PRIORITY TO DECISION MAKING

IEEJ : August 2014

CHANGING ENERGY FUTURE, STARTS NOW

INDONESIA ENERGY POLICY

Ministry of Energy and Mineral Resources

SEMANGAT DAN YAKIN

BUREAU OF PLANNING & COOPERATION

OUTLINE

I. INDONESIA AT THE GLANCE
II. CURRENT ENERGY POLICY
III. NATIONAL ENERGY POLICY
IV. CHALLENGES
V. PARTICIPANT'S GOALS

I. INDONESIA AT A GLANCE

INDONESIA'S PROFILE

2011

Indicator	Nominal	Growth
Population	240 million	1.49%
GDP	$ 846.3 billions	6.4%
GDP per capita (PPP)	$ 3,542	

INDONESIA'S PROFILE

- In the last few years, Indonesia managed to maintain a good economic growth and attractive investment climate.
- That is reflected in increasing of rating and amount of investment

source: The Investment Coordinating Board of the Republic of Indonesia, 2011

Institutions	Rating	Outlook
S&P (Jan'12)	BB+	Positive
Fitch (Dec'11)	BBB-	Stable
Moody's (Jan'12)	Baa3	Stable

"Indonesia was ranked 9th as major destination for FDI"
World Investment Prospects Survey 2010 – 2012, UNCTAD

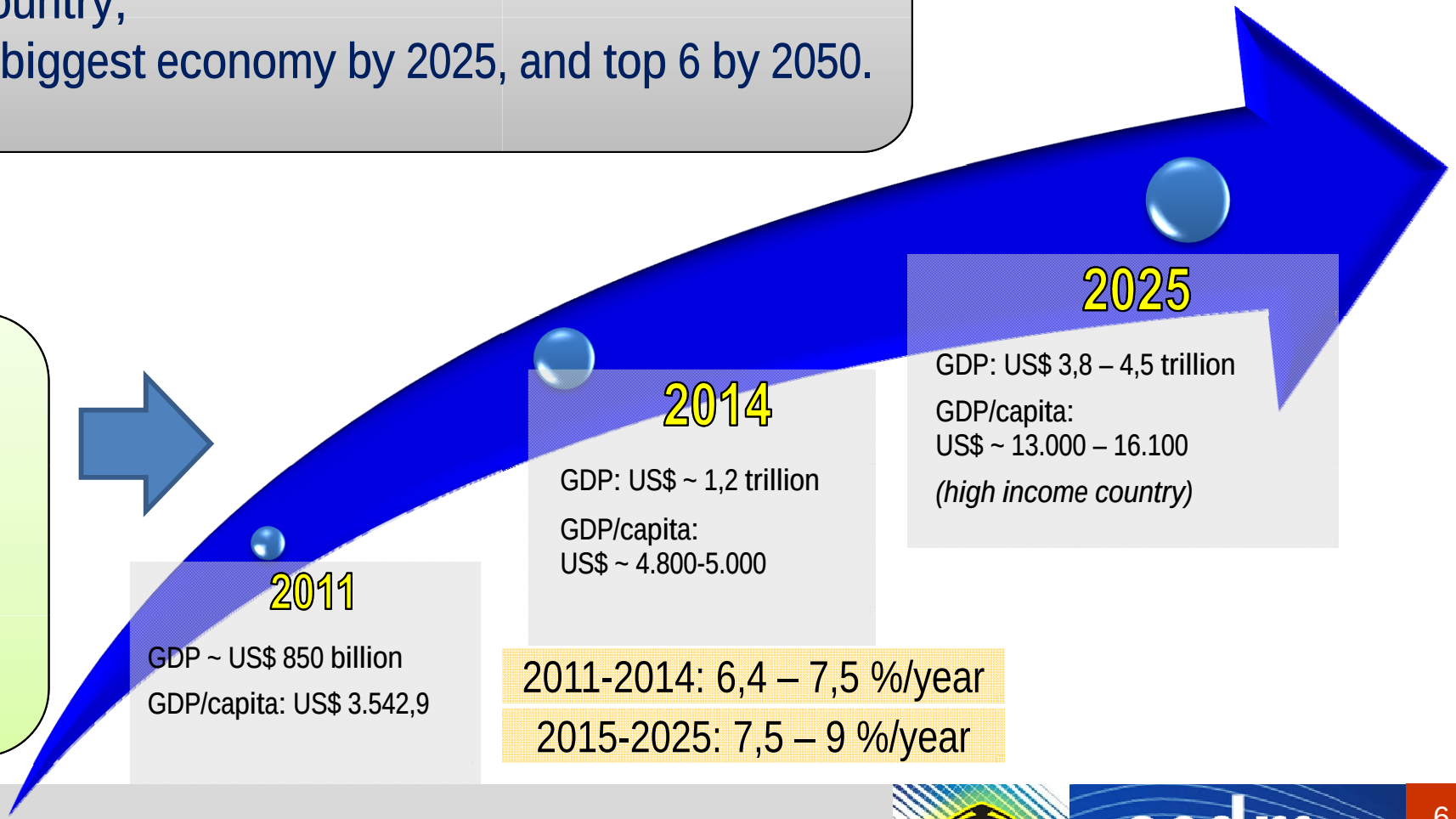
The government has set a target for Indonesia to become an advanced country by 2025 and the IMF predicts that it will be the **world's fifth largest economy by 2030**

Euromonitor International, 2012

HIGH ECONOMIC GROWTH AND SUSTAINABLE

Economic goals:
(1) High income country;
(2) Top 10 world's biggest economy by 2025, and top 6 by 2050.

Acceleration of inclusif economic growth and sustainable

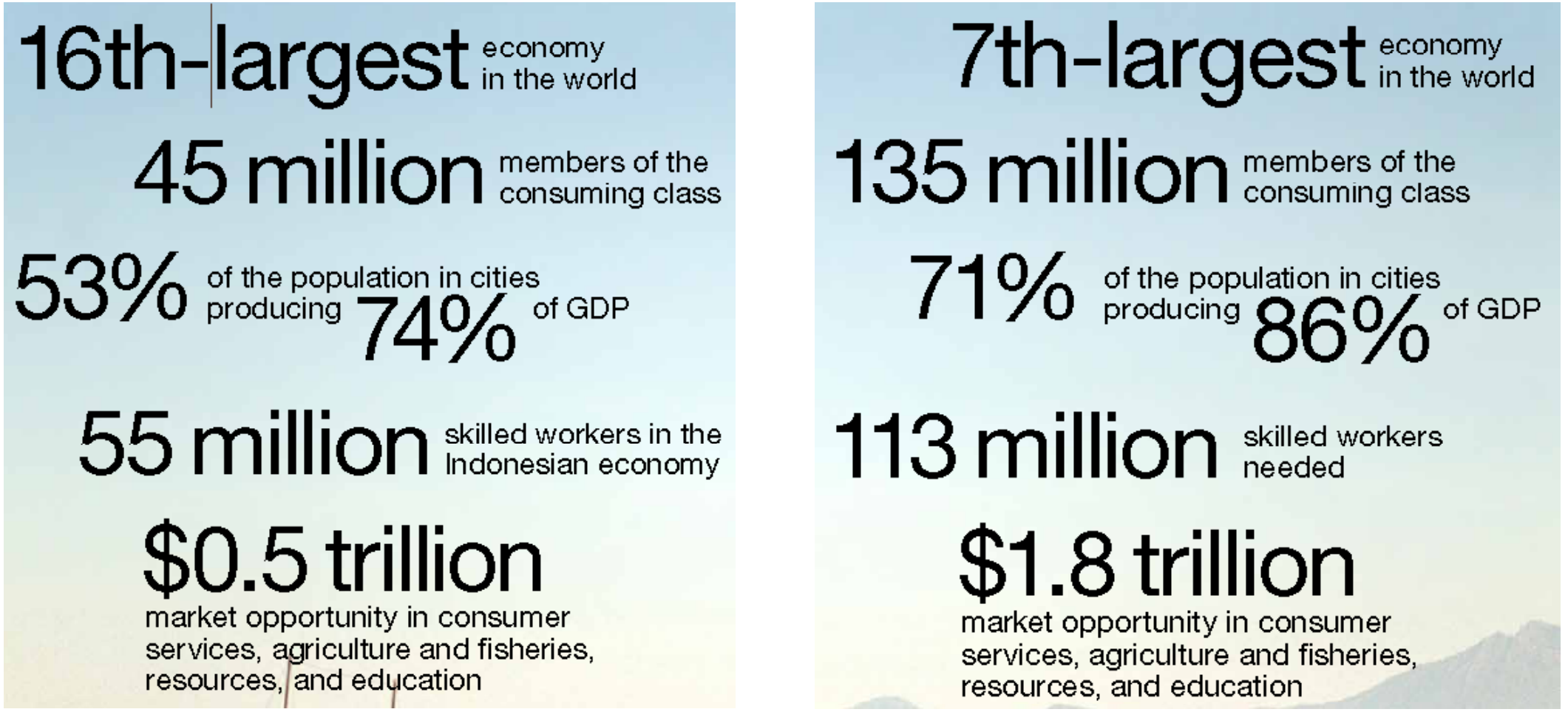


2011-2014: 6,4 – 7,5 %/year

2015-2025: 7,5 – 9 %/year

CURRENT CONDITION

Demand for energy, materials, water and other key resources demand is likely to increase rapidly



Source: McKinsey Global Institute, 2012

POTENTIAL AND ENERGY PRODUCTION

NO	FOSSIL ENERGY	RESOURCE (RE)	RESERVE (RV)	RATIO RE/RV (%)	PRODUCTION (PROD)	RATIO RV/PROD (YEAR)*)
1	2	3	4	5 = 4/3	6	7 = 4/6
1	Oil (Billion barrel)	56.6	7.73 **)	14	0.329	23
2	Gas (TSCF)	334.5	152.9	46	3.07	50
3	Coal (billion ton)	161.3 ***)	28.17	17	0.353	80
4	Coal Bed Methane (TSCF)	453	-	-	-	-
5	*Shale Gas (TSCF)*	574	-	-	-	-

*) Assuming no new reserve are found

**) Including Cepu Block

***) Including 41 Billion Ton underground resources

NO	NEW AND RENEWABLE ENERGY	RESOURCE (RE)	INSTALLED CAPACITY (IC)	RATIO IC/RE
1	2	3	4	5 = 4/3
1	Hydro	75.670 MW	6.654,29 MW	8,79 %
2	Geothermal	29.038 MW	1.226 MW	4,22 %
3	Mini/Micro Hydro	769,69 MW	228,983 MW	29,75 %
4	Biomass	49.810 MW	1.618,40 MW	3,25 %
5	Solar	4,80 kWh/m^2/day	22,45 MW	-
6	Wind	3 – 6 m/s	1,87 MW	-
7	Uranium	3.000 MW (e.q. 24,112 ton) for 11 years*)	30 MW	1,00 %

