

EITI Commodity Trading in Indonesia

Final Report

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Executive Summary

Indonesia's first commodity trading report is a set of 1,909 transaction records supplied by the upstream regulator SKK Migas. All the data in these records were previously available on the SKK Migas's website. The recorded value of the transactions, covering shipments of 115 million barrels of crude oil and condensates, is \$4.74 billion. Most or all of the transactions included are valued under the Indonesian Crude Price (ICP), an official selling system governing oil and condensates produced in Indonesia and intended for domestic consumption there. Exports of Liquefied Natural Gas, and also some gas pipelined to Singapore and Malaysia are sold under commercial terms, whether term contracts or on the spot market, but these have not been included.

While the first round of consultations, accompanied by this data release, has been useful in establishing the issue within Indonesia's MSG, a number of methodological issues remain.

- Scoping: as discussed above, market-priced exports appear to be missing.
- Data anomalies: the largest of these are 45 entries showing a total of \$67 million of negative value, which remain unexplained.
- Export trading partners are not specified, only country of destination.
- Thin data: several of the fields in the template provided by the EITI Committee on trading have not been fulfilled, such as invoices, payment confirmation, beneficial ownership of trading partners, and possible related currency transactions.
- Surrounding process: the lists of trading partners that interact with Pertamina and other Indonesian state-owned entities is not public, and there is not full clarity around how values are set within the ICP official pricing system.

Ultimately, though, in Indonesia the credibility of the process faces the larger issue that the default scoping concentrates on First Trades only as exports. Despite having been a significant player on global markets for decades, and a founder member of OPEC, the long term trends of rising energy demand and falling domestic supply mean that exports

represent only a small proportion of the value of commodity trades made by state entities. Pertamina, through its trading arm the Integrated Supply Chain (ISC), imports

nearly a million barrels of crude oil and fuel products a day and operates what is almost a monopoly in the midstream and downstream in Indonesia, in a business worth tens of billions of dollars in 2016. The \$4.7 billion reported here therefore represents less than 20% of the extent of commodity trading by Indonesian SOEs.

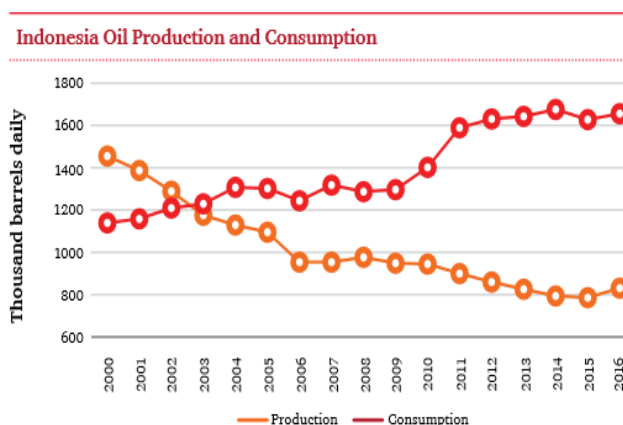


Figure 1: PwC Indonesia Oil & Gas Tax Guide 2017

And this data set fares worse in terms of market-driven trading, under terms set by other entities. All significant categories of dynamically traded commodities – crude and product imports, as well as gas and LNG exports, and domestic pipeline and LNG sales – are excluded from the data presented in this first round. Of all the transactions in this report, only three could immediately be identified as possibly being under dynamic pricing, for a value of just over \$2 million. Between Pertamina’s imports, local gas and LNG sales, all of which lie outside the official pricing system, this represents about 0.01% of the value of assets traded outside the ICP pricing system.



Figure 2: OpenOil, compiled from BP Statistical Analysis

The focus of interest in trading reporting is in transactions taking place on commercial terms, since it is there that distortions may occur, and be significant. It is in the potential over- or under-pricing of various costs and sales that transfer pricing, or parallel transactions will be embedded. Reports of transactions under a fixed price system which show that the fixed prices have been executed carry relatively little transparency value. Once the official price, in this case the ICP, has been set, by definition it leaves no scope for mispricing.

If the purpose of the reporting is to bolster public trust in Indonesian SOEs’ trading, therefore, the limited scope of the first data set needs to be boosted by addressing the trading areas – imports and domestic gas sales – which represent most of the engagement of Indonesian SOEs.

This is not just a theoretical concern in Indonesia. The terms of reference for this study, approved by the MSG, stated the need to “To address negative allegations against Pertamina and provide an opportunity to rebuild their reputation as an SOE.”



Figure 3: Relative governance risk across categories of import, domestic production & use, export, in Indonesia. Crude Oil exports and domestic production are under the official ICP system, while all other areas are dynamically priced. The bars inside each block represent the percentage of value of overall trading by the Indonesian state.

In 2015, responsibility for trading oil and gas was reassigned to ISC, a unit within core Pertamina operations and rebased in Jakarta, following a series of scandals which hit the state's main trading arm before, Petral, which had been trading from offices in Singapore. Trading has been hit by scandals since the Suharto era, although in earlier times, when Indonesia was a net exporter, it tended to concentrate in sales of Indonesian crude.

The research for this report has shown that extensive information exists within state institutions on market-determined trades. SKK Migas has records of LNG and gas sales, for example, which are dynamically priced, both domestic and international. Officials at ISC stated in interviews that all offers on \$20 billion worth of crude and product purchases are received by email electronically. The data therefore exist to collate a report which could substantially cover Indonesian SOE trading with relatively little reporting burden.

That information is held by various different entities. SKK Migas, the entity which provided all source data in this report, hold much more information around trades in Indonesia's upstream. They have shown themselves to be leaders in the Indonesian state institutions in this regard, and the MSG should continue to engage closely with them.

The Ministry of Finance holds proof of payment and relevant bank account statements, and any relevant information about currency exchange. The Ministry of Trade also currently aggregates monthly statistics for fuel product imports and exports. The key partner however is Pertamina itself, in terms of breadth and depth of scope.

During consultations, officials repeatedly expressed concern about publishing pricing. At one stage, there was a suggestion that price reporting could be done across transactions that were priced in the market if they were aggregated – but this was not workable since it would clearly contravene guidance which says that the materiality criteria should be the same for trading as for the other reporting within any particular MSG. The current scope, as has been seen, has the effect of avoiding exposing trading where officials could exercise discretion, since that is precluded under the ICP system.

Yet such reporting of price is the purpose of a transparency initiative around trading.

What's more both contract terms and prices of particular deals are reported regularly in the national and international media.

The Consultant makes the following recommendations:

Box 1: Examples of media reporting of Indonesian oil trades

- Indonesian LNG 2014: prices of exports to China were revised from \$3.30 to \$8 per million BTU.
- SKK Migas announced in August 2016 a revision of gas prices domestically, including East Java \$8.01 to \$8.05 per mmbtu, West Java \$9.14 to \$9.18, Sumatra 13.90 to \$13.94
- In May 2017 Reuters quoted officials on LNG sales terms for volumes supplied from Tangguh plan to state company PLN in Java: 11.2% of ICP plus 0.4%, for 16 cargoes a year beginning in 2019.

- The MSG should supplement SKK Migas data with information from other agencies, notably the ISC and the Ministry of Finance, to bring reporting closer to the template provided by EITI.
- The 2016 data should be reconciled to the extent possible with EITI's core reconciliation (the latest period covered is 2015, published in December 2017)
- Pertamina should release the list of all trading entities on both buy and sell sides, and the aggregate volumes of trade, and the MSG should secure the company's agreement to disclose import data by shipment.
- Pertamina should certify that all export trades it made during calendar year 2016 are included in the dataset provided by SKK Migas.

Context and Background

Change to Consumer, and Net Importer

Indonesia's state agencies and entities, chiefly the state oil company Pertamina, trade tens of billions of dollars of oil, gas and fuel products every year. But the pattern of trading changed markedly over the years, as Indonesia's domestic demand for all forms of energy rose sharply. Whereas Pertamina and associated entities were net exporters for decades, presenting major governance challenges, Indonesia became a net importer of energy in 2005¹.

Meanwhile production has dwindled, from about 1.5 million barrels a day at the turn of the century to less than half that now – liftings of crude oil are averaging about 730,000 barrels of oil across the country according to the upstream regulator SKK Migas. Of this total less than half is exported – and the vast majority of crude oil exports from Indonesia are directly by international oil companies who lift the crude they produce directly themselves under the contractual arrangements of the Production Sharing Contracts, meaning that there is no involvement of Indonesian state entities in the First Trade, other than defining the Indonesian Crude Price (ICP) by which such exports are valued. Interviewees at SKK Migas and ISC, Pertamina's trading unit, report that there was only been one cargo of crude oil exported by Pertamina in the first half of 2017. Rising demand also means that a greater proportion of production owned by Pertamina and its affiliates has been directed to the domestic market.

The same is true for gas. Although Indonesia developed Liquefied Natural Gas terminals for export in the 1970s and 1980s, most recent gas developments have been for domestic consumption, and since 2014 LNG terminals have started to deliver shipments within Indonesia.

The change in trading patterns around fuel products is even more marked. Indonesia imports about 400,000 barrels a day of crude oil to feed the national refinery network to

make fuel products, and another 400-500,000 barrels a day of finished fuel products. Interviewees at ISC estimated that low grade fuel product exports by Pertamina ran to 1.2 million barrels a month, or about 40,000 barrels a day. And these were mostly relatively low value heavy products which the Indonesian refinery network, built decades ago, is unable to further process.

The implication of these trends for commodity reporting in Indonesia are clear. A scope which was restricted to First Trade exports conducted by Indonesian state entities would capture no more than 20% of the total value of First Trades in which they are involved. Domestic shipments – into the refinery network, to the state electricity company and to private sector companies – must be included to achieve a comprehensive scope, as well as imports of crude oil and fuel products.

This is particularly important because current trends are only set to continue.

Pricing and Valuation

Terms of gas sales contracts

Indonesia's gas production has become complex over the last few years. There are dozens of operating fields, and a network of pipelines with multiple owners, including two state-owned companies that fall under the EITI definition of a National Oil Company, Pertamina, an affiliate of Pertamina, and Perusahaan Gas Negara, or PGN.

In addition, sales to private consumers of gas, such as industrial clusters, have been growing. Precise data are hard to come by, but industry sources estimate between 20% and 40% of gas sales are now to private sector entities. Cases in which gas prices have risen by over 100% from First Trade to "Final Trade" (delivery for use) have been recently reported in the Indonesian media.

Gas pricing is generally more complex, since unlike oil there is not a global spot market. Major differences in price remain between East Asia, Europe and North America, and the difficulty of transportation means that long-term contracts lock in supply through many cycles of market volatility. In addition, there has been a global trend towards decoupling formulae used to value gas from oil prices, and in Indonesia the ICP is no longer widely used as a formula component. Industry sources in Indonesia estimate that fixed price contracts represent account for less than half of total sales value, although they constitute a "long tail" of small contracts.

