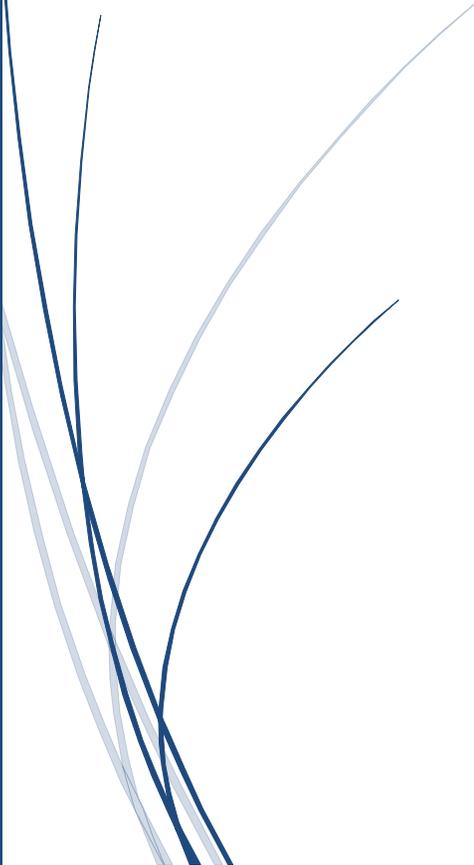




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# Russian Market Assessment

A critical analysis and recommendations on the Russian Oil & Gas Market.



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## 1. Executive Summary

This is a Business Plan to develop opportunities in Russia for our Wellhead, Midstream and Custom Process Systems businesses. This plan considers and challenges observations over the last three months, makes recommendations and concludes on the strategy for the Russian market, supported by established relationships, installed base and ongoing work through the Russian team.

Key to gaining traction will be support of Service and other Company Divisions, collaborating where appropriate. **To be read in conjunction with CPS Market Analysis Russia - March 2014**

## 2. Introduction

Following the issue of the CPS Sales Strategy Outline, Russia and potential opportunities, the business was tasked with preparing a detailed market review of the Russian Oil and Gas market looking at Wellhead, Midstream and Custom Process opportunities, for both Capital and Service, from offshore, onshore Artic, heavy oil, conventional onshore green and brownfield sites covering technologies, development opportunities, potential collaboration and service support.

The deliverables are detailed below:

1. **Opportunity size for Wellhead, Midstream, CPS**
2. **Who are our competitors in each of these segments**
3. **What are the risks**
4. **Project forecast for next 3 years**

This Business Plan and recommendations have derived from existing market intelligence, market presence, experience through our Moscow team, significant installed base and refreshed focus over the last three months. These activities have developed two prior phased reports, culminating in this full plan where we can quickly develop momentum and revenue with minimal risk, expenditure and absorption of resource away from larger long term projects. These opportunities will be within the gas, produced water and oil markets, leveraging from our installed base utilizing our Service resource.

### 3. Market description and project deliverables

The Russian market consists of offshore and onshore markets as described in the CPS Market Analysis Russia.

Russian offshore is a new area for development, especially for Russian Oil & Gas companies, as they had no previous experience in offshore production projects, leaving most of the exploration and development to European or American companies.

Russian offshore sector consists of Baltic sea, Black and Azov sea, Caspian sea, Japan sea, Okhotsk sea, Bering sea and Russian Arctic comprising of Barents sea, Pechora sea and White sea, Kara sea, Laptev sea, East Siberian sea and Chukchi sea.

