

Powergas will play significant role in monetizing Indian hydrocarbon assets....

Sanjay Joshi is the Managing Director, Aker Powergas Pvt Ltd, India, the Indian arm of Aker Solutions. He is a chartered chemical engineer with extensive experience in upstream and downstream projects. He has held various positions in his professional career in engineering design, project management and business development. Joshi talks about the robust growth of oil and gas sector in the country and the role of the Indian arm in global operations of the group in a face to face interview with [Mitravinda Ranjan](#).



Sanjay Joshi, Managing Director, Aker Powergas Pvt Ltd

"The Indian oil and gas market is becoming an increasingly attractive place for global oil companies and major international contractors."

How does it feel to head Aker Powergas Pvt Ltd as the company's Managing Director?

Heading Powergas, the Indian arm of Aker Solutions, as the Managing Director is indeed a great feeling. My appointment to head the company coincides with its completion of fifty glorious years in India. I have been associated with this company for 18 years. It has been a memorable journey for me so far. When I look back at all those years since I joined here as an engineer, I feel very special. Today Powergas is recognized as one of the largest EPCM contractors in the country that serves the entire spectrum from upstream to downstream including metals sector through a team of 1700 professionals. I feel elated!!

What is the role of Aker Solutions in the upstream industry?

Our services cover the entire spectrum of activities in the oil and gas industry, across its entire value chain, right from initial phase of conceptualization and Front End Engineering and Design (FEED). We also supply key equipment like sub-sea manifolds, christmas trees, umbilicals and technology packages for oil and gas processing. We offer design engineering services through the oil and gas portfolio for deepwater developments and brown field projects in the North Sea. As far as Powergas is concerned, we are an integral part of the execution model and have been involved in various international projects.

When did the group start its upstream operations in India?

From the beginning of this millennium we decided to consolidate our upstream and downstream operations under one setup in India as we could foresee bright prospects and opportunities in the upstream oil and gas industry. Having done so within just a decade, we have substantially strengthened our position and today, the Indian operation, Powergas, plays an important role in overall operations of the group's services in the hydrocarbon sector. We have also played a significant role in monetising India's largest gas find in the Krishna Godavari (KG) Basin.

Which are the major milestones of your journey in hydrocarbon industry?

There have been many milestones in the journey. To top the list would be the very first complete platform project, nine Wellhead Platform Project for Oil & Natural Gas Commission (ONGC). We provided our expertise to Larsen & Toubro (L&T) for this project. We completed the first phase of five platforms in a record breaking time of 14 months, which was a big milestone. Following this, we executed similar projects for ONGC and at the same time bagged international projects for three shallow water platforms for the Talisman group in Malaysia and a compression platform for the Bunduq Oil Company in Dubai.

So far, our major achievements in India have been confined to shallow water developments. We have developed competency in the field of subsea engineering and have a team of 50 professionals in Pune. In addition, we also have project services hub for our Subsea group with 150 personnel in Pune. The year 2006 has been another landmark year for us, as Reliance chose Aker Solutions for engineering India's largest gas processing facility for the KG field. We have engineered the onshore gas terminal and the infrastructure facilities at Gadimoga near Kakinada for this project, which is the biggest in India and one of the largest in the world.

Tell us about the onshore terminal project you have completed in the KG Basin.

Powergas has provided detailed engineering and field engineering services for the onshore gas processing terminal. Aker Process Systems has supplied the MEG Regeneration technology and critical packages for hydrate inhibition. Powergas executed the engineering for MEG regeneration facility located within the Onshore Terminal. With the RIL KG gas field project going on stream, the annual production capacity of the country has more than doubled from what it was until a few years ago. It makes us feel very proud of our association with this project.

What is the role of Powergas in the MA field?

MA field is located very close to the KG field in the Bay of Bengal. Aker's group company, Aker Floating Production has leased out its Floating Production Storage and Offloading (FPSO) unit to receive, process and store oil from this field. Aker Solutions Subsea has supplied manifolds and the christmas trees for this development. A team of professionals from Aker Floating Production are still on the FPSO to operate the facility. The gas from MA field is received at the Onshore Terminal. Powergas engineered the MA Gas Condensate Processing (MAGCP) facility located within the Onshore Terminal.