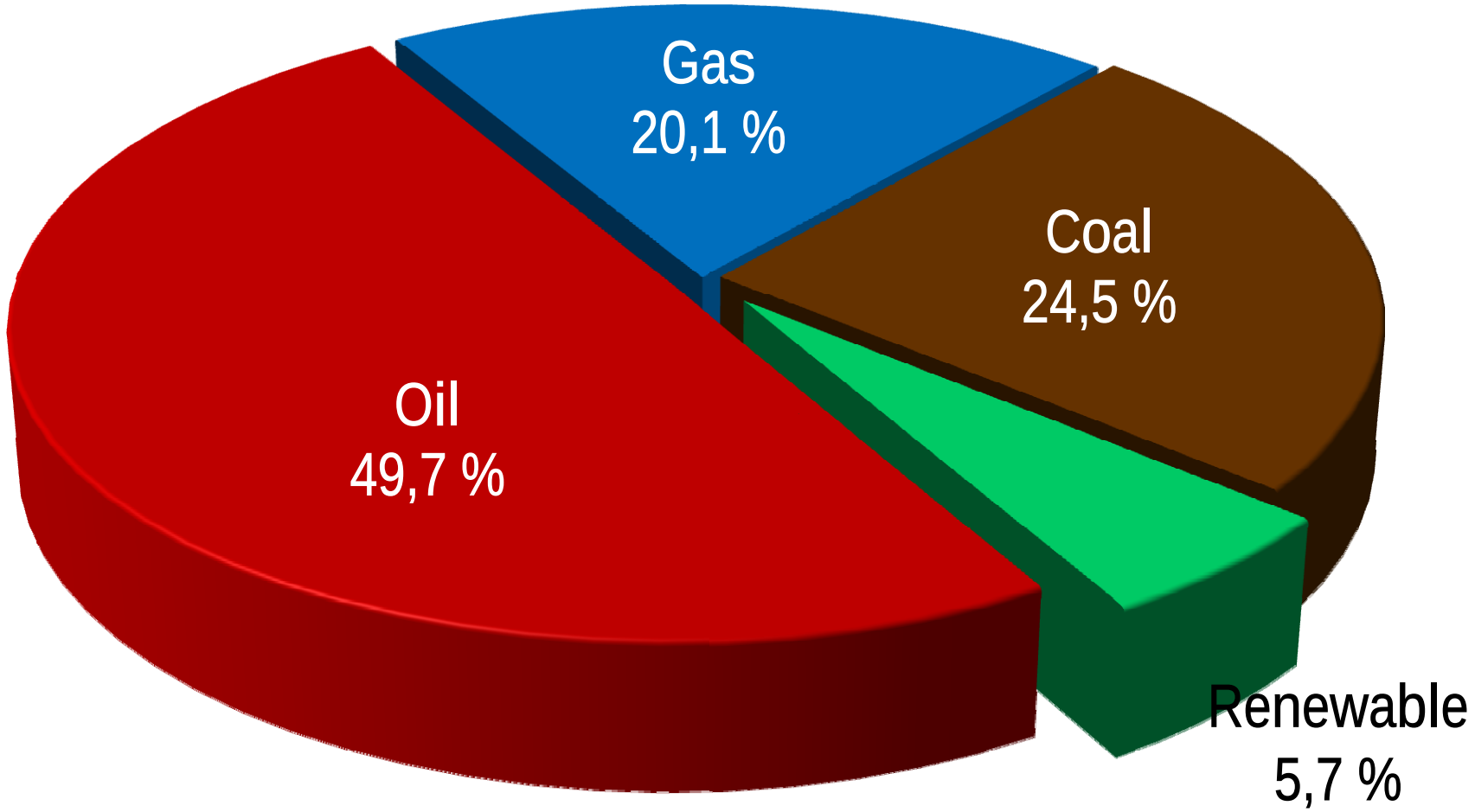
*) Only in Kalan – West Kalimantan

II. CURRENT ENERGY POLICY

CURRENT ENERGY CONDITION

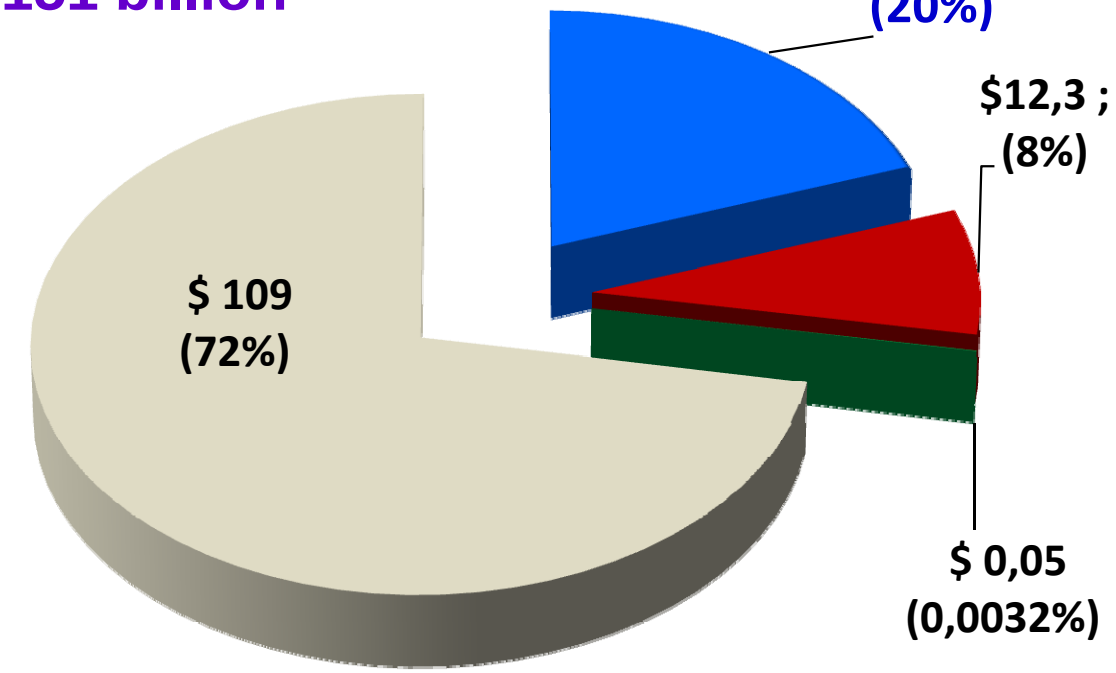
1. 28% or US$ 41,9 billion of total national budget comes from energy & mineral sector revenue;
2. Fuel and electricity are still subsidized, and the amount is increasing every year. For 2012, amount of subsidy aproximately US$ 25 billion, which 77% are not on target;
3. Investment in EMR sector reached US$ 27 billion in 2011. Good Investment climate;
4. Indonesia has diversity of energy;
5. Indonesia is an exporter energy (oil, coal, and gas), but also an importer of energy (fuel);
6. Gas utilization is 56% for export and 44% for domestic;
7. Oil still has the largest share (49,7%). Use of Renewable energy still only around 6%. Renewable energy are targeted to reach 26% in 2025;
8. Growth in energy consumption is average of 7% per year, but has not been supported by enough supply energy. Dependence on fossil fuels is still high, even though the reserve is decreasing;
9. Limited access of energy, electrification ratio still only 81%. Infrastructure is one of challenge to fulfill domestic energy needs.

NATIONAL ENERGY MIX 2012



CONTRIBUTION ENERGY & MINERAL REVENUE TO NATIONAL BUDGET

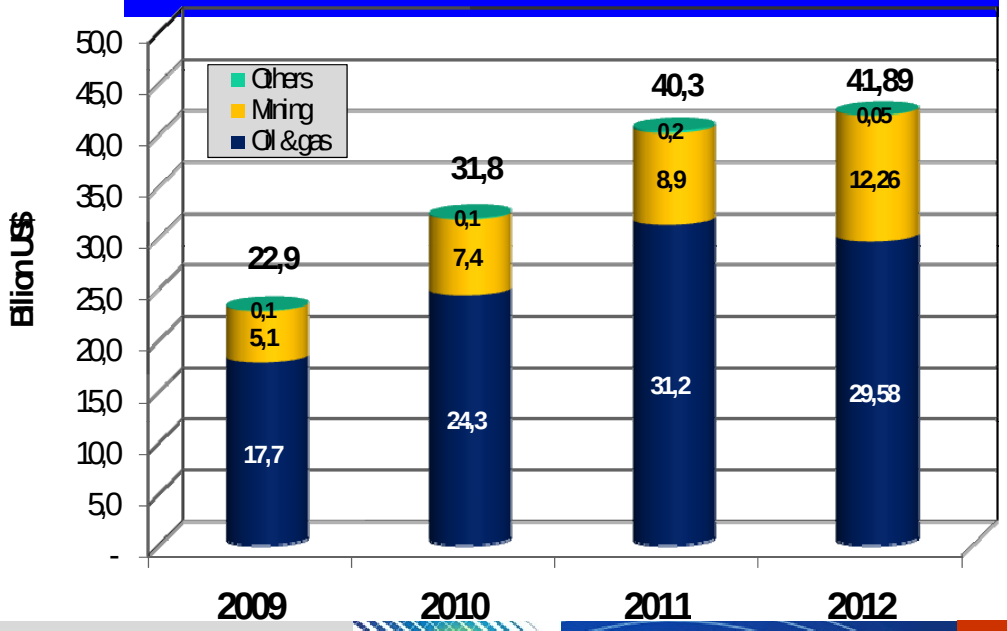
Total National Budget 2012
$151 billion



- Oil and gas
- Mining & geothermal
- Others
- Other sector (non EMR)

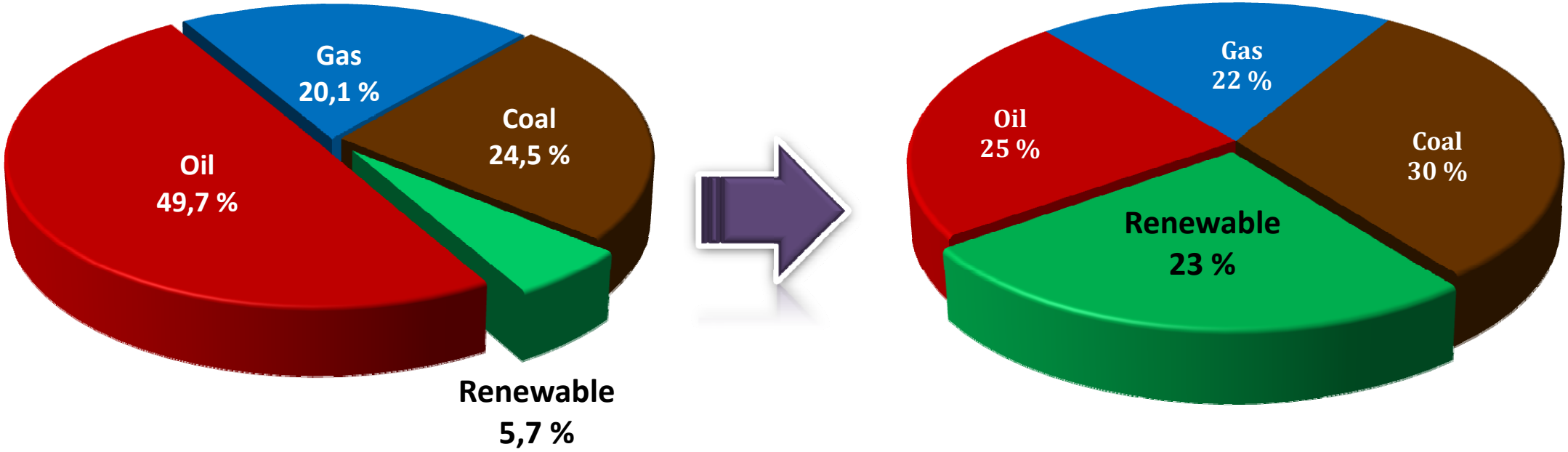
1. **Energy & mineral revenue is still the backbone of Indonesia's economy**
2. **28% or US$ 41,9 billion of total national budget comes from energy & mineral sector revenue**
3. **20% or US$ 29,6 billion** of total national budget is cotributed by **oil&gas revenue**