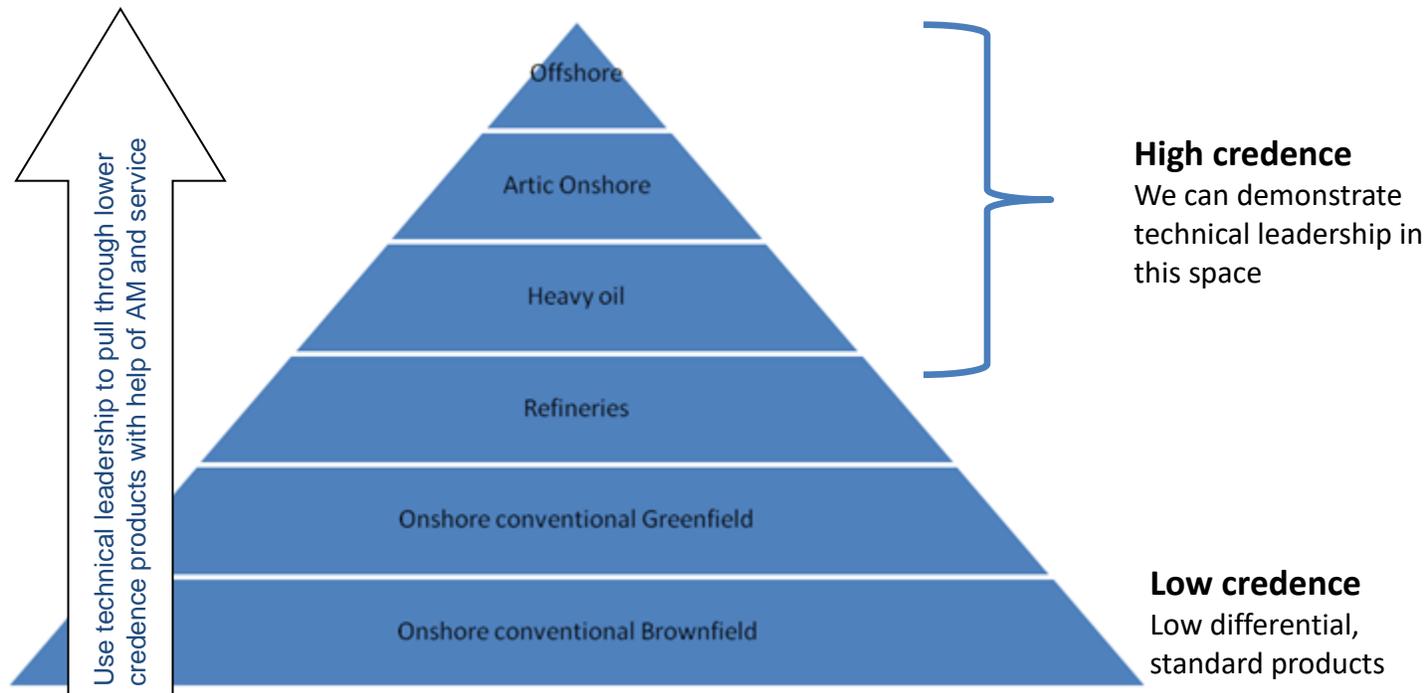
Russian onshore conventional production market consists of areas of traditional old fields – mainly in West Siberia, Volga-Ural region and Timano-Pechora, and areas of new fields – on Yamal, East Siberia and Far East. Share of traditional old oilfields in total country oil production is about 80% which is declining 1-1.5% a year. It drives demand for EOR methods and technologies, as well as the development of new fields in areas of extreme cold conditions and with almost no infrastructure.

The exploration into territories where infrastructure is none existent is raising the cost of oil production, thus Russian onshore conventional market is very susceptible to oil and gas price fluctuations and also to in-country tax burdens. Total O&G country revenues account for 52% of federal budget and over 70% of exports, so there is a driver to maintain overall in-country O&G production which is currently over 10 mb/day. To maintain this level of total O&G production until 2020 Russia will require more than \$280B worth of investment. This can only be maintained by integration with international companies developing offshore projects and EOR onshore, by the replacement of old out of date processing technologies.

A possible slowdown in the European demand for Russian gas drives Russia to expand its gas market beyond Europe (otherwise this could reduce incentive to invest), political pressure for Russian O&G exporters to look East is strong, thus Gazprom have its Eastern Gas Program, Rosneft and Novatek are also targeting the Asian LNG market. Shale gas production has been excluded from Russia's near-term E&P plan due to economical irrationality on a commercial scale. Tight oil tax breaks came into effect September 2013 to push oil production from 0.2% at present to 11% of Russia's total oil output by 2020.

