



european network of transmission system operators for electricity



Joint ENTSO-E and ENTSGO consultation: Build the Europe’s future scenarios

Overview

The TYNDP is a biennial European network development exercise which electricity and gas ENTSOs are developing in line with the legal mandates (Regulations (EC) 714 and 715/2009).

Without a well-functioning market, adapted legislation and the proper infrastructure in place, Europe cannot guarantee the decarbonisation of its economy, the development of its internal energy market and its security of supply. The TYNDPs are thus key to many of Europe’s economic, climate and energy objectives. Having a European approach to network developments ensures consistency and cost-efficiency.

Where do scenarios fit in the network development exercise?

The scenarios represent the first step in any network development exercise. They offer the frame under which the future is analysed in view of identifying the investment needs and benefits of future electricity and gas projects. It covers a view on elements e.g. energy demand, economic growth, prices, technology developments.

The elaboration of the electricity and gas TYNDPs 2018 have begun. Today the gas and electricity TYNDPs scenarios are at their very beginning – defining the assumptions.

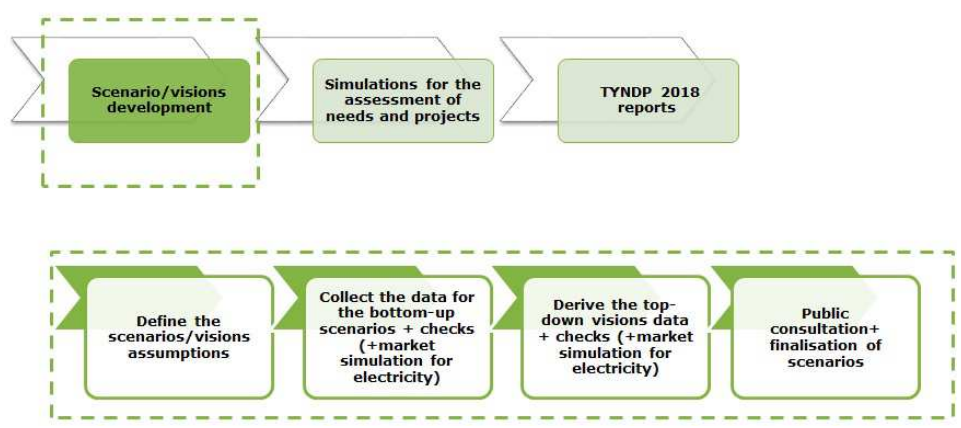


Fig 1. High level steps of gas and electricity TYNDPs 2018 including more detailed scenario steps

Why we are consulting

We all together build the future. What we assume today will drive the developments of tomorrow. This is the reason why when planning the electricity and grid development we are looking into what the future may look like.

The electricity and gas are independent systems but they are inter-dependent of each other. Therefore today the ENTSOs, are asking you both as electricity and gas stakeholders to give us your vision of the future.

Introduction

1 What is your name?

Name

2 What is your email address?

This is optional, but if you enter your email address then you will be able to return to edit your consultation at any time until you submit it. You will also receive an acknowledgement email when you complete the consultation.

Email

3 What is your organisation?

Organisation

General questions

4 Q1: What time horizon should we consider for the TYNDPs 2018?

Please select all that apply

- 2020
 2025
 2030
 2035
 2040
 Other year to consider 1
 Other year to consider 2
 Other year to consider 3

5 Q2: How many scenarios should we consider for each of the year you have chosen in the previous question?

	1	2	3	4	5
2020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2025	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2035	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2040	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 Q3: Which time horizon is most important to carry out the CBA assessment for?

	Yes - Cost Benefit Assessment is necessary	No - The cost Benefit Assessment is not necessary
2020	<input type="checkbox"/>	<input type="checkbox"/>
2025	<input type="checkbox"/>	<input type="checkbox"/>
2030	<input type="checkbox"/>	<input type="checkbox"/>
2035	<input type="checkbox"/>	<input type="checkbox"/>
2040	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 1	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 2	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 3	<input type="checkbox"/>	<input type="checkbox"/>

7 For the years you have chosen at Q1 please state if you prefer to have bottom-up or top-down scenarios. Note: Bottom-up scenario is a scenario for which data is collected from the national experts. A top-down scenario is a scenario build starting from the European perspective (e.g. targets) and the data is created by adapting the national data in order to fit this European perspective.

	Top-down	Bottom-up	Top-down and Bottom-up
2020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2025	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2035	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2040	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other suggestion 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Questions for 2025 scenario

In line with ACER recommendation the 2025 scenario will be identical with the one used in ENTSO-E Security Outlook & Adequacy Forecasts (which targets the system adequacy assessment).

It is bottom-up and represents the TSOs best estimate.

Click here to read the definition of Best Estimate Scenario or Scenario B definition for 2025 (extract from SOAF 2015)

This scenario takes into account the generation capacity evolution described in Scenario A as well as future power plants whose commissioning can be considered as reasonably credible by TSOs according to the available national information. Therefore, an assessment of the likeliness of the projects, based on reasonable regional economic considerations of generation projects for instance, is expected in this scenario.

Furthermore, whenever there is no official communication of decommissioning, it is considered that the units will be available for security of supply reasons, including strategic reserves considerations, also taking into account potential extension of the technical lifetime of units.

However, load forecast should take into account the highest expected growth of the consumption according to national grid development plans, as in Scenario A, and in case the 'Expected Progress' scenario did not consider such a situation already.

As is well known, the EU has set targets for the share of renewable energy sources in 2020. As a consequence, many countries have implemented support mechanisms that lead to increasing capacities of renewables. The forecast of renewable energy sources in Scenario B has to take into account the current supporting mechanisms for renewable energy sources in each country and the expected development of support mechanisms, if changes are under discussion. Including the cost digression, a realistic forecast for the year 2020, as well as for 2025, has to be derived by TSOs, even if this means that the targets set by the National Renewable Energy Action Plans (NREAPs) will not be met.

The "Best-Estimate" Scenario B, considers whether the expected level of investment is adequate from an ENTSO-E point of view. The results on the assessment of generation adequacy–power balance should therefore be understood within this assumption.

8 Q5: Do you think that for this time horizon, a TSOs' best estimate scenario (reflecting the bottom-up approach), is the most appropriate ?

Please select only one item

Yes No

Please justify your answer below.

9 Q6: The merit order (gas vs coal) leads to uncertainty on gas demand. We consider that this uncertainty needs to be reflected in the scenarios for the gas TYNDP. For this time horizon, do you think that gas TYNDP scenarios reflecting the uncertainty on gas demand related to the merit order (gas vs coal) is the most appropriate approach?

Please select only one item

Yes No

Please justify your answer below.

Build your own 2030 scenarios

For the identification of relevant 2030 scenarios we would like your help. In this sense we kindly invite you to build your own scenarios below .

You can create up to four scenario storylines (by defining the development of each assumption). Is not mandatory to create all four of them but we would appreciate having least 2 scenarios completed.

Before starting to answer these questions please **download the scenario template** <https://consultations.entsoe.eu/system-development/joint-electricity-and-gas-consultation-build-the-e/user_uploads/160503_tyndp-2018---building-your-own-scenario-consultation--template.docx> and the **overview of all the 2030 questions** <https://consultations.entsoe.eu/system-development/joint-electricity-and-gas-consultation-build-the-e/user_uploads/overview-of-the-questions-on-2030-scenarios.pdf> and fill in the template first on the paper/computer. After the scenario storyline makes sense to you and is consistent you may start answering the questions below (which are a replica of the scenario template).

You may find help and inspiration in the **2040 story lines** <https://consultations.entsoe.eu/system-development/joint-electricity-and-gas-consultation-build-the-e/user_uploads/160509_energy-scenarios-2040.pdf> .

Other documents to consider

Other documents that you may consider to look into are the **electricity TYNDP 2016 scenarios** <https://consultations.entsoe.eu/system-development/entso-e-tyndp2016-3rd-wp-scenarios/supporting_documents/150521%20TYNDP2016%20Scenario%20Development%20Report%20for%20consultation%20v2.pdf> or **gas TYNDP 2017 scenarios** <https://consultations.entsoe.eu/system-development/joint-electricity-and-gas-consultation-build-the-e/user_uploads/tyndp046_160511_tyndp17_scenarios_storylines.pdf> .

Scenario 1- 2030

10 Give a name to the scenario

name scenario

11 Present in few lines the storyline of the scenarios.

12 Macro-economic trends- Climate action driven by

Please select only one item

- Climate action low EU ETS EU ETS&direct RES subsidies Global ETS
 Global ETS&direct RES subsidies Other (if chosen please specify below)

13 Macro-economic trends -EU on track to 2050 target?

Please select only one item

- Yes Behind Slightly behind Other (if chosen please specify below)

14 Macroeconomic Trends - Economic conditions

Please select only one item

- Low growth Moderate growth High growth Other(if chosen please specify below)

15 Transport - Electric and hybrid vehicles

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

16 Transport - Gas vehicles and shipping

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

17 Residential / Commercial - Demand flexibility

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please sepcify below)

18 Residential / Commercial - Energy efficiency

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

19 Residential / Commercial - Electric heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

20 Residential / Commercial - Hybrid heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

21 Industry - electricity demand

Please select only one item

- Stable Favourable development Other (if chosen specify below)

22 Industry - gas demand

Please select only one item

- Stable Reduction Other (if chosen please specify below)

23 Industry - demand flexibility

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen please specify below)

24 Power - Merit order

Please select only one item

- Gas before coal Coal before gas In par Other (if chosen please specify below)

25 Power - Nuclear

Please select only one item

- Stable Potential for growth Minimum new units Reduction Other (if chosen please specify below)

26 Power - Storage

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

27 Power - Wind

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

28 Power- solar

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

29 Power - CCS

Please select only one item

- Not significant Significant Other (if chosen please specify below)

30 Power - adequacy

Please select only one item

- High surplus capacity Some surplus capacity Low surplus capacity Other (if chosen please specify below)

31 Gas Supply -Power-to-gas

Please select only one item

- High growth Not significant Other (if chosen please specify below)

32 Gas supply - Shale Gas

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

33 Gas supply - Bio Methane

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

34 Do you want to fill in another scenario for 2030?

(Required)

Please select only one item

- Yes - I want to submit another scenario No - I finished my input for 2030 scenarios

Scenario 2 - 2030

35 Give a name to the scenario

name scenario

36 Present in few lines the storyline of the scenarios.

37 Macro-economic trends- Climate action driven by

Please select only one item

- Climate action low EU ETS EU ETS&direct RES subsidies Global ETS
 Global ETS&direct RES subsidies Other (if chosen please specify below)

38 Macro-economic trends -EU on track to 2050 target?

Please select only one item

- Yes Behind Slightly behind Other (if chosen please specify below)

39 Macroeconomic Trends - Economic conditions

Please select only one item

- Low growth Moderate growth High growth Other(if chosen please specify below)

40 Transport - Electric and hybrid vehicles

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

41 Transport - Gas vehicles and shipping

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

42 Residential / Commercial - Demand flexibility

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please sepcify below)

43 Residential / Commercial - Energy efficiency

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

44 Residential / Commercial - Electric heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

45 Residential / Commercial - Hybrid heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

46 Industry - electricity demand

Please select only one item

- Stable Favourable development Other (if chosen specify below)

47 Industry - gas demand

Please select only one item

- Stable Reduction Other (if chosen please specify below)

48 Industry - demand flexibility

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen please specify below)

49 Power - Merit order

Please select only one item

- Gas before coal Coal before gas In par Other (if chosen please specify below)

50 Power - Nuclear

Please select only one item

- Stable Potential for growth Minimum new units Reduction Other (if chosen please specify below)

51 Power - Storage

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

52 Power - Wind

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

53 Power- solar

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

54 Power - CCS

Please select only one item

- Not significant Significant Other (if chosen please specify below)

55 Power - adequacy

Please select only one item

- High surplus capacity Some surplus capacity Low surplus capacity Other (if chosen please specify below)

56 Gas Supply -Power-to-gas

Please select only one item

- High growth Not significant Other (if chosen please specify below)

