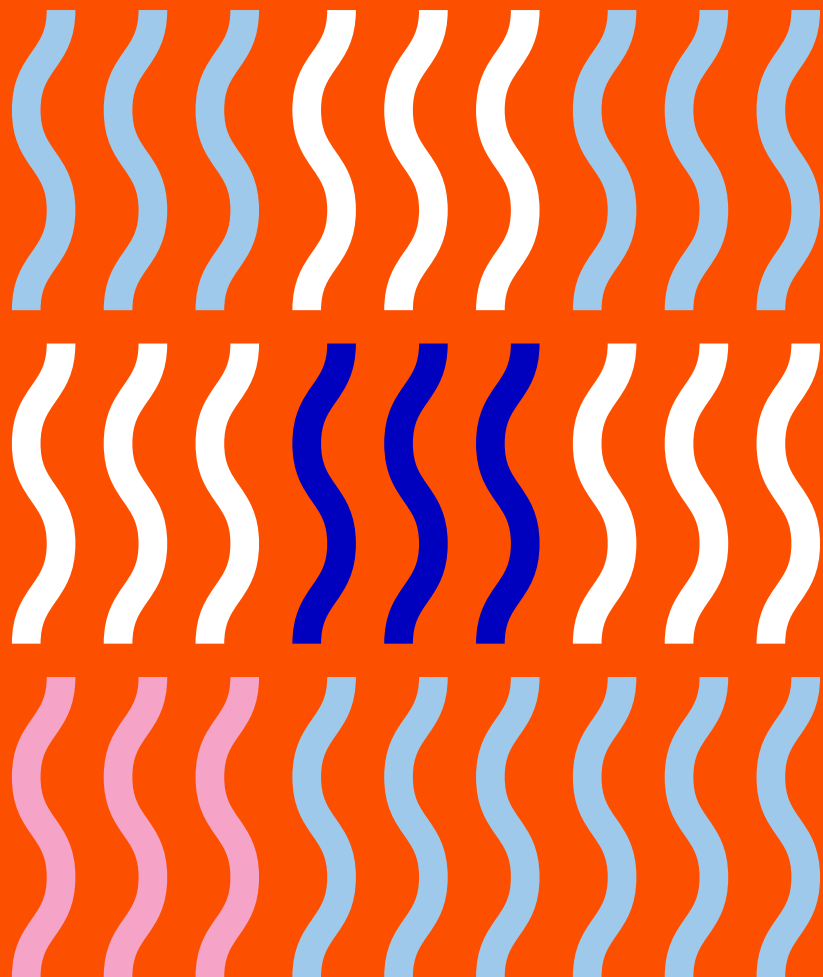


# Helsinki Energy Challenge

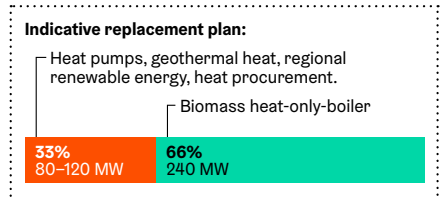
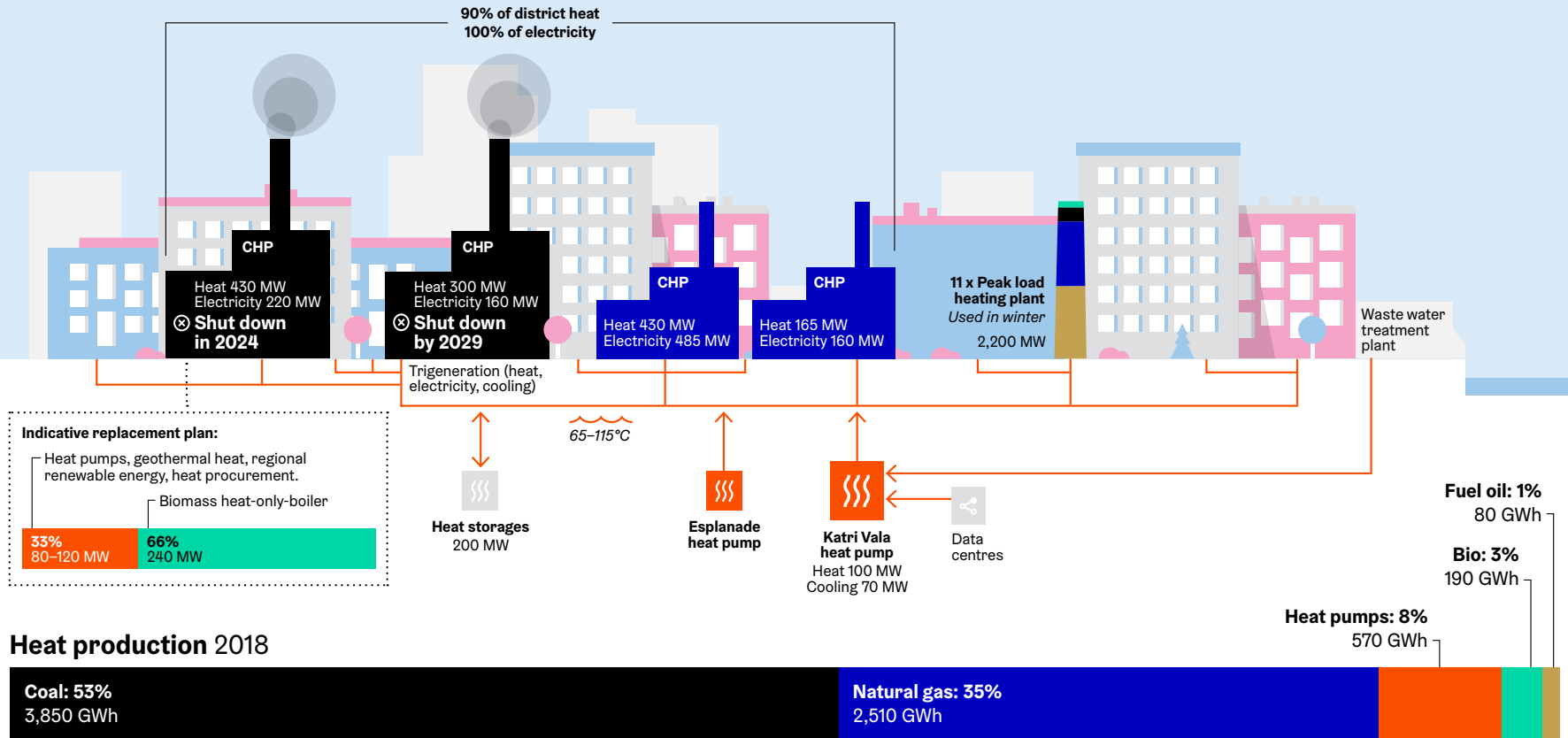
The district heating  
system in Helsinki:  
Key facts and figures



[energychallenge.hel.fi](http://energychallenge.hel.fi)  
[www.hel.fi](http://www.hel.fi)