Customer visits in June 14, July 14 and August 14 have supported these observations with interest in overall technologies, services and support to increase efficiency and reduce downtime, at the same time better management of resource and a reduction in installation costs.

In reviewing the market we have split into six levels, with high technology, less price sensitive opportunities at the top down to low end technology at the bottom. I believe from conversations with the market that we can leverage our reach through technology, brand and Service to pull through opportunities.



#### 4. Market drivers and trends

Discussions over the last few weeks have confirmed a vibrant market with opportunities for the Company across Capital and Service projects, with Service opportunities leading the way.

The positioning between Russia, Europe and the US over Ukraine highlights opportunities for Russia to focus her exports East where there are less political risks, but still a demand for engineering solutions. Restrictions through sanctions for Western equipment will impact our reach, but we can leverage the Service opportunities to position ourselves with the end user. Sanctions will be discussed in appendix a.

The proposed strategy requires us to support the client locally and the model for this will be outlined in this plan.

## 5. Key Observations

These key observations combines' information we already have through the activities within EACR, Corporate, other Company Divisions, Marketing Houston, locally through the CPS Sales team Russia and information gained through customer field visits in Moscow, Ufa, Astrakhan and Sakhalin.

The customers were identified and targeted to give us a refreshed view of the market and were strong enough to challenge any pre-conceived or unbounded assumptions:

- Gazprom
- Bashneft
- Lukoil
- Rosneft
- Gazflot
- SEIC

Technologies discussed were a mix from our Wellhead, Midstream and Process technologies across oil, water and gas streams, including Service and Capital.

Each organization had standalone projects, although common themes developed during the information gathering exercise:

- Local support
- Pilot studies
- Debottlenecking / surveys
- Local engineering / fabrication
- Russian specification
- Technical workshops

In addition to these more tangible projects, some state sponsored companies (Bashneft, Rosneft) had started to form high level Networks of Participants (NOP) to drive innovation, delivery models and support. We need to influence this 'far' space as these networks collaborate at a senior level, steering technology, projects and market expectation.

From these highlights, my observations are this is a market we can add value to and influence through listening to the market, focus on local support providing excellent service, leading us medium term to Capital sales.

There are customers who are aligned to our values and need high end technology, which we can harness through a program of high level workshops to influence specification, using our Service offer as a tangible demonstration we have the reach and appetite to operate in this market.

The Company are fortunate that we have established Divisions in Russia - Surface, V+M, supported through a 'One Company' focus team in Moscow and we will draw on their experience and exposure in mitigation of risk, cost absorption, commercial terms and reward.

This experience and focus, along with our brand, is our differentiator, targeting the market mix highlighted in the earlier market description.

We will develop channels to market including:

- Direct Service activities
- Direct COE / workshop schemes
- Engaging with NOPs
- Potential partners to deliver in country service support (may be necessary in light of increasing sanctions)
- Utilization of existing 'Buying Houses' to mitigate commercial risk