Data shown to the consultant show that sales of identical gas from the same fields or terminals to different customers can vary by as much as 400% within a single month.

The innate complexity of gas pricing means that there are many legitimate reasons why prices could vary. But it means that it is only possible to determine that fair prices are being achieved, and that differences are due to genuine business rationales, if the terms and

formulae of gas sales contracts are published. A delay of 12 months should be sufficient to avoid prejudicing the position of entities within the market, and still be recent enough to provide the oversight function that is the goal of EITI reporting.

Indonesian Crude Price

The valuation of all crude produced in Indonesia is determined by the Indonesia Crude Price (ICP). Prices for each of eight grades of crude are established each month by a committee of various government agencies, quoting a premium or discount against Dated Brent, the most widely quoted crude benchmark price in international markets. The prices of another 44 grades of crude produced in Indonesia are then set against one of these eight².

These values are used to determine all liftings by international companies, regardless of any prices they achieve in the market. They also determine the volumes of liftings that Pertamina is entitled to, and form the basis of valuation for payment Pertamina must make to the Ministry of Finance for crude it ships to its refineries to be processed into fuel products.

ICP benchmark grades are determined by the values of spot trades of those grades made on the international market. That is how they function as a benchmark. The current formula states that prices for each grade will be taken as they appear in the pricing services of two commercial information providers, Platts and RIM, which will each be ranked at 50%. Both are high cost, proprietary trading services so it has not been possible to check ICP prices posted by Pertamina against the spot trades they are supposed to be based on. However one source from an international oil company who has access to the services said that his company, and others, ran their own analysis of the spot trades in Platts and RIM and compared it to the prices set as ICP, and found there was minimal or no difference between them, such that this was not a concern for the oil companies. It therefore seems that even if the lack of transparency in setting the benchmarks is theoretically a governance issue, there does not appear to be a practical issue at the moment.

The situation with regard to the 44 other grades of crude is less clear. It seems likely that in many cases Pertamina is the sole or at least dominant buyer with unchallenged price-setting powers. This means a verification process, as conducted by oil companies on ICP benchmarks in international spot markets, may not be possible.

HARGA MINYAK MENTAH INDONESIA (INDONESIAN CRUDE PRICE / ICP) UNTUK BULAN AGUSTUS 2016 ATAS DASAR FORMULA HARGA YANG DITETAPKAN OLEH PEMERINTAH				
JENIS MINYAK MENTAH	ATAS DASAR ICP FORMULA	DATED BRENT US\$/Bbl	ALPHA US\$/Bbl	HARGA AGUSTUS 2016 US\$/Bbl
A. MINYAK MENTAH UTAMA INDONESIA (BENCHMARK CRUDE)				
01. S L C	DATED BRENT + ALPHA SLC	45,77	(4,02)	41,75
02. ARJUNA	DATED BRENT + ALPHA ARJUNA	45,77	(5,08)	40,69
03. ATAKA	DATED BRENT + ALPHA ATAKA	45,77	(2,27)	43,50
04. CINTA	DATED BRENT + ALPHA CINTA	45,77	(4,19)	41,58
05. DURI	DATED BRENT + ALPHA DURI	45,77	(6,65)	39,12
06. WIDURI	DATED BRENT + ALPHA WIDURI	45,77	(4,09)	41,68
07. BELIDA	DATED BRENT + ALPHA BELIDA	45,77	(1,02)	44,75
08. SENIPAH CONDENSATE	DATED BRENT + ALPHA SENIPAH CONDENSATE	45,77	(2,65)	43,12
B. MINYAK MENTAH INDONESIA LAINNYA				
09. A N O A	ATAKA + US\$ 0.40/Bbl			43,90
10. ARUN CONDENSATE	SENIPAH CONDENSATE			43,12
11. BADAK	ATAKA			43,50
12. BEKAPAI	ATAKA			43,50
13. BELANAK	ARJUNA - US\$ 4.96/Bbl			35,73
14. BENTAYAN	SLC - US\$ 1.96/Bbl			39,79
15. BONTANG RETURN CONDENSATE (BRC)	MOPS NAPHTHA - US\$ 2.00/bbl			37,86
16. BULA	DURI - US\$ 0.50/Bbl			38,62

Figure 4: Sample ICP price list, August 2016, Pertamina

In the example above, the formulae of the first eight grades are defined: Dated Brent for that month, plus an “alpha”, in this case a discount, producing a final valuation in dollars per barrel on the right. These grades represent just over 50% of the value of the transactions in this data set, but it is important to remember they also determine the value of exports in those grades made by the IOCs, in terms of those companies revenue obligations to the government.

The non-benchmark grades (number 09 and following), are then expressed relative to one of the first eight. So, for example, ANOA is expressed as Attaka plus 40 cents, and the final value matches that: \$43.90 per barrel compared to \$43.50 for Attaka. The next in the list, Arun Condensate, is valued at exactly the same as the benchmark Senipah Condensate. The next three grades are all valued equivalent to Attaka, then Belanak at a discount of \$4.96 to Arjuna, Bentayam at a discount of \$1.96 to SLC, and so on.

