



Study on sector coupling

The potential of linking the EU electricity and gas sectors

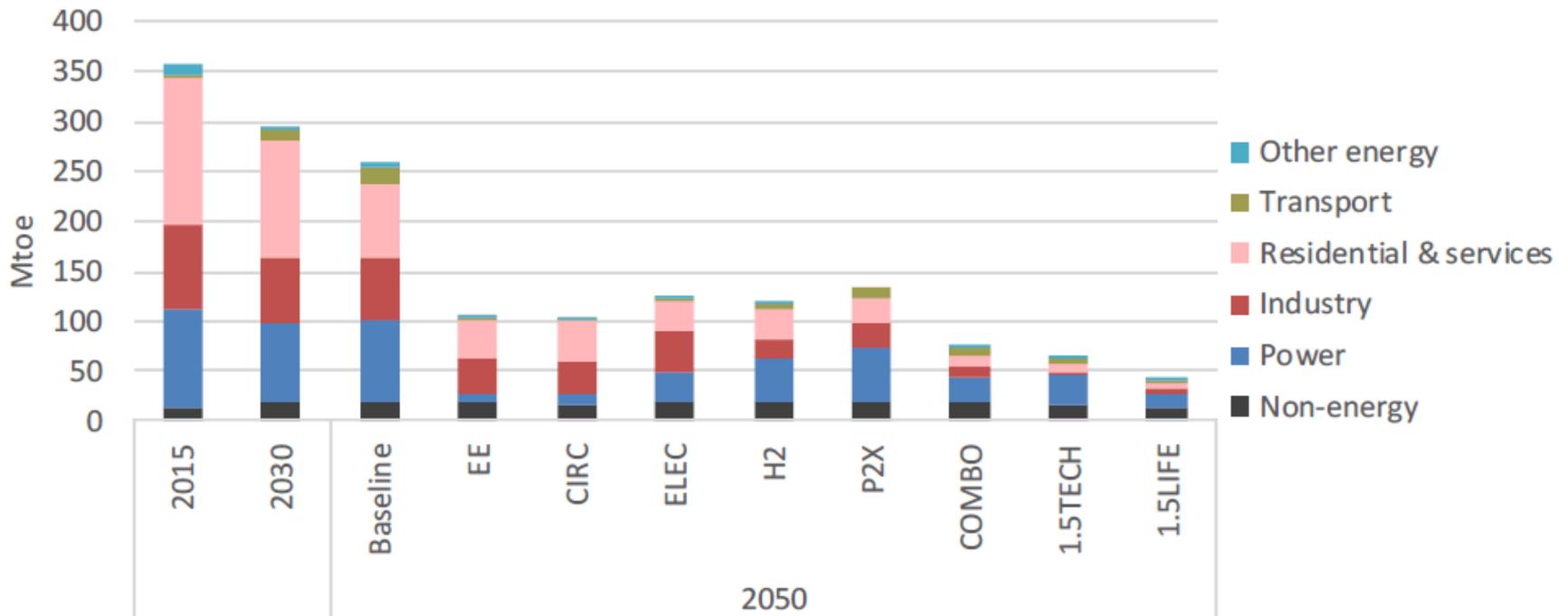
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Natural gas consumption

