



# Low Carbon Ukraine

Policy advice on low-carbon policies for Ukraine



Supported by



Federal Ministry  
for the Environment, Nature Conservation,  
Nuclear Safety and Consumer Protection

Based on a decision of the German Bundestag

## Investment needs for reaching the 2030 NDC targets: An explanatory note

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Implemented by



## Structure

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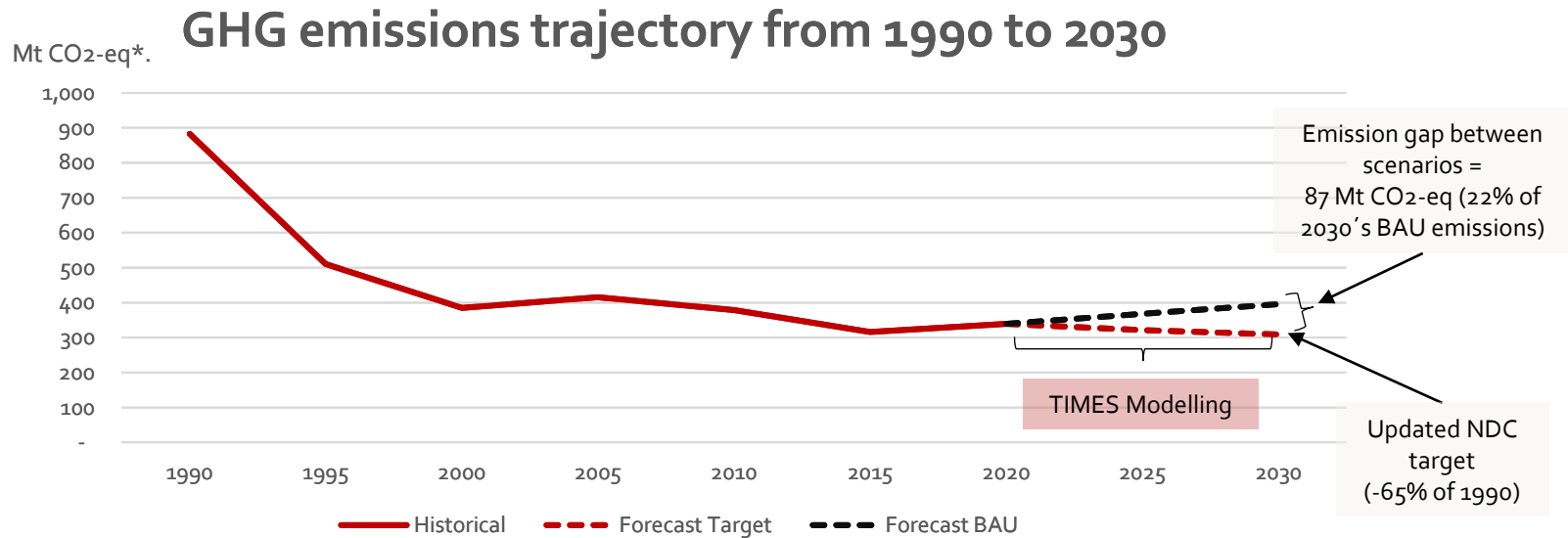
1. Introduction
2. Updated NDC emission reduction target
3. Sectoral emission reduction targets
4. Sectoral investment needs
5. Total investment needs

# 1. Introduction

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- **Ukraine's Updated NDC accompanied by "Analytical Report for Ukraine's Updated NDC"**
  - States aggregate GHG emission reduction target for 2030
  - Presents economically optimal emission reductions by sectors
  - Presents corresponding investment needs
  - Is based on TIMES modelling
- **There exists confusion about magnitude of investment needs**
  - Analytical report only reports **total investments (EUR 102bn)** including business-as-usual investments,
  - Does not report that **EUR 55 bn (BAU investments)** are expected "in any case" and only **EUR 47bn (additional investments)** are required for NDC implementation

## 2. Updated NDC emission reduction target



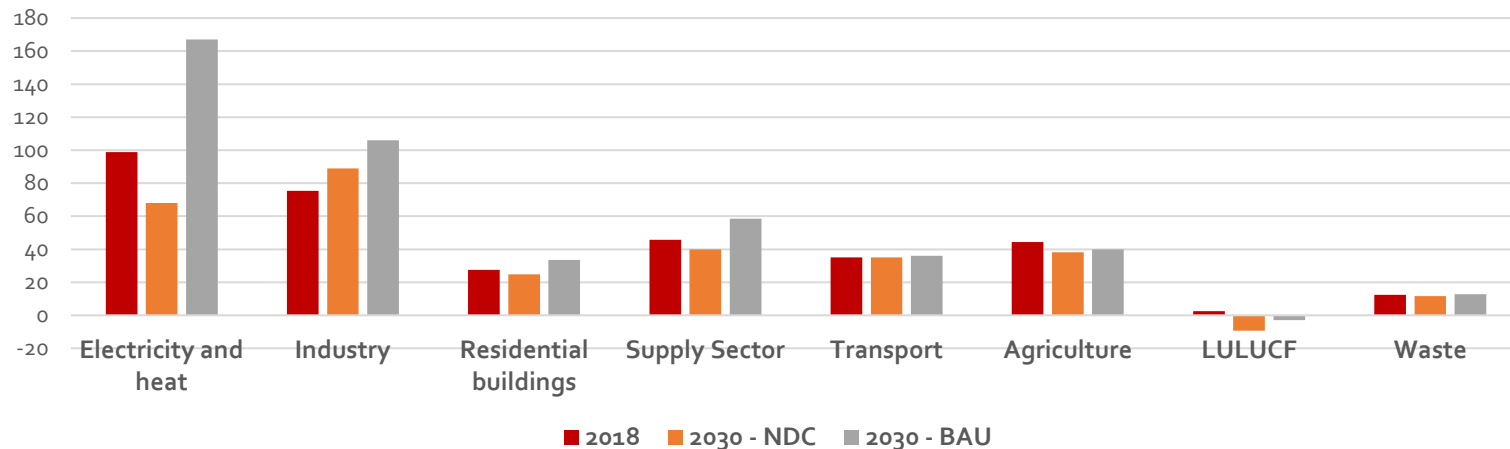
Source: own illustration based on Ministry of Energy and Environmental Protection of Ukraine (2020), Updated NDC, National Economic Strategy until 2030, TIMES modelling results