General information about the principles governing this ICP price setting has been published but precise interpretation remains vague. For instance, the general guidance in a decree issued by the Ministry of Petroleum stipulates that the ICP will be set according to three components: first, a review of physical characteristics of each grade of crude oil using the Gross Product Worth (GPW) system; second, spot prices for each grade of crude as reported in two commercial price reporting systems, Platt and RIM; and third, adjustments made by the Indonesian state to deal with what is termed “sustainability” – in case of a need to balance the mix of crude oils going into the country’s refinery system, or to ensure energy security, and continuity of supply.

International company executives say the GPW, the first component, is already effectively factored in to spot prices for the benchmarks in international markets. But it is not clear how it functions in the domestic market, on non-benchmark grades, without information on

the physical properties of those grades also being made available. For instance, the pricing of Arun Condensate as the same as Senipah might seem reasonable, since condensates in general terms share many properties – a high API grade, low sulphur, and therefore a rich “slate” of products they can be used for. But without access to the precise characteristics of Arun, it cannot be verified if that general argument applies in this specific case.

It is also not clear how the third component, the sustainability factor, is integrated into each month’s price setting by the government.

Initial Scope Recommendation & Mainstreaming

Initial recommendations

Reporting Cycle

Indonesia should follow the Reporting Guidelines issued by the Advisory Group and publish data with less than 12 months delay.

Definition of First Trade

EITI Guidance recommends that all there should be reporting of First Trades of all state agencies and companies. Indonesia’s history means that most of these trades, by monetary value, are now imports and domestic sales. The Terms of Reference state as a specific goal “To address negative allegations against Pertamina and provide an opportunity to rebuild their reputation as an SOE”. This cannot be adequately achieved if the scope is restricted only to exports, and that imports by the Indonesian state of crude oil and fuel products should be included. It is to be noted that month-by-month data for imports already exists within Ministry of Trade statistics. In addition, a large proportion of Indonesian oil and gas is sold internally, to go into a state refining network and power plants, as well as a significant proportion of gas to private sector customers. These first trades should also be included.

Materiality – reporting to the Cargo Level

Indonesia should follow the recommendations of the Advisory Paper, which is to report trades to the maximum available level of granularity. In this case, sales data are already within the systems of various government agencies to the level of individual cargoes of oil, gas and fuel products. EITI reporting should therefore work at this level in Indonesia.

Mainstreaming

The MSG should integrate the “A0” series of reports compiled by the regulator SKK Migas for upstream reports of sales by Pertamina, and the reports on imports included within Ministry of Trade statistics.

Reconciliation

The Guidance suggests that, at least in an initial instance, the MSG can “prioritize the direct disclosure of data by the NOC”, rather than conducting a full reconciliation. We recommend

adopting this direct reporting procedure for the first round of trading reports, while notifying all traders who are prequalified with Pertamina's trading unit ISC of the new initiative.

Data Accessibility

The MSG should follow general guidelines for EITI reporting - 7.1.(c) of the Standard – and ensure that all data is published in either .xls or .csv format.

Blended sales

Trading data should include the separate parcels of different crudes where these are combined as one shipment, as recommended in the Advisory Guidance. The internal reporting system of SKK Migas for the upstream already appears to contain this information, listing different parcels going into a single lifting as separate items.

Trading Partner Selection

Indonesia operates a pre-qualification system for buyers and sellers involved in First Trades with Pertamina and ISC. The MSG should publish the standard operating procedures which relate to such pre-qualification, including available beneficial ownership information. This is a first necessary step to building confidence that the scandals of the past will not be repeated, since it is hidden relationships with trading companies that have formed the basis of past corrupt dealing. Publishing the procedures and the qualified partners would go a long way to diffusing public suspicion.

Sales Contracts

The key terms of sales contracts should be disclosed, and where they contain a formula (as in gas term contracts, for example), the formula should be stated. Sales of Indonesian oil and gas can be either spot, open tender, selective tender, or private sale. The rationale for each kind of sale should be reported.

Currency Management

Pertamina buys and sells tens of billions of dollars of petroleum products in US dollars, yet remits to the Ministry of Finance in Indonesian rupiah. Transfers in rupiah should be quoted against the US dollar value they represent.

Indonesia Crude Price

The MSG should collate all Standard Operating Procedures relating to the definition of the Indonesia Crude Price. It should also publish a report analysing the implementation of the ICP in practice over a sample period of time, for example, calendar year 2016.

Mainstreaming Current Commodity Trade Reporting

SKK Migas

The upstream regulator, SKK Migas, publishes some details of all liftings of oil and gas on its website.³ Statistics are available by loading terminal and individual shipment, but without price data.

The regulator also maintains an internal system of reports known as the “A0” series, broken down by category as follows: A1 deals with crude oil exports, A2 domestic crude shipments, A3 is export gas (both pipeline and LNG), A4 domestic shipments of gas, and A5 are shipments made according to any Domestic Market Obligations drawn on from Indonesia’s PSC contract system.

