

20 November 2024

ASX:CRD

Aceh Update – Small-Scale LNG

Conrad Asia Energy Ltd (**ASX: CRD**) (the “**Company**” or “**Conrad**”), an Asia-focused natural gas exploration and development company, is pleased to provide an update on its recent commercialisation activities for shallow-water gas discoveries in its offshore Aceh PSCs. Competent Persons Reports (“**CPRs**”) on Conrad’s shallow water areas of two offshore Aceh Production Sharing Contracts (“**PSCs**”) estimate a gross (100%) 2C Contingent Resource of 214 billion cubic feet (“**Bcf**”) of sales gas (161 Bcf net attributable to Conrad) in three of the four discovered gas accumulations¹. The two PSCs are Offshore North West Aceh (Meulaboh) (“**ONWA**”) and Offshore South West Aceh (Singkil) (“**OSWA**”). Conrad’s upcoming 3D seismic survey in ONWA aims to increase the current resource estimate.

Highlights

- Conrad is the operator of ONWA and OSWA (100% Participating Interest) where it has a 30-year tenure to develop the existing discoveries and explore for additional resources.
- Conrad has spent the past two years investigating commercialisation options for the current discoveries in shallow-water areas near shore as well the multi-trillion cubic feet (“**Tcf**”) Prospective Resource potential in deep-water areas but also lying close to shore (circa 30 kms offshore).
- The CPRs for ONWA² and OSWA³ ascribed an NPV of US\$88 million net attributable to Conrad assuming a Contractor Take of 72.1% based on a domestic market for the gas described above.
- In February 2024, Conrad entered into a memorandum of understanding (“**MOU**”) with PT Perusahaan Gas Negara Tbk (“**PGN**” – Indonesia’s largest gas company), to cooperate in the provision of gas for LNG from discovered gas resources from its ONWA and OSWA PSCs.
- In advance of the outcome of the collaboration with PGN, Conrad commissioned THREE60 Energy⁴ to conduct a high-level screening exercise (“**Screening Study**”) to test the technical and commercial feasibility of a small-scale LNG plant (<0.5 million tonnes per annum (“**mtpa**”)) as an outlet for gas from Meulaboh Main & East (See Figures 1 and 2).
- Small-scale LNG projects are now being developed across Asia by numerous companies with proven technology and active plants that support a 20-40 million standard cubic feet per day (“**mmscfd**”) sales gas supply.
- The Screening Study highlights that small-scale LNG is a feasible gas commercialisation option for the existing ONWA & OSWA discovered gas due its near shore location and flow-tested almost pure methane content.
- Conrad will work with PGN to further mature the small-scale LNG opportunity for the discovered Aceh resources as well as investigate its options for the 15 trillion cubic feet (“**Tcf**”) of gross prospective resources (11 Tcf net attributable to Conrad) -see Figure 4 showing geological play types.
- The small-scale-LNG commercialisation is just one of the many opportunities that exist in the immediate area of the gas resources. The potential market for gas in the area is strong and includes refined products from mining companies where Conrad is engaged with potential gas buyers.

¹ ASX Release, “75% increase in Conrad Total Net Attributable Resources”, 16 May 2023.

² Executive Summary Competent Person’s Report – Meulaboh Discovery, May 15, 2023, THREE60SUBS/INTER/02/2023-010A.

³ Executive Summary Competent Person’s Report – Singkil Discovery, May 15, 2023, THREE60SUBS/INTER/02/2023-010B.

⁴ THREE60 Energy Screening Study conducted for Conrad in July 2024.

Conrad Managing Director and Chief Executive Officer, Miltos Xynogalas, commented:

“We have made substantial progress with our Aceh gas resources over the past year and hence are delighted to provide an update on these holdings which are becoming an increasingly important component of our portfolio. The gas markets in Aceh continue to grow and provide opportunities to commercialise our discovered resources. In addition, the enormous exploratory potential for additional gas is exciting, especially as we continue to de-risk our exploration prospects through advanced geophysical analysis. The CPRs have indicated the value of our discovered resources at US\$88 million based on a domestic market commercialisation option. Additional options are now being evaluated which include gas to power, compressed natural gas or small-scale LNG. We have been working to mature some of these options in partnership with PGN, Indonesia’s largest gas company and the small-scale LNG option is looking particularly favourable as several of such projects are now being brought into commercial production.

