Strategic Advisors in Global Energy

Russian Offshore Investment Prospects

American Enterprise Institute

Julia Nanay, Senior Director

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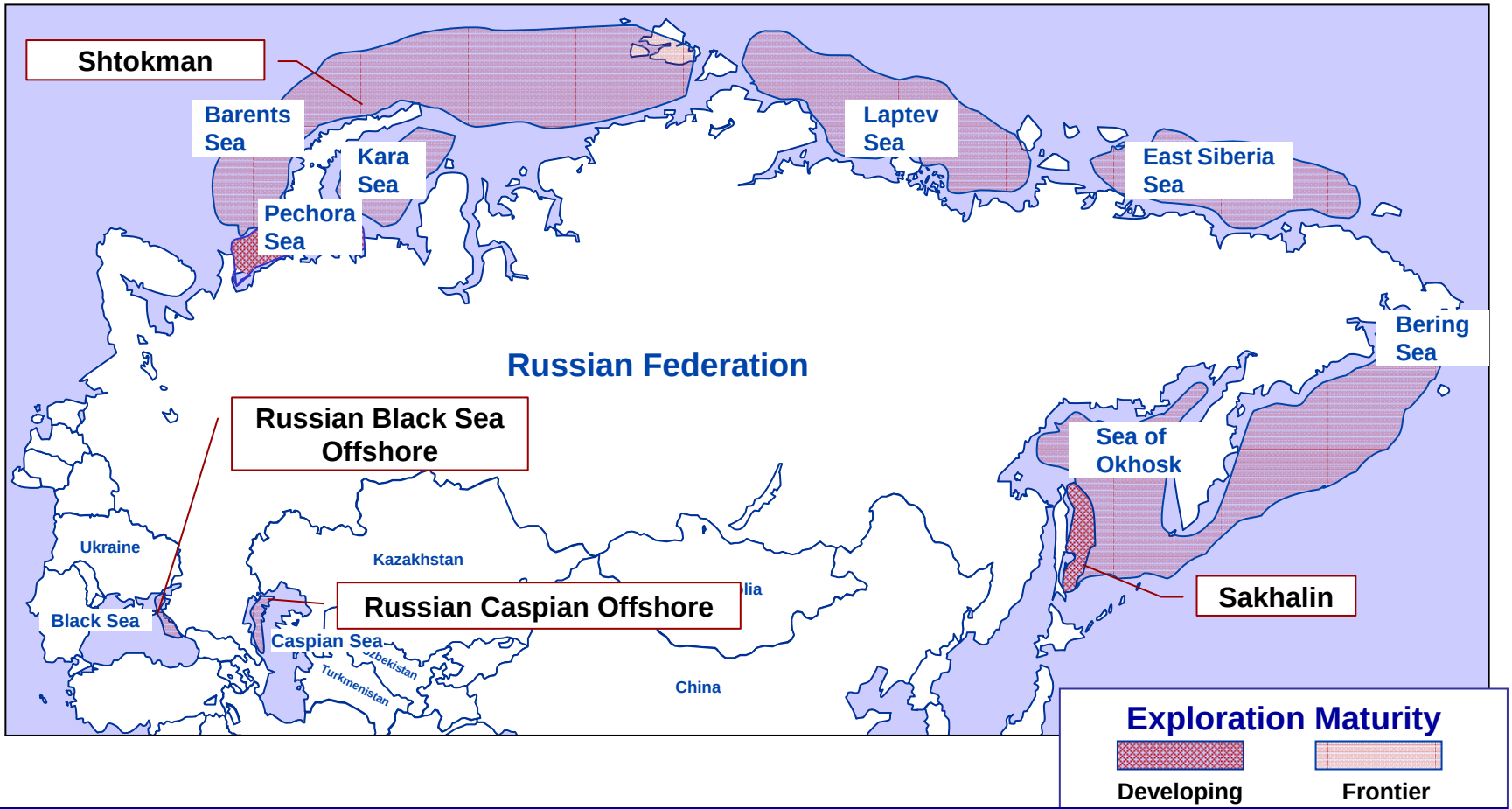
PFC Energy