Jenis	Tanggal	Titik Lifting	KKKS	Volume [BBLs]
OIL	30/04/2017	DUMAI	PT. CHEVRON PACIFIC INDONESIA	164.819,00
OIL	29/04/2017	DUMAI	PT. CHEVRON PACIFIC INDONESIA	448.817,00
OIL	28/04/2017	DUMAI	BOB PT. BUMI SIAK PUSAKO - PERTAMINA HULU	64.032,00
OIL	28/04/2017	DUMAI	PT. CHEVRON PACIFIC INDONESIA	91.474,00
OIL	26/04/2017	DUMAI	PT. CHEVRON PACIFIC INDONESIA	474.982,00
OIL	26/04/2017	DUMAI	PT. SARANA PEMBANGUNAN RIAU LANGGAK	8.550,00
OIL	25/04/2017	DUMAI	PT. CHEVRON PACIFIC INDONESIA	400.812,00
OIL	24/04/2017	DUMAI	PT. CHEVRON PACIFIC INDONESIA	200.603,00
OIL	23/04/2017	DUMAI	PT. CHEVRON PACIFIC INDONESIA	297.704,00

Figure 5: Screen capture of liftings entry on SKK Migas website from the terminal of Dumai, Sumatra. Columns from the left: Commodity, Date, Terminal, Lifting Entity, Volume in barrels

These forms include significant other information such as price, contract invoice number, the bill of lading number, type of oil or gas, and vessel. The Reporting Guidance document contains a suggested template for information required on sales. Below is a table which matches that template against known sources of information already within reporting systems of various relevant agencies in Indonesia.

Data Field in Reporting Guidance	SKK Migas A0	Comment
Name of Seller	No	Known in all cases as Pertamina
Source of Data	No	Some data is aggregated by SKK Migas from other agencies. Original source not explicitly stated for each entry, but known by class (for instance, all bills of lading from Customs authorities)
Invoice Number	Yes	
Bill of Lading Date	Yes	
Delivery Method	Yes	Implicitly, as this is known through loading terminal.
Type of State-owned oil	No	Known in all cases
Field or Block of Origin	Yes	
Oil / gas type	Yes	
Quality	No	API grade and physical characteristics stable separately available.
Buyer	No	The form shows the lifting entity. In the case of PSCs this is the producing company.
Beneficial Owner	No	
Load port	Yes	
Incoterms	N/A	Sales terms in Indonesia are FOB
Vessel	Yes	
Destination	Yes	First destination
Contract Type	No	
Nominal Price	N/A	For exports, valuation is made against the ICP and the quantity lifted measured accordingly.

Actual Price	Yes	
Nominal Quantity	N/A	Quantity lifted is against ICP valuation
Actual Lifted Quantity	Yes	
Forex Rate	N/A	Trades are denominated in USD
Pricing Option	No	Not known to be pertinent in Indonesia, since export liftings are valued under ICP
Payment Received Date	Yes	
Payment Account	No	

Ministry of Trade Statistics

The Ministry of Trade published statistics about all significant imports and exports of crude, gas, and fuel oils. Data are stored to the level of month and country of import and export, showing both volumes and price. See below for example, data relating to \$2 billion of crude oil imports, averaging about 85,000 barrels per day, from Saudi Arabia during 2015.

Month	Year	Country	Value	Weight (kg)	Desc_hs07
1	2015	SAUDI ARABIA	\$206,863,320	489,316,224	Crude petroleum oil
2	2015	SAUDI ARABIA	\$102,558,360	244,981,824	Crude petroleum oil
3	2015	SAUDI ARABIA	\$215,670,036	483,432,940	Crude petroleum oil
4	2015	SAUDI ARABIA	\$215,957,112	488,223,230	Crude petroleum oil
5	2015	SAUDI ARABIA	\$126,652,512	244,034,260	Crude petroleum oil
6	2015	SAUDI ARABIA	\$246,888,266	489,016,910	Crude petroleum oil
7	2015	SAUDI ARABIA	\$120,744,807	244,476,060	Crude petroleum oil
8	2015	SAUDI ARABIA	\$216,523,329	503,000,490	Crude petroleum oil
9	2015	SAUDI ARABIA	\$187,434,061	489,339,000	Crude petroleum oil
10	2015	SAUDI ARABIA	\$185,186,653	490,603,340	Crude petroleum oil
11	2015	SAUDI ARABIA	\$91,151,755	244,932,540	Crude petroleum oil
12	2015	SAUDI ARABIA	\$149,895,166	489,301,350	Crude petroleum oil

This data is not enough to fulfil transparency requirements under the Reporting Guidance but it can provide a baseline against which to determine analysis of trends (there are over 20 different fuel product description categories, for example, with volumes and prices against each entry), and also to corroborate data reported by ISC on behalf of Pertamina.

Results and Analysis

Description

The data published with this report is an export of data already held within SKK Migas in-house systems, combined with some processing to add information to bring the submission closer to the template recommended by the Commodity Trading Committee. The original file is attached as Annex 2. The processed file is attached as Annex 3.

Data Processing Issues

The data was supplied in a “staggered spreadsheet” format, with one field often used to denote information for many transactions. This was then processed into “one for one” fields, in which each field of information was pasted in for each transaction, so that the data could then be manipulated for aggregate and summary information, analysis, integration into databases and so on. There is therefore the possibility of the introduction of error in this process.

Verification of actual transactions conducted under the ICP system could also only be reconciled against the list of ICP prices for the relevant period “by hand” since the ICP price list is published in a non-interactive PDF format. A spot check of a handful of transactions showed identical values to the ICP, but it is impossible to be certain system-wide without a more comprehensive check. This would be greatly facilitated if either the ICP selling prices can be accessed in interactive formats.

Scoping Issues

In addition to the broad scoping issue outlined in the Executive Summary, that of not including imports, there are other scoping issues related to the narrower scope of exports.

LNG

The data show shipments of condensates from Indonesia’s main LNG plants, but not LNG itself. Condensates are the usually light, high quality liquids which are often a high value commercial by-product of large scale gas fields. The condensates in Indonesia are mostly directed into the state network of refineries.

