2021 liepos 21 d. Vilnius



Part 2

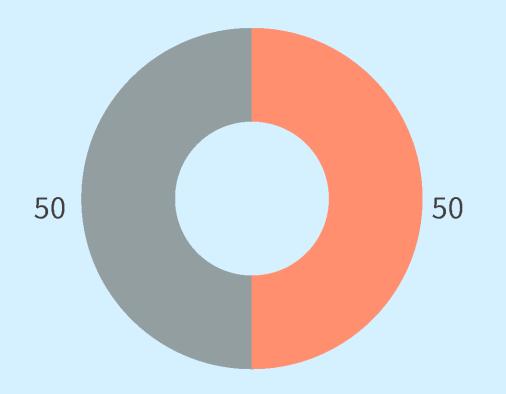




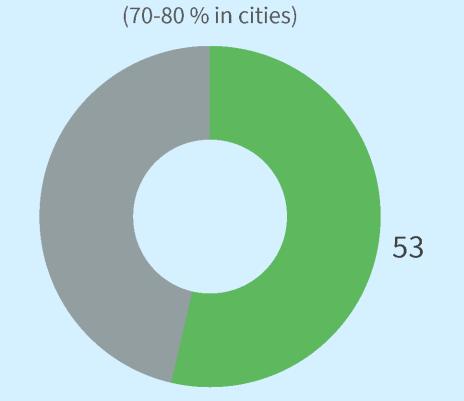
Lithuania heat sector





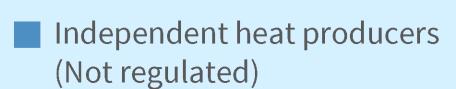


Buildings connected to grid

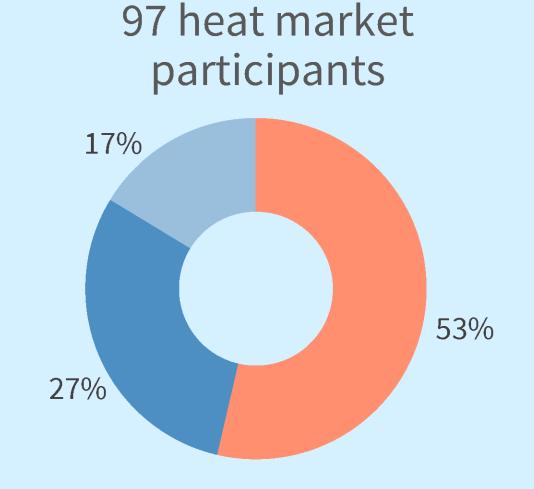


Maximum system demand

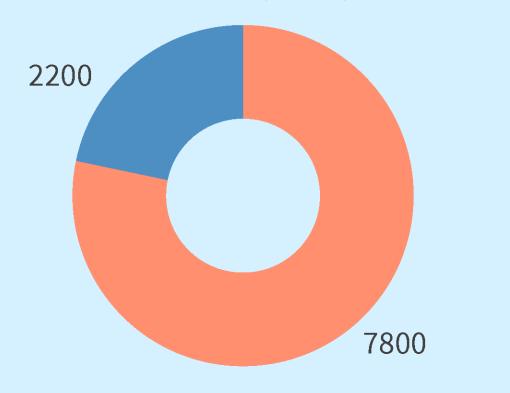


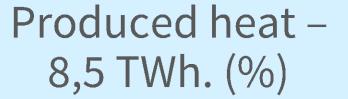


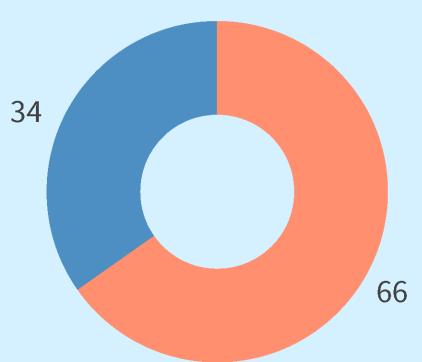
- Independent heat producers (Regulated)
- Licensed heat producers



Instaled power capacity 10 000(MW)







Reasons for heating sector transformation (2008)

- Biomass cheaper, but heat producers didn't invest to new generation.
- Municipal company's don't have resources for investment.
- State provide financial support for transformation to biomass, but market stagnated.



Independent heat producer's regime

Regulated independent if:

- State support for construction or modernization,
- Feed-in tariff for electricity,
- Dominant position in city heat market (more than 1/3).

