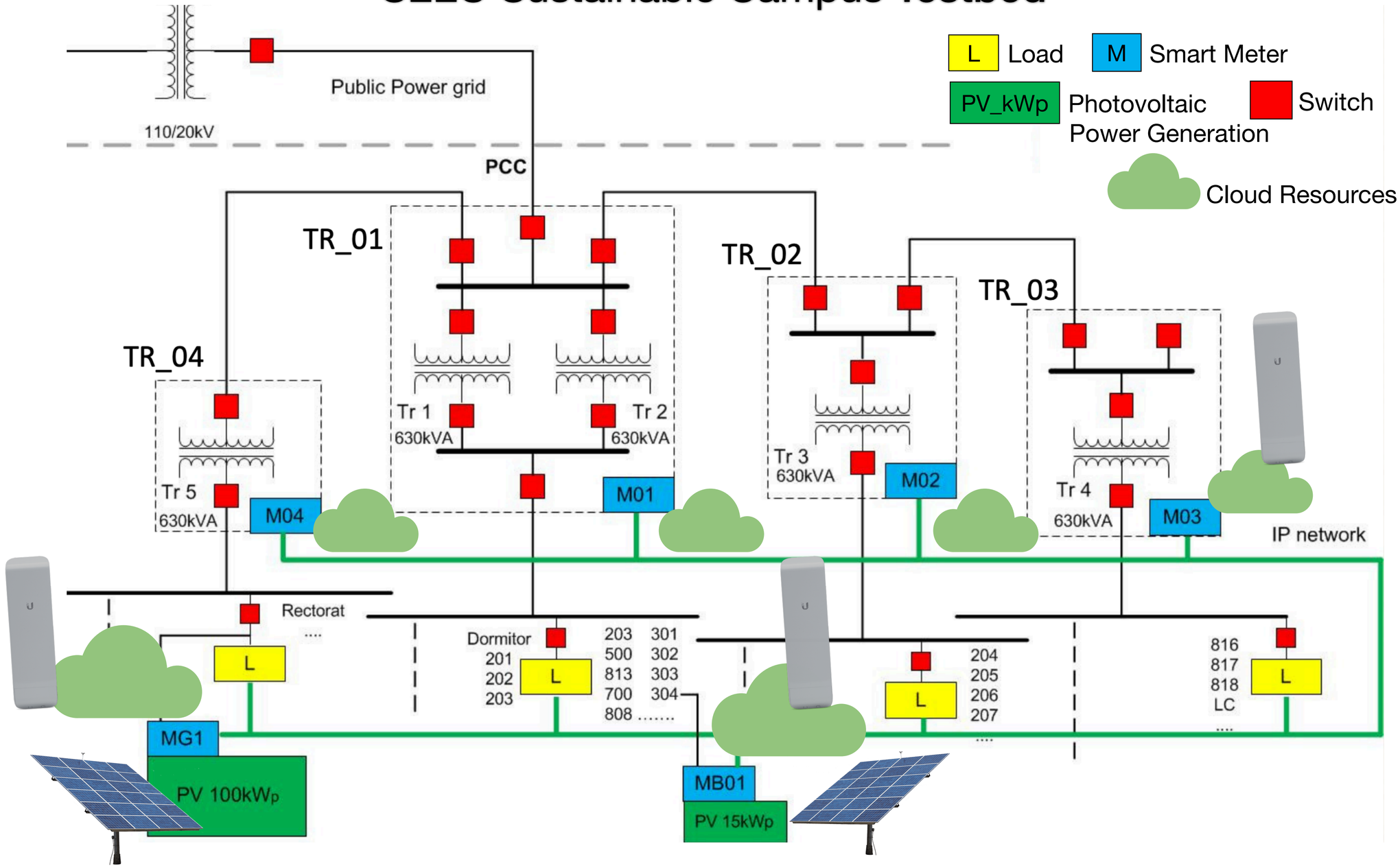
Green Energy SEEU WISP



Community Network within a campus:

- based on guifi.net
- qMp mesh network
- Ubiquiti M5 devices
- using Green Energy

SEEU Sustainable Campus **Testbed**



Thank you !

Mennan Selimi

m.selimi@seeu.edu.mk

https://mvdsi.seeu.edu.mk/mselimi/

UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY