

3. Optimising the use of existing infrastructure in a low-emission economy

Europe has an extensive gas grid comprising around 2.2 million kilometers of gas pipelines as well as storage and LNG facilities. Adding a few missing links would complete the European gas market, allowing all countries to benefit from various gas supply sources. The gas grid is able to provide the flexibility needed to meet seasonal variations and peaks in energy demand. Gas is routinely and economically stored in large volumes, making it very suitable for seasonal storage that cannot be

covered with batteries and other storage techniques, with demand being three times higher in winter than in summer in a normal year.⁶ At current costs per unit of storage capacity, storing energy as gas is also much cheaper than electricity.⁷ Transporting electricity can be more than twenty times more costly than transporting gas.⁸ Unnecessary costs and unwanted landscape disturbance are also avoided with the use of the existing gas pipeline infrastructure.

Figure 4: Comparison of transportation costs: electricity versus gas