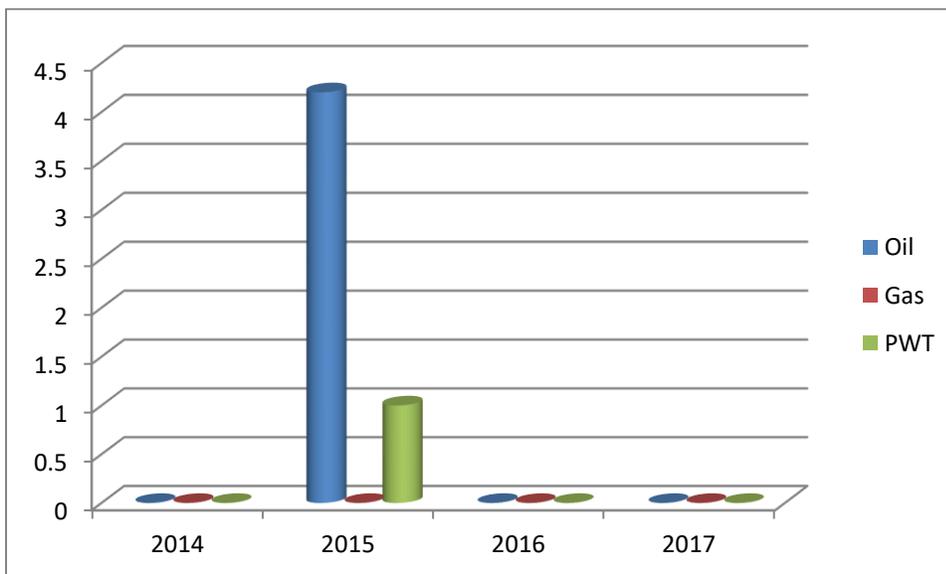
## 6. Project deliverables

Below we have the project deliverables with metrics; the recommendation and strategy with indicative costs follow in their own sections

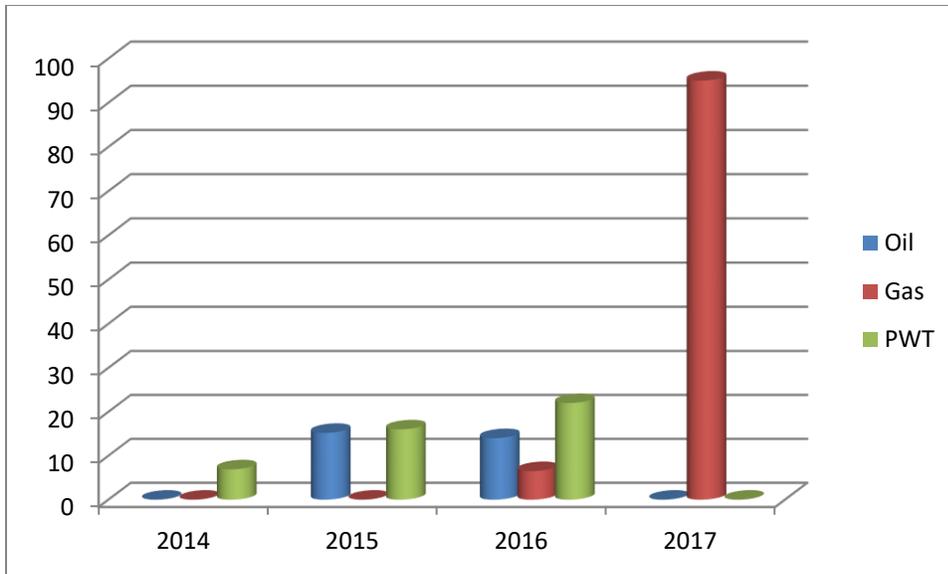
## 7. Opportunity Size / three year forecast

We have existing Capital and Service forecasts for Russia consisting of Forecast and Target opportunities. These opportunities form the business forecast for the region:

Forecast opportunities for Capital Russia in \$m:



Forecast and target opportunities for Capital Russia in \$m:

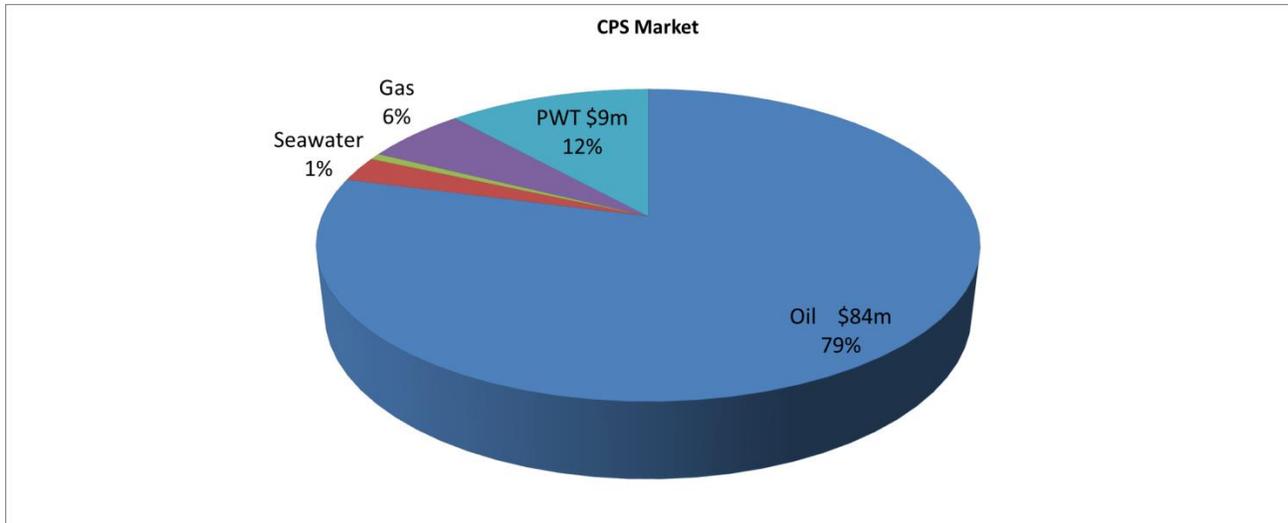


Identified Capital opportunities, including forecast AND target opportunities give us the following forecast for the next three years, at an assumed combined margin of 25%:

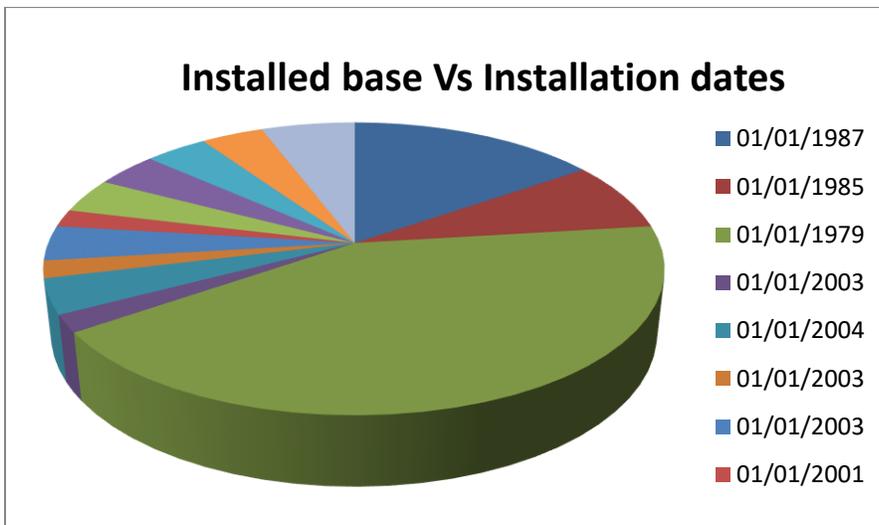
- 2015 = \$31m
- 2016 = \$43m
- 2017 = \$95m

Expected market growth from 3<sup>rd</sup> party reports indicates an annual growth rate of 3.2% driven from the need to improve efficiency, technology and Enhanced Oil Recovery programs. Ordinarily this figure would be higher, but the impact of State run organizations, slow reaction and political interference have impacted forecast growth. The situation in Ukraine adds further pressure to Capital growth predictions, however our considerable installed base and opportunities therein provide us with an opportunity to develop the market within, ring fencing key accounts and influencing the market.

Currently we have over \$100m of installed base within Russia, 79% Oil products, 12% PWT and 6% Gas (Source CPS Installed Base Russia.xls MH):



80% of these installations have been in production for more than 25 years, so we expect considerable opportunities through our Service team to consolidate our position, delivering value and developing customer loyalty by leveraging our Brand, Value and appetite / access to region. (Source CPS Installed Base Russia.xls MH):



From the installed base and life of equipment, Service predicts potential revenue at 50% margin of:

- Parts and services potential - \$22m
- Upgrade and retrofit potential - \$27m

The initial Service target forecast over three years is:

- 2015 - \$1.2m
- 2016 - \$1.4m
- 2017 - \$1.7m

We should use these opportunities to challenge and refine our assumption, enhancing our regional experience, building and leveraging customer loyalty.

