SNG (Synthetic Natural Gas)  
The Ideal Alternative  

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29th World LPG Forum Florence, Italy  
16 November 2016
What is SNG?

- Synthetic Natural Gas is a mixture of **LPG** and **air** (45% LPG + 55% air)

- SNG can substitute natural gas directly, without making any modifications or changes.

- Application areas:
  - Household usage
  - Industrial applications
  - Power generation (<50MW gas turbines)

- It could be connected to natural gas pipelines as a backup or peak shaving system
SNG System Components

- Capacities of SNG system components can change according to the loads.
SNG Applications Around World

- Customers (especially industrial) demand back-up systems for natural gas
- This demand has increased significantly during last months
- SNG is a good solution for natural gas back-up
- Several SNG systems are already installed in USA, Japan, Brazil, Chile, Hungary and Pakistan
SNG Applications Around World

- USA and Japan are leading countries in terms of SNG experience
- Here are some example applications around the world

SNG system for a hospital in Japan

SNG system for a plant in Pakistan
SNG Applications Around World

SNG system for a research center in USA
SNG Applications Around World

SNG system for natural gas back-up in residential areas in USA
SNG Applications Around World

SNG system for a glass factory in USA
SNG Applications Around World

SNG backup system for ceramic factory in USA
SNG Applications Around World

SNG backup system in Japan for 5,000 houses
SNG Applications Around World

SNG system in Japan for a population of 8,700 people
SNG Applications Around World

Residential SNG system in Palm Jumeirah in Dubai
SNG Applications in Power Generation
SNG Applications in Turkey

- There are also some SNG applications in Turkey

SNG backup system for a glass factory in Turkey
SNG Applications in Turkey

- 5 SNG systems of AES, USA have recently been installed in factories of Ulker Group

SNG backup systems for Ulker biscuit factories in Turkey
SNG Application in Aygaz Headquarter

- Heating system of Aygaz Headquarter building is equipped with 2 natural gas boilers
- SNG system from ITO, Japan is installed and connected to one of the boilers
- LPG is supplied by 4 x 45kg propane cylinders
- System is tested for 2 months without any problems
SNG Application in Aygaz Headquarter
Conclusion

• As Aygaz, we have tested and seen good result of SNG systems

• We foresee that SNG systems will be in high demand in Turkey in near future

• We promote using LPG in SNG systems for natural gas backup and advise government to prepare necessary regulations

• Using LPG in SNG systems is in Energy Strategic Planning Report of Turkey
Thank You

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