

Balancing

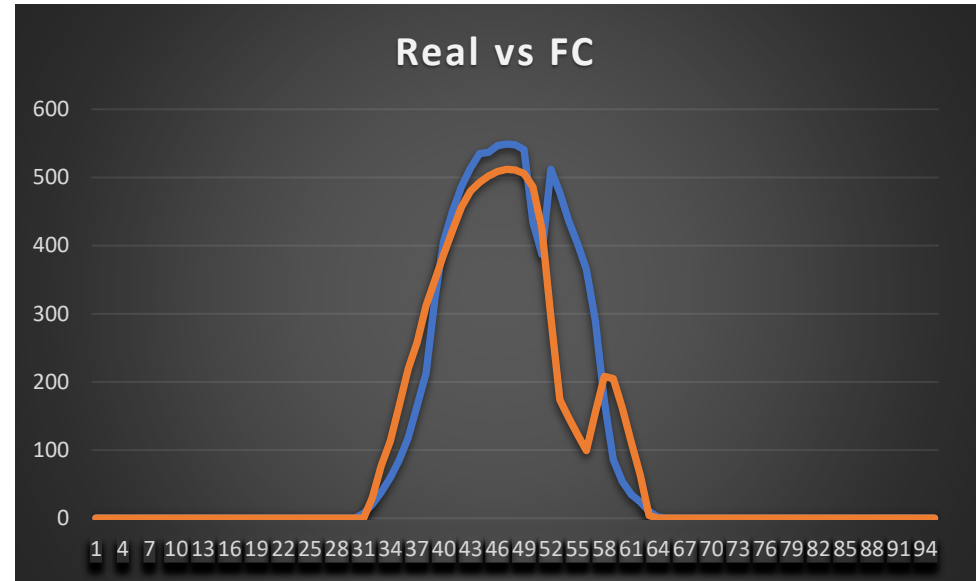
*Regulation and balancing,
renewable balancing, balancing
market behavior*

Balancing

Where is it stemming from?

