

Riga energy efficiency

Timeline

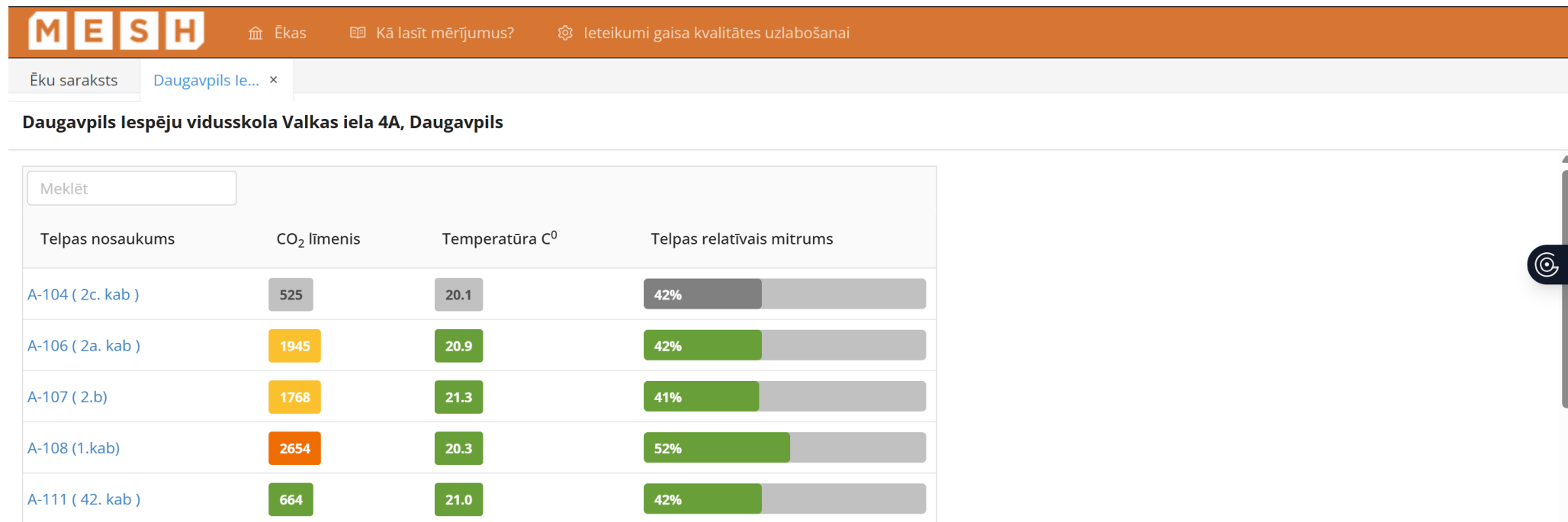
Challenge of engagement and financial logic

- First deployments of MESH smart control system 2015
<https://e.mesh.lv/>
- Large scale deployment of CO2 sensors in whole Latvia 2022
<https://co2.mesh.lv/>
- Large scale MESH smart control deployment in 2023
<https://e.mesh.lv/>
- We are in 2026 and still there are doubts about effectiveness though savings range from 10-30% on average

CO2 monitoring portal (country wide)

Publicly available portal (free) – co2.mesh.lv

Possibility to see CO2, Temperature, Relative humidity data in Latvian schools and social houses



HVAC system real time control system

In Riga there is a possibility to control HVAC systems at a scale (total ~300 buildings).

Two possibilities of control – room by room (where there are smart thermostats installed) or building wide (where there is only central unit)

There are automatic fault detecting systems and other extra things for system functionality

System is deployed and providing savings of 10-30%

Building: Room group: Device type: Refresh Filter List Close Add

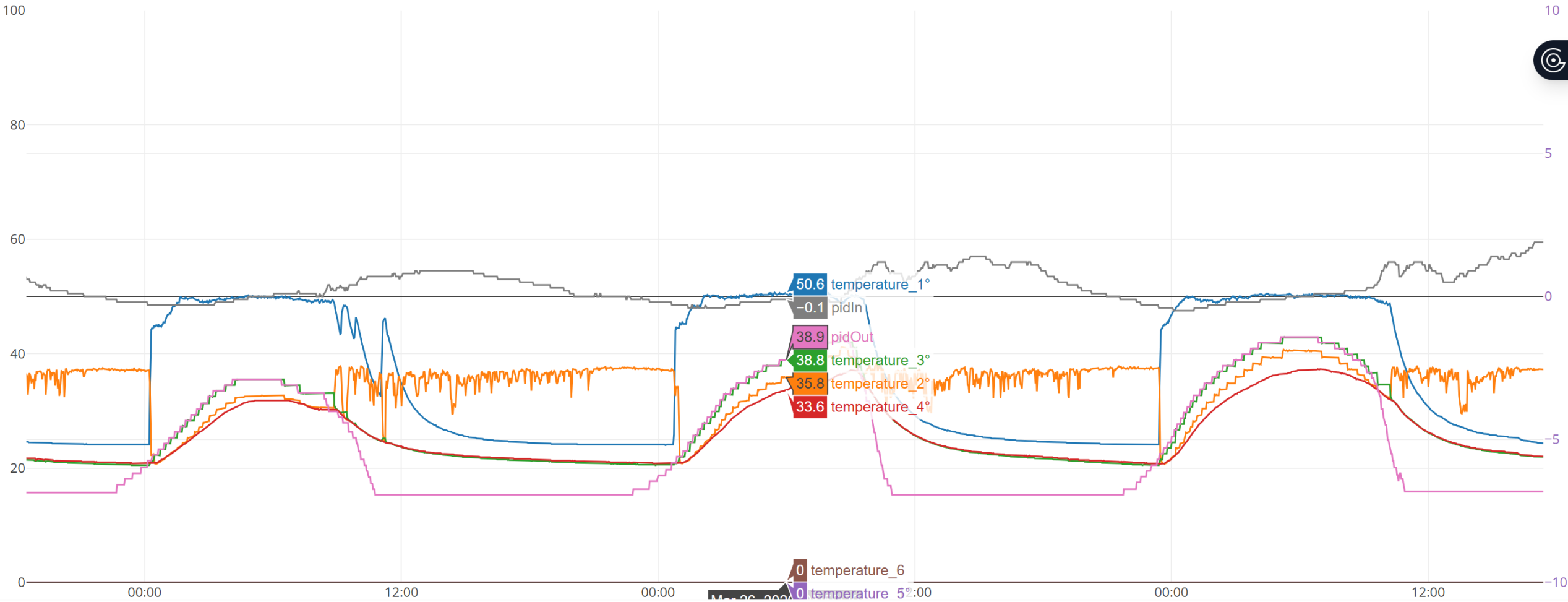
Auto refresh Last refreshed at: 10:52:56

Preset views

<input type="checkbox"/>	Building ▾	Device ▾	Address ▾	Status ▾	RSSI ▾	Room t ⁰ ▾	Last ▾	T_1 ▾	T_2 ▾	T_3 ▾	T_4 ▾	Min t ⁰ ▾	Max t ⁰ ▾	Avg t ⁰ ▾	Action
<input type="checkbox"/>	Rīgas Broces licejs, Sarkandaugavas iela 22, Rīga	ISM Controller	52	online			0m	36.7	35.5	28.5	28.6	17.9	23.1	21.2	
<input type="checkbox"/>	Rīgas Sarkandaugavas pamatskol, Sliežu iela 23	ISM Controller	96	online			1m	47.4	34.7	32.7	32.9	22.5	24.7	23.7	
<input type="checkbox"/>	Rīgas Pārdaugavas pamatskola, Kartupeļu iela 2, Rīga	ISM Controller	52	online			2m	53.5	28.5	25.0	23.4	19.7	23	21.3	
<input type="checkbox"/>	Rīgas 95. vidusskola, Bruknas iela 5, Rīga	ISM Controller	136	online			2m	59.2	42.0	45.1	39.7	18.5	23.9	21.5	

Rīgas Broces licejs, Sarkandaugavas iela 22, Rīga
1204-GW1 - 2.st. 19.kab | Address: 52 | B43A31FFFE79FD
Siltummezgls | ISM Controller

1h 6h 24h 36h 48h all



Next

- Integrating all of this in one system – **all buildings, all data, full control**
- We have hourly electricity data and heating data, so we will cross link it together to provide not only real time control but also feedback loop for efficiency
- Not energy management, energy control
- Further projects - Financial incentive planning for savings through blockchain for proof of savings

Contact me

I can show/tell more, just let me know about your interests and we can meet!

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