ENERGY & MINERAL SECTOR REVENUE

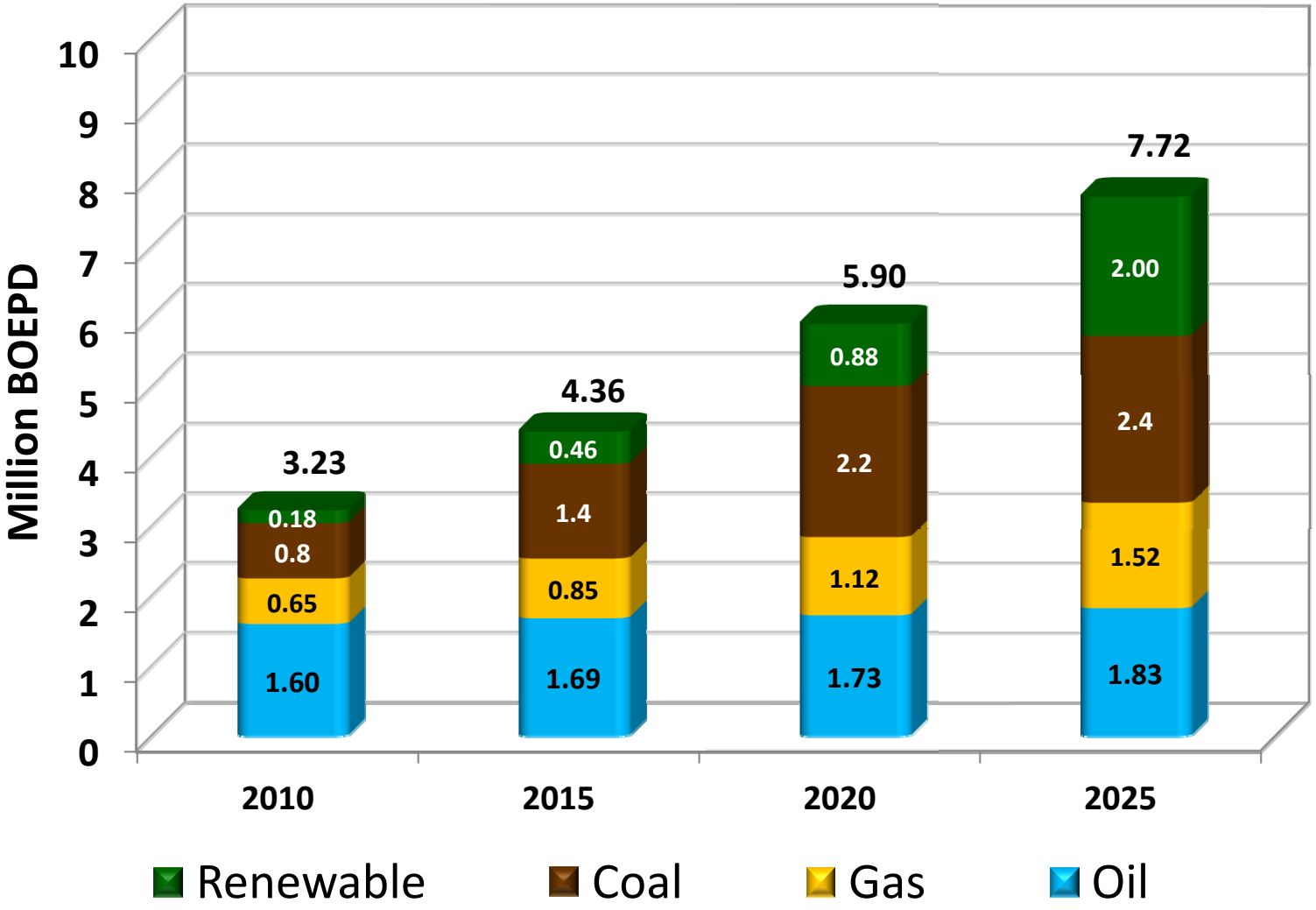


II. NATIONAL ENERGY POLICY

NATIONAL ENERGY MIX

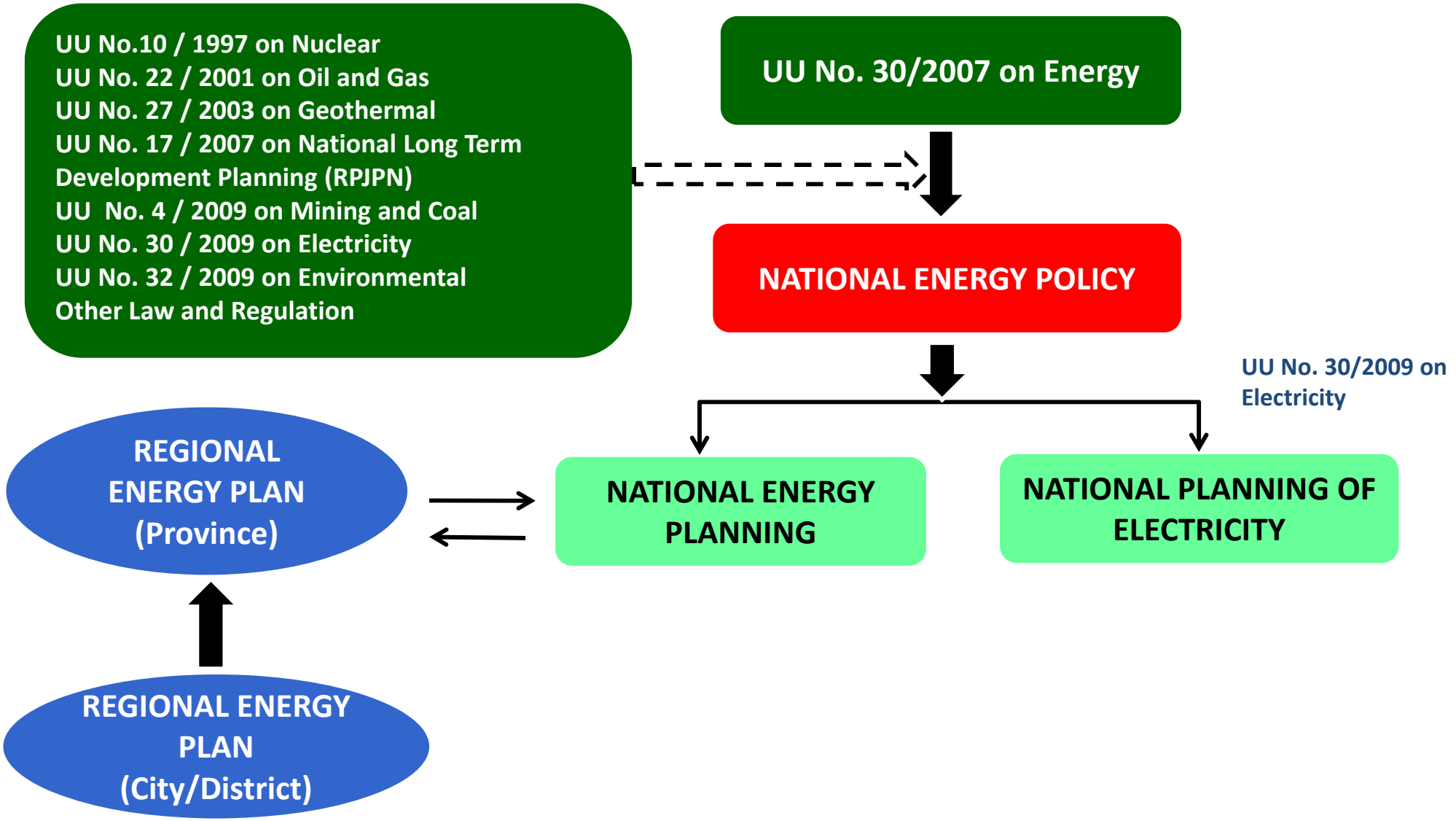


NATIONAL ENERGY DEMAND



- Energy demand increases every year following the economic growth.
- Portion of renewable energy will be be 25,9% in 2025.
- Investment is required to fulfill energy demand.