Conrad’s two Aceh PSCs which cover both shallow and deep-water areas have four gas discoveries in shallow water and large low risk exploratory potential in the deep-water. This is a significant opportunity, especially considering the historical exploratory success rates in the shallow-water geological play type of close to 70%. We are aiming to bolster our discovered resources in the shallow-water areas with the upcoming 3D seismic. We are also actively engaged with major companies in seeking a farm-in partner in the deeper water areas. Regionally, the deep-water areas offshore northern Aceh have recently yielded some of Asia’s largest gas discoveries thereby generating considerable interest in the region. Conrad’s Aceh gas holdings combined with our flagship Mako gas export project to Singapore from the West Natuna Sea continue to grow Conrad’s offshore gas portfolio.

Aceh PSCs

100% Participating Interest, Operator

Conrad holds 100% operated interests in both Offshore North West Aceh and Offshore South West Aceh, the two Aceh PSCs were awarded to Conrad in January 2023. The blocks together cover approximately 20,000 square km with each PSC having a 30-year tenure (Figure 1).

Conrad completed independent CPRs covering the discovered biogenic gas resources in the shallow-water areas of the Aceh PSCs. The CPRs estimated a gross (100%) 2C Contingent Resource of 214 Bcf of sales gas (161.5 Bcf net attributable to Conrad) in three of the four discovered gas accumulations in the two PSCs¹. The net attributable resource is the commercial resource attributable to Conrad after the government fiscal take.

The Singkil, Meulaboh and Meulaboh East discoveries are assessed to be Economic Contingent Resources (sensu Society of Petroleum Engineers PRMS, 2018) at the best estimate (2C, P50 level), based on reasonable assumptions regarding the production profiling, conceptual development and anticipated market gas prices for the discoveries. The CPRs present the assumptions for the inputs, scheduling and outputs for the conceptual developments⁵.

The conceptual development of the 2C best estimate of Meulaboh and Meulaboh East (Figures 1 and 2) as a cluster (2C estimate of 86.9 Bcf net attributable to Conrad), was derived from the wells tests and constrained to reasonable gas sales rates of 30 mmscfd in which production plateau is sustained for 10 years. The CPR described a development involving three horizontal production wells fed into one simple, normally unmanned installation (“NUI”) and a 32 kms pipeline to shore. Total capital expenditure (“Capex”) is estimated to be US\$132 million (AAE Class 4 estimate) and average operating expenditure (“Opex”) was estimated to be US\$4 million per year⁵.

The conceptual development of the 2C Best Estimate of the Singkil (Figure 1) discovery (2C estimate of 74.6 Bcf net attributable to Conrad), was derived from the wells tests and constrained to reasonable gas sales rates of 20 mmscfd in which production plateau is sustained for 10 years. The CPR described a development involving two vertical production wells fed into a simple, NUI and a 282 kms pipeline to shore. Total Capex was estimated to be US\$95 million (AAE Class 4 estimate); average Opex was estimated to be US\$4 million per year⁵.

⁵ ASX Release, “Supplement to Increase in Total Net Attributable Resources”, 18 May 2023.

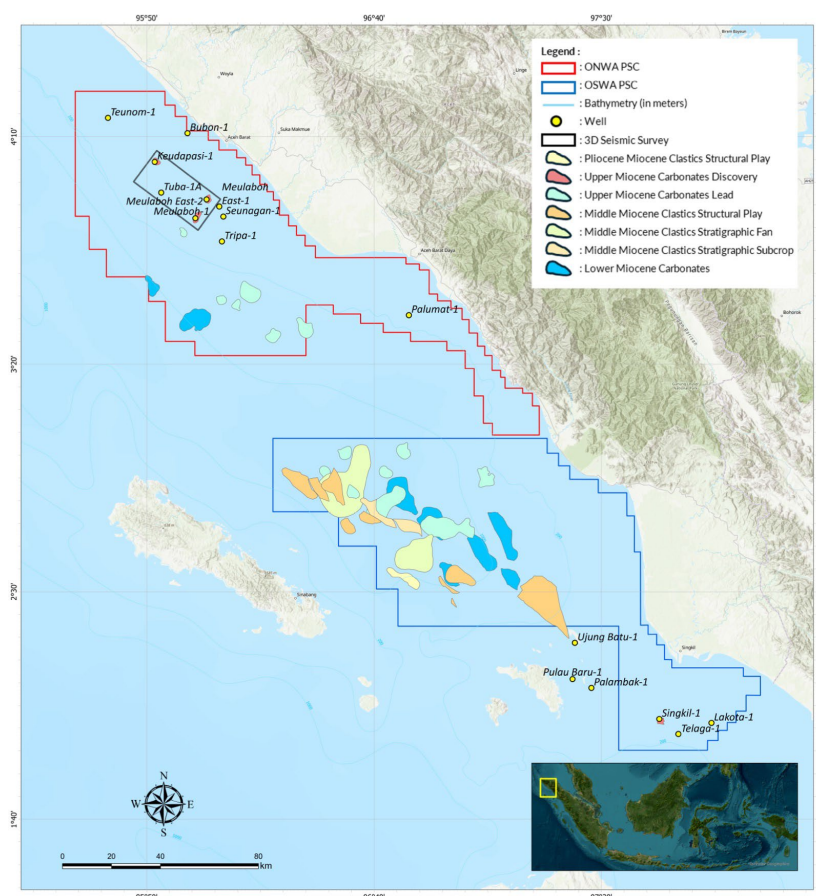


Figure 1 – Location Map of ONWA and OSWA PSCs

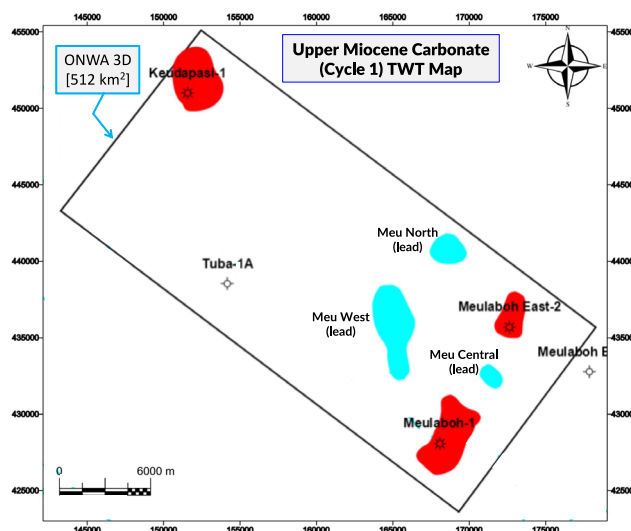


Figure 2 – Targeted ONWA 3D Seismic, ONWA Discovered Resources and Shallow-Water Prospective Leads (based on 2D seismic data)⁶

⁶ GIIP for discovered gas volumes taken from CPR's ASX Release 16 May 2023; GIIP for leads taken from ongoing in-house CRD studies.

At the time of issue of the CPRs, no specific gas commercialisation option had been determined (no GSA signed), but such options were believed to include pipeline evacuation to the domestic market, gas to power, compressed natural gas or small-scale LNG. Economic evaluations assumed a delivered domestic gas sales price of US\$5.50 per million British thermal units (“mmbtu”). This price was based on commercial agreements of other known projects⁵.

The CPRs for ONWA⁷ and OSWA⁸ ascribed an NPV of US\$88 million net attributable to Conrad assuming a Contractor Take of 72.1% (this does not account for potential 10% local state participation which could occur after FID).

On 29 February 2024, Conrad entered into a MOU with PGN to cooperate in the provision of gas or LNG supply and development infrastructure for potential resources from its ONWA & OSWA PSCs. Under the MOU, the parties will seek to cooperate in the development and maintenance of possible small-scale LNG infrastructure and sales of the LNG. The MOU also covers broader cooperation between the two parties relating to the two blocks.

Established in 1965, PGN, is a leading energy company in Indonesia. With a strong commitment to provide clean and sustainable energy solutions, PGN operates an extensive natural gas pipeline network and is actively involved in gas distribution, transmission, and exploration. In 2018, PGN became a part of PT Pertamina (“**Persero**”) as its subsidiary responsible for conducting gas and LNG business domestically and internationally. PGN’s role includes infrastructure such as gas pipelines and LNG facilities.

The MOU envisages that the parties will undertake a joint study for of commercialisation schemes for gas / LNG supply, initially focused on currently discovered gas resources; formulate a plan for developing, operating, and maintaining gas / LNG infrastructure; develop plans for gas / LNG marketing; and explore other related avenues for cooperation. Both parties have since concurred that commercialising the gas discoveries in the form of small-scale LNG and transporting to the nearest LNG receiving terminal is a leading development option.

As input to the collaboration with PGN, Conrad commissioned THREE60 Energy⁹ to conduct a Screening Study to test the technical and commercial high-level feasibility of a small-scale LNG plant (<0.5 mtpa) as an outlet for gas from Meulaboh Main & East. The CPR (May 2023) was used as a reference case for the upstream development assuming a 30 mmscfd plateau gas supply with sensitivities at 20 and 40 mmscfd plateau gas supply.

The Screening Study highlighted:

- Small-scale LNG is a feasible gas commercialisation option for the existing ONWA & OSWA discovered gas.
- Numerous technology providers exist with proven technology / active plants that could support a 20-40 mmscfd sales gas supply (see Figure 3).
- The Capex and Opex costs for such plants can readily be defined and benchmarked.
- Plant sizing (e.g., 20 / 30 / 40 mmscfd) can be readily adjusted to allow for either lower / longer gas buyer plateau requirements.
- Existing and planned small-scale LNG plants within the circa 30 mmscfd capacity range that are in operation elsewhere in Asia are estimated to have a breakeven price of circa US\$2-4/mmbtu.
- Both upstream (clustered) development and LNG plant size can be readily be adjusted to accommodate the addition of new discoveries in the vicinity of the existing discoveries.

⁷ Executive Summary Competent Person’s Report – Meulaboh Discovery, May 15, 2023, THREE60SUBS/INTER/02/2023-010A.

⁸ Executive Summary Competent Person’s Report – Singkil Discovery, May 15, 2023, THREE60SUBS/INTER/02/2023-010B.

⁹ THREE60 Energy Screening Study conducted for Conrad July 2024.

- The same approach can be applied to the Singkil discovery.

The results of the Screening Study have been shared with PGN. Over the coming months, Conrad will work with PGN to further advance the small-scale LNG opportunity for the discovered Aceh resources ensuring there is a ready capability to accommodate future exploration success.

In parallel with small-scale LNG, Conrad will continue to seek additional / alternative commercialisation opportunities for its Aceh gas discoveries with other potential local gas users.

Prospective Resources for the shallow-water area, in the vicinity of the existing discoveries are the subject of ongoing work and have not been included in this current resource assessment. The historical exploratory success rate in this shallow-water area is 66% based on 1970's 2D seismic¹⁰. Against this backdrop, planning continues for the acquisition of up to 500 square km of modern 3D seismic data (see Figures 1 and 2 for targeted ONWA 3D) in each PSC, seeking to delineate near field, low-risk drilling opportunities (as well as continuing to evaluate the deep-water prospective targets). The environmental permits for the seismic acquisition are expected in 4Q 2024.

As previously announced by the Company, the two Aceh PSCs also have deep-water potential where several large structures each with multi-Tcf potential have been identified (Figures 1 and 4)¹¹. This potential is distinct from that in the shallow-water, having different technical and commercial drivers. Prospective Resources in the Aceh PSCs are in excess of 15 Tcf of recoverable gas (P50, 100%) of which circa 11 Tcf (P50) are net attributable¹² to Conrad¹³. Seismic studies of these structures show gas chimneys and flat spots, providing direct indications for the presence of hydrocarbons.