# Energy system in Helsinki

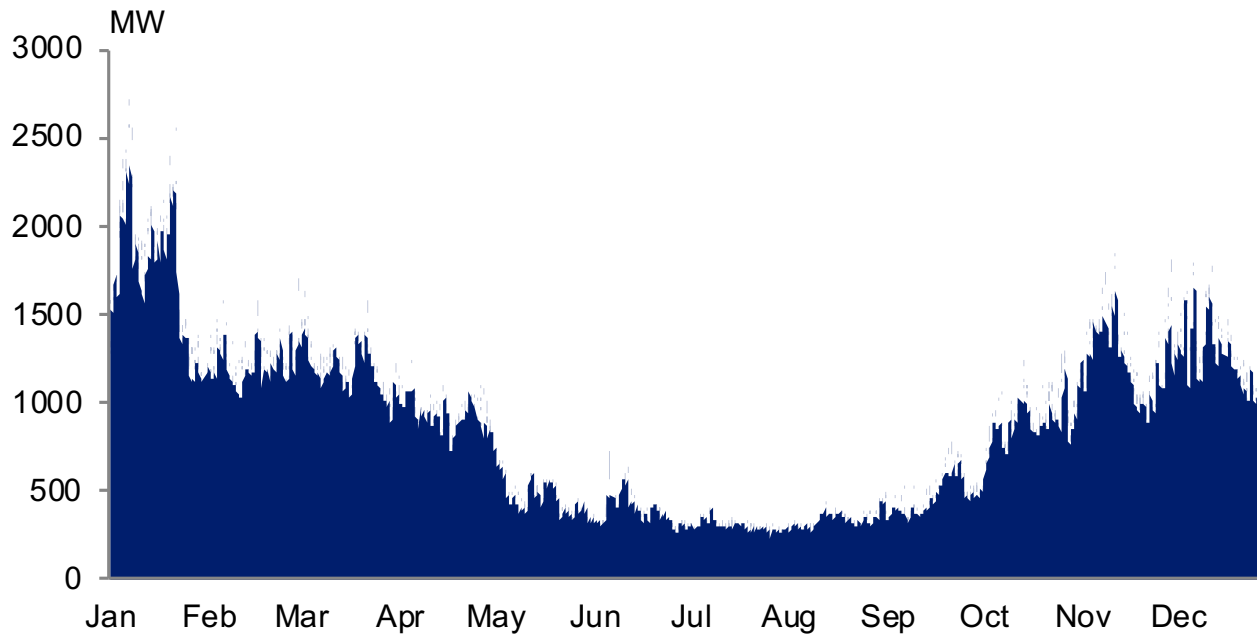
Operated by city-owned energy company Helen



To be replaced fully