LEGAL FRAMEWORK OF NATIONAL ENERGY POLICY



POLICY AND DIRECTION OF NATIONAL ENERGY POLICY

1. To shift the paradigm in energy management;
2. Energy sovereignty management;
3. To ensure the availability of domestic energy;
4. To optimalize energy resources management;
5. Efficiency of energy utilization;
6. To improve energy accessibility;
7. To develop capabilities and independency of energy industry;
8. Job creation;
9. Preserving the environmental functions.

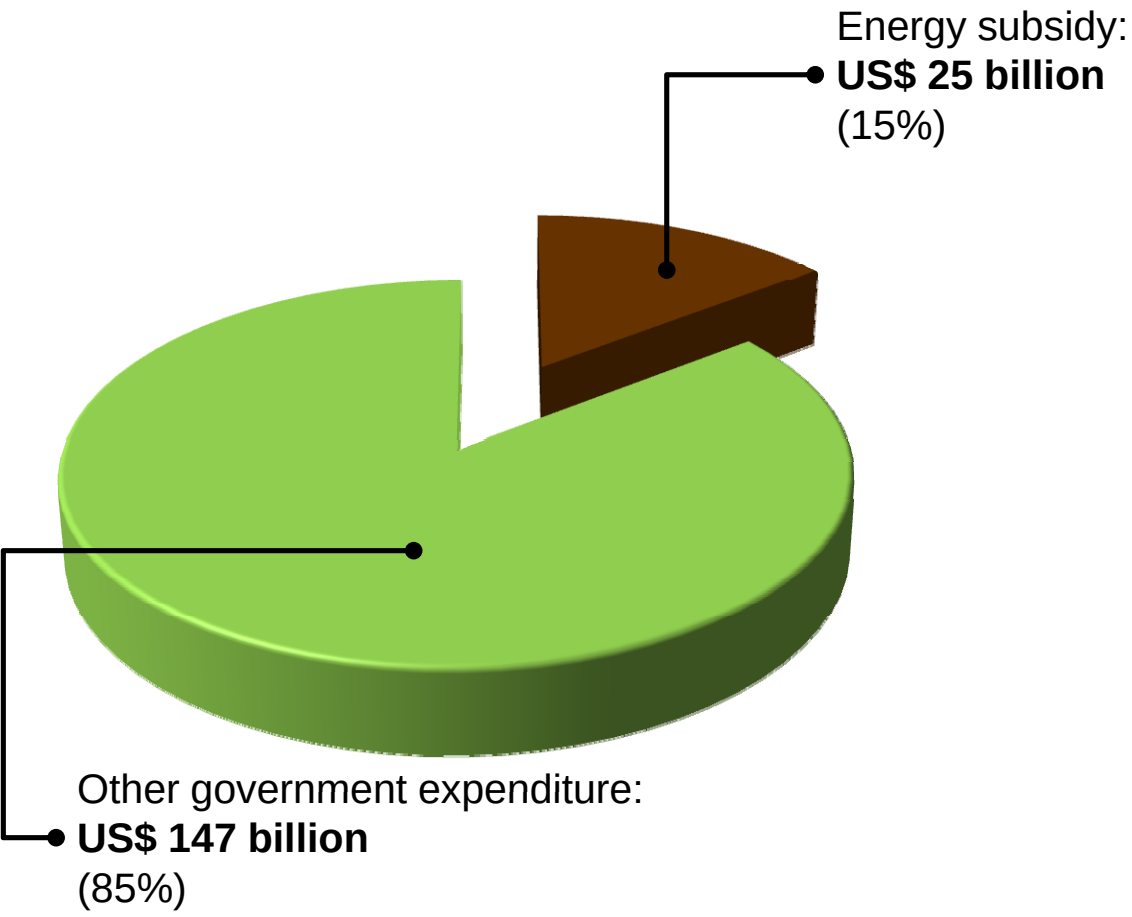
THE GOAL OF NATIONAL ENERGY POLICY

1. To establish of a new paradigm that energy as a source of development;
2. To achieve energy elasticity is smaller than 1 (one) in 2025, which is aligned with the economic growth target
3. To achieve final energy intensity reduction become 1 (one) percent per year in 2025;
4. To achieve of electrification ratio of 85% by 2015 and approach 100% in 2020;
5. To achieve household ratio of gas utilization by 85% in 2015;
6. To fulfill the objectives of supply and utilization of energy;
7. To achieve the optimal of primary energy mix.

IV. CHALLENGES

SHARE OF ENERGY SUBSIDY IN NATIONAL BUDGET

Total government expenditure in national budget 2012:
US$ 172 billion



- Total government expenditure in 2012 is US$ 172 billion;
- US$ 25 billion or 15% of government expenditure is used for energy subsidy;
- Energy subsidy has a great share in national budget, so that other important program cannot deliver to the fullest;
- Most of energy subsidy is not on target;
- Increasing in fuels consumption could make subsidy to become US$ 34 billon (19%).

POTENTIAL AND ENERGY PRODUCTION

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*) Only in Kalan – West Kalimantan

V. PARTICIPANT'S GOALS

PARTICIPANT'S GOALS

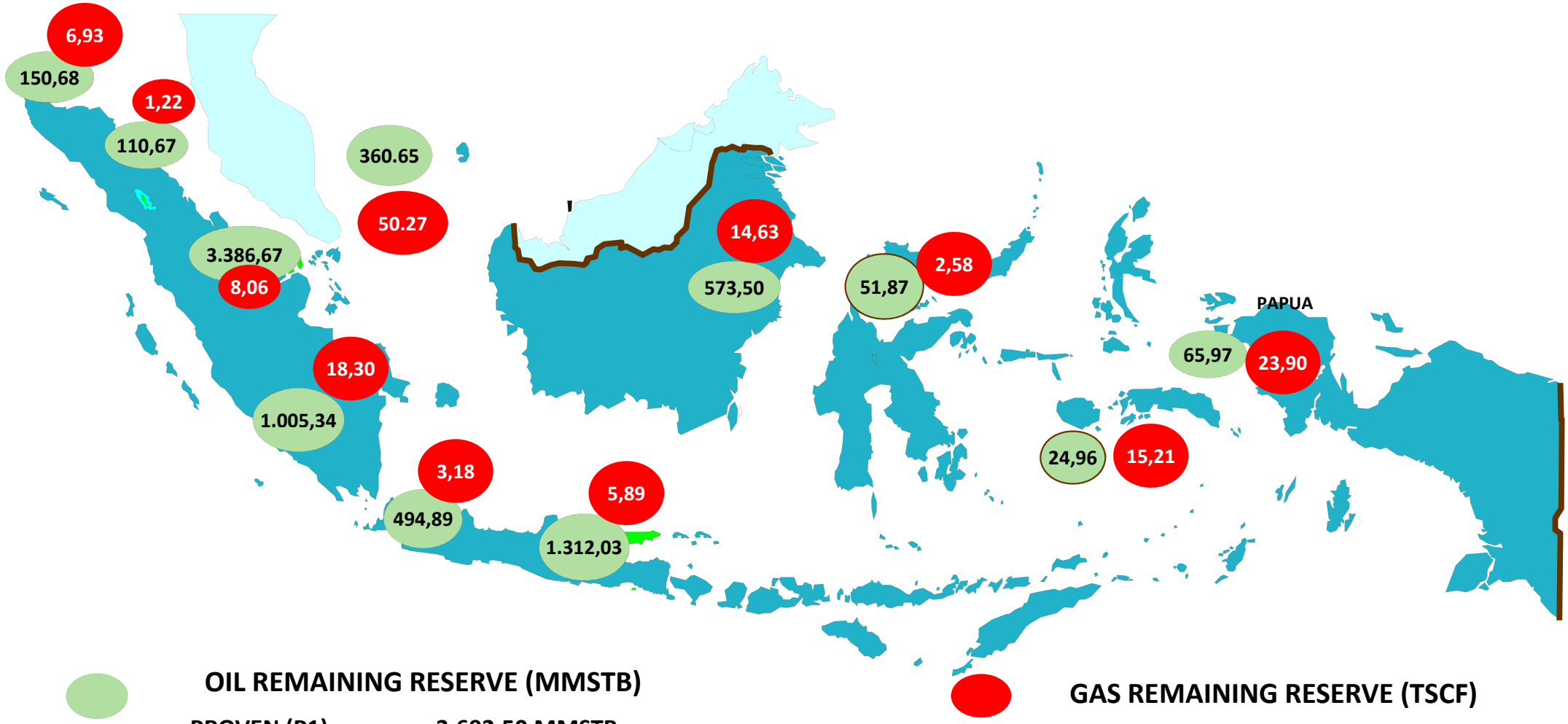
- To formulate energy planning in medium term and long term references for indonesia as the country with rapid economic growth.
- To formulate energy policy for the developing countries which the level of dependence on fossil fuels subsidized is high enough. This led to the difficulty of the development of alternative energy especially renewable energy.
- To provide better input in the formulation of national energy plan as a derivative of a national energy policy drawn up by the national energy council. So it can be implemented properly and successfully achieve the goals of the national energy policy that has been set.