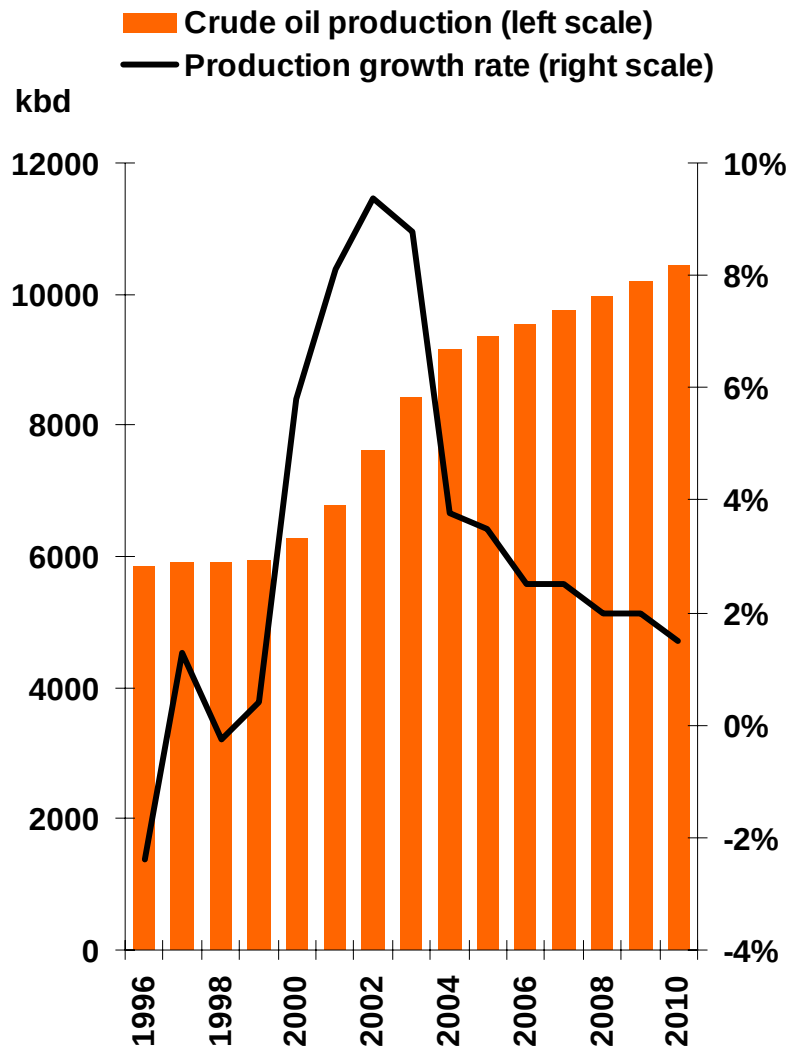
Russia – Key Offshore Regions



Russia Has Numerous Offshore Regions
Sakhalin is Currently The Main Producer

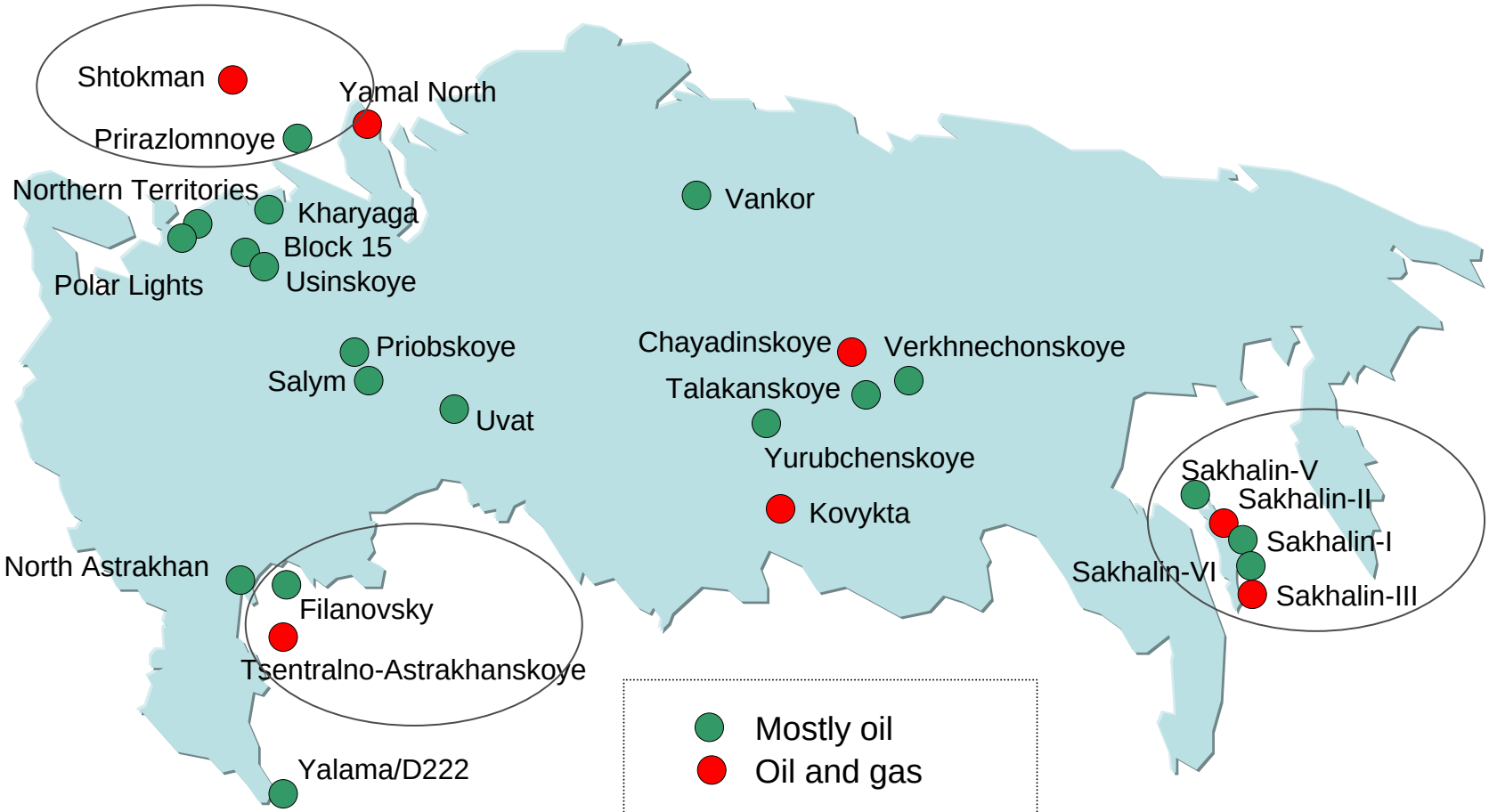
Onshore Output Growth is Slowing

- Yukos was the engine of Russian production growth until 2004
- In 2005, Sakhalin became the engine of growth
