CLAIMS

1. Floating LNG plant (1, 1', 100) comprising a converted LNG carrier with a hull and a plurality of LNG storage tanks (4, 104) wherein in that the floating LNG plant (1, 1', 100) comprises:

   - at least one sponson (2, 2', 3, 3', 102, 103) on the side of the hull, for creating additional hull volume,
   - process equipment (110) for LNG processing on the floating LNG plant (1, 1', 100), and
   - a reservoir for storing fluids separated during the LNG processing, wherein said reservoir is formed by the ballast tank or in the space reserved for the ballast tank of the original LNG carrier; and a new ballast tank for the floating LNG plant in the additional hull volume created by the adding of the sponson to the side of the hull.

2. Floating LNG plant (1, 1', 100) according to claim 1, wherein the process equipment (110) for LNG processing on the floating LNG plant (1, 1', 100) is installed on the additional deck space created by the adding of the at least one sponson (2, 2', 3, 3', 102, 103) on the side of the hull.

3. Floating LNG plant (1, 1', 100) according to claim 2, wherein the sponson (2, 2', 3, 3', 102, 103) is used for supporting LNG transfer devices (111) for loading or unloading LNG.

4. Floating LNG plant (1, 1', 100) according to claim 3, wherein the LNG FPSO is provided with two sponsons (2, 2', 3, 3', 102, 103) each on one side of the vessel, the first sponson (2, 2', 102) is used for supporting LNG transfer devices (111) and the second sponson (3, 3', 103) is used for supporting LNG process equipment (110).

5. Floating LNG plant (1, 1', 100) according to claim 3 or 4, wherein the sponson (2, 2', 3, 3', 102, 103) is used for storage of a floating offloading hose (19).

6. Floating LNG plant (1, 1', 100), according to any of the claim 1-5, wherein a power generation unit is placed within the sponson (2, 2', 3, 3', 102, 103).

7. Floating LNG plant (1, 1', 100) according to any of the claims 1-6, wherein the floating LNG plant (1, 1', 100) further comprises a mooring system and a fluid transfer system, the fluid transfer system including a swivel and piping connecting the swivel to process equipment for LNG processing.

8. Floating LNG plant (1, 1', 100) according to claim 7, comprising an external turret (10) in order to allow the floating LNG plant (1, 1', 100) to be weathervaning moored to the seabed via said external turret (10).

9. Floating LNG plant (1, 1', 100) according to claim 7, comprising an offloading buoy in order to allow the floating LNG plant (1, 1', 100) to be weathervaning moored to the seabed via said offloading buoy.

10. Floating LNG plant (1, 1', 100) according to any preceding claims wherein the outer shell of the at least one sponson (2, 2', 3, 3', 102, 103) is provided with a collision protection (40).

11. Floating LNG plant (1, 1', 100) according to claim 9, wherein the outer shell of the at least one sponson (2, 2', 3, 3', 102, 103) is protected against collision damage using SPS.

12. Method for converting a LNG carrier into a Floating LNG plant (1, 1', 100), wherein the LNG carrier comprises at least a hull, a plurality of LNG storage tanks (4, 104) and at least one ballast tank for stabilizing the LNG carrier and wherein the method comprises the steps of:

- adding at least one sponson (2, 2', 3, 3', 102, 103) on the side of the hull, for creating additional hull volume,
- installing process equipment (110) for LNG processing on the vessel,
- using the ballast tank or the space reserved for the ballast tank of the original LNG carrier to create a reservoir for storing fluids separated during the LNG processing, and
- using the additional hull volume created by the adding of the sponson (2, 2', 3, 3', 102, 103) to create a new ballast tank for the floating LNG plant (1, 1', 100).

13. Method according to claim 12, wherein the method comprises the step of installing process equipment (110) for LNG processing on the vessel on the additional deck space created by the adding of the at least one sponson (2, 2', 3, 3', 102, 103) on the side of the hull.

14. Method according claim 12 or 13, wherein the method comprises the step of providing the outer shell of the at least one sponson (2, 2', 3, 3', 102, 103) with a collision protection (40).

15. A natural gas distribution system for supplying natural gas to users where said natural gas has been transported as LNG by a LNG carrier (50) that has sailed from a liquefying station to a coastal gas receiving facility (17) located at a sea coast in the vicinity, comprising:

- at least a floating LNG plant (1 , 1', 100) according to any of the claims 1 to 11, having production storage and offloading capability, and
- a LNG FSRU (floating storage regas unit) (85) that lies at said coastal gas receiving facility (70), and that heats LNG to produce gaseous natural gas and that is connected to said facility to carry said gaseous natural gas through said facility (70).