Thank You

www.esdm.go.id

OIL AND GAS RESERVE

as of 01 Januari 2013



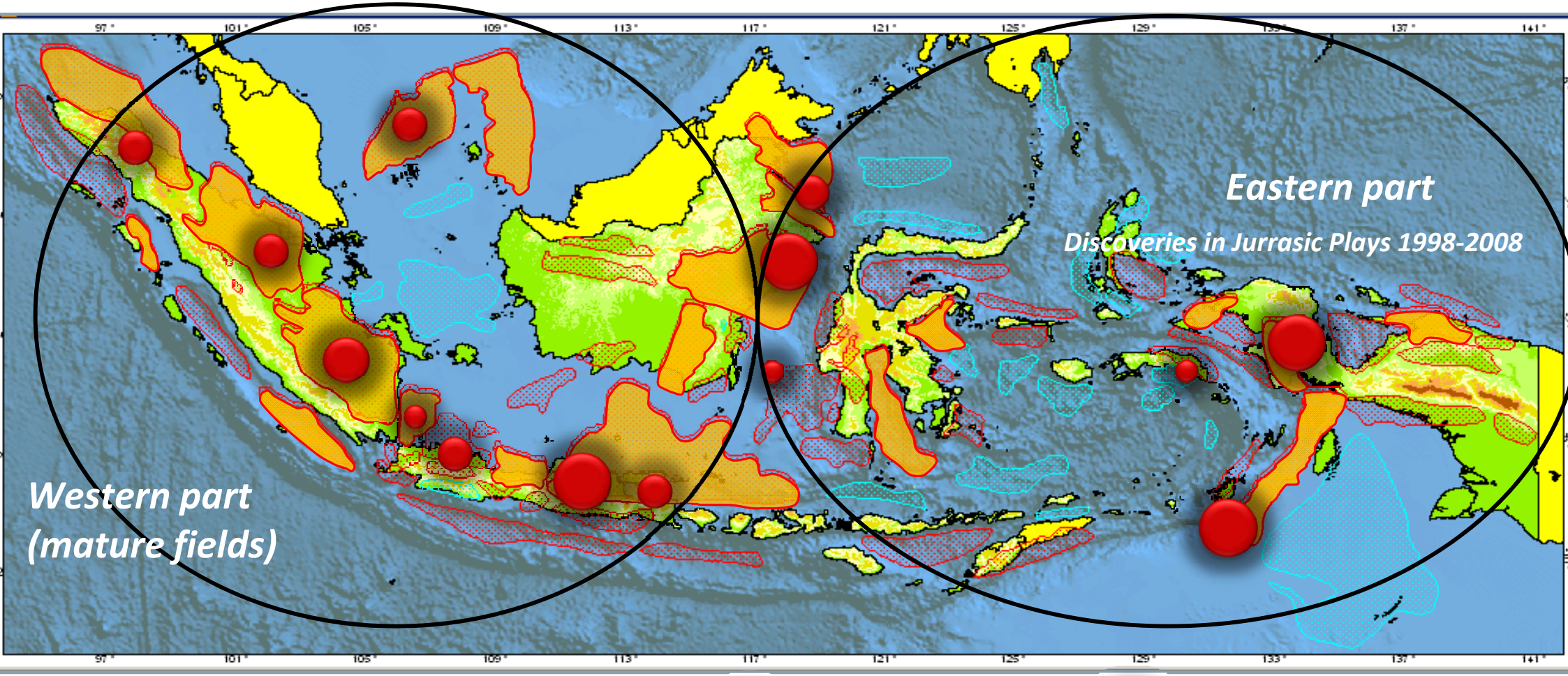
OIL REMAINING RESERVE (MMSTB)

PROVEN (P1)	=	3.692,50 MMSTB
POTENTIAL (P2+P3)	=	3.857,31 MMSTB
TOTAL (3P)	=	7.549,81 MMSTB

GAS REMAINING RESERVE (TSCF)