- After 2010, new production must come from various offshore areas, and Timan-Pechora, Eastern Siberia, and the Yamal Peninsula



The Russian Offshore Is Critical for Production Growth After 2010

Major Identified Greenfield Projects



Source: PFC Energy

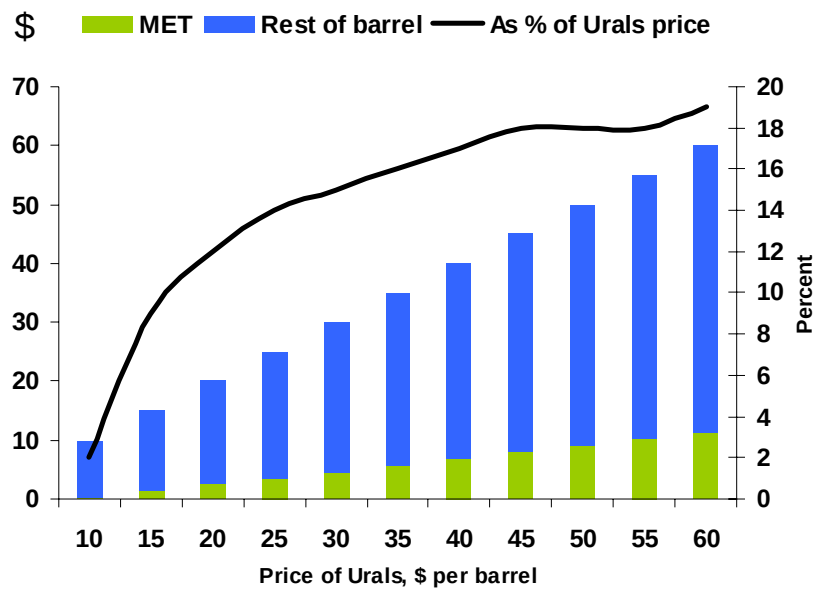
Ministry of Natural Resources Focuses on Offshore