Figure 28: Consumption of natural gas by sector

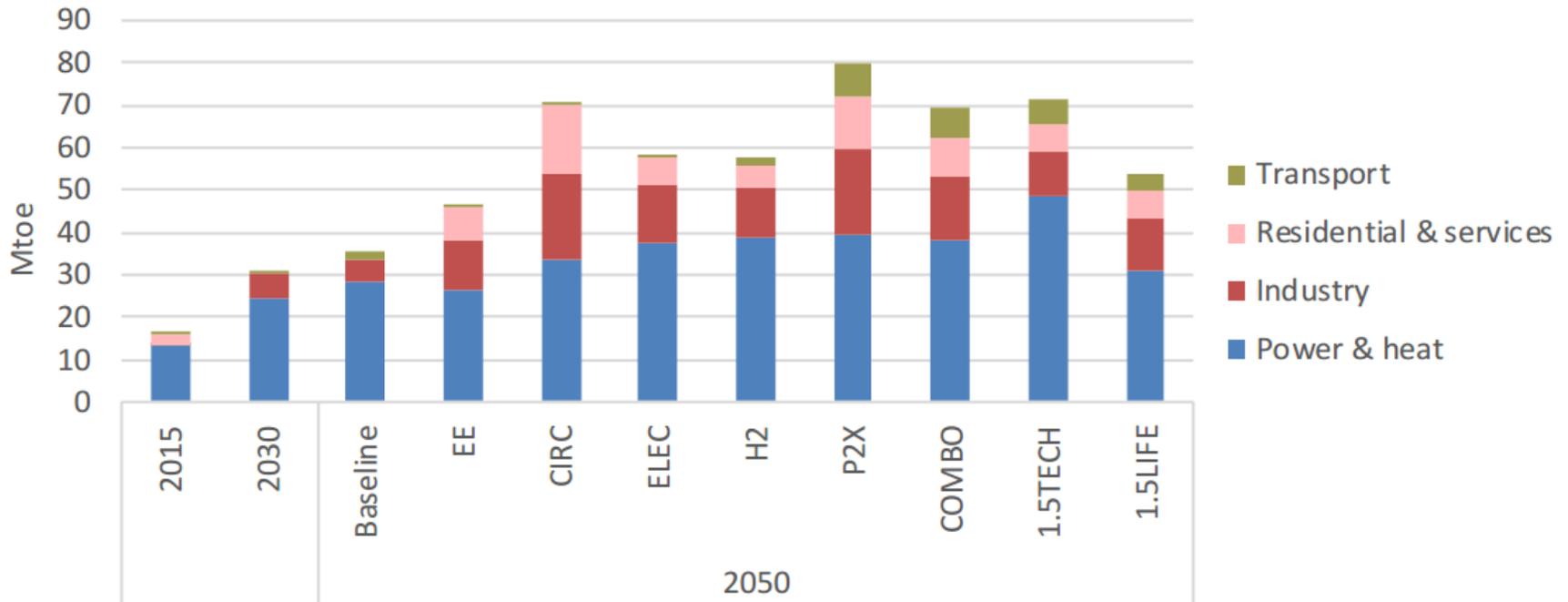


Note: "Residential and services" also includes agriculture.

Source: Eurostat (2015), PRIMES.

Consumption of biogas

Figure 29: Consumption of biogas and gas from waste by sector



Note: "Residential & services" also includes agriculture.

Source: Eurostat (2015), PRIMES.

EU regional differences

- Different development likely due to:
 - Geographical location, differences in energy demand and supply
 - Differences in the current energy system and infrastructure
- A transition to renewable gases may be more likely in countries with an extensive gas grid
- Electrification may be more attractive in other countries
- Biogas production developing but diverse across Europe
- Most pilot projects for other renewable gases in NW-Europe



Sector coupling – linking the electricity and gas sectors

ISSUE:

The role of the EU gas sector in the energy transition

OBJECTIVE:

- Identify and assess regulatory barriers/gaps potentially limiting sector coupling and deployment of renewable and low-carbon gases (incl. hydrogen).
- Recommend measures to remove such regulatory barriers/fill gaps – with focus on 3rd Package elements.

Sector coupling study – Methodology

Energy mix

- Qualitative description of a possible future energy mix compatible with the EU's energy targets and climate goals, representing a mix of energy carriers (renewable or decarbonized by 2050)

Role of gas

- Within this energy system, the possible role of gases in the energy transition process

Barriers

- Identification of potential regulatory barriers and gaps which might limit the linking of the electricity and gas sectors and the deployment of renewable and low-carbon gases

Recommendations

- Options for measures to remove regulatory barriers/fill regulatory gaps with focus on 3rd Package elements, which allow for the participation of relevant technologies and energy carriers

Sector coupling study – Methodology

Practical approach:

- Conceptual benchmark in form of a regulatory strawman
 - Based on consultants' experience, recent studies, stakeholder insights
- Country case studies looking at the following areas in selected Member States to identify potential regulatory barriers/gaps:
 - Technical regulations (e.g. gas quality, injection of renewable gases)
 - Economic regulation (e.g. tariffs, network regulation)
 - Security of supply legislation and flexibility (e.g. internalisation of SoS benefits)
 - Renewable and climate policy instruments (e.g. decarbonisation targets, guarantees of origin)