Not regulated independent



Timeline for all transformation

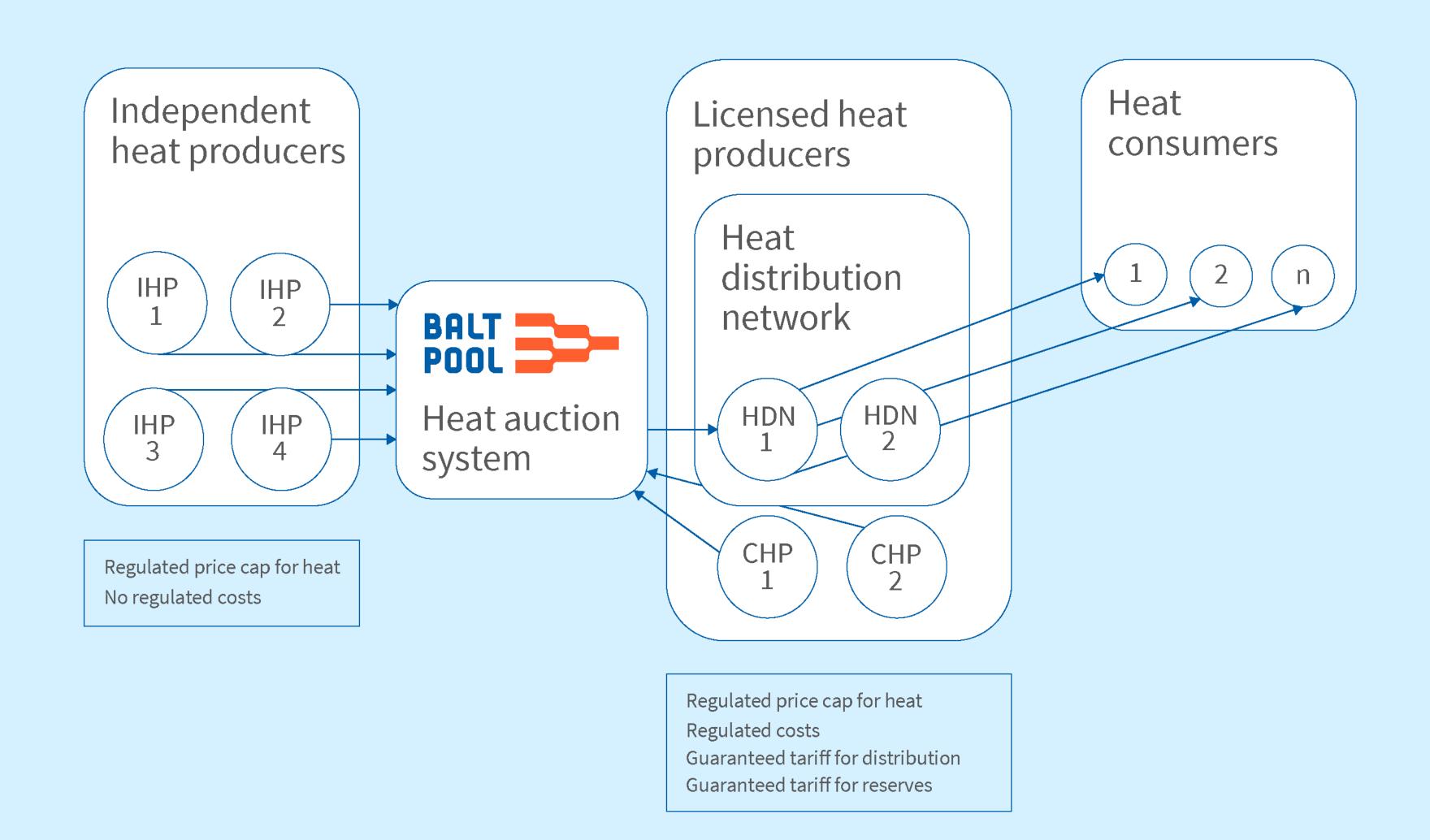




- Established by law, that heat production is based on competition from heat producers
- There are no principles of cooperation, so the law does not work.

- Principles of cooperation are being developed.
- Connection procedures
 to heat grid and dispute
 mechanism are
 not regulated.
- Connection procedures
 to heat grid and dispute
 mechanism was
 established by law.
- Heat is purchased by auction procedure.