- **In March 2006 Russian Ministry of Natural Resources (MNR) submitted draft strategy for 2020 for developing offshore**
- **By 2020:**
  - Offshore production could account for 20% of total oil & gas output
  - Russian offshore oil and gas production could reach 95 million tons (1.9 million b/d) and at least 150 Bcm (By 2010: 10 mmt, 30 bcm))
- **Aggressive implementation of the offshore strategy depends on passage by the Duma of a differentiated Mineral Extraction Tax (MET) and a new Subsoil Law, with the timing of their adoption still uncertain**
  - End-April 2006, Russian government adopted changes to the MET for depleted fields and East Siberian fields that could be effective Jan. 2007
  - MET changes did not address offshore, leaving this for Duma debate
  - New Subsoil Law needed to define which fields are strategic, capping foreign participation

Offshore Strategy Is Hostage To Bureaucratic Infighting

Royalty Regime (Mineral Extraction Tax)

- Current royalty regime or Mineral Extraction Tax (MET) dates to 01/02; modified in 2004 & 2005, further modified 2006
- MET is constant regardless of the characteristics of the fields and operating conditions—indexed to average Urals price
- A MET (tax holidays) will be introduced in 2007 for East Siberia but nothing decided for the offshore
- Adjustments to MET will change power balance among producers and within the Kremlin



January 2005 MET formula:

[Ruble 419 per ton x (average export Urals price - $9)/261 x Ruble/$ exchange rate].

Modifications in MET Would Spur Faster Offshore Development

New Subsoil Law

- Russian Subsoil Law geared to onshore
- Ministry of Natural Resource is main supporter of new law
- Shift to Civil Law principles is controversial, as this would be create transparency
- Shift to auctions away from tenders questionable since it is controlled auctions
- Revisions pending: Duma passage may be indefinitely delayed

POSITIVES

- **Civil Law contract vs. administrative oversight: investors' rights would be formally recognized as property rights**
- **Greater transparency through shift to auctions away from tenders (Not clear)**
- **Automatic development rights for exploration rights holders (Not clear)**
- **License grandfathering (Not clear)**

NEGATIVES

- **Bars foreign investors from taking more than 49% in new large "strategic" fields**
  - **Minority foreign stakes of 15-20% for each foreign company envisioned**
- **Strategic fields are those with oil reserves of >150 million tonnes of oil (1 billion barrels) or 1 trillion cubic meters (1,000 billion cubic meters) of gas**
- **Some remote offshore fields might be removed from strategic list**
- **Retroactive codification of reserves as "strategic" is a possibility**
- **3 fields already on strategic list: Timan Pechora's Titov & Treb and East Siberia's Chayadinskoye**

Shtokman Is a Strategic Field

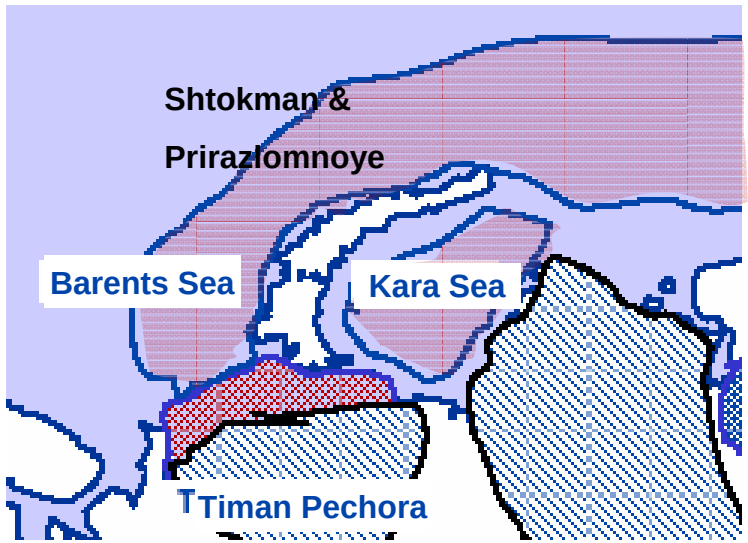
Ministry of Natural Resources Focuses on Offshore

