Perspectives of LNG development in the Russian Federation Regions (production, organization of efficient market)

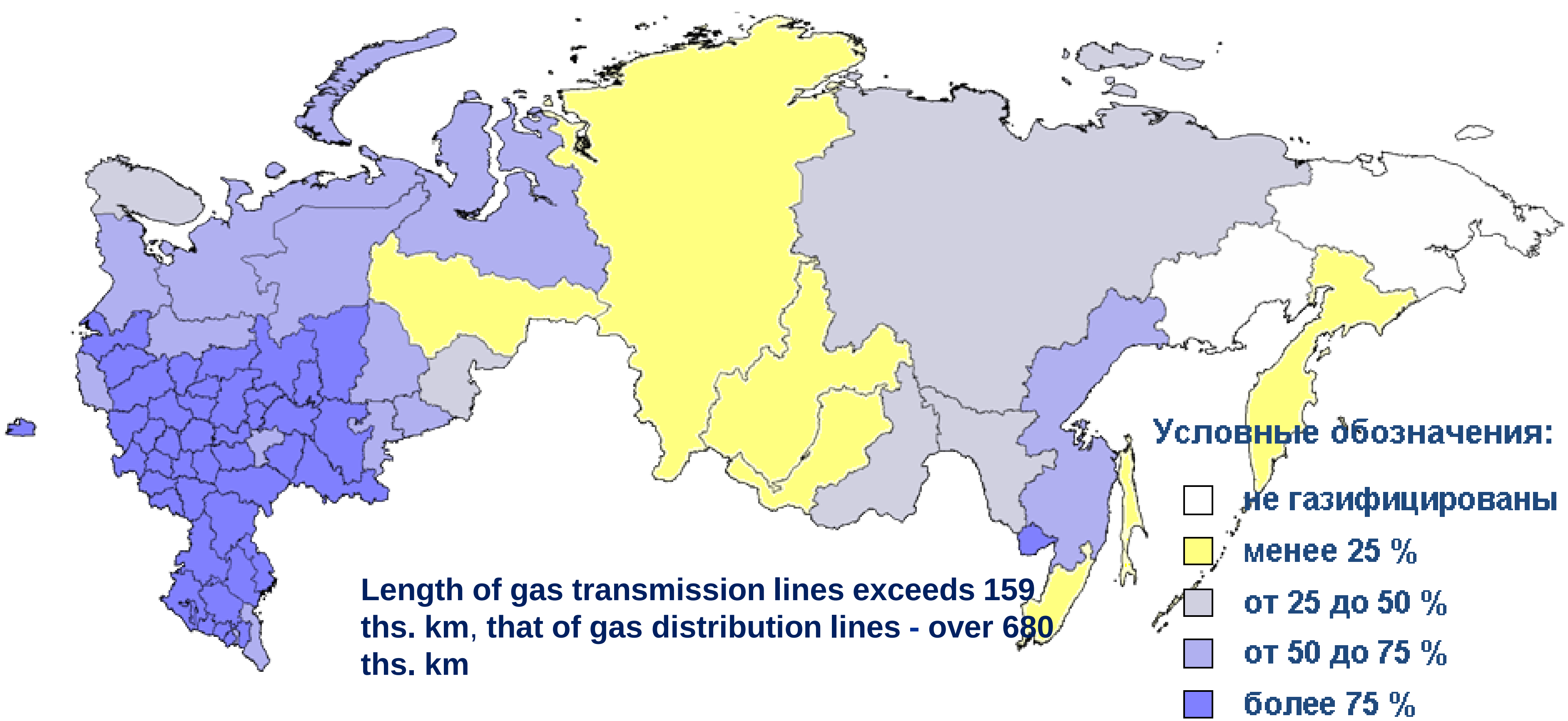
Alexander Karasevich
Doctor of Technical Sciences, professor

.
Geneva, Palace of Nations

Issues to be considered

- Actual status
  - Existing facilities
- Outlook for LNG development in the RF regions
- Potential for LNG production at gas distribution stations (GDS) and NGV refueling compressor stations
- Problems and solutions
- Suggestions

Actual state of gas supply and distribution in the RF regions



Length of gas transmission lines exceeds 159 ths. km, that of gas distribution lines - over 680 ths. km