This may be related to the sensitivity of publishing information where price is dynamic and variable, since LNG prices in Indonesia show great variation. The examples in the annex, for instance, show prices from the LNG plant at Tangguh varying by between \$2.08 per million BTU, to \$6.01 in August 2015. Two shipments on the same day, from the same plant, are recorded with the price of one almost double the price of the second.

Buyer	Date	Price (\$ MMbtU)
Fujian	31-Aug-2015	\$6.01
Posco	31-Aug-2015	\$3.92
Sempra	24-Aug-2015	\$2.08
SK E&S Co Ltd	12-Aug-2015	\$4.10

Figure 6: Selected LNG export prices from sample SKK Migas document not included in official reporting

Such differentials could potentially be explained by the way gas and LNG pricing works: the need to lock in “term” contracts rather than operate on a spot market, leading to the same plant shipping LNG at the same time to customers under contracts signed at significantly different points in the progression of the market, “take or pay” conditions, and so on. All exports logically fall within the core trading reporting requirement. Joint ventures led by international oil

companies operate the lion’s share of such exports, but a significant part is remitted to the Indonesian state, and therefore would count as a first trade under the EITI definition. They are captured under the A2 stream of reporting from SKK Migas.

Exported pipeline gas

Indonesia also exports a small amount of gas through pipelines to Malaysia and Singapore from a couple of projects. It was not immediately clear what the mechanisms and sales terms of this gas are, and whether, as with crude oil, all the gas is sold directly by IOC operators or Pertamina takes delivery, and then sells on its own account. But either case would constitute a first trade by an SOE in accordance with the EITI definition.

Fuel Product Exports

Officials as ISC reported that Pertamina was exporting “several thousand barrels a day” of low grade fuel products, such as Low Sulphur Fuel Oil, High Sulphur Fuel Oil, Low Sulphur Wax Residue, Vacuum Residue, Naphtha, Decant Oil. These are mostly waste products from the refinery system, and have relatively low commercial value. Nevertheless the volume means the trade could potentially be in the hundreds of millions of dollars a year. Fuel products are often involved in swaps for crude oil, and the terms of such swaps can be opaque (such as in Nigeria and Iraqi Kurdistan). It is not clear whether, as products, the information on these sales would lie with SKK Migas, since logically such sales no longer count as upstream.

Domestic Market Obligation

It is not clear from the current data supplied by SKK Migas which of the transactions recorded might be under so-called Domestic Market Obligation terms. Indonesia’s system of production sharing contracts specifies a condition under which a certain amount of oil produced by international companies is restricted from export, and sold into the national refinery system. Often, such DMO obligations are executed under different price arrangements – a discount against the “normal price”, which in the case of oil coming out of fields governed by PSCs would be the ICP. The SKK Migas reporting system is known to contain a category, A5, which deals specifically with DMO related shipments. It is not clear if A5 transactions have been included in this series.

Domestic Pipeline Gas

Indonesia has a complex, large and growing domestic gas market. Since the EITI definition is export-oriented, it is not within the core required scope, but questions of deals within the gas sector, both to direct industrial consumers and into electricity networks are often covered in national media, with high public interest. Domestic gas sales are covered under the SKK Migas reporting system by the A3 series.

Data Anomalies

Negative and zero value transactions

The dataset contains 44 transactions with negative values – minus oil barrels, and minus dollars – at a value of \$67,156,568 (see negative value sheet in the processed data file). Most of this seems to come from three blocks, defined as “Attaka, Kalimantan”, “East Kalimantan”, and “Mahakama”, with Inpex, Chevron and Total being the operators listed in

these transactions. Officials described the negative transactions as “corrections” but it is not clear what for, or how this works. The transactions then reduce the total recorded as liable to enter Indonesian state accounts by a corresponding amount.

Non-standardisation of Labels

Certain fields of information have inconsistent labelling. The contracting party, for instance, mentioned in all transactions is “BP Migas” despite the fact that this institution was disbanded and replaced by SKK Migas in 2015, and the period of reporting covered is 2016. In other cases, it appears the same block, or type of crude oil, may have been referred to under different names. Best efforts have been made in correspondence with SKK Migas to clarify and normalise all relevant labels. But even if the published file has correctly standardised all block, crude oil, and contractor names, it raises the possibility that it then no longer matches the data held within the official government system which contained the irregularities in the first place. This needs to be taken into account if at any later stage a more comprehensive attempt at reconciliation is attempted.

Pre-2016 dates and zero transactions

A total of 24 transactions appear to show zero volume oil, but a total of \$601,580 of reported value coming into the system. Eighteen of these, with a value of \$597,000, come from a field which was initially identified in the block field as “PT Pertamina” (the name of a Pertamina operating entity), which was later adjusted to a catch-all label “Indonesia”, applied to all blocks across the country where Pertamina is the sole operator. These 18 fields also all date to the calendar year 2015. The reason for these zero shipments and shipment dates which are out of scope could not immediately be identified.

Real Nature of Transactions

The “Buyer” field in all transactions states “BP Migas”. Not only is this problematic because the institution has now been replaced, but because it does not clarify the real nature of the transaction. In discussions, officials regularly refer to Pertamina being appointed by SKK Migas to sell crude oil produced under the ICP system. If buyer and seller are determined by who is paying money, and who is receiving it, Pertamina actually counts as the buyer under the ICP system and the Ministry of Finance as the seller.