Sector Coupling Study – State of play

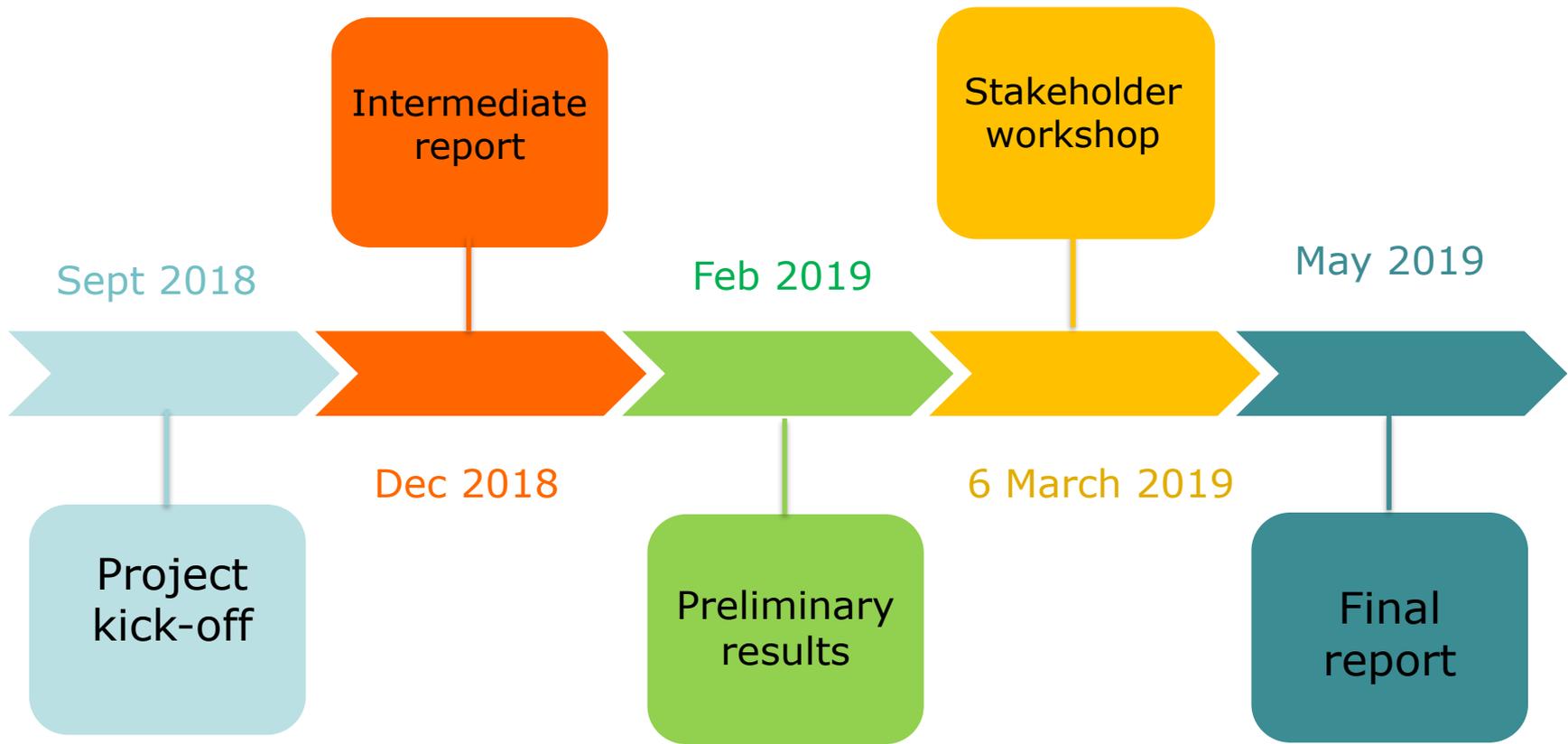
The consultants identified a long list of barriers categorised in five groups:

- Relative immaturity of relevant technologies
- Unlevel playing field due to sector- and technology-specific tariffs and levies
- Focus on natural gas in infrastructure regulation
- Uncoupled and uncoordinated infrastructure planning
- Risk for interoperability across markets and border

Next steps:

- Definition of short list
- Recommendations for measures to remove regulatory barriers/fill gaps – with focus on 3rd Package elements

Sector coupling study– Timeline





European
Commission

Thank you!