Several parties have already attended a data-room for a prospective farm-down of some of Conrad's Participating Interest in the ONWA and OSA PSCs.

¹⁰ ASX Release, "Aceh - Prospective Resources in Excess of 11 Tcf (Net)", 16 November 2023.

¹¹ ASX Release, "Aceh - Prospective Resources in Excess of 11 Tcf (Net)", 16 November 2023.

¹² Net attributable assumes 72% contactor take for gas as set out in the ONWA PSC Agreement. No transfer of 10% participating interest to Local Government Operating Company assumed.

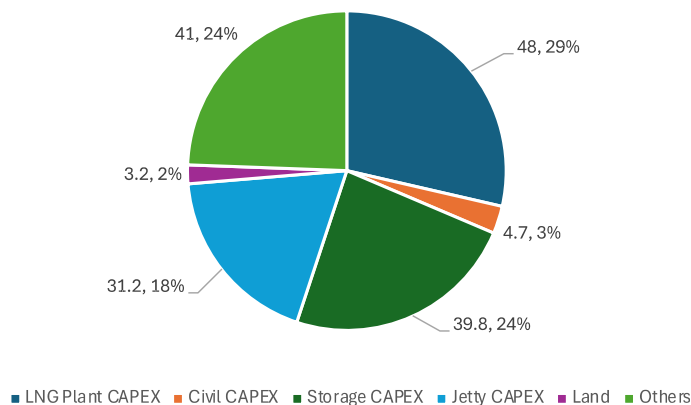
¹³ ASX Release, "Aceh - Prospective Resources in Excess of 11 Tcf (Net)", 16 November 2023.

Numerous Small Scale LNG Providers Include (for 30 mmscfd plant)

Name	Country of Origin	Status	Technology Status	Plant Size
Chart	USA	Active	Proven	7.0 to 570 MMscfd
Fortune	China	Active	Proven	0.4 to 350 MMscfd
GLP	Australia	Active	Proven	1.3 to 26 MMscfd
Honeywell / Cryosys	USA	Active	Proven	2.9 to 240 MMscfd

Capex for 30 mmscfd Small Scale LNG Plant (US\$mm)

Item	Total (US\$ mm)
LNG Plant	48
Civils	5
Storage	40
Jetty	31
Land	3
Others	41
Total	168



Opex for 30 mmscfd Small Scale LNG Plant (US\$mm / year)

Item	30 MMscfd Cost (US\$ mm / year)
Personnel	1.2
Maintenance Support & Services	2.9
Other Overheads, Support & Services	2.1
Total	6.2

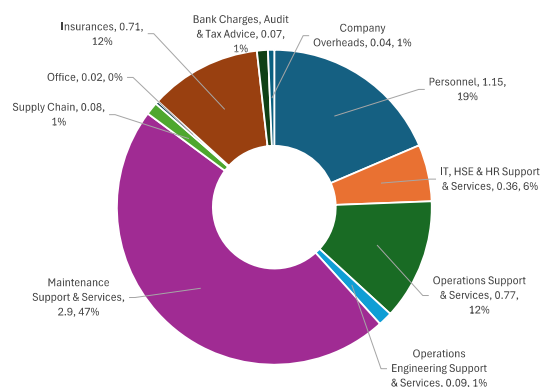


Figure 3 – THREE60 Energy Screening Study of Small-Scale LNG conducted for Conrad