57 Gas supply - Shale Gas

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

58 Gas supply - Bio Methane

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

59 Do you want to fill in another scenario for 2030?

(Required)

Please select only one item

- Yes - I want to submit another scenario No - I finished my input for 2030 scenarios

Scenario 3 - 2030

60 Give a name to the scenario

name scenario

61 Present in few lines the storyline of the scenarios.

62 Macro-economic trends- Climate action driven by

Please select only one item

- Climate action low EU ETS EU ETS&direct RES subsidies Global ETS
 Global ETS&direct RES subsidies Other (if chosen please specify below)

63 Macro-economic trends -EU on track to 2050 target?

Please select only one item

- Yes Behind Slightly behind Other (if chosen please specify below)

64 Macroeconomic Trends - Economic conditions

Please select only one item

- Low growth Moderate growth High growth Other(if chosen please specify below)

65 Transport - Electric and hybrid vehicles

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

66 Transport - Gas vehicles and shipping

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

67 Residential / Commercial - Demand flexibility

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please sepcify below)

68 Residential / Commercial - Energy efficiency

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

69 Residential / Commercial - Electric heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

70 Residential / Commercial - Hybrid heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

71 Industry - electricity demand

Please select only one item

- Stable Favourable development Other (if chosen specify below)

72 Industry - gas demand

Please select only one item

- Stable Reduction Other (if chosen please specify below)

73 Industry - demand flexibility

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen please specify below)

74 Power - Merit order

Please select only one item

- Gas before coal Coal before gas In par Other (if chosen please specify below)

75 Power - Nuclear

Please select only one item

- Stable Potential for growth Minimum new units Reduction Other (if chosen please specify below)

76 Power - Wind

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

77 Power- solar

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

78 Power - CCS

Please select only one item

- Not significant Significant Other (if chosen please specify below)

79 Power - adequacy

Please select only one item

- High surplus capacity Some surplus capacity Low surplus capacity Other (if chosen please specify below)

80 Gas Supply -Power-to-gas

Please select only one item

- High growth Not significant Other (if chosen please specify below)

81 Gas supply - Shale Gas

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

82 Gas supply - Bio Methane

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

83 Do you want to fill in another scenario for 2030?

(Required)

Please select only one item

- Yes - I want to submit another scenario No - I finished my input for 2030 scenarios

Scenario 4 - 2030

84 Give a name to the scenario

name scenario

85 Present in few lines the storyline of the scenarios.

86 Macro-economic trends- Climate action driven by

Please select only one item

- Climate action low EU ETS EU ETS&direct RES subsidies Global ETS
 Global ETS&direct RES subsidies Other (if chosen please specify below)

87 Macro-economic trends -EU on track to 2050 target?

Please select only one item

- Yes Behind Slightly behind Other (if chosen please specify below)

88 Macroeconomic Trends - Economic conditions

Please select only one item

- Low growth Moderate growth High growth Other(if chosen please specify below)

89 Transport - Electric and hybrid vehicles

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

90 Transport - Gas vehicles and shipping

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

91 Residential / Commercial - Demand flexibility

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please sepcify below)

92 Residential / Commercial - Energy efficiency

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

93 Residential / Commercial - Electric heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

94 Residential / Commercial - Hybrid heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

95 Industry - electricity demand

Please select only one item

- Stable Favourable development Other (if chosen specify below)

96 Industry - gas demand

Please select only one item

- Stable Reduction Other (if chosen please specify below)

97 Industry - demand flexibility

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen please specify below)

98 Power - Merit order

Please select only one item

- Gas before coal Coal before gas In par Other (if chosen please specify below)

99 Power - Nuclear

Please select only one item

- Stable Potential for growth Minimum new units Reduction Other (if chosen please specify below)

100 Power - Storage

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

101 Power - Wind

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

102 Power- solar

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

103 Power - CCS

Please select only one item

- Not significant Significant Other (if chosen please specify below)

104 Power - adequacy

Please select only one item

- High surplus capacity Some surplus capacity Low surplus capacity Other (if chosen please specify below)

105 Gas Supply -Power-to-gas

Please select only one item

- High growth Not significant Other (if chosen please specify below)

106 Gas supply - Shale Gas

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

107 Gas supply - Bio Methane

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

Questions for 2040 scenarios

This part is dedicated to the 2040 scenarios. For this time horizon ENTSO-E and ENTSOG have jointly devised 5 scenarios as presented in the 2040 story lines document '[Link](#)'. It is necessary to read this document before answering the questions below.