## 8. Competitors

The competitive landscape is mixed, with local low technology fabricators through to high end international companies. The list below shows our top five, with their reach, investment in Russia and major projects:

Company	Revenue (Millions \$)	Employee count	Invest. to date (est.)	Manufacturing / Fabrication / Partnership	Major Projects
 Mi SWACO A Schlumberger Company	30	1000+/2	200	Acquired local companies and signed JV agreements. Siberian Training Center in Tyumen, large R&D centers in Moscow and Novosibirsk.	Lukoil - Filanovsky (Shore facilities and Water Treatment on platform)
 AkerSolutions	30	30/2	30	Strategic partnership agreements with local manufacturers Zenith and Zvezdochka (Severodvinsk) in order to establish local oil&gas equipment manufacturing.	Rosneft - Syzran' refinery; Lukoil - Filanovsky; RusVietPetro
 PROSERNAT A Schlumberger Company	50	10+	0	Alliance with Technip. No any manufacturing in Russia yet.	Yety-Purovsk/Modular TEG package - Gazprom Neft; Kharyaga Phase III/Associated Gas Desulfurization and Sulfur Recovery Package - Total EP Russia; Nizhnekamsk/Claus & Sultimate™ - TAIF-NK; Filanovsky/Gas Treatment Package - Lukoil
 SIVALLS	15	1	0	Manufacturing in Odessa, US. Long-time cooperations with Surgutneftegaz (since 1996). Big installed base - 300 units	Surgut (Surgutneftegaz), Kogalym (LUKOIL) - Heater treaters.
 MERPRO	10	300+/1	150	NOV is investing \$100M into drilling rigs manufacturing in Russia (Kostroma plant), creating 300 jobs. Potential site for process equipment manufacturing. Large service center in Nizhnevartovsk (W.Siberia)	SEIC - Sakhalin; TNK/BP - Nizhnevartovsk; Naryan-Mar - LUKOIL

## 9. Risks

Our identified risks are as follows, with some tangible disruption, but also some unknowns in reference to the sanction\* situation.

- Local competition
- Political interference
- Exchange rate
- Geographical split
- Increasing hostility between Moscow and EU / US
- Influence of Far East vendors

## 10. Recommendations

My recommendation is to leverage our Service opportunities, providing support to the local market either through Company resource or with qualified partners to provide this service on our behalf. We will use this to demonstrate our commitment to the market, targeting our installed base and influence the customer at every level.

This serves the market, strengthening our experience with a quicker return at attractive margins and crucially is as yet unhindered by sanction activity. Certainly local support through a partner will negate any political effect, but we must choose who we want to work with carefully to protect our IP and give us flexibility to expand through into Capital projects.

These recommendations are listed below:

1. Produce hit list of key clients and opportunities which need Service support by survey, service or optimization across WH, MS and CPS – Russia CPS Sales and Service
2. Review and produce project lists with other Company Divisions to determine potential leverage with One Company approach – Russia CPS Sales, Russia Leadership Team
3. Develop execution plan for Service activity, **with focus on supporting market within sanction rules\*** - EACR Service Sales team, with support from Russia CPS Sales
4. Review common skills/resource needed and develop CBU based on trip location, duration, translation and logistics. Some clients will pay for this service, others see it as an advantage to us so expect it FOC. Leverage One Company – Combined Russia Team
5. Develop existing forecast opportunities and look at how we can pull through the lower hanging fruit by the above actions, however we need to factor in sanctions and barriers to entry – Russia CPS Sales
6. Start dialogue with potential partners who can work with us to develop project execution model for service activities – EACR Service with input from Russia CPS Sales
7. Determine Local Content drivers / opportunities to support market including low level assembly, fabrication, services – Combined Russia Team
8. Start to integrate with technical and process leads in State companies, identifying who we need to develop as advocates of One Company and identify synergies and opportunities to standardize our products, including kitting model – Russia Leadership Team, with input from Russia CPS Sales, Engineering
9. Leverage our relationships with Global Blue Chips with interests in Russia; Statoil, Exxon, BP, Shell, Eni – Global Account Managers
10. Review workshop options – include development of advocates and possibly academics / universities – Russia Leadership Team and CPS Sales
11. Review pilot opportunities and develop plan for key technologies including gaps in hardware and resource – Engineering and Russia CPS Sales

