

Block 3: Managing Urban Energy Infrastructures

1. Introduction

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In this block you will learn about the management of urban energy systems, the challenges these systems face, and how to address these challenges in the context of sustainability

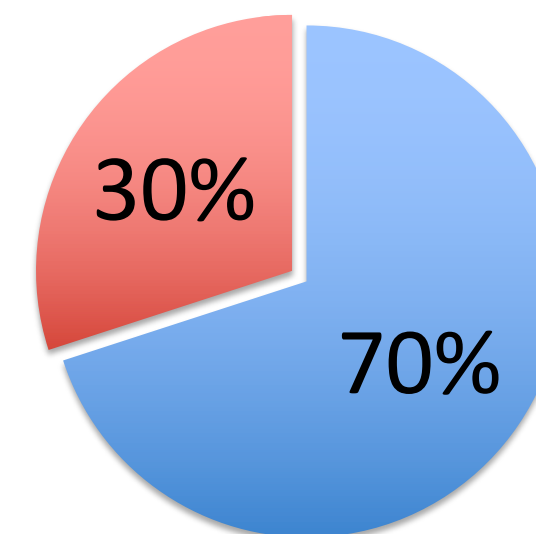
The block is structured into the following sessions:

- Energy and cities
- Understanding the urban electricity system
- Managing the urban electricity system
- Challenges and new opportunities
- The perspective of an urban energy expert

Energy and cities

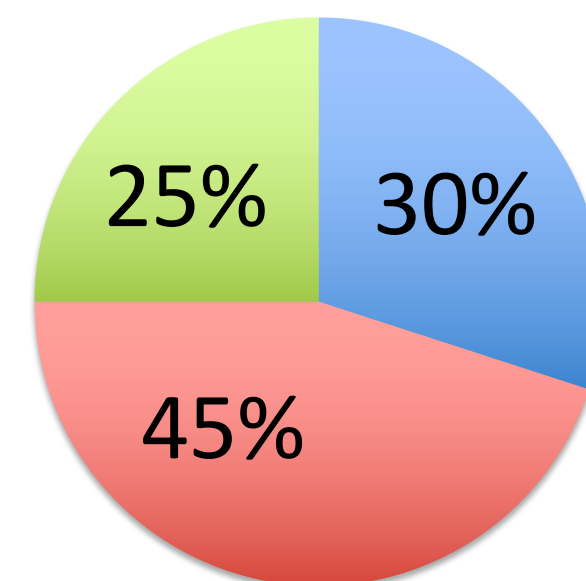
- Energy is the life-blood of a city
 - Transport
 - Buildings
 - Water
 - Telecommunication
 - Lighting
- Cities consume approx. 70% of the world's primary energy, and still growing
- Around 75% of this energy is consumed in buildings and transportation

Direct energy consumption



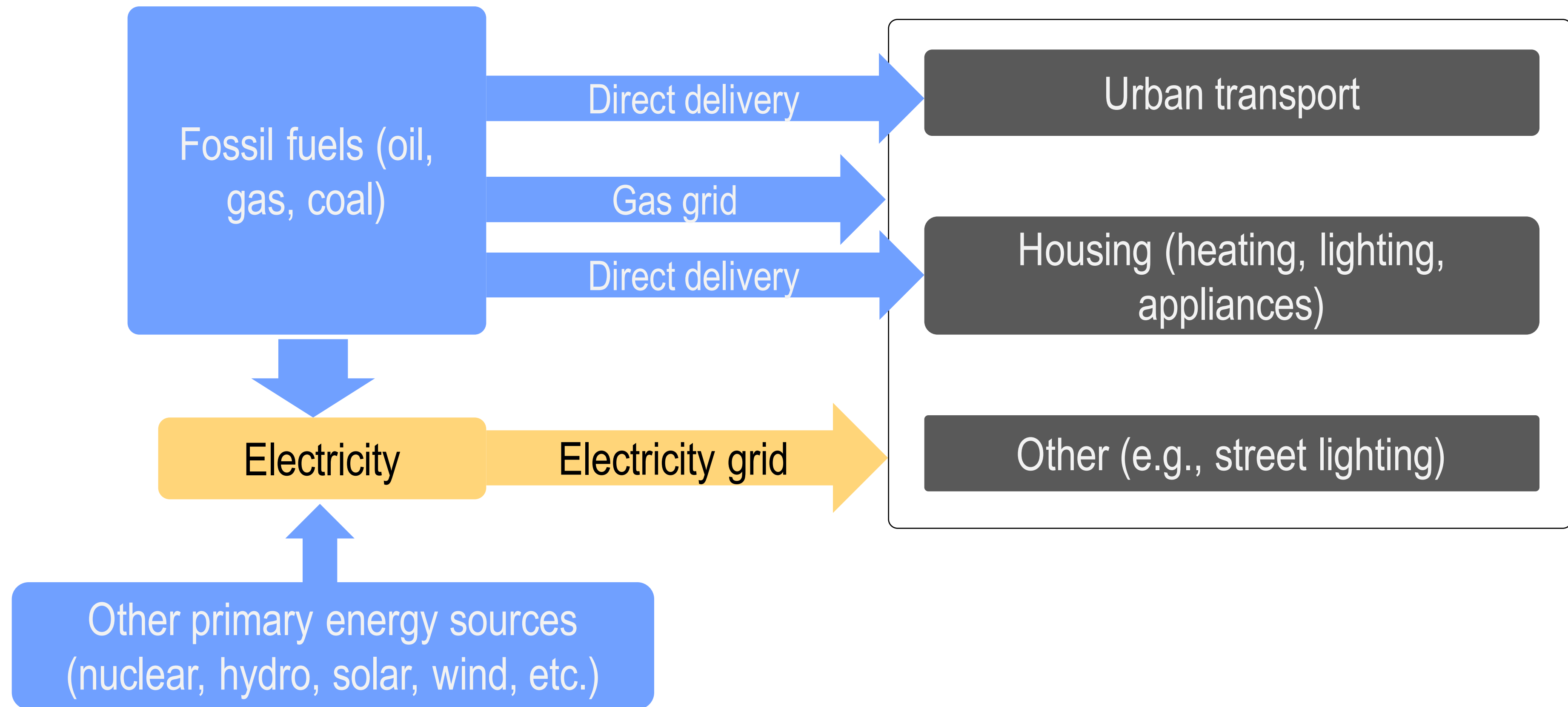
Energy consumption

Transport Buildings Other



*All the numbers are estimates

Energy infrastructures and cities



- This session has introduced you to the importance of energy for cities
- In the following sessions I will focus exclusively on the electricity dimension of urban energy
- We will first see how the urban electricity system actually functions in cities