Executive Summary

The German gas transmission system operators (TSOs) have produced the 2016-2026 Gas Network Development Plan (NDP) to publish the results of the network development planning process – including information received in the course of the public consultations – and to present the long-term capacity requirements by 1 April 2017 determined pursuant to section 17 of the German Gas Third-Party Access Regulations (Gasnetzzugangsverordnung). By publishing this document they do not only comply with the requirements set out in the Gas Third-Party Access Regulations but also with the requirements imposed by the German Energy Industry Act (Energiewirtschaftsgesetz). This NDP has been based on the TSOs’ Scenario Framework document for the 2016-2026 NDP, which was initially confirmed by the national regulatory authority BNetzA (Federal Network Agency) on 11 December 2015 and then amended in part on 3 January 2017 and the change request made by the BNetzA on 26 July 2017.

The 2016-2026 NDP is the first to model two different cases for an alternative distribution of supply sources for high calorific value gas (“high CV gas”) based on a gas demand scenario. Both modelled cases rely on the same assumptions about distribution system operators, gas-fired power stations, storage facilities and industrial customers. The results for both alternatives have confirmed that the measures defined in the 2015 NDP enable a stable development of the networks. Additional development measures will be necessary in the 10-year period under review this year.

The TSOs propose to implement the development measures required under case Q.2, which builds on the additional capacity available following expansion of the Nord Stream pipeline to meet the increased demand for high CV gas in Germany.

The TSOs have based this decision on the assessment that this case provides a more robust level of supply security than case Q.1. In selecting case Q.2 the TSOs ensure that they can respond to future changes in the development of the supply sources available to meet Europe’s gas demand. The network development proposal now put forward includes all projects planned under case Q.1 and thus also meets the requirements arising under an alternative distribution of supply sources.

In its decision of 3 January 2017, in which the Scenario Framework document for the 2016-2026 NDP was amended in part, the Federal Network Agency instructed the TSOs to re-model the 2016-2026 NDP so as to take account of the planned power stations at Heilbronn and Altbach. Additional measures totalling investments of €102 million will be required to incorporate the planned power stations into the network development works planned by the TSOs.

Taking account of the projects required to implement the Scenario Framework document for the 2016-2026 NDP as amended on 3 January 2017, the TSOs now propose to carry out the following network development measures:

- The additional capacity required in 2022 will be provided by building some 752 km of new gas transmission pipelines (25 km more than under the first draft of the 2016-2026 NDP) and adding around 466 MW of new compressor capacity (16 MW more than under the first draft of the 2016-2026 NDP), which requires a total investment spend of approximately €3.6 billion (€0.1 billion more than under the first draft of the 2016-2026 NDP) including pressure control and measurement equipment.

- The additional capacity required in 2027 will be provided by building some 827 km of new gas transmission pipelines (25 km more than under the first draft of the 2016-2026 NDP) and adding around 567 MW of new compressor capacity (16 MW more than
under the first draft of the 2016-2026 NDP), which requires a total investment spend of approximately €4.5 billion (€0.1 billion more than under the first draft of the 2016-2026 NDP) including pressure control and measurement equipment.

- The overall level of investment required by the end of 2026 to deliver the revised NDP produced by the TSOs to implement the changes requested by the Federal Network Agency has gone down to a total of approximately €3.9bn. The current plans are to build 823 km of new gas transmission pipelines and to add some 429 MW of new compressor capacity. Total investments may increase again when all conditions imposed by the Federal Network Agency for the re-inclusion of measures related to the Nord Stream 2 project – which have been removed for the purposes of the final 2016-2026 NDP at the request of the regulator – are satisfied. The TSOs plan to publish an addendum to the current NDP once this is the case.

Among other considerations, the above investment will be provided by the German TSOs to secure that the supply areas currently receiving low CV gas can be permanently migrated to high CV quality. Compared with the previous NDP, the number of projects required to implement the switchover of low CV network areas to high CV gas supplies, and the required level of investment, have again gone up due to the longer planning period. Over the course of the past year the TSOs have again engaged in extensive consultations with distribution system operators as part of the switchover process, which was launched in the meantime. The results of those consultations have been incorporated into this document, which carries the complex plans further into the future and provides updated and more detailed information on the planning process. The TSOs consider it their central task to maintain supply security throughout the ongoing switchover process.

The measures required for expanding the transportation network require a significant level of investment on the part of the TSOs, the cost of which is reflected in the transportation tariffs. All parties involved in the NDP process must therefore ensure that, in the long run, the network development projects are viable from a macroeconomic viewpoint whilst being economically reasonable for the companies undertaking the investment at a time when shippers are committing themselves for ever shorter contractual periods. In view of this background, what is particularly needed is a stable and sustainable regulatory framework that provides rates of return which appropriately reflect project risks.