PROVEN (P1)	=	101,54 TSCF
POTENTIAL (P2+P3)	=	48,85 TSCF
TOTAL (3P)	=	150,39 TSCF

INDONESIAN BASINS



< 100 MMBOE

100 - 500 MMBOE

500 - 1000 MMBOE

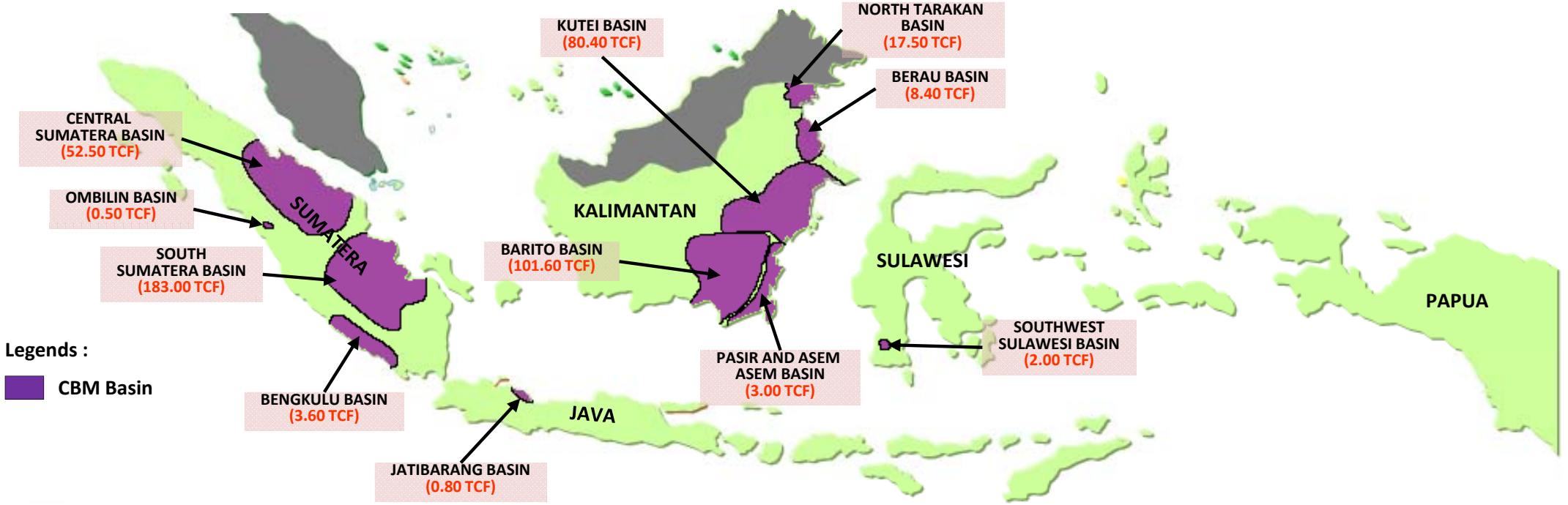
1000 - 1500 or up to 1500 MMBOE

Discovered Basin

Undiscovered Basin

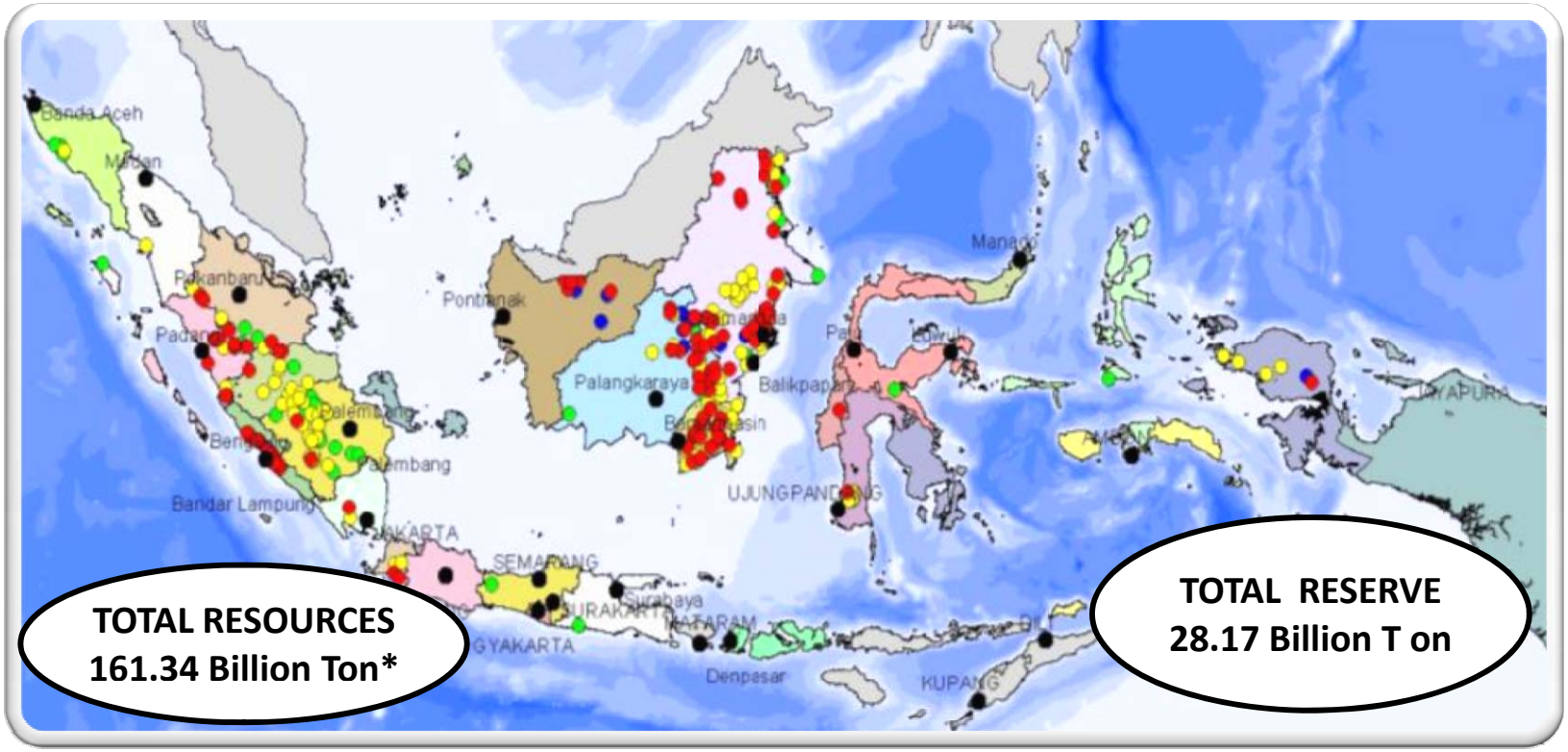
New Basin (2008)

COAL BED METHANE RESOURCES

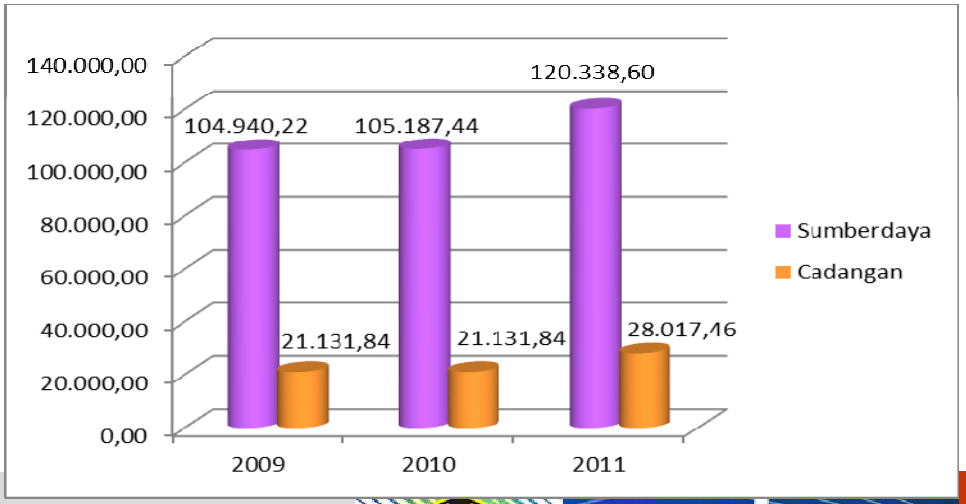


- Resource potential estimated at 453 TCF
- Total CBM Basin = 11
- Contract Signed up to 2012 : 50 CBM PSCs
- Early good results in East Kalimantan, currently used for small scale power generation; future development includes supply to existing LNG facility