- **Two-thirds of future offshore resources are seen as being in Barents and Kara Seas**
  - Gazprom sees Barents Sea as a critical area for its projects
  - In late 2003 Gazprom bought 50% of Sevmorneftegaz from Rosneft, becoming sole owner of licenses to Shtokman and Prirazlomnoye
  - In December 2005, Gazprom obtained the license to Dolginskoye close to Prirazlomnoye
  - Prirazlomnoye is being developed without foreign partners

The Arctic Is The Most Promising Area for New Offshore Production

Key To The Offshore – Barents Sea & Kara Sea

- Significant Challenges to Arctic Developments
  - **Legal: lingering boundary disagreement between Norway and Russia**
  - **Environmental: ice conditions, complex wave patterns, deep water, and long distance from offshore**
  - **Technical: debate over feasibility of using subsea oil and gas technologies over large distances**



One of Main Focus Areas For IOCs

MNR Plans to Offer Blocks

- **According to the MNR:**
  - By 2010, 11 tenders will be held to explore 32 blocks in the Barents, Okhotsk and Pechora Seas
    - 5 tenders for 12 Okhotsk Sea blocks in two offshore regions
      - Sakhalin 3 and 6
      - Magadan
    - 6 tenders for 20 Barents and Pechora Sea blocks
  - 3-4 blocks will be mapped out in the Kara Sea; 2-3 in the Laptey Sea; and 1-2 in the deepwater section of the Black Sea
- **MNR has also said that decisions about which foreign companies can participate in the offshore will be made in two stage tenders**
  - First stage: on the basis of the volume of production and investments companies have in Russia, as well as their technical and financial capabilities
  - Second stage: according to how much they are willing to invest in exploration and their ability to meet deadlines for putting fields into operation
  - Foreign companies will have to enter into a JV with a Russian company which will have more than 50% in the project

Russian Firms Do Not Have Capacity To Take On All These Blocks

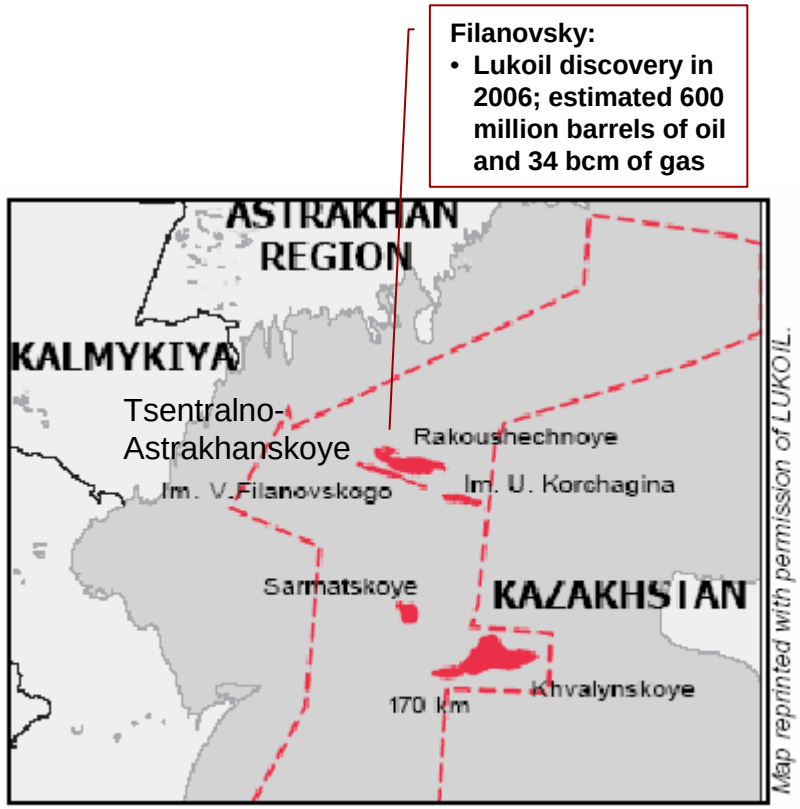
Key Regions – Black Sea and Azov Sea

- May be of greater interest to Russian and foreign companies since Ukraine tendered its offshore Black Sea in March 2006
- Lukoil and Rosneft are exploring in the Azov Sea through their Priazovneft JV
- Rosneft has acreage offshore Tuapse in the Black Sea and if it acquires Yukos's remaining assets, it will get a Yukos license near its Tuapse block
- Biggest challenges are insufficient exploration, technological issues
  - Russian companies lack deepwater capabilities and offshore rigs