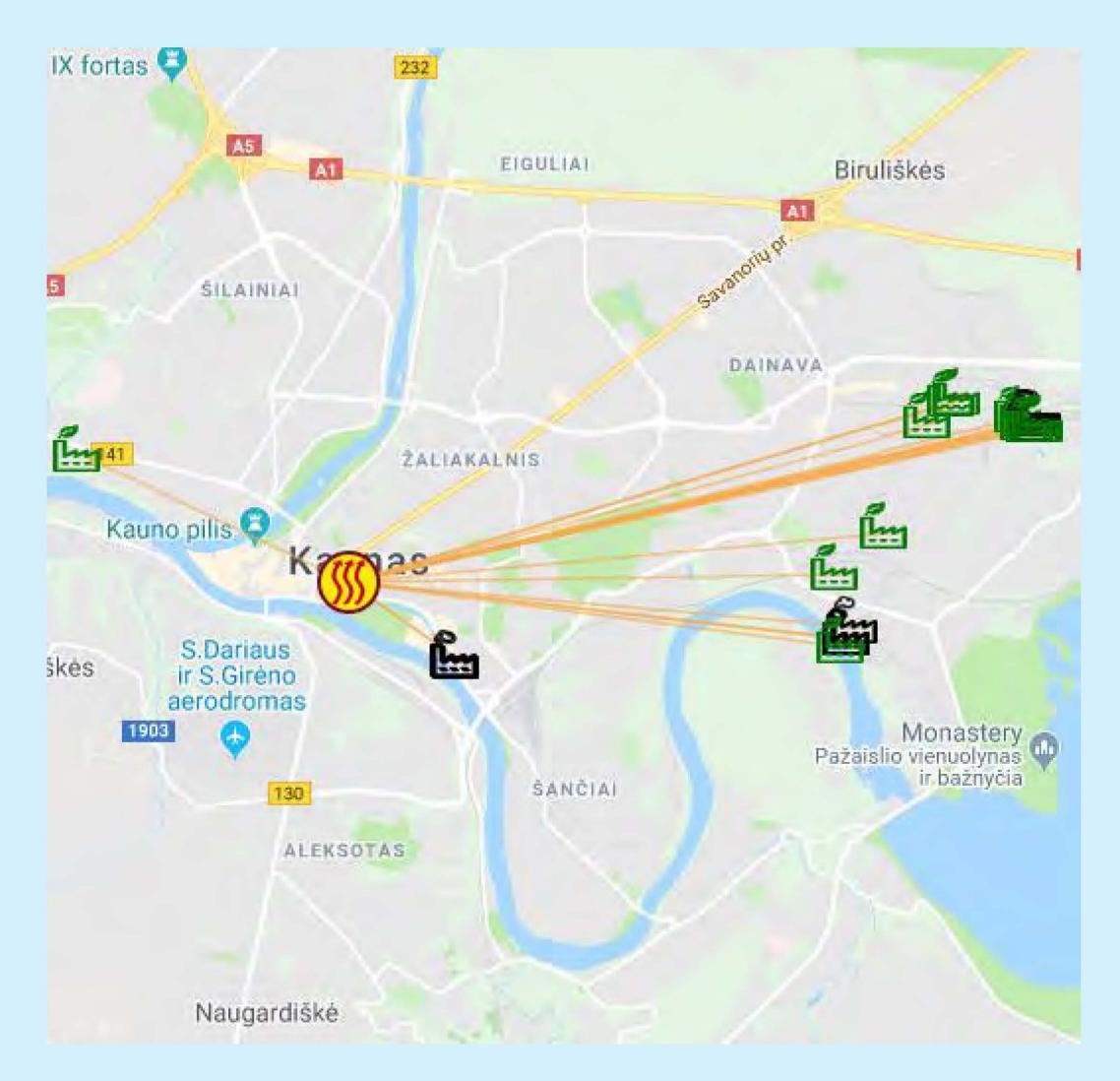
Heating sector principal scheme



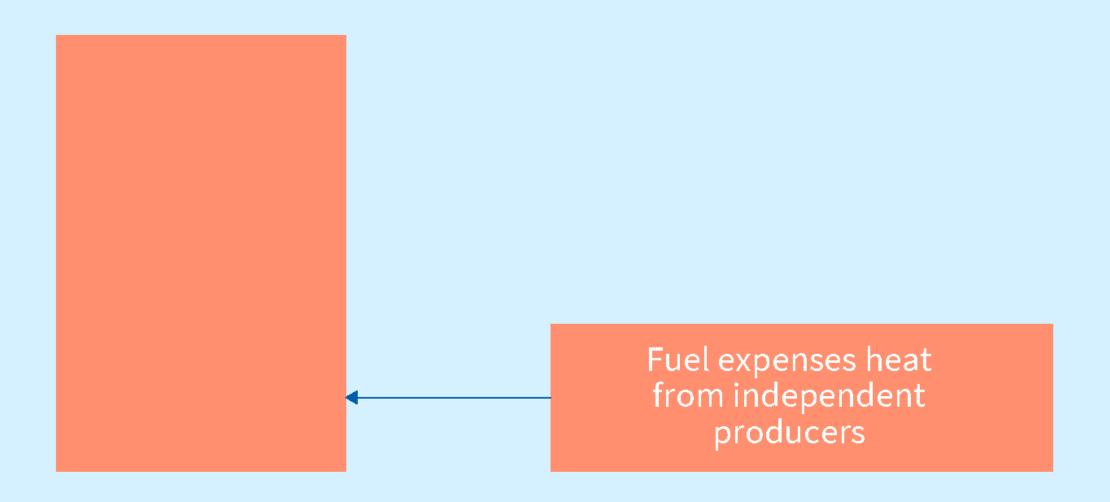
Quick overview of auction

- Declaration of demand and price cap.
- Declaration of reserve equipment in grid.
- Sellers place orders in black box auction. Sellers can offer at least one day supply regime.
- Price determiner seller price.
- Transparent distribution module for heat production on a daily basis.