\*Mt CO<sub>2</sub>-eq = Million tons of CO<sub>2</sub>-equivalent emissions (including CO<sub>2</sub>, methane, N<sub>2</sub>O, etc.)

- To implement the NDC, investments are needed to bridge the gap from a “business-as-usual development” (BAU) to the NDC target emissions.

### 3. Sectoral emission reduction targets

Sectoral GHG emissions, Mt CO<sub>2</sub>-eq\*

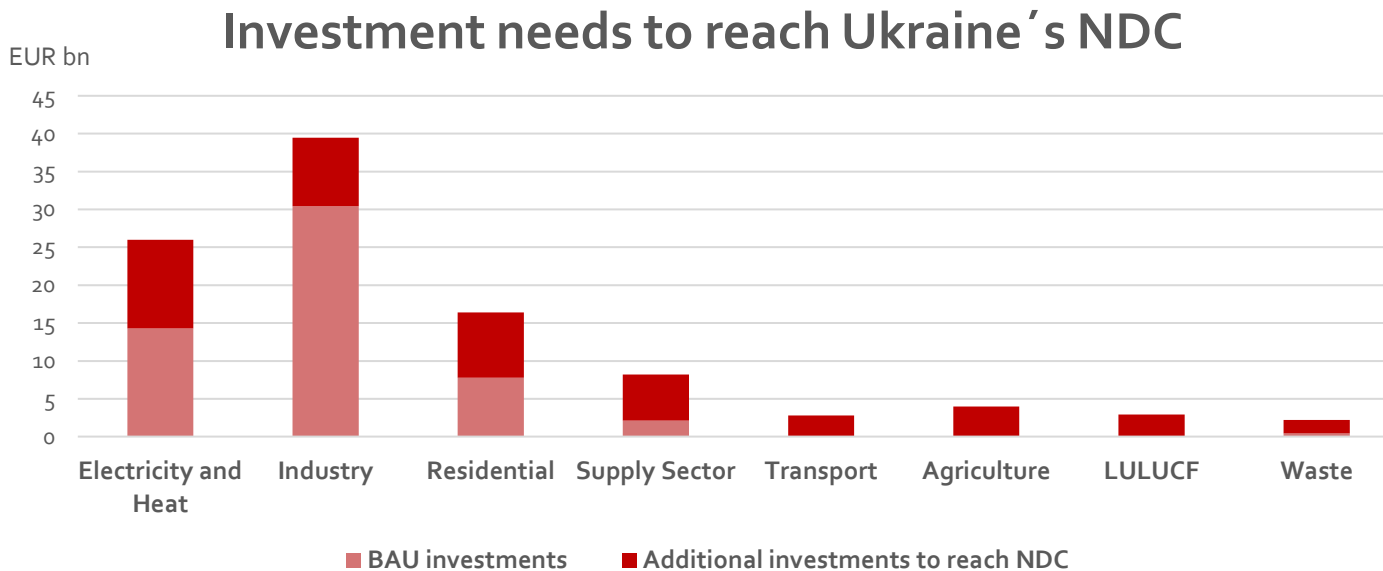


Source: own illustration based on Ministry of Energy and Environmental Protection of Ukraine (2020), Updated NDC, TIMES modelling results

\*Mt CO<sub>2</sub>-eq = Million tons of CO<sub>2</sub>-equivalent emissions (including CO<sub>2</sub>, methane, NO<sub>2</sub>, etc.)

- Largest reductions required in electricity and heat sector
- Industry emissions continue to grow until 2030, due to high costs of abatement technology in this sector

## 4. Sectoral investment needs



Source: own illustration based on Ministry of Energy and Environmental Protection of Ukraine (2020), Updated NDC, TIMES modelling results, own calculations

- **Need to incentivise additional investments**
- **Need to ensure that BAU investments flow into NDC-compliant projects**

## 5. Total investment needs

	BAU Scenario (EUR bn)	Target Scenario (EUR bn)	Difference (EUR bn)
<i>Electricity and Heat</i>	<b>14.3</b>	<b>26.0</b>	<b>11.7</b>
<i>Industry</i>	<b>30.4</b>	<b>39.5</b>	<b>9.0</b>
<i>Residential</i>	<b>7.8</b>	<b>16.4</b>	<b>8.6</b>
<i>Supply Sector</i>	<b>2.1</b>	<b>8.2</b>	<b>6.1</b>
<i>Transport</i>	<b>0.0</b>	<b>2.8</b>	<b>2.8</b>
<i>Agriculture</i>	<b>0.0</b>	<b>4.0</b>	<b>4.0</b>
<i>LULUCF</i>	<b>0.1</b>	<b>2.9</b>	<b>2.9</b>
<i>Waste</i>	<b>0.4</b>	<b>2.2</b>	<b>1.8</b>
<b>Total</b>	<b>55.1</b>	<b>102.0</b>	<b>46.9</b>

➤ **Additional investments (difference) is the relevant indicator to discuss**



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