The real world underlying structure of most of the transactions in this system is that Pertamina picks up oil, by ship or pipeline, either from a field operated by Pertamina or as an in-kind payment from a private company operating a PSC, and delivers it into one of the seven major refineries in Indonesia. The first exchange of money for that oil comes when Pertamina transfers money – pays – into an account held by the Finance Ministry on behalf of the government. This is consistent with the conception, and reality, of Pertamina as state-owned, but an autonomous entity.

Once the oil is in the refinery system, and the money is deposited in the ministry account, Pertamina then has full discretion over how to process it, what products to refine it into, who to sell them to and the collection of revenues from those downstream transactions.

Variance from the suggested EITI Reporting Template

The data supplied did not fulfil all the fields in the suggested EITI reporting template for a variety of reasons.

In the case of some fields, such as Incoterms, Nominal and Actual Quantity and Price, or Options the fields were not relevant to the scope of the data being supplied, since the ICP shipments and other transactions in this data set are all FOB, with no difference between nominal and actual, and no options executed, though it should be noted this might not be the case if the scope is expanded to LNG and gas exports. Sales contract terms may also not be relevant for transactions determined under the ICP system, constituting 98% of the value reported in this data set, since no separate sales contract may exist, but rather the determination is made on interpretation of the underlying Production Sharing Contract, in the case of fields operated by international or private Indonesian companies, or solely by Pertamina.

In other cases, as described, best efforts have been made to supply extra “standing” information to go in to each field by correspondence with SKK Migas, such as with Pricing Method, and Terminal.

In the case of quality of oil, data have been supplied from external sources in the case of the main grades of oil used as benchmarks, and then mapped onto all transactions in the dataset where they apply, some 848 transactions with a value of \$3.24 billion, or 68% of total value.

But there are other gaps in the data which do not fall into these categories.

Invoice and bill of lading numbers

The most significant missing element is invoice numbers. SKK Migas have clarified that while invoice numbers exist for some categories within their reporting system, that is not the case for the transactions included here. It is not clear if that is because there no such official documents exist anywhere within Pertamina, or that they do exist but Pertamina does not routinely supply them to SKK Migas, or they do supply them but they are not integrated within the A0 reporting system. But a credible transparency report requires unique identifiers to be applied to each real world shipment.

Payment Details

The reporting form recommends date of payment and account number, to be included separately from either shipping or invoice date. SKK Migas has clarified that the Ministry of Finance holds three accounts at the Bank of Indonesia for oil and gas revenues, listed in the

table attached. But there is currently no method of determining which account is used for which of the transactions in the data set.

No.	Beneficiary	Account No.	Currency
1.	Rekening Kas Umum Negara Dalam Rupiah	502.000000980	IDR
2.	Rekening Kas Umum Negara Dalam Valuta USD	600.502511980	USD
3.	Rekening Menteri Keuangan K/Hasil Minyak Perjanjian Karya Production Sharing	600.000411980	USD

Foreign currency

The reporting form also includes a field to include the exchange rate used. Although the ICP system is used to determine value within Indonesia, it is denominated in US dollars.

Pertamina, on the other hand, makes payments for shipments of oil from Indonesian fields into its refinery system in Indonesian rupiah. Shipments to those terminals represent 99.7% of the transactions included in this data set, or \$4.73 billion. Variations even of a fraction of a percent in exchange rates could therefore cost the Indonesian state millions of dollars, and the exact exchange rate used is therefore material.

Analytical Potential

The limitations of scope, and to a lesser extent methodological issues in the data set, put natural bounds on what analysis can be enabled with the data.

ICP benchmark variance and volume

The data submitted did not explicitly provide price. Nevertheless, with a shipment volume and an overall shipment value, computation of a unit price per oil is trivial. This then allows comparison of the price per barrel of oil against the prices published by SKK Migas. In the case of the benchmark crudes, the transaction prices recorded in these data match the official selling price. So for instance in February 2016, the benchmark ICP grades quoted by Pertamina are in the table below:

HARGA MINYAK MENTAH INDONESIA (INDONESIAN CRUDE PRICE / ICP)
UNTUK BULAN FEBRUARI 2016
ATAS DASAR FORMULA HARGA YANG DITETAPKAN OLEH PEMERINTAH

JENIS MINYAK MENTAH INDONESIA	ATAS DASAR ICP FORMULA	HARGA FEBRUARI 2016 US\$/Bbl
A. MINYAK MENTAH UTAMA INDONESIA (BENCHMARK CRUDE)		
01. S L C	50 % RIM/SLC + 50% PLATT'S/SLC	28.66
02. ARJUNA	50 % RIM/ARJUNA + 50 % PLATT'S/ARJUNA	28.58
03. ATTAKA	50 % RIM/ATTAKA + 50 % PLATT'S/ATTAKA	30.82
04. CINTA	50 % RIM/CINTA + 50 % PLATT'S/CINTA	28.71
05. DURI	50 % RIM/DURI + 50 % PLATT'S/DURI	26.51
06. WIDURI	50 % RIM/WIDURI + 50 % PLATT'S/WIDURI	28.86
07. BELIDA	50 % RIM/BELIDA + 50 % PLATT'S/BELIDA	32.17
08. SENIPAH CONDENSATE	50 % RIM/SENIPAH CONDENSATE + 50 % PLATT'S/SENIPAH CONDENSATE	33.60

Figure 7: ICP Benchmarks February 2016, Pertamina

Each of these grades have transactions for February in the data at the exact price, computed per unit from the volume and overall value of a shipment, apart from Belida for which there were no shipments reported in that month.