by 2029, with minimal use of biomass



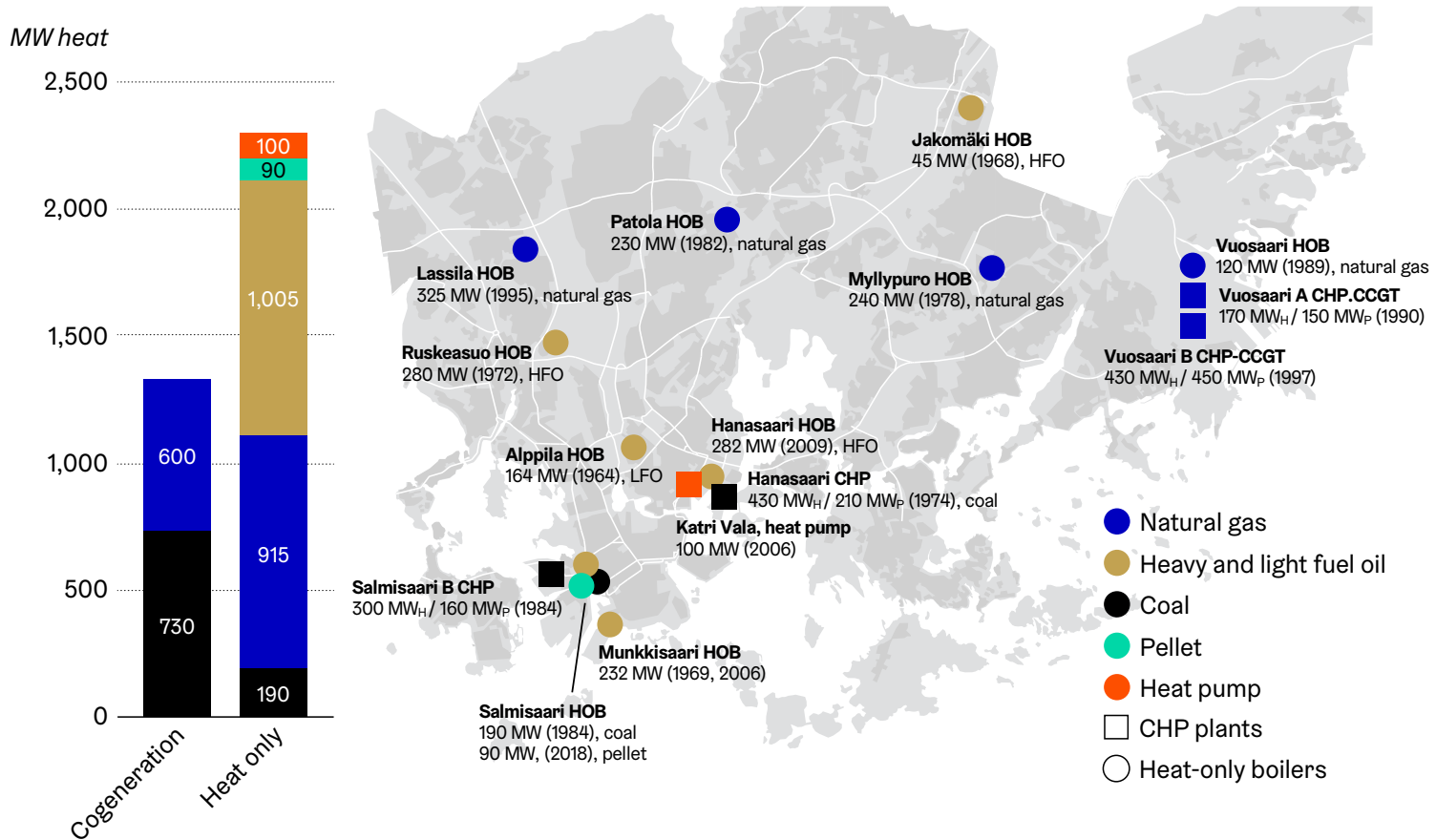
## Helsinki district heat demand profile in 2016 (MW)