How prepared is the Indian Industry for deep water exploration?

With the success of Reliance Industries Limited on the KG development, we have taken significant steps forward in this area. The work requires extensive exploration efforts with a robust field development plan for fast track project execution. Today the Indian industry is at par with the global industry and has a very high potential. The key to successful execution of deepwater projects is the selection of specialists and contractors who can deliver. The execution strategy with risk mitigation plan is also an important element.

"Powergas is actively looking at involvement in the Indian gas based economy. We want to help the country move towards decreased energy import dependency."

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Starting this millenium, within a decade Powergas consolidated upstream and downstream operations under one setup in India

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“India is on the verge of a huge leap forward in the area of energy development. We believe that we have a major role to play in this movement, thanks to the skills and know-how we have acquired through the years.”

In the last decade you have already achieved significant milestones. What role will the company play in this sector in the near future?

Aker Solutions has a global presence in the oil and gas sector and holds a track record of executing some of the largest projects in harsh environments. In India, we started with shallow water projects and are gradually moving towards large process platforms in our region. We are also augmenting our strength on engineering design for subsea products. Our Indian operations have participated on a number of large projects worldwide with Aker Solutions. With the building up and expanding of our competency in India, our role on new projects is becoming more significant.

Walk us through the major projects you are working on in India?

One of the large projects we have recently completed is the Gjøa semisubmersible in the North Sea, in which we had a team of about 200 engineers in Mumbai engineering the topsides. The weight of these topsides is 22,000 tons and the platform has been towed from our Stord yard into the North Sea. The production from Gjøa is expected to commence within the next 4 months. As you are aware, we have accomplished work on the onshore terminal for the KG project. We are currently working on the North Tapti field development project. We are building our competency in subsea pipeline engineering with assistance from Aker Solutions, Malaysia.

In the downstream sector, Powergas is working on an EPCM contract for the

Nagarjuna Oil for their FCCU unit in Cuddalore. There are a few large scale international projects that we are executing currently, which includes two PTA projects in Brazil and Portugal, a Sulphur Recovery Unit for Siirtec Nigi and a Bio-ethanol project in Vietnam.

What are the challenges you have come across working on Greenfield and Brownfield projects?

The Indian market in general has its own set of challenges which are unique to it in certain respects. The life of our existing assets is quite advanced and hence the validity of existing data is always a major question mark. This causes great uncertainty for the execution contractors. Also, given the weather windows that we encounter and the apparent lack of choices in optimum installation barges, the challenges on the designs of the new builds increase manifold. In more mature and developed markets this is usually not a major issue.

How can these challenges be addressed for the offshore industry?

There is no definite answer to this question. The challenges vary from project to project. However, in general, the trend in the Indian subcontinent would be to move towards deep water developments. This would necessitate the need to further build on unique competencies required to service this market segment. We have had a very good exposure to this due to our involvement in the KG field and we definitely would be looking to leverage this acquired knowledge in the years to come. ■

Sr. No.	Client/Owner	Project	Location
1	Nagarjuna Oil Corporation	Fluidised Catalytic Cracker	Cuddalore
2	Naftogaz India Pvt. Ltd.	Coke Drum System Package	Bhatinda
3	Punj Lloyd Limited / Indian Oil Corporation Ltd (India)	Delayed Coker Unit	Vadodara
4	Essar Group (India)	Delayed Coker Unit	Vadinar
5	Punj Lloyd Limited / Indian Oil Corporation Ltd (India)	Hydrogen Generation Unit	Haldia
6	Punj Lloyd Limited / Indian Oil Corporation Ltd (India)	Motor Spirit Quality Upgradation	Haldia
7	UOP/ Bharat Oman Refineries Limited	Modular ATF Merox	Madhya Pradesh
8	Namvaran	EORC-NHT, CCR & Isom.	Iran
9	Aker Kvaerner Engineering & Technology / Gjøa	Gjøa Semi EPCH	Norway
10	Toyo Engineering for Mangalore Refinery and Petrochemicals Ltd	Hydrocracker and LPG/ Kero Merox Unit	Mangalore

Projects in the Hydrocarbon Sector