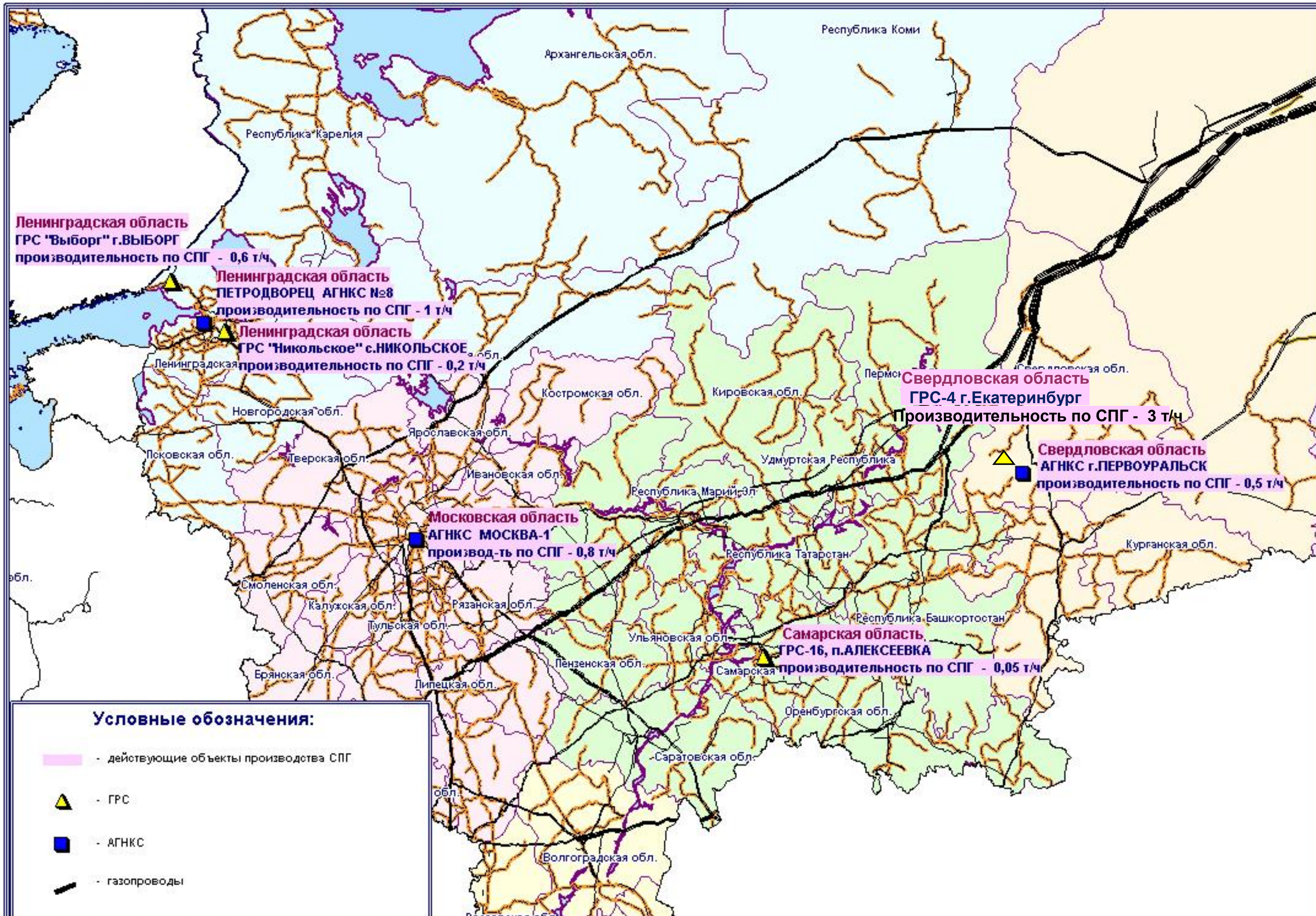
Existing gas supply in Russia:

- ✓ With natural and liquefied gas – 69,7%
- ✓ With natural gas – 56,7%

Gas supply of the East Siberian regions:

- ✓ with natural and liquefied gas – 27,5%
- ✓ with natural gas – 4,1%

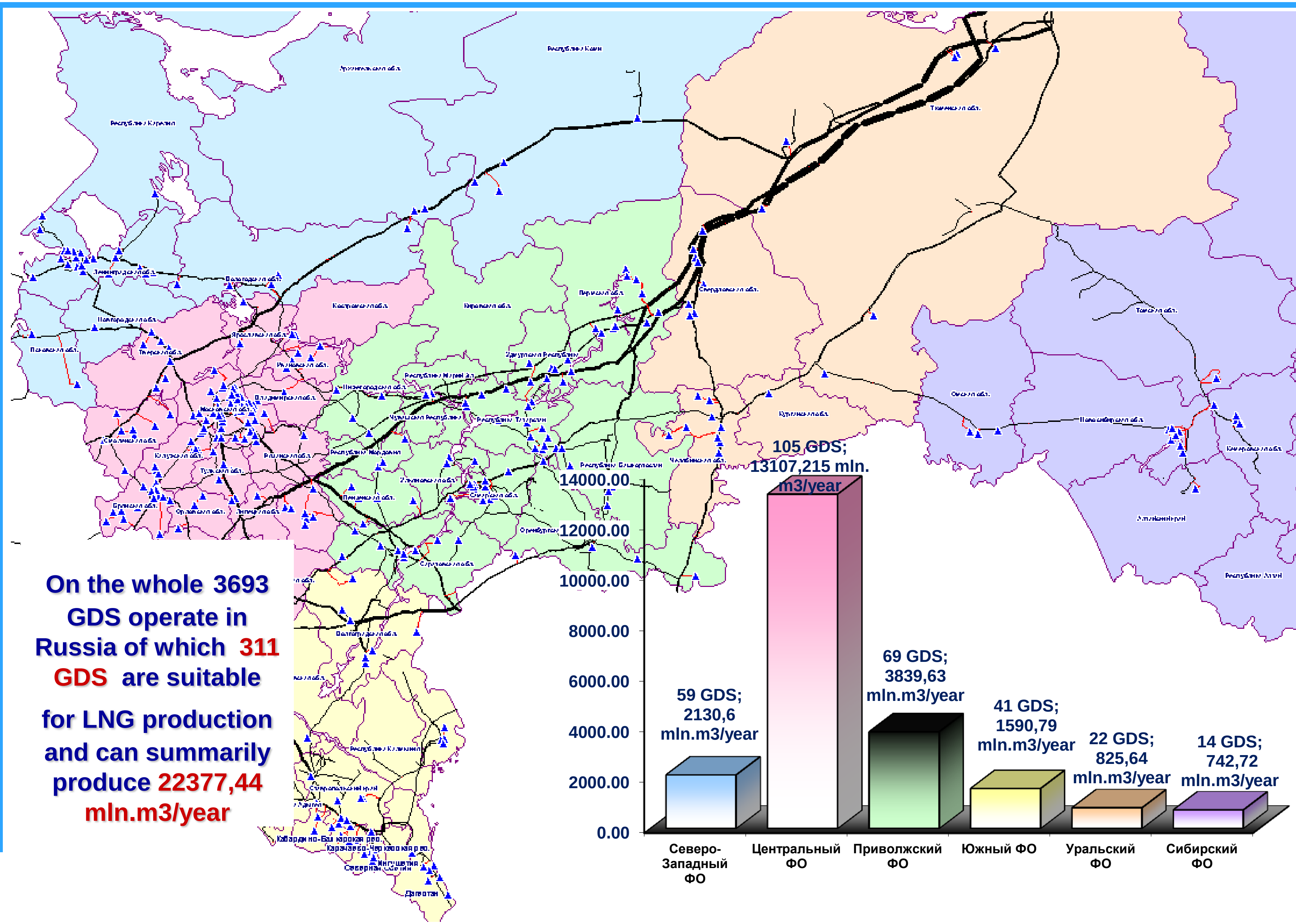
LNG facilities operating in Russia



Perspectives of LNG production in RF regions

- Level of established gas supply in the Russian regions is 50 %. Facilities without access to gas supply are remote from operating gas supply systems hence connection of these facilities to gas supply systems is economically impractical.
- Conversion to LNG is advantageous at facilities fueled with diesel, fuel oil, furnace oil and electricity.
- Each of the Russian regions has from 20 to 400 facilities fueled with expensive energy carriers like diesel, fuel oil, furnace oil and electricity.
- Least expensive are methods of LNG production basing on GDS and NGV refueling compressor stations (NGV RCS).
- Potentially some 22 377,44 mln. nm3/year can be produced in Russia on the basis of GDS.
- Potentially some 1 260,56 mln. nm3/year can be produced in Russia on the basis of NGV refueling compressor stations.