This part of the survey is meant to help us determine the consistency and the feasibility of the proposed scenarios. It will also guide us in the decision on which and how many scenarios we will choose to analyse for 2040. The aim is to have up to three scenarios for this specific time horizon.

108 Is the storyline of each 2040 scenario consistent?

	Yes	No
Scenario "Global Climate Action"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Subsidized Green Europe"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Sustainable Transition"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Behind Targets"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Distributed Generation"	<input type="checkbox"/>	<input type="checkbox"/>

Comments if any

109 Do you think that these scenarios are believable?

	Yes	No
Scenario "Global Climate Action"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Subsidized Green Europe"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Sustainable Transition"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Behind targets"	<input type="checkbox"/>	<input type="checkbox"/>
Scenario "Distributed Generation"	<input type="checkbox"/>	<input type="checkbox"/>

Comments if any

110 If you are to choose up to three scenarios, based on which to analyse the future, which one(s) would you choose?

Please select only one item

- Scenario "Global Climate Action"
 Scenario "Subsidised Green Europe"
 Scenario "Sustainable Transition"
 Scenario "Behind targets"
 Scenario "Distributed generation"

111 ENTSO-E and ENTSG devised 5 visions for 2040. If none resonates with your view please build yours below

(Required)

Please select only one item

- Yes - I want to devise my own scenario for 2040
 No - I want to conclude the survey

Build your own 2040 scenario

ENTSO-E and ENTSG devised 5 visions for 2040. If none resonates with your view please build yours below.

112 Give a name to the scenario

name scenario

113 Present in few lines the storyline of the scenarios.

114 Macro-economic trends- Climate action driven by

Please select only one item

- Climate action low EU ETS EU ETS&direct RES subsidies Global ETS
 Global ETS&direct RES subsidies Other (if chosen please specify below)

115 Macro-economic trends -EU on track to 2050 target?

Please select only one item

- Yes Behind Slightly behind Other (if chosen please specify below)

116 Macroeconomic Trends - Economic conditions

Please select only one item

- Low growth Moderate growth High growth Other(if chosen please specify below)

117 Transport - Electric and hybrid vehicles

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

118 Transport - Gas vehicles and shipping

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

119 Residential / Commercial - Demand flexibility

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please sepcify below)

120 Residential / Commercial - Energy efficiency

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

121 Residential / Commercial - Electric heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

122 Residential / Commercial - Hybrid heat pump

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen specify below)

123 Industry - electricity demand

Please select only one item

- Stable Favourable development Other (if chosen specify below)

124 Industry - gas demand

Please select only one item

- Stable Reduction Other (if chosen please specify below)

125 Industry - demand flexibility

Please select only one item

- Very high growth Moderate growth Low growth Other (if chosen please specify below)

126 Power - Merit order

Please select only one item

- Gas before coal Coal before gas In par Other (if chosen please specify below)

127 Power - Nuclear

Please select only one item

- Stable Potential for growth Minimum new units Reduction Other (if chosen please specify below)

128 Power - Storage

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

129 Power - Wind

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

130 Power- solar

Please select only one item

- Very high growth High growth Moderate growth Low growth Other (if chosen please specify below)

131 Power - CCS

Please select only one item

- Not significant Significant Other (if chosen please specify below)

132 Power - adequacy

Please select only one item

- High surplus capacity Some surplus capacity Low surplus capacity Other (if chosen please specify below)

133 Gas Supply -Power-to-gas

Please select only one item

- High growth Not significant Other (if chosen please specify below)

134 Gas supply - Shale Gas

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)

135 Gas supply - Bio Methane

Please select only one item

- High growth Low growth Not significant Other (if chosen please specify below)