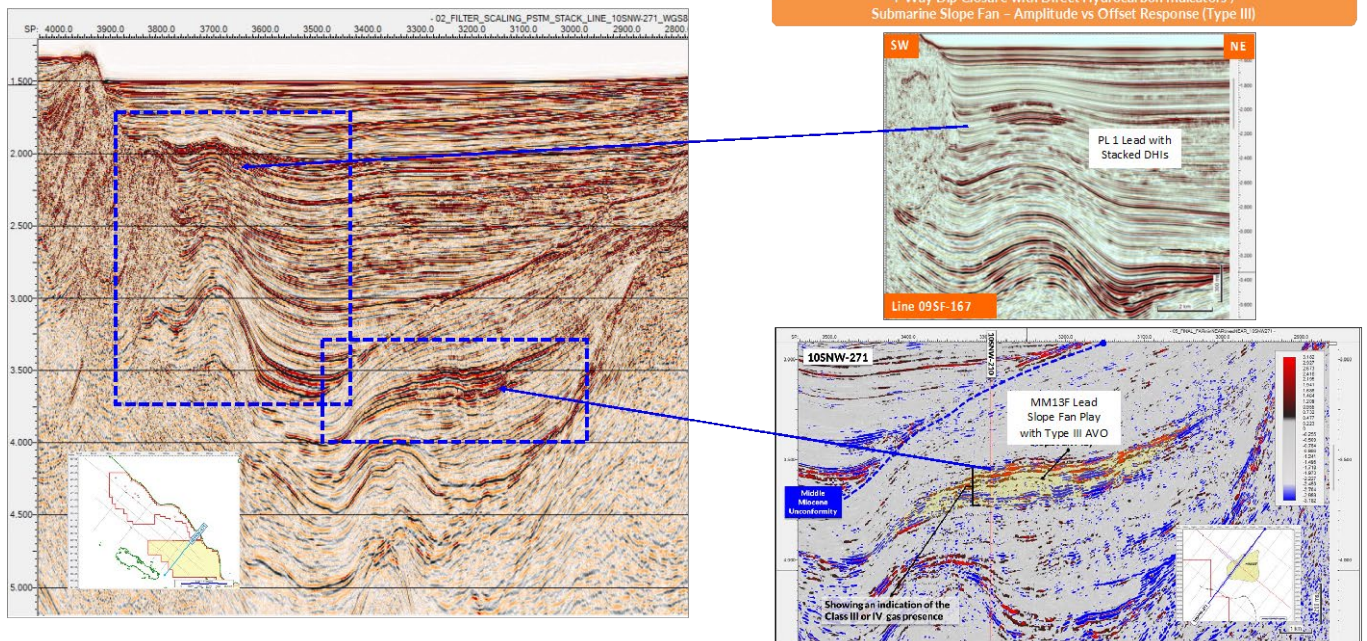


Figure 4 – Deep-Water Leads: 4-Way Dip Closure & Submarine Slope Fan with Type III AVO Response

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About Conrad and its Projects

Conrad is an Asia-focused natural gas exploration & production company concentrated on the shallow waters offshore Indonesia, and via its wholly owned subsidiaries, is the holder of several operated tenements in the form of Production Sharing Contracts. The Company's flagship project is the Mako Gas Field located in the Natuna Sea in the shallow offshore waters of Indonesia. Mako lies along a large natural gas pipeline to Singapore, which supplies high-value natural gas into Singapore primarily for electricity generation. The Mako gas field is one of the largest gas discoveries in the region.

The Company specialises in the identification and acquisition of undervalued, overlooked, and/or technically misunderstood gas assets, and has developed expertise in maturing such assets through subsurface technical work, appraisal drilling and an innovative approach to low-cost field development.

The Board and management have a proven track record of value creation and deep industry experience with oil majors, mid-cap E&P and the upstream investment community, together with a successful track record of bringing exploration and development projects into production, with Peter Botten the founder and Chairman of Oil Search adding enormous depth and experience as Chairman of Conrad.

Forward Looking Statements

This document has been prepared by Conrad Asia Energy Ltd (the Company). This report contains certain statements which may constitute "forward-looking statements". It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including, but not limited to: price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve and resource estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delays or advancements, approvals and cost estimates. The operations and activities are subject to joint venture, regulatory and other approvals and their timing and order may also be affected by weather, availability of equipment and materials and land access arrangements. Although Conrad believes that the expectations raised in this report are reasonable there can be no certainty that the events or operations described in this report will occur in the timeframe or order presented or at all.

There are numerous uncertainties inherent in estimating reserves and resources, and in projecting future production, development expenditures, operating expenses and cash flows. Oil and gas reserve engineering and resource assessment must be recognised as a subjective process of estimating subsurface accumulations of oil and gas that cannot be measured in an exact way.

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