A second question which the data can usefully address is the question of composition of the ICP benchmarks. There is a debate within the industry as to whether the grades are “thick enough” in the market to be sustainable as benchmarks, since some of them come from fields where production is declining. More quantitative work on the volume of production and number of shipments of each of Indonesia’s 52 grades of crude oil could contribute to this debate, which has also consequences for governance, since thinly traded benchmarks are more easy to manipulate.

ICP minor grades analysis

The data also allow greater insight into the management of the 44 grades of crude oil which are priced against the benchmarks. Possible fields of analysis include whether the prices quoted by Pertamina obtain in all cases within the system (as for the benchmarks), but also the potentially more significant one of how the prices for these other grades are set. Since most or all of these grades are only produced, sold and consumed within Indonesia there is, effectively, more discretion available to executives and decision makers compared to the benchmarks where, at least in theory, the ICP price is set by monitoring spot trades on international markets such as Singapore.

The value of ICP “minor” grades in this dataset is \$2.23 billion, covering 54 million barrels.

Indonesian Private Sector

Shipments from fields where private Indonesian companies such as Medco and Star Energy are operating totals some \$259 million. Of this, \$256 million is also in ICP grades which are not benchmarks – where Pertamina is

Contractor	Barrels	USD
CHEVRON INDONESIA CO.	1,972,577	79,235,613
EMP MALACCA STRAIT	242,986	12,035,878
JOB P-GOLDEN SPIKE IND. LTD. (RAJA)	10,498	409,210
JOB P-MEDCO TOMORI SULAWESI	411,698	16,705,892
MEDCO E&P INDONESIA	1,910,512	78,530,681
MEDCO E&P INDONESIA (RIMAU)	711,551	29,505,309
MEDCO E&P INDONESIA (TARAKAN)	412,028	17,892,039
PHE MEDCO TOMORI	143,763	6,343,692
PT. TIARABUMI PETROLEUM	8,097	317,428
SAKA INDONESIA PANGKAH LTD.	233,485	8,116,103
STAR ENERGY (KAKAP)	159,927	7,100,703
Grand Total	6,217,122	256,192,549

sole buyer. While the sums involved may represent a relatively small percentage of Indonesia’s hydrocarbons economy, which between production and imports is in the tens of billions of dollars, they are more than enough to create non-market incentives to set price.

Reconciliation to Core EITI Reconciliation Reporting

The data set might yield analytical results when compared to data within Indonesia's core reconciliation reporting. This has not been possible with the data set at this stage because the period of reporting for the trading, calendar 2016, is not yet covered by the reconciliation process.

Recommendations to the Indonesian MSG

Existing scope

- Request the relevant state party (SKK Migas, Pertamina and the Ministry of Finance) to supply missing fields which would bring the data set closer to conformity with the recommended guidance. Notably: invoice and bill of lading unique identifiers, payment date, amount confirmed, and exchange rate used.
- Include LNG export payments received by the Indonesian state, and also confirm details of gas pipeline exports to Malaysia and Singapore.

Process Information

- ICP: the MSG should publish and collate all procedures within the Indonesian government related to setting the ICP, such as guidance over principles used in pricing.
- ICP: Pertamina should make historic data available in interactive format, to enable system wide comparison of payments received by the Ministry of Finance, in rupiah, against the official prices announced.

Extension of scope

- The scope should extend to Indonesia's imports of crude oil and fuel products, as conducted by the ISC unit of Pertamina.

Appendix 1: Example of Reporting within state structure

Explanation of the A0 series held by SKK Migas and some of the documents in it – showing highly differential prices of the same product from the same source on the same date.

		BP MUTURI					700,012.35
		BP WIRIAGAR					235,149.65
1508.LNG3.002	2015.LFJ.26		1508 FR13 LFJ26	20-Aug-15	1-Sep-15	6.01	3,261,700.00
		BP BERAU LTD					2,326,759.11
		BP MUTURI					700,078.89
		BP WIRIAGAR					235,172.00
1508.LNG3.003	2015.LFJ.27		1508 FL14 LFJ27	31-Aug-15	14-Sep-15	6.01	3,262,010.00
TOTAL FUJIAN							9,777,500.00
		BP BERAU LTD					2,181,804.32
		BP MUTURI					656,464.66
		BP WIRIAGAR					220,521.02
1508.LNG3.004	2015.LPC.07		1508 TB07 LPC07	31-Aug-15	9-Sep-15	3.92	3,058,790.00
TOTAL POSCO							3,058,790.00
		BP BERAU LTD					2,264,875.08
		BP MUTURI					681,459.12
		BP WIRIAGAR					228,917.21
1508.LNG3.005	2015.LSP.37		1508 TP05 LSP37	24-Aug-15	14-Sep-15	2.08	3,175,251.41
TOTAL SEMBRA MEXICO							3,175,251.41
		BP BERAU LTD					2,348,407.46
		BP MUTURI					706,592.48
		BP WIRIAGAR					237,360.06
1508.LNG3.006	2015.LSK.07		1508 TJ07 LSK07	12-Aug-15	24-Aug-15	4.10	3,292,360.00
TOTAL SK E&S Co., Ltd (KORGA)							3,292,360.00

NOTES

¹ <https://www.eia.gov/beta/international/country.cfm?iso=IDN>

² <http://www.migas.esdm.go.id/public/images/uploads/posts/icp-juli-2017.pdf>

³ <https://lifting.skkmigas.go.id/tab/lifting2/index.php>