Source: Helen, <https://www.helen.fi/en/company/responsibility/current-topics/open-data>

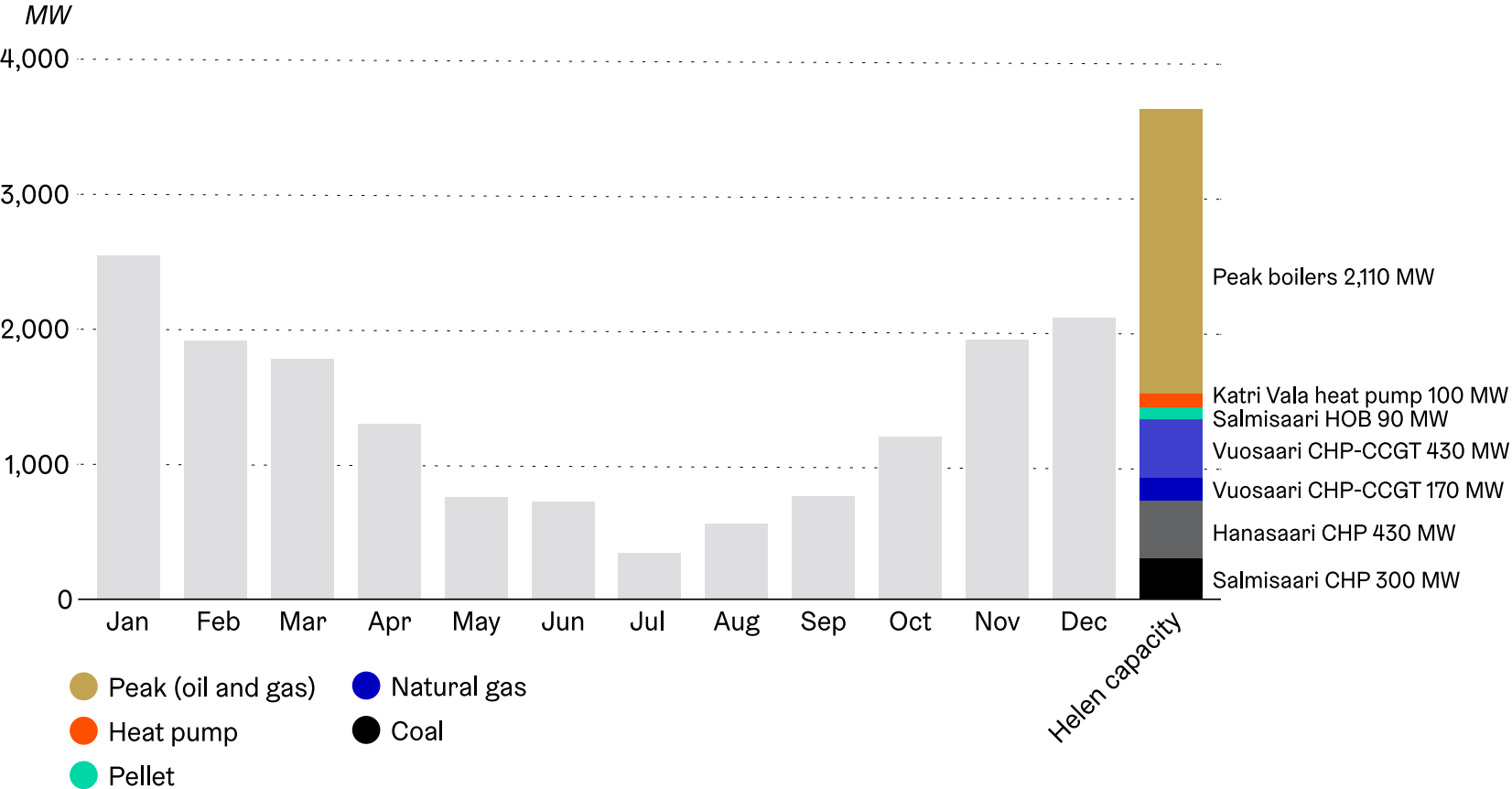
**Hourly district heating power (2016) available at:**  
[www.helen.fi/en/company/responsibility/current-topics/open-data](https://www.helen.fi/en/company/responsibility/current-topics/open-data)