Renewed Interest In Russian Black Sea After Ukrainian Tender

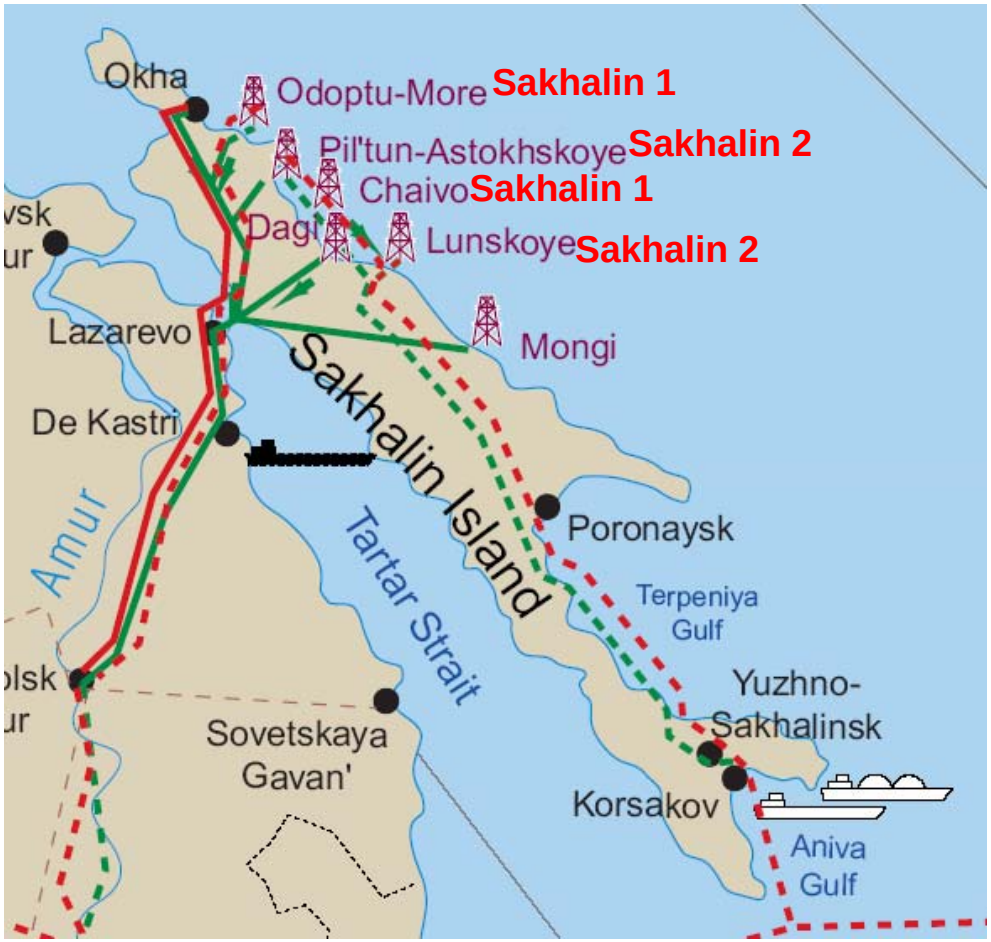
Key Regions – Russian Caspian Sea

- **Lukoil has the dominant position in the Russian sector of the Caspian Sea**
- **January 2006, Lukoil announced discovery of Filanovsky, the largest oil field discovered in Russia in past 10 years with light sweet crude**
- **Also in January, Lukoil acquired a controlling stake in the company that holds the license for the Central Astrakhan field with estimated reserves of 9.5 tcf of gas and 1.2 bn bbls of condensate**



Russian Section of Caspian Has Significant Gas & Condensate Reserves

Sakhalin-1 and Sakhalin-2 in Okhotsk Sea



Sakhalin-1:
ExxonMobil and Rosneft

- Started oil production Oct. 2005, and by end 2006, will produce 250,000 b/d
- July 2006, start up of oil exports

Sakhalin-2:
Shell and Gazprom (?)