Resources of LNG production on GDS basis

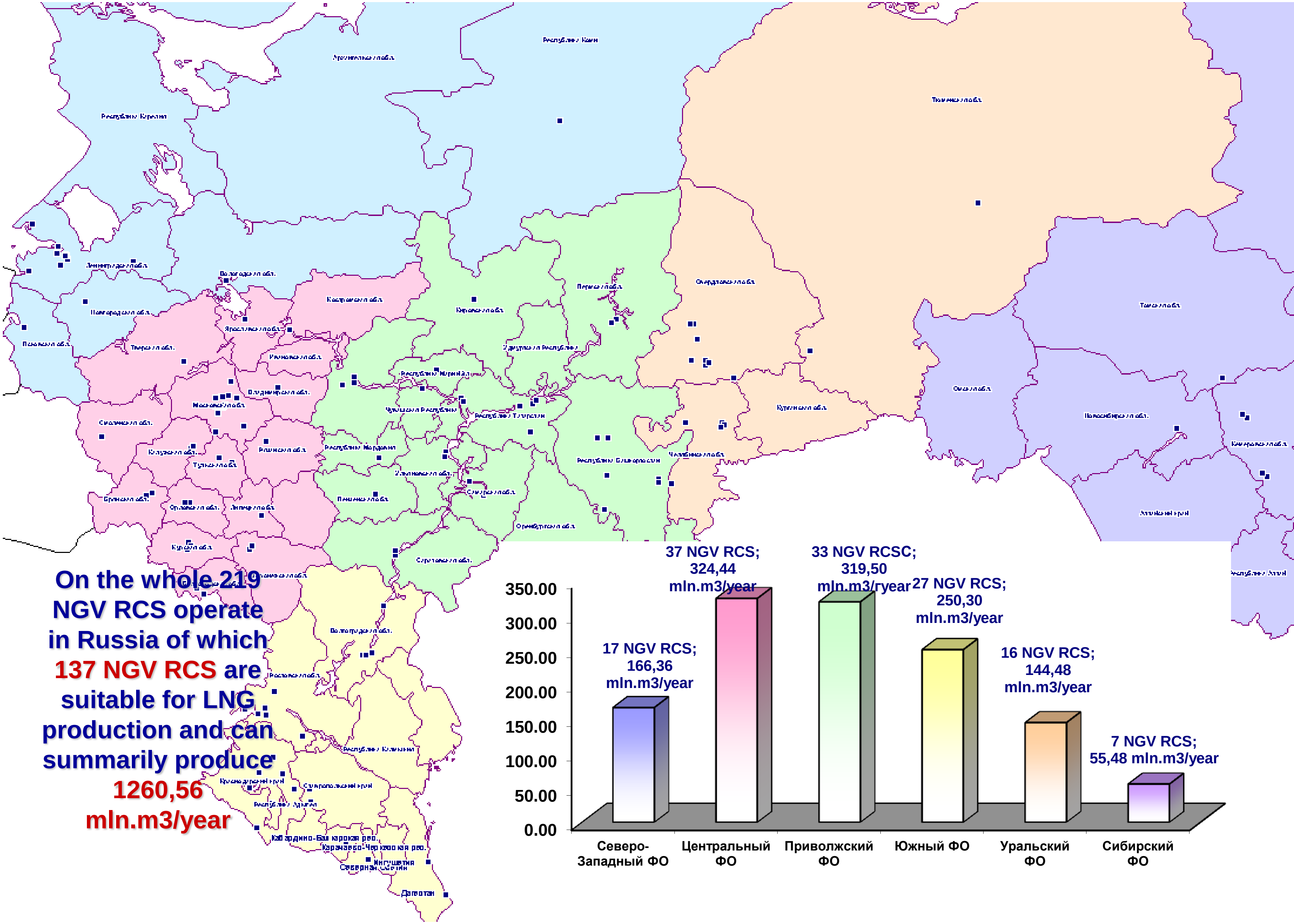


On the whole 3693 GDS operate in Russia of which 311 GDS are suitable

for LNG production and can summarily produce 22377,44 mln.m3/year

Resources of LNG production on the basis of NGV RCS

On the whole 219 NGV RCS operate in Russia of which **137 NGV RCS** are suitable for LNG production and can summarily produce **1260,56 mln.m3/year**



LNG market development problems and solutions to cure those

Problems

- Outdated requirements in documents regulating design and operation of LNG facilities (1987 - 2000)
- Absence of documents regulating cost of LNG balance-of-plant needs and process loss norms.
- Absence of LNG price formation mechanisms.
- Absence of incentives for LNG consumer use.
- Absence of interoperation frameworks for Investor, Contractor and Operator of LNG production, transport and storage facilities.

Solutions

- Development of regulating documentation.
- Generating LNG price formation mechanisms allowing for higher competitiveness in the RF energy market
- State support measures facilitating wider use of LNG in the Russian Federation.
- Establishing frameworks for interoperation of Investor, Contractor and Operator as enable cross-subsidies in the regions in question.

Suggestions

- Substantiating normative, legal and tariff regulation
- Feasibility studies of investments in LNG development projects in the RF regions basing on earlier completed projects and foreign practice analysis
- Generating proposals on LNG production and distribution cost reduction
- Establishing frameworks regulating interrelations between LNG facility proprietor and operator
- Establishing conditions that stimulate investments in LNG facilities and incite consumers to use LNG (tax relief, lower customs duties and bank loan percent)

Thank you for attention