Difference between

- Forecast and reality
- Trade and nomination

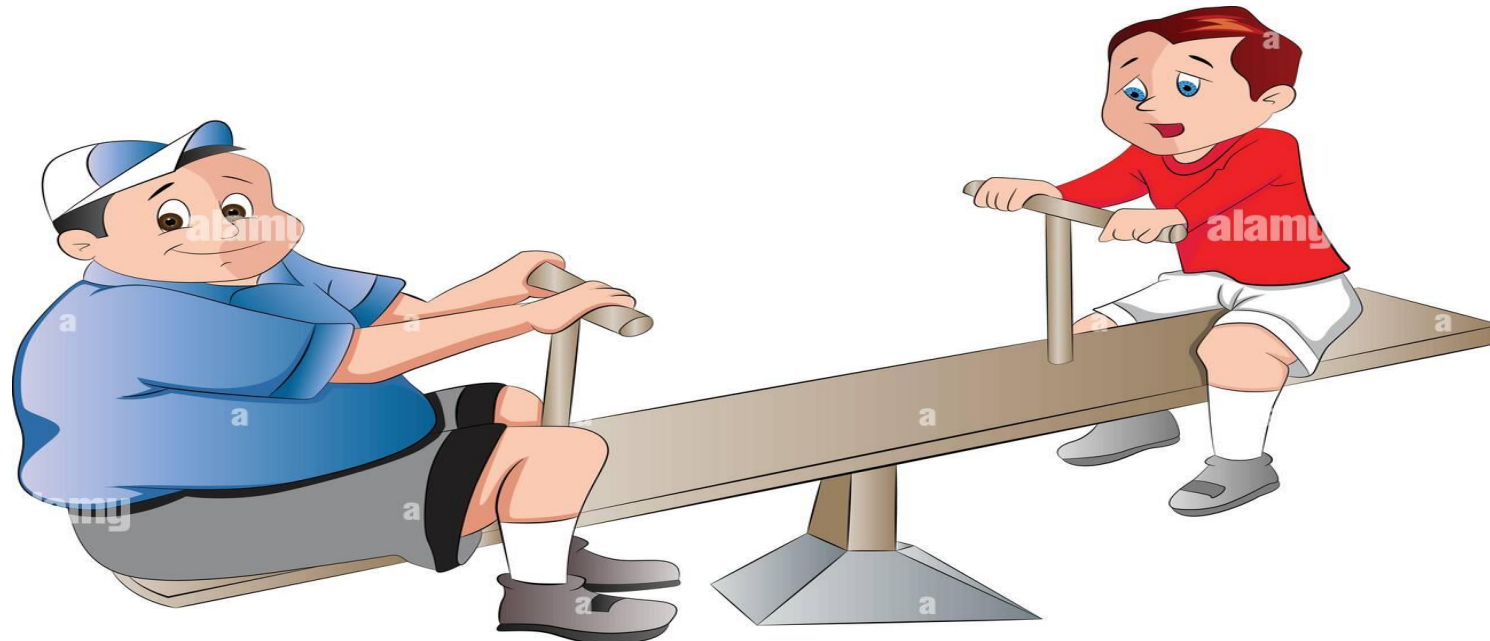


Balancing Market

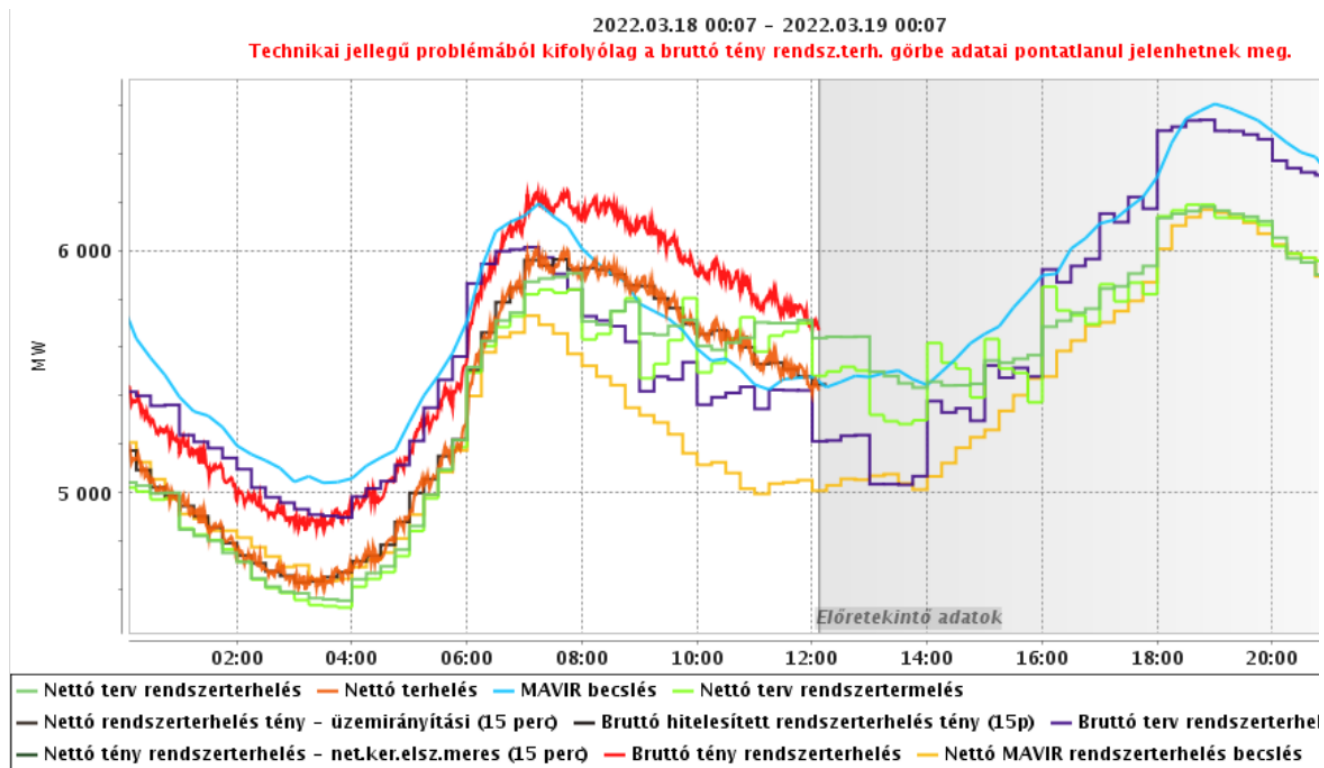
TSO as responsible operator

Balancing providers

BRPs



Planning



Why the planning is inaccurate?

- Life and reality (consumption)
- Renewables (weather forecast)
- Systemic errors

Where are the problems?

Forecasting free market consumers are easy. Why?

- Daily meter reading (even intraday)
- Active customer management
- Motivating bilateral consumption contracts

As one of the biggest customer portfolio reached lower than MAPE 2,3% yearly average.

Hungarian total yearly power consumption is roughly 45 TWh.

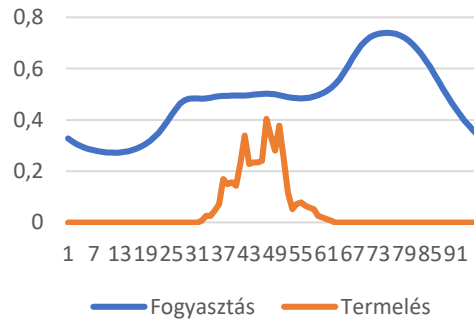
Regulated market is close to 20 TWh, which is close to 45 percent.