- Started oil production in 1999, now averaging about 80,000 b/d and by 2008 output should reach 150,000-180,000 b/d
- Summer 2008 will supply 9.6 mmt of LNG to Japan, Korea and North America

Sakhalin-1 & Sakhalin-2: Most Important Current Offshore Producers

IOCs Essential for Developing Russian Offshore

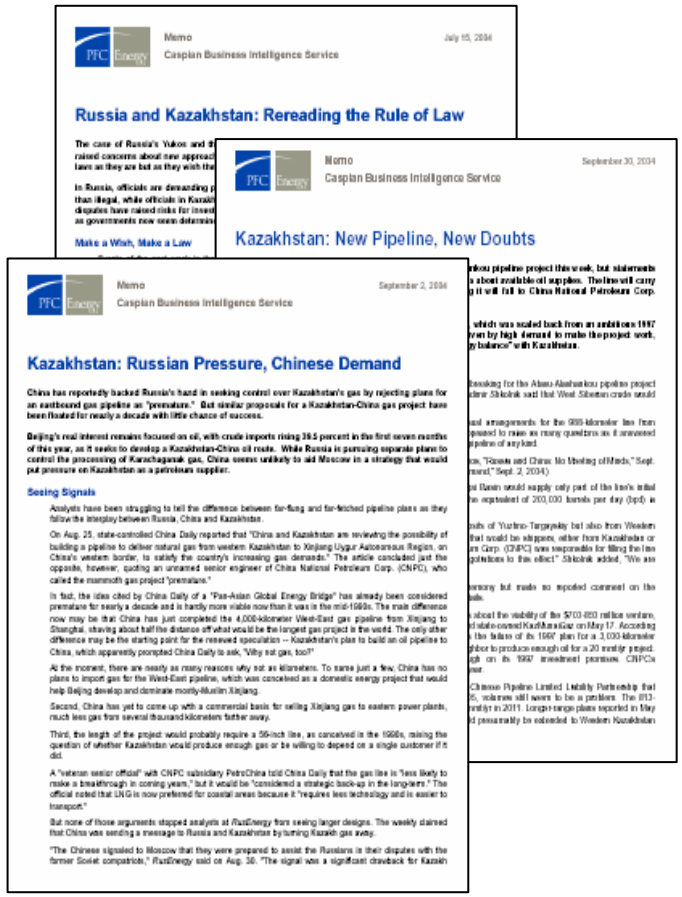
- Russian companies lack extensive offshore experience
- Offshore regions have unique and unusual complications, harsh conditions, and require state of the art technology and management skills
- Experience has shown that it will be difficult to bring projects in under the original timeline and within the original projected budget
- The state may need to unfreeze the production sharing contract as a model for new offshore projects
- Russian companies demand majority roles in new projects with the expectation that IOC partners will carry them at least through the exploration phase
- Negotiating partnerships with state companies and/or state bodies will cause delays

Economic Nationalism, Int'l Politics Are Obstacles To IOC Involvement

Russia and Caspian Service (RCS)

The RCS addresses the day-to-day political, economic and petroleum sector issues critical to oil and gas investment decisions in this hydrocarbon resources-rich region

- **Benefits**
  - The subscription service consists of twice-weekly memos and timely alerts on the international and regional relations as relates to energy policy, natural resources regulations, and the impact of politics on energy export routes, among other issues
- **Analysis**
  - In-depth analysis of petroleum sector risk and the political, regulatory and economic drivers affecting the competitive environment in the Russia and the Caspian region
- **Consulting Services**
  - Many clients use a combination of subscription and consulting services to fit their exact investment needs



Contact: Julia Nanay, Senior Director, for more information at jnanay@pfcenergy.com.

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Main regional offices:

- **Asia**

  Level 9 South Block
  Wisma Selangor Dredging
  142-A Jalan Ampang
  50450 Kuala Lumpur, Malaysia
  Tel (60 3) 2168-8870
  Fax (60 3) 2161-0702

- **Europe**

  3 cité Paradis
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