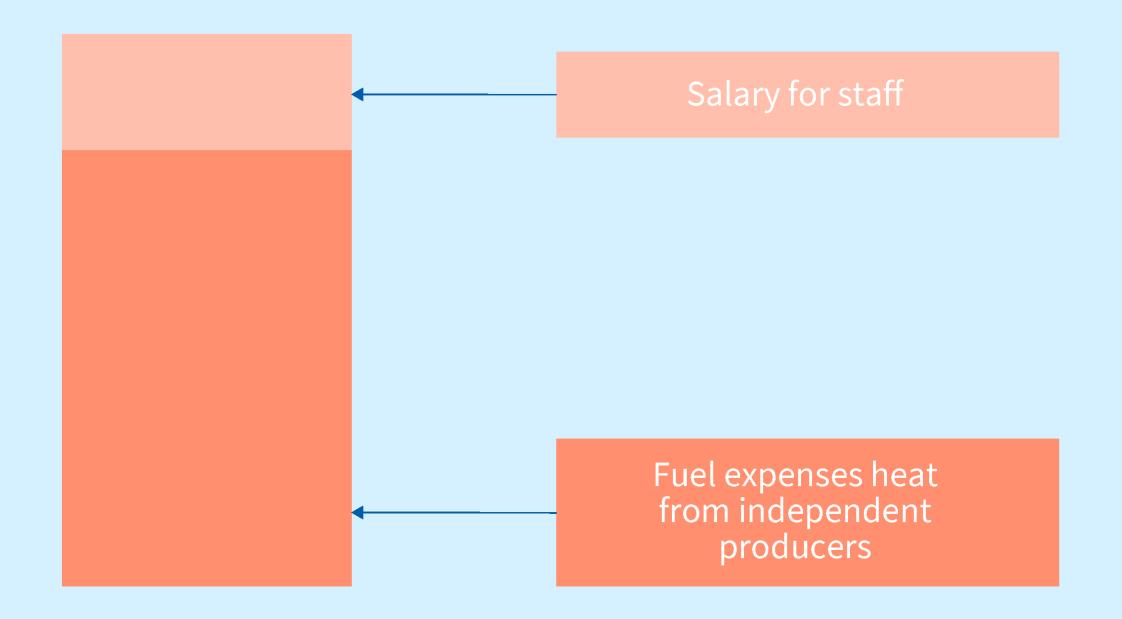




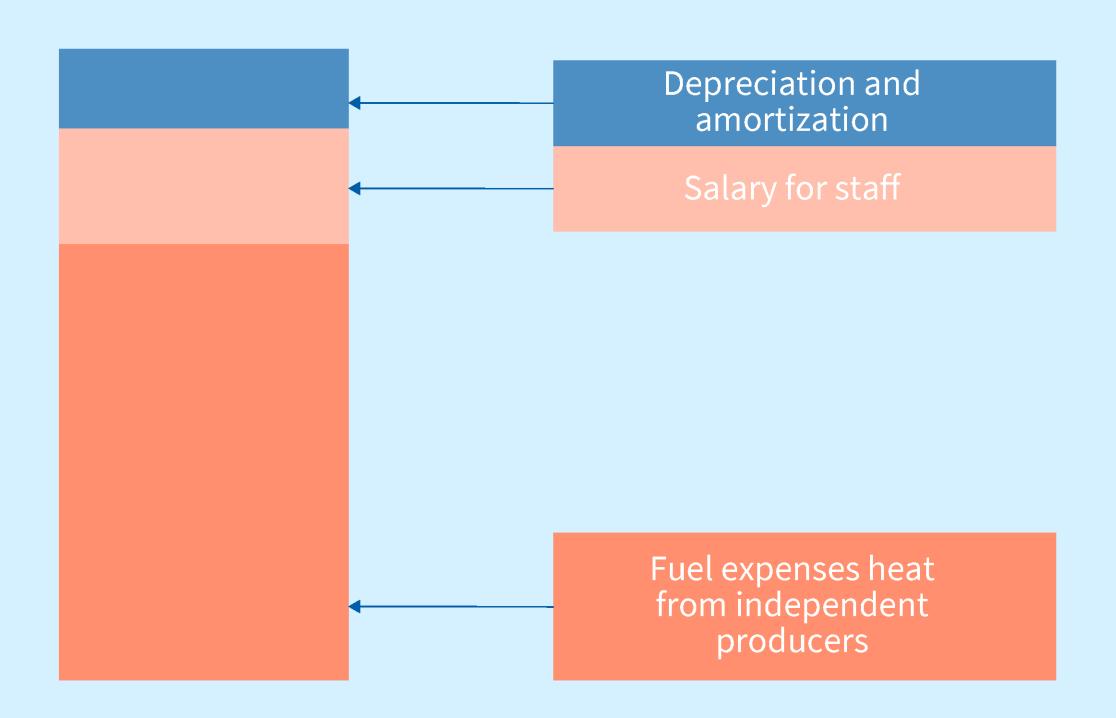




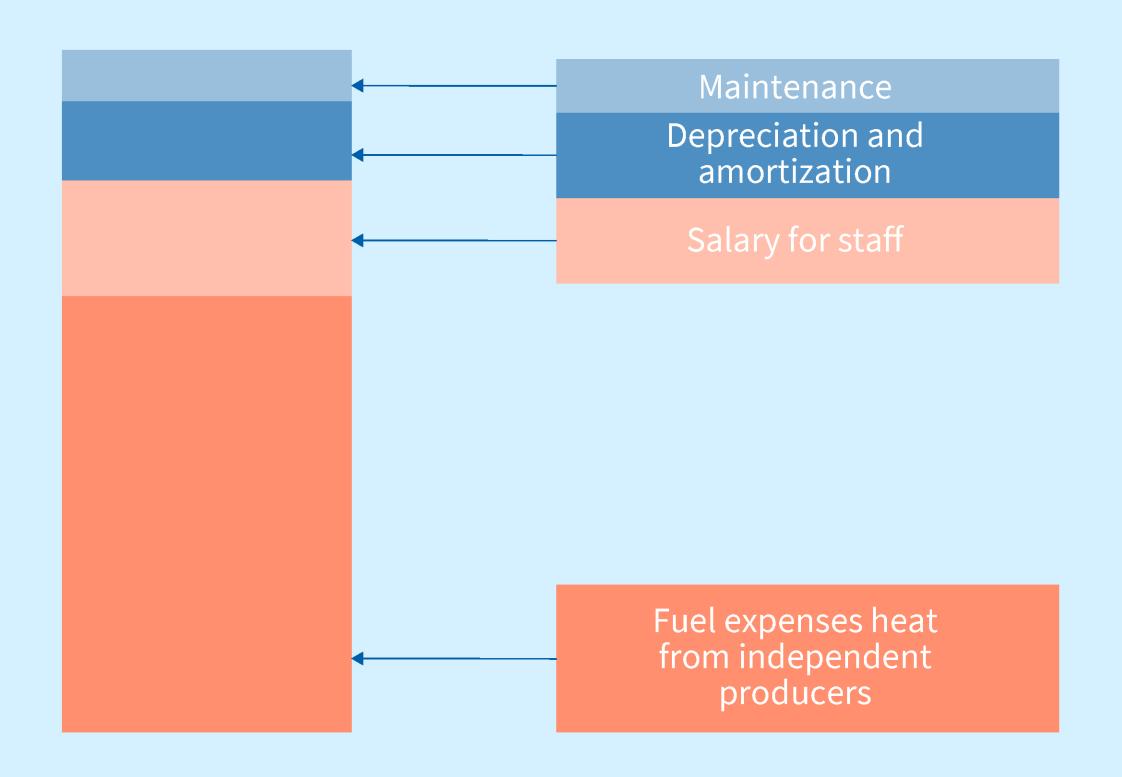




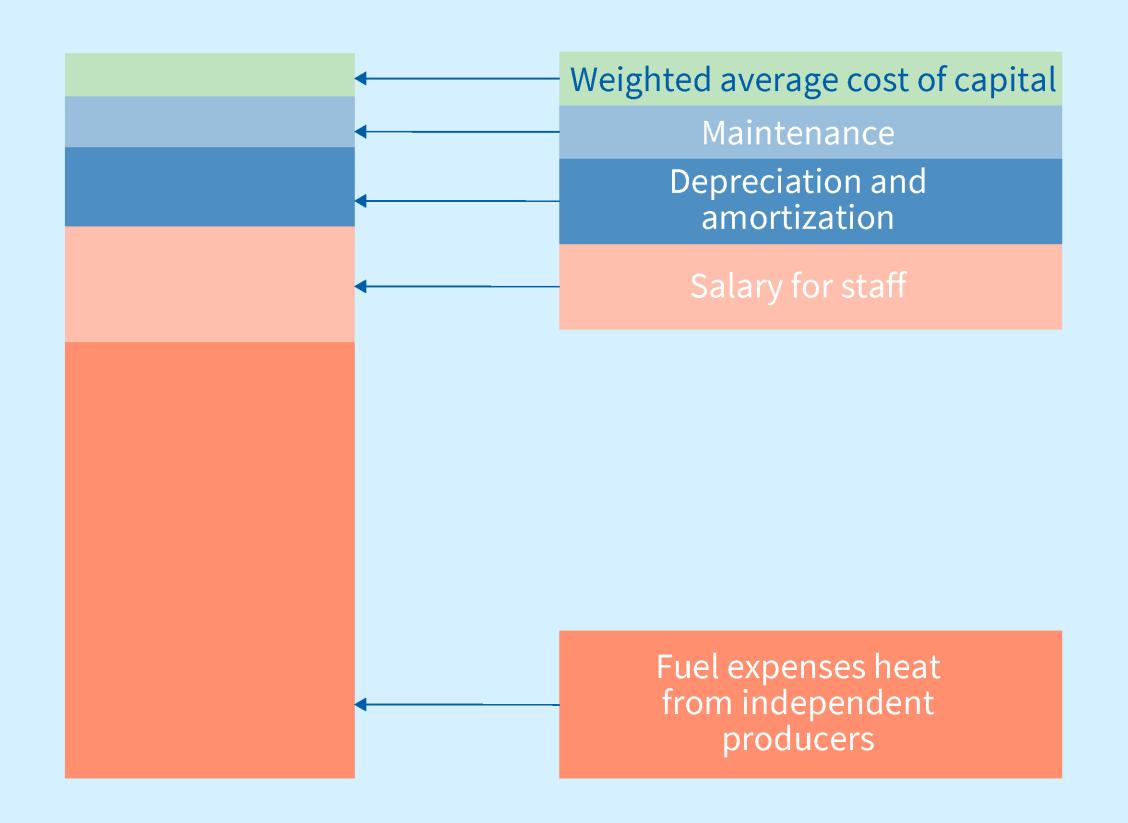


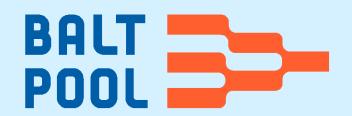


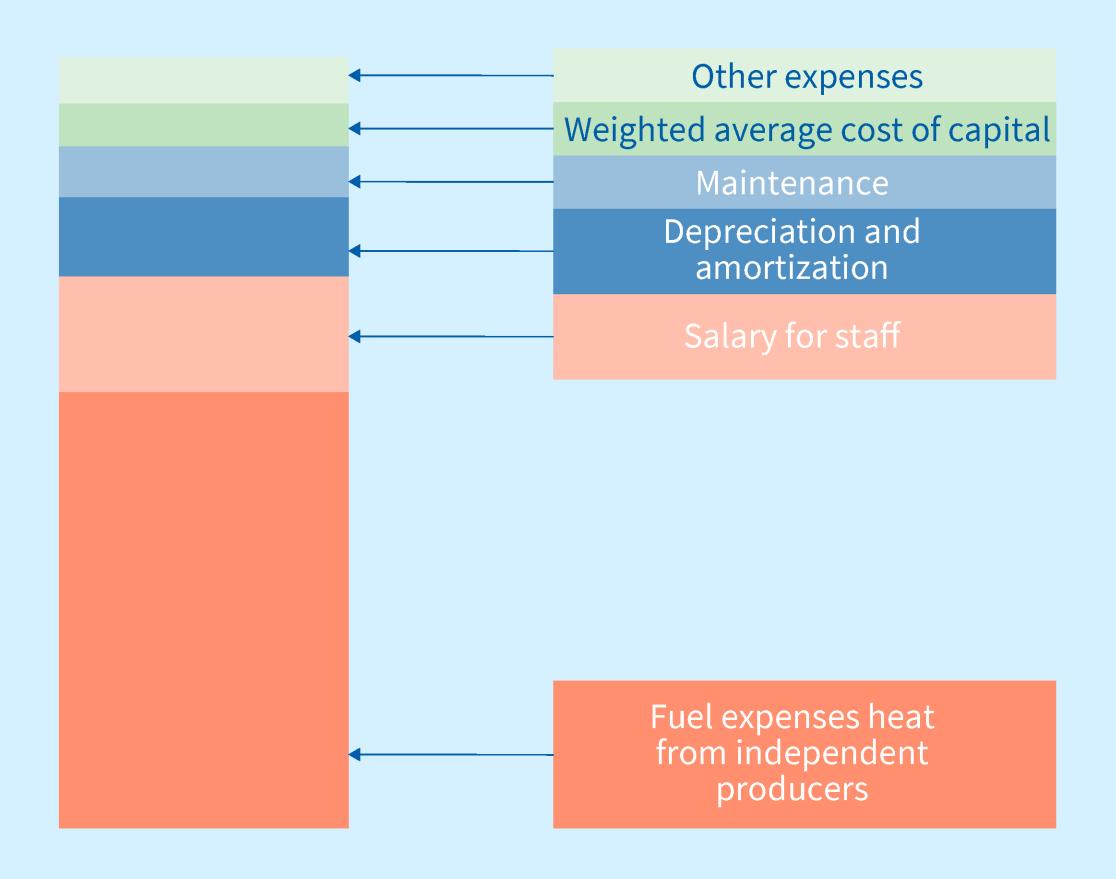




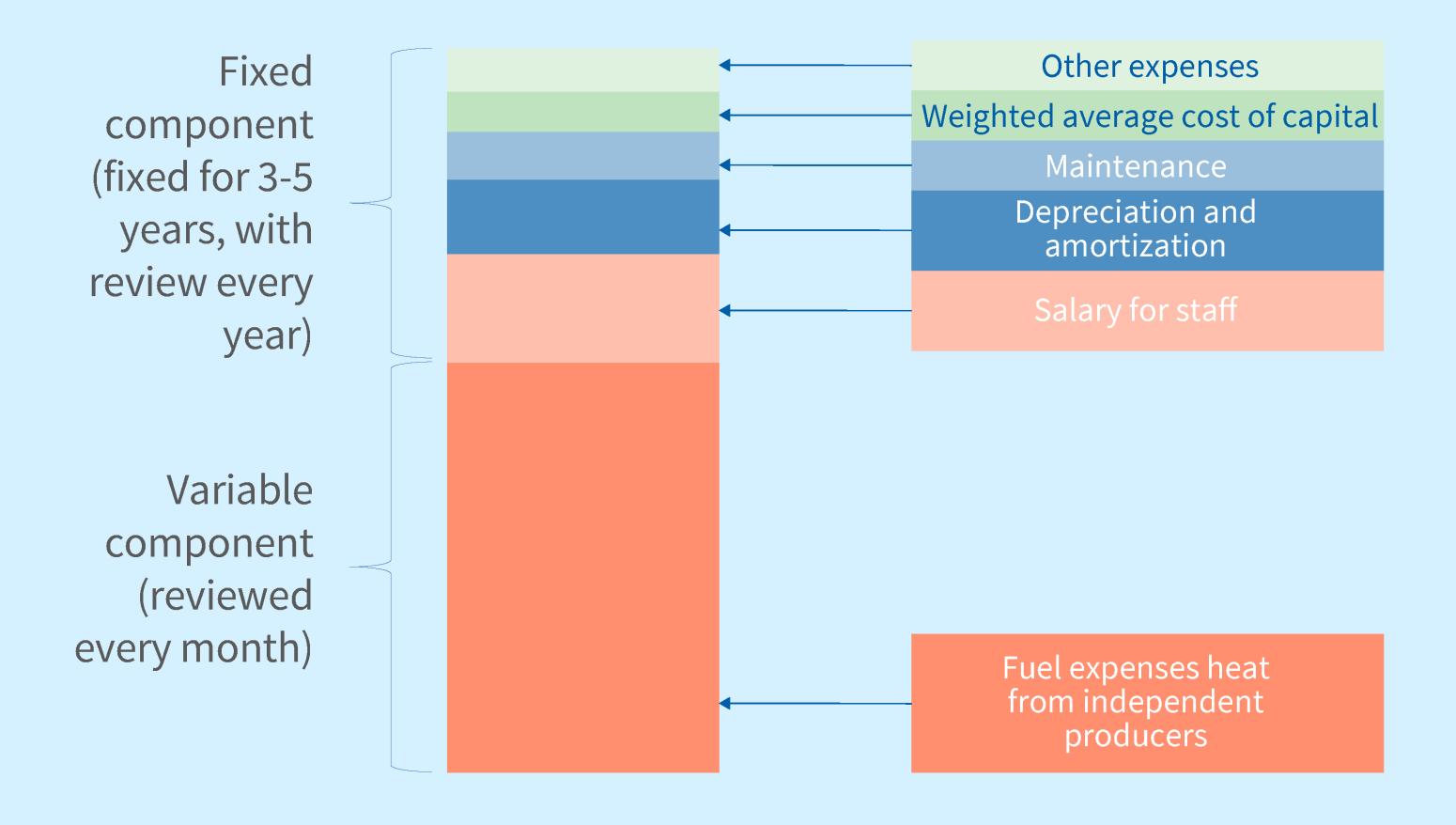




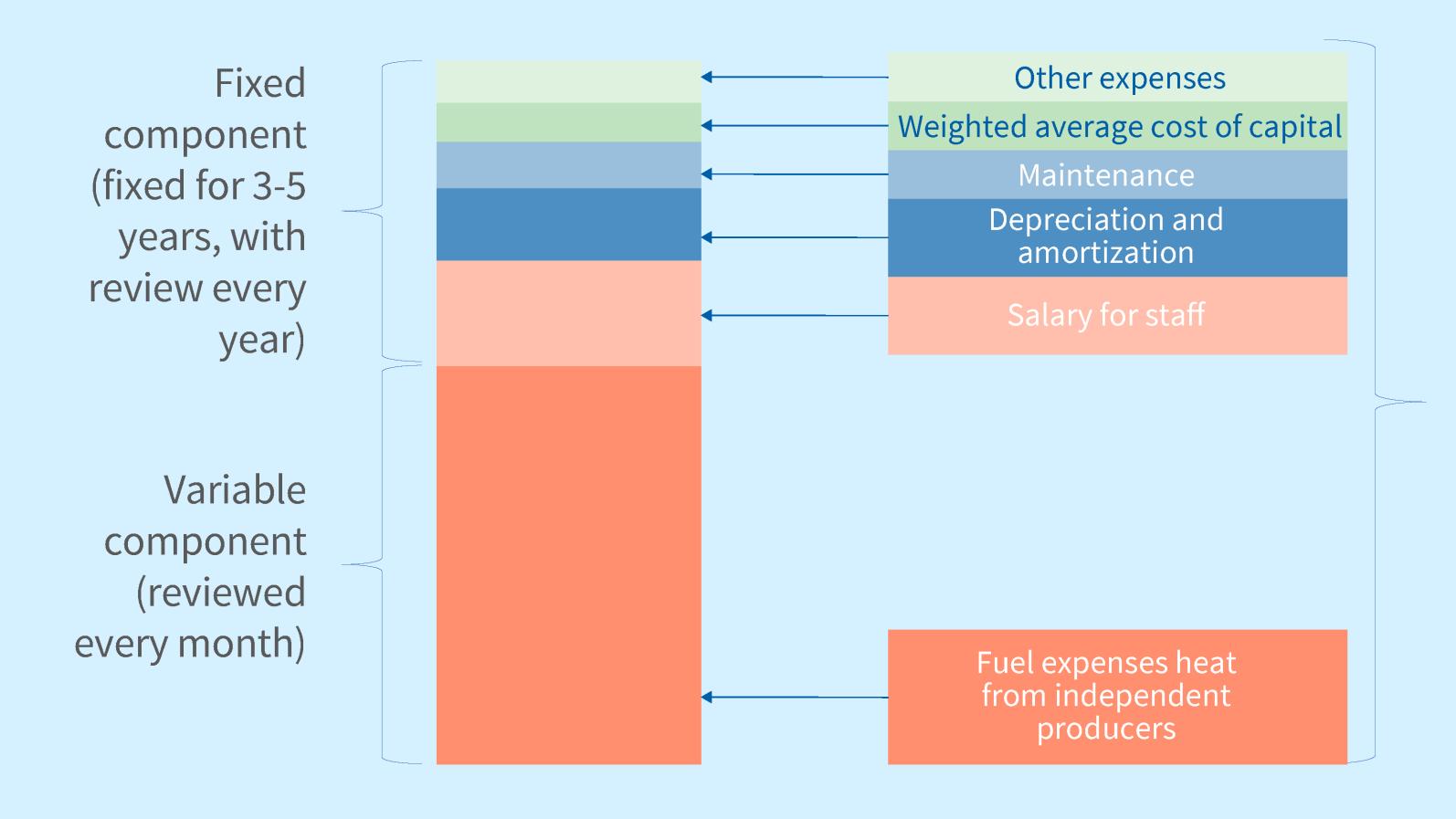










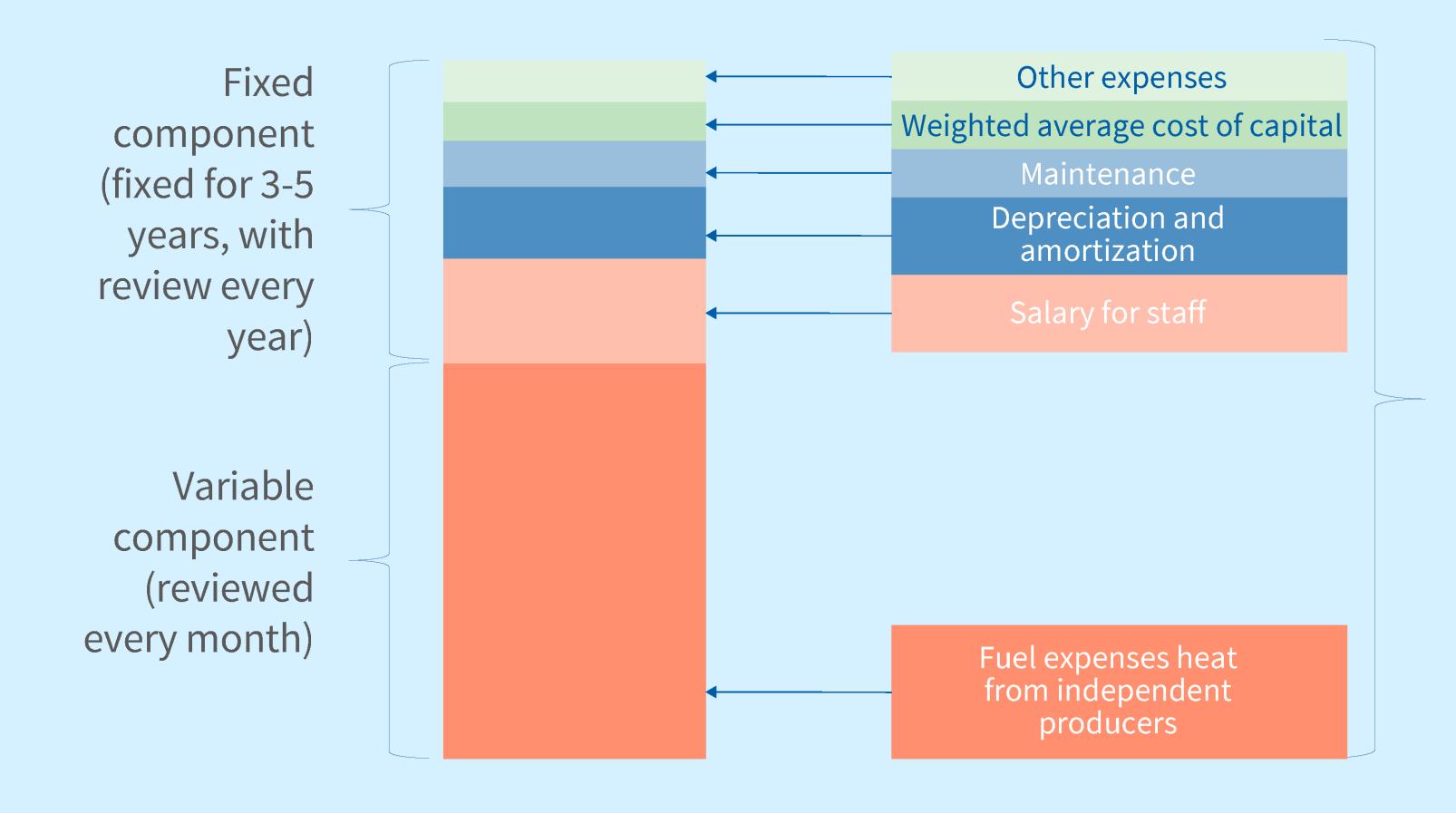


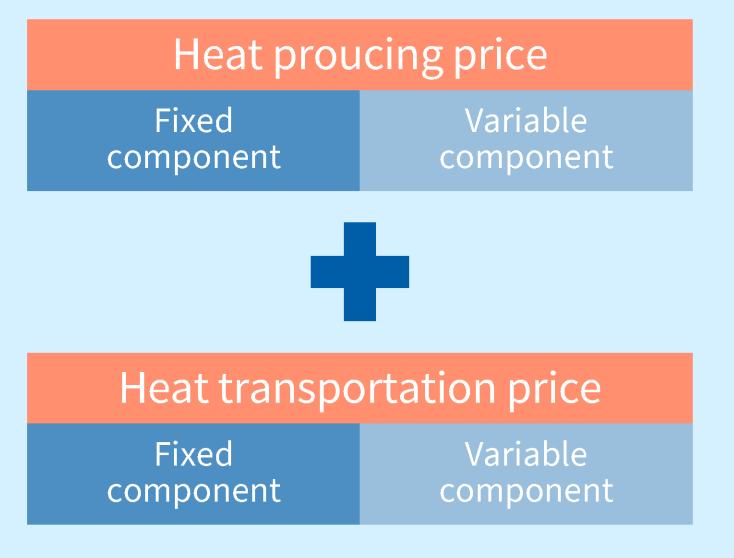
Heat proucing price

Fixed component

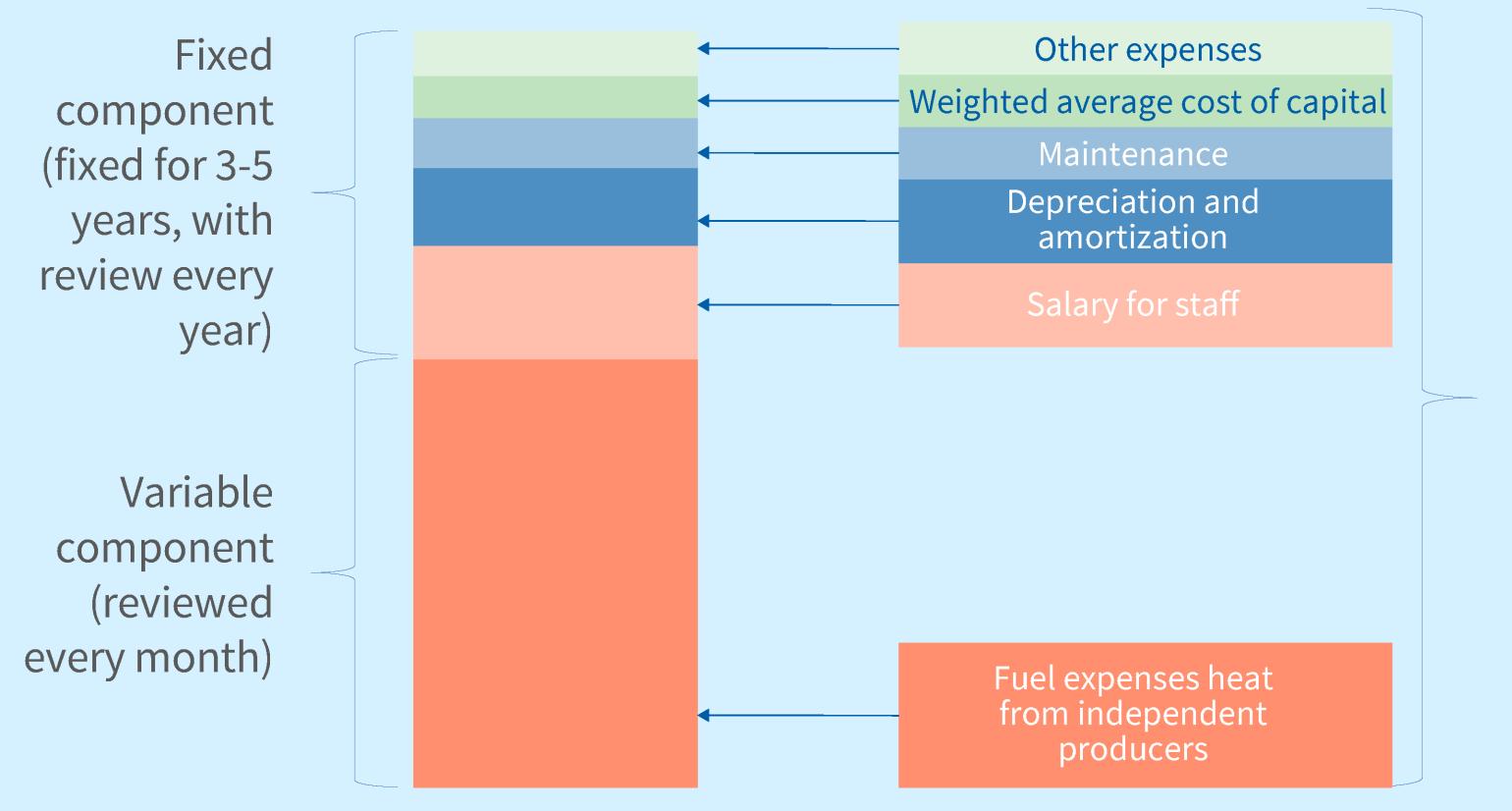
Variable component

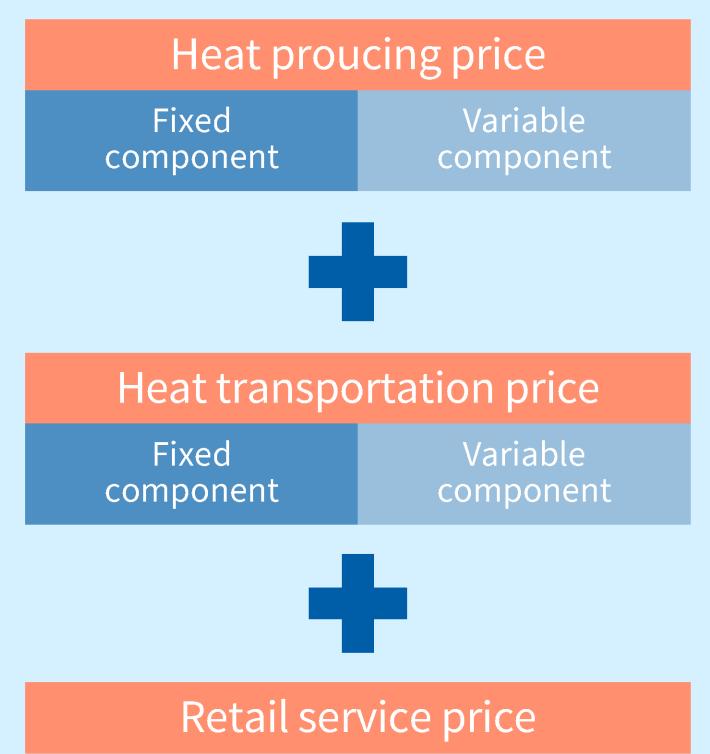














Heat proucing price

Fixed component

Variable component



Heat proucing price	
Fixed component	Variable component
	Till 2019



Heat proucing price		
Fixed component	Variable component	
component	Till 2019	
	After 2019	



Heat proucing price		
Fixed component		Variable component
Compensation for peak and reserve equipment	Till 2019	
	After 2019	

Unsolved issues

- Licensed heat producers considers that their competitive conditions are worse.
- Heat can't be transported to other district.
 Overinvestment problem.
- Slow territory planning crates power capacities in complicated place of grid.
- Heat price depend on fuel price volatility.

 Regulator must think about side pocket principle.
- III energy packet in heat transmission operations.





