

Integrated system and method for the flexible use of electricity

Abstract

5 The present invention relates to an integrated plant
which comprises a plant for the electrothermic
production of ethyne and a separating device for
separating ethyne from the reaction mixture of the
10 electrothermic production of ethyne while obtaining at
least one stream of gas containing hydrogen and/or
hydrocarbons, the integrated plant having a device for
introducing a gas into a natural gas network, to which
device a stream of gas containing hydrogen and/or
15 hydrocarbons is fed from the separating device via at
least one conduit. This integrated plant affords
flexible use of electricity by a method in which a
stream of gas, containing hydrogen and/or hydrocarbons,
is fed into a natural gas network from the separating
20 device and the amount and/or the composition of the
stream of gas fed into the natural gas network is
changed in dependence on the electricity supply.

(Fig. 1)

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