## 11. Go to market strategy



- **Who** are our target clients = Lukoil, Bashneft, Rosneft, Gazprom, Sakhalin Energy
- **What** are we promoting = Service surveys, optimization services, technical leadership, collaboration opportunities, pilot programs to define and refine our Capital offer
- **Why** = To fill gap in our market and satisfy immediate demand, leveraging installed base and existing One Company relationships, leading to supplier of choice for Russian market for our priority products
- **How and When** =
  - Engage with Lukoil and Bashneft to provide Service for PWT and Oil desalter Survey and potential upgrade opportunities – Q3 2014
  - Identify and expand holistic delivery model for Service work – Q4 2014
  - Further develop survey opportunity list with Service and provide resource to conduct surveys in field, using partners where applicable in light of sanctions - Q4 2014
  - Continue to obtain contacts from target companies and visit in HQs Moscow to give high level presentation - Q4 2014
  - Develop collaboration matrix identifying where we can leverage One Company, fabricators, Universities, design institutes to drive our technical over, desensitizing price - including which of our competitors collaborate and with who - Q4 2014
  - Review pilot opportunities (Desalting, H2S, PWT) with Product Managers and scope out availability and costs.
  - Promote our service capabilities, added value and appetite for market - All

## 12. Cost metrics

To reach our market, as earlier discussed, the common theme when speaking to the clients is the need for service activities to survey, debottleneck and optimize our existing installed base.

To first develop the two identified opportunities, Lukoil PWT and Bashneft Desalters to generate revenue and test our assumptions, we should look at placing resource in country to support. The alternative is to use local partners and we should enter discussions with them in tandem to mitigate risk on further sanctions, accelerating out route to market.

Location is to be determined, but indicative costs experienced by our Surface colleagues for service engineers are out lined below.

- Typical daily rate offshore (Arctic) - \$2000-2500
- Typical daily rate onshore – \$1200 – 1500
- Salary costs for Service engineers in Moscow carry a premium of x 1.5
- Typical salary in Moscow per month is \$2600 net plus field bonuses

## 13. Review – Feedback loop

Once we start to execute the plan I recommend we have monthly review meetings, enabling all the participants to review progress and amend if necessary. A typical feedback loop will be able to facilitate this and react to any market changes we have to react to.

This visibility will give us the foresight into changing our business model or if appropriate developing our exit strategy.

## 14. Conclusion

To maximize our reach in Russia's predicted \$280bn investment program over the next six years we must leverage our installed base, demonstrating to the market we have the capacity, capability, resource and resolve demonstrating our orientation to the market through excellent customer service and technical leadership. We should use this opportunity to define our differentiation through Service work, technical forums, Services brand; influencing the operators, end users and broader NOPs.

## 15. Appendices

### \*a) Sanctions

1. To date sanctions in place through US and Europe targeting three main areas
  - a. Artic offshore
  - b. Deepwater
  - c. Shale
2. Only applicable to equipment supply; potential to tighten up on services
3. Western companies starting to restrict activities in Russia
  - d. NOV
  - e. Halliburton
  - f. Schlumberger
4. Russian market looking East for technology with local support
5. Climate worsening with local view restrictions will become more severe
6. Services currently unaffected
7. We continue to operate in Country and acknowledge that the sanctions may cause some disruption, however this will pass
8. Advantage Company in that we can leverage our Service activities to drive market, influence decision makers and ring fence key accounts