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# How to Achieve the Renewable Energy Goal in APEC Region: Long-Term Energy Outlook, Feed-In-Tariff and Variable Renewable Energy Promotion in Japan

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# COORDINATING MINISTRY FOR ECONOMIC AFFAIRS REPUBLIC OF INDONESIA