Systemic errors

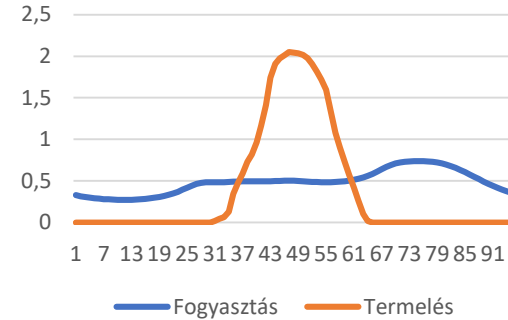


Energy Policy
Energy Strategy

STL and PV

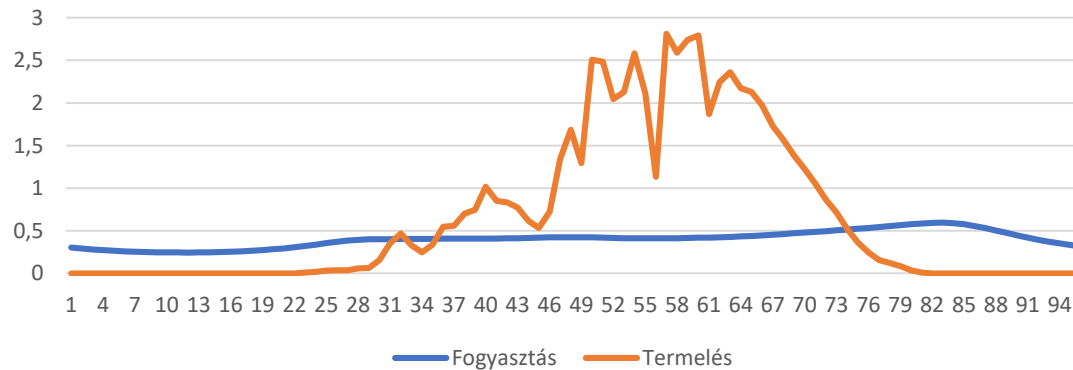


01.04.2020



01.07.2020

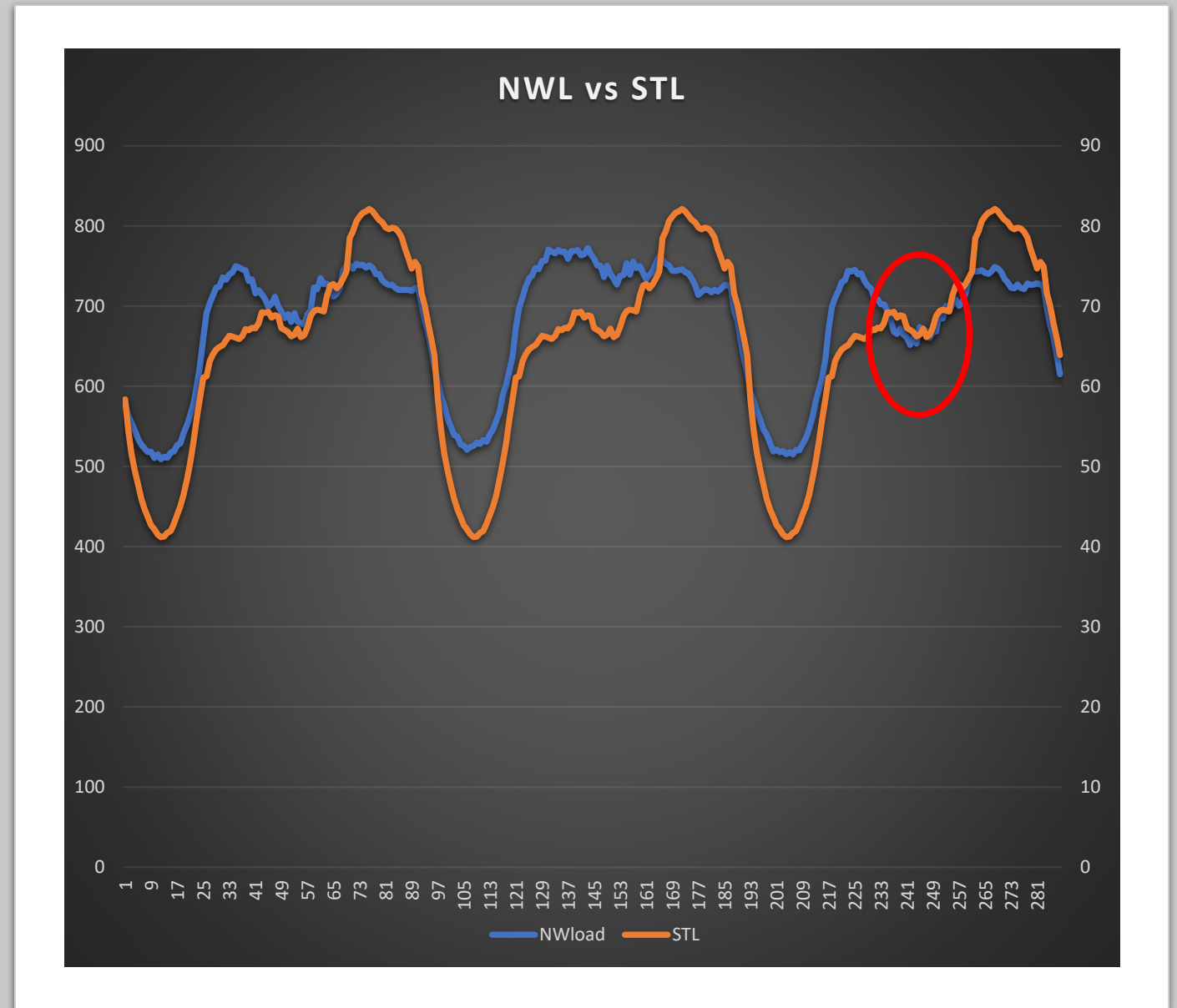
05.07.2020



- Consumer curve depends on weather
- Annual consumption net settled up to zero
- STL reduced to yearly zero (profile does not reflect PV modification)
- Size of PV unknown (inverter capacity)