COAL RESOURCE AND RESERVE

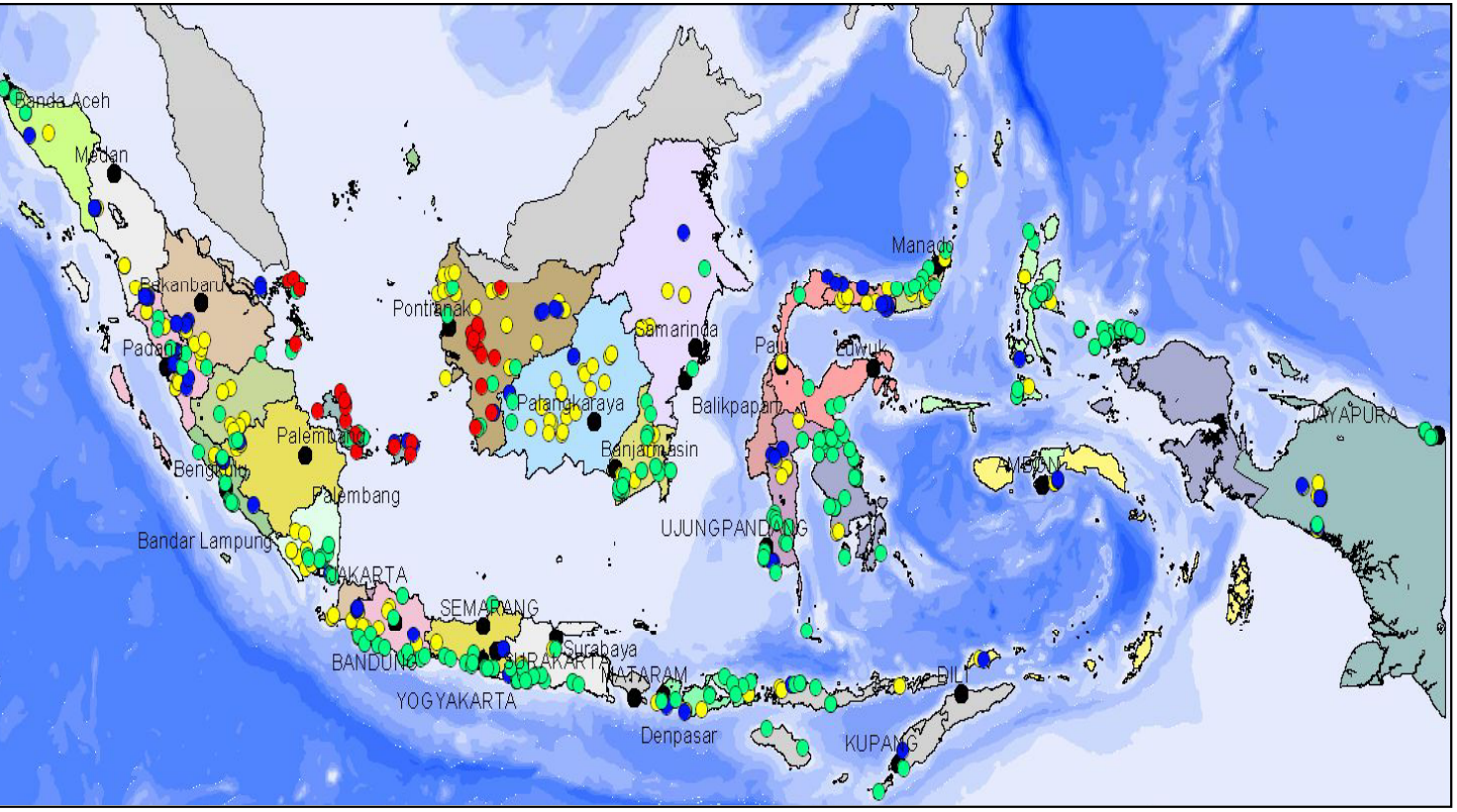


- Very High (> 7100 kal/gr)
- High (6100 - 7100 kal/gr)
- Medium (5100 - 6100 kal/gr)
- Low (< 5100 kal/gr)



*) 41 billion ton is underground mining

MINERAL RESOURCE AND RESERVE

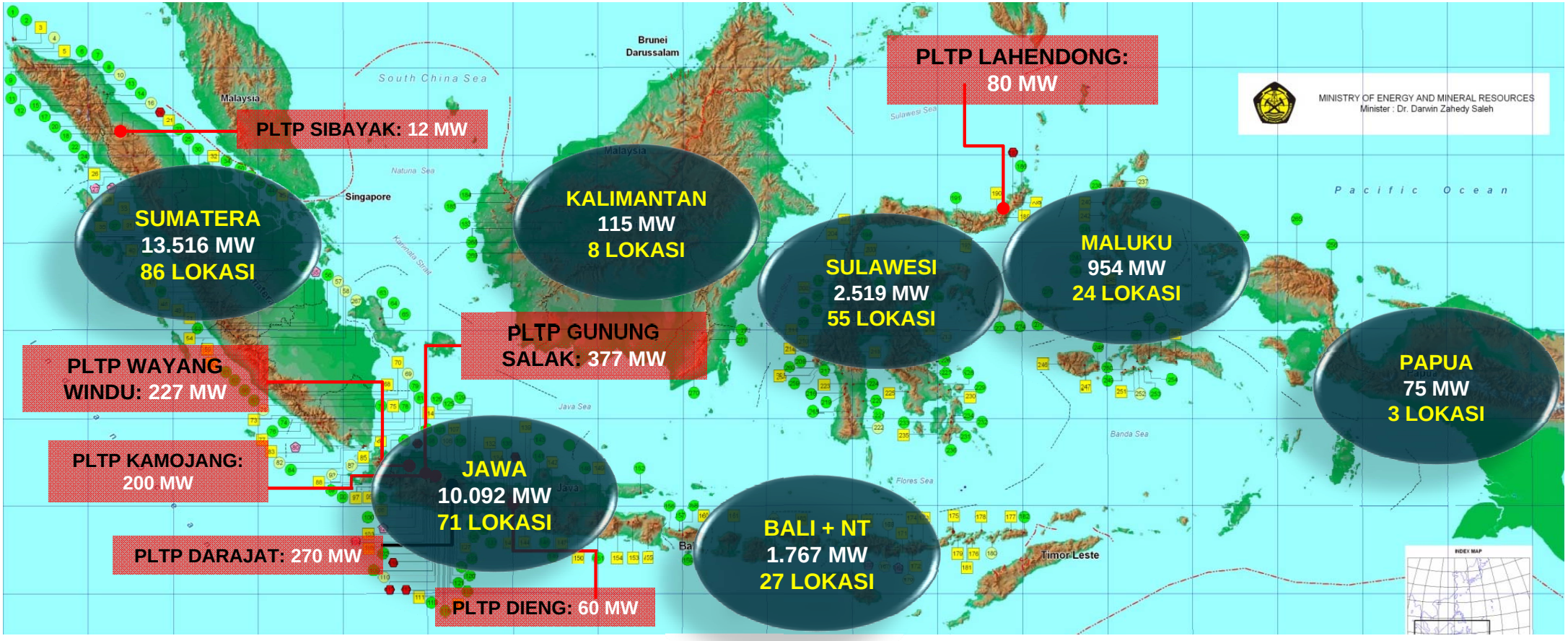


- Ferro and Associates : Fe, Nickel, Cobalt, Chromit , Mangan, Molibdenum, Titanium
- Precious Metal : Gold, Silver, Platinum
- Base Metal : Zinc, Cupper, Tin, Lead, Mercury
- Light and Rare metal : Bauxite, Monasit

NO	COMODITY	RESOURCE (MILLION TON ORE)	RERSERVE (MILLION TON ORE)
1	Copper	4.925	4.161
2	Bauxite	551	180
3	Nickel	2.633	577
4	Iron sand	1.649	5
5	Lateritic iron	1.462	106
6	Primary iron	563	30
7	Iron sediment	18	-
8	Manganese	11	4
9	Alluvial gold	1.455	17
10	Primary gold	5.386	4.231
11	Silver	3.406	4.104
12	Zinc	577	7
13	Tin	354	0,7
14	Lead	363	1,6

(Source : Geological Agency)

GEOTHERMAL POTENTIAL IN INDONESIA



*) Does not account for potential geothermal offshore

TOTAL POTENTIAL: 29.038 MW (276 LOCATION)
TOTAL INSTALLED CAPACITY: 1.226 MW (6 WORKING ACREAGE)

Contact: report@tky.ieej.or.jp