

## CLAIMS

What is claimed is:

1. A system for transporting natural gas, the system comprising:
  - a loading facility operable to receive, compress, and chill natural gas to a  
5           temperature at or below 0°C (32°F) and a pressure at or above 8,274 kPa  
(1,200 pounds per square inch (“psi”)) while maintaining the natural gas in a  
gaseous state, the loading facility further operable to transfer the chilled  
compressed natural gas (“CNG”) at a constant flowrate while maintaining  
the chilled CNG in a gaseous state at or below 0°C (32°F) and at or above  
10           8,274 kPa (1,200 psi);
  - a first storage system operable to receive chilled CNG from the loading facility at  
the constant flowrate, store the chilled CNG, and transfer the chilled CNG  
while maintaining the chilled CNG in a gaseous state at or below 0°C (32°F)  
and at or above 8,274 kPa (1,200 psi);
  - 15           a second storage system operable to receive and store the chilled CNG while  
maintaining the chilled CNG in a gaseous state at or below 0°C (32°F) and  
at or above 8,274 kPa (1,200 psi);
  - a CNG carrier operable to receive chilled CNG from the first storage system,  
transport the chilled CNG, and transfer the chilled CNG to the second storage  
20           system while maintaining the chilled CNG in a gaseous state at or below 0°C  
(32°F) and at or above 8,274 kPa (1,200 psi); andwherein the system is sized such that the constant flowrate from the loading facility  
to the first storage system is maintained without interruption.
- 25   2. The system of claim 1, wherein the first storage system is located offshore.
3. The system of claim 1, wherein the first storage system is located onshore.
4. The system of claim 1, wherein the loading facility is located offshore.
- 30   5. The system of claim 1, wherein the loading facility is located onshore.

6. The system of claim 1, further comprising an offloading facility operable to receive, heat, decompress, and offload the chilled CNG into a pipeline, wherein the second storage system is further operable to transfer the chilled CNG to the offloading facility.
- 5 7. The system of claim 6, wherein the system is sized such that a constant flowrate from the second storage system to the offloading facility is maintained without interruption.
8. The system of claim 6, wherein the second storage system and the offloading facility are both located onshore or the second storage system and the offloading facility are both  
10 located offshore.
9. The system of claim 6, wherein the second storage system is located offshore and the offloading facility is located onshore.
- 15 10. A system for transporting natural gas, the system comprising:  
a floating gas production, storage, and offloading facility ("FGPSO") comprising:  
a loading facility operable to receive, compress, and chill natural gas to a  
temperature at or below 0°C (32°F) and a pressure at or above 8,274  
kPa (1,200 psi), the loading facility further operable to transfer the  
20 chilled CNG at a constant flowrate while maintaining the chilled CNG  
in a gaseous state at or below 0°C (32°F) and at or above 8,274 kPa  
(1,200 psi); and  
a first storage system operable to receive chilled CNG from the loading  
facility at the constant flowrate, store the chilled CNG, and transfer  
25 the chilled CNG while maintaining the chilled CNG in a gaseous state  
at or below 0°C (32°F) and at or above 8,274 kPa (1,200 psi);  
a second storage system operable to receive and store the chilled CNG while  
maintaining the chilled CNG in a gaseous state at or below 0°C (32°F) and  
at or above 8,274 kPa (1,200 psi);  
30 a CNG carrier operable to receive chilled CNG from the first storage system,  
transport the chilled CNG, and transfer the chilled CNG to the second storage

system while maintaining the chilled CNG in a gaseous state at or below 0°C (32°F) and at or above 8,274 kPa (1,200 psi);

an offloading facility operable to receive, heat, decompress, and offload the chilled CNG into a pipeline, wherein the second storage system is further operable to transfer the chilled CNG to the offloading facility; and  
wherein the system is sized such that the constant flowrate from the loading facility to the first storage system is maintained without interruption.

11. A method of transporting natural gas, the method comprising:

chilling and compressing the natural gas received at a loading facility at a constant flowrate to a temperature at or below 0°C (32°F) and a pressure at or above 8,274 kPa (1,200 psi) while maintaining the chilled CNG in a gaseous state; then

transporting the chilled CNG to a first storage system at the constant flowrate while maintaining the chilled CNG in a gaseous state at or below 0°C (32°F) and at or above 8,274 kPa (1,200 psi); then

transferring the chilled CNG from the first storage system to a CNG carrier while maintaining the chilled CNG in a gaseous state at or below 0°C (32°F) and at or above 8,274 kPa (1,200 psi) such that the flowrate from the loading facility to the first storage system is maintained without interruption; and then

transferring the chilled CNG from the CNG carrier to a second storage system while maintaining the chilled CNG in a gaseous state at or below 0°C (32°F) and at or above 8,274 kPa (1,200 psi).

12. The method of claim 11, wherein the first storage system is located offshore.

13. The method of claim 11, wherein the first storage system is located onshore.

14. The method of claim 11, wherein the loading facility is located offshore.

15. The method of claim 11, wherein the loading facility is located onshore.
16. The method of claim 11, further comprising:  
transferring the chilled CNG from the second storage system to an offloading  
5 facility while maintaining the chilled CNG in a gaseous state at or below 0°C  
(32°F) and at or above 8,274 kPa (1,200 psi); then  
decompressing and heating the chilled CNG at the offloading facility; and then  
offloading the heated, decompressed natural gas to a pipeline at a second flowrate.
- 10 17. The method of claim 16, wherein a constant flowrate from the second storage system  
to the offloading facility is maintained without interruption.
18. The method of claim 16, wherein the second storage system and the offloading facility  
are both located onshore or the second storage system and the offloading facility are both  
15 located offshore.
19. The method of claim 16, wherein the second storage system is located offshore and the  
offloading facility is located onshore.
- 20 20. The method of claim 11, wherein the loading facility and the first storage system are  
both located on an FGPSO.