# Heat production units and capacities in Helsinki DH network



Source: Pöyry analysis, based on Finnish Energy (2018) and Helen website

# Heat production capacities and monthly peak loads in Helsinki



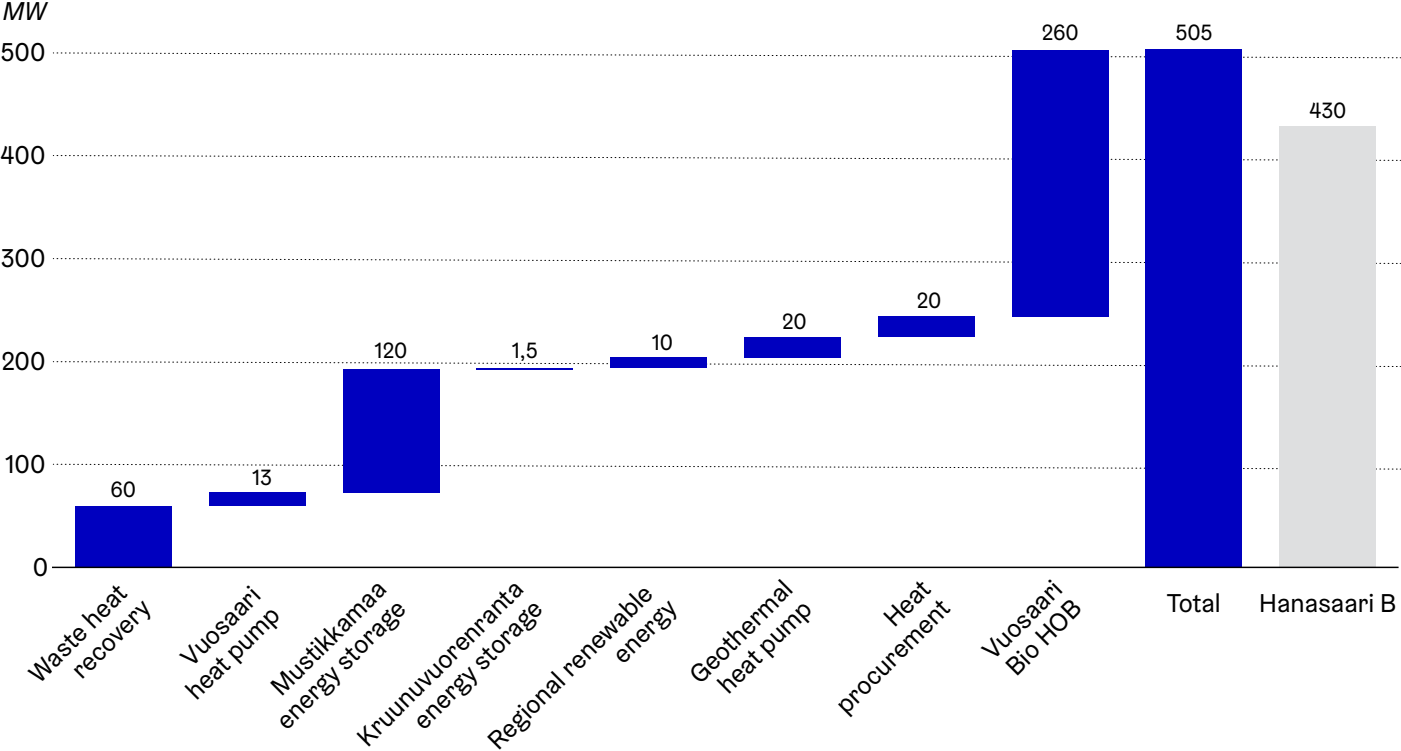
Source: Pöyry analysis, Energy Finland 2018, Hela website.

## Current heat production capacity in Helsinki

Unit	Unit type	Main fuel	Commissioning year	Planned decommissioning/ conversion year	Heat capacity (MW)
<b>CHP units</b>					
Salmisaari B	CHP	Coal	1984	2029	300
Hanasaari B	CHP	Coal	1974	2024	430
Vuosaari A	CHP – CCGT	Natural gas	1991		170
Vuosaari B	CHP – CCGT	Natural gas	1998		430
<b>Heat boilers</b>					
Salmisaari	HOB	Pellet	2018		90
Salmisaari	HOB	Coal	1986	2029	190
Hanasaari	HOB	Heavy fuel oil	2009		280
Vuosaari	HOB	Natural gas	1989		120
Alppila	HOB	Light fuel oil	1964		165
Munkkisaari	HOB	Heavy fuel oil	1969		235
Ruskeasuo	HOB	Heavy fuel oil	1972		280
Lassila	HOB	Natural gas	1977		325
Patola	HOB	Natural gas	1982		230
Jakomäki	HOB	Heavy fuel oil	1968		45
Myllypuro	HOB	Natural gas	1978		240
Katri Vala	Heat pump	-	2006		100
<b>Total heat capacity</b>					<b>3,630</b>

Source: Finnish Energy 2018, Helen website, Pöyry analysis.

# Helen Ltd.'s (energy company owned by the City of Helsinki) indicative plan to replace Hanasaari B coal-fired CHP plant by 2024 (in capacity terms)



Source: Helen, Pöyry analysis.

**City of Helsinki**  
**City Executive Office**

Pohjoisesplanadi 11–13  
00170 Helsinki  
P.O. Box 1  
00099 City of Helsinki, Finland  
Exchange +358 (0)9 310 1641

[energychallenge.hel.fi](http://energychallenge.hel.fi)  
[www.hel.fi](http://www.hel.fi)