Standard Load profile

- Yearly reviewed
- Standardized for the whole country (Budapest and the rest)
- Yearly meter read
- Net settlement with roof top PVs does not modify



Network Loss Forecast

D-2 data

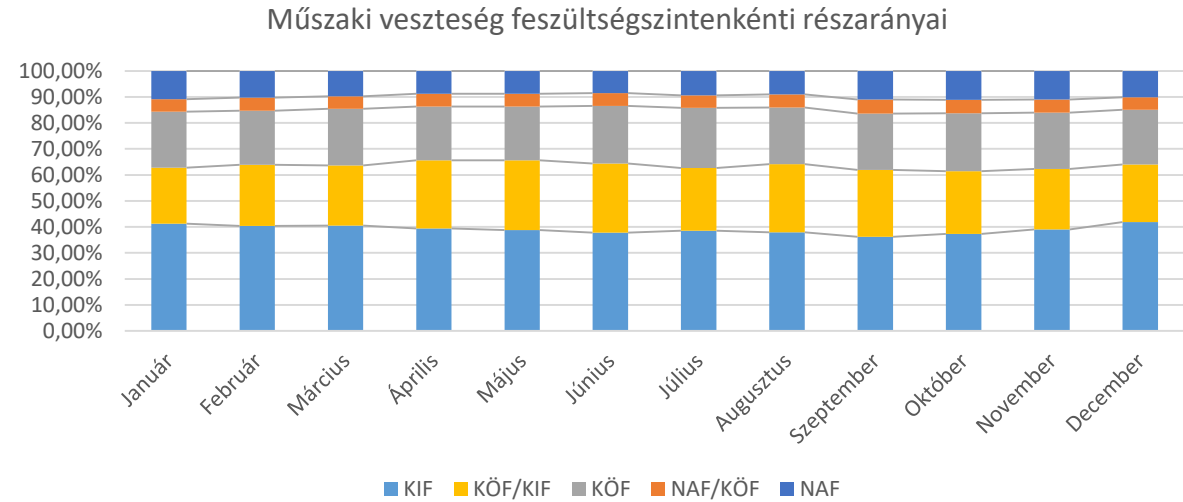
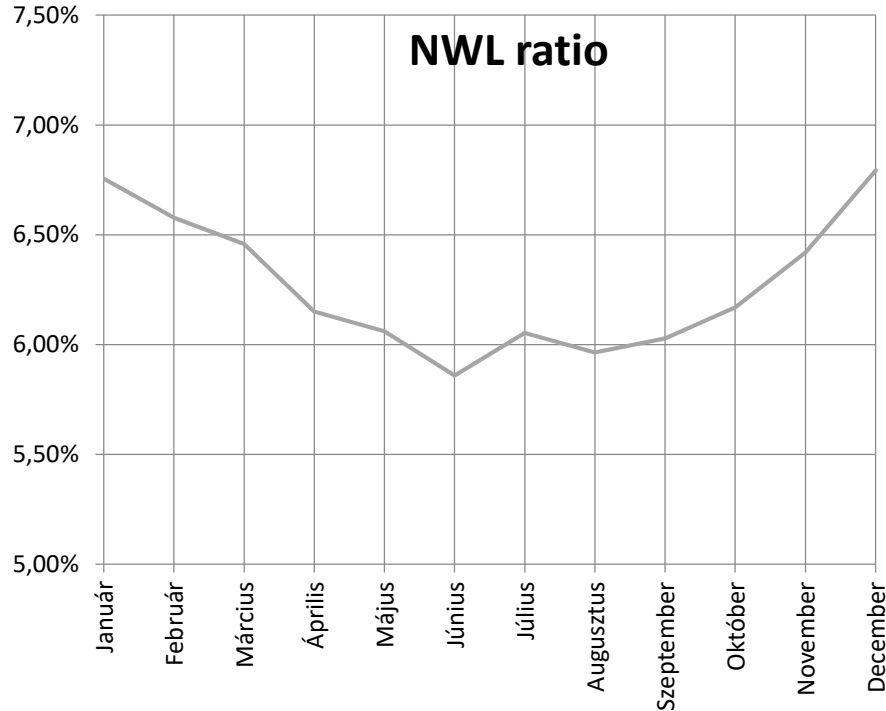
Trading on the same market

Responsibilities

Cost

L-P	Production/Inflow			Load		
NWL	TSO	DSO	Powerplants	Meter Read customers	Standard Load Profile customers	Own consumption
??????	400 kV infows	Inflows	Maintenance	Forecast	Correct	:)
			Marginal Cost	Maintenance	Yearly consumption	
			Strategy (market)	Communication	Household powerplant	
			Forecast (renewable)	Consumption dependency	Net settlement	
			Breakdowns			

NWL Own consumption



Parts

- Physical loss
- Deviaton from standard load profile

Physical loss

Temperature and load dependency

Load Forecast

Measured Load

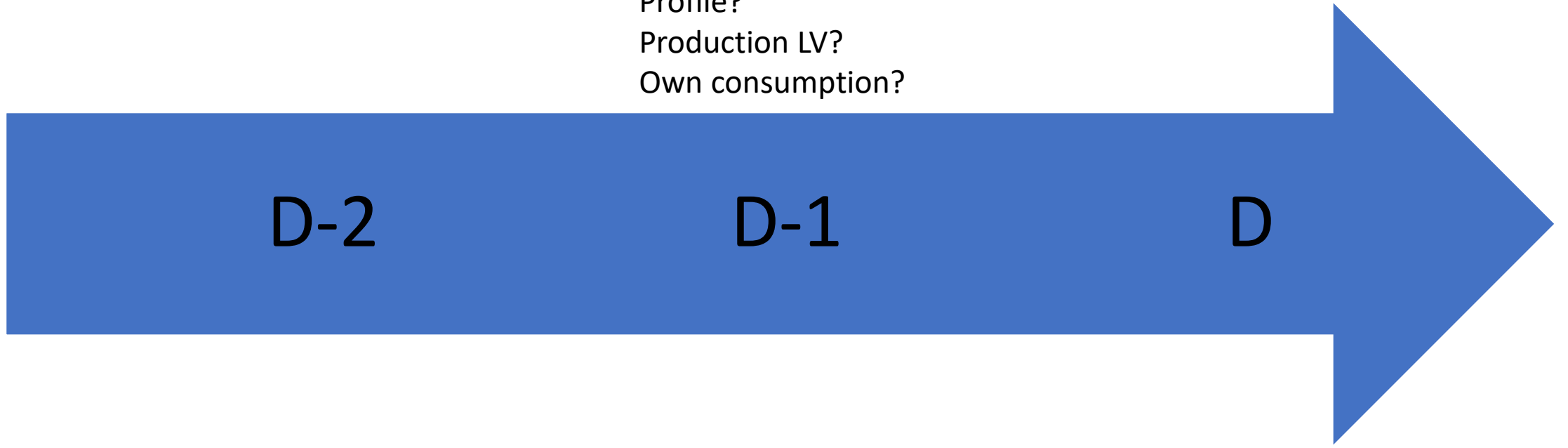
Load?
What are the
production? In/out
Production on MV?

Free market
customer?
Profile?
Production LV?
Own consumption?

D-2

D-1

D



What is the problem?



Badly subsidised
energy, policy

Inappropriate regulation

Thank you!

Ferenc Matisz

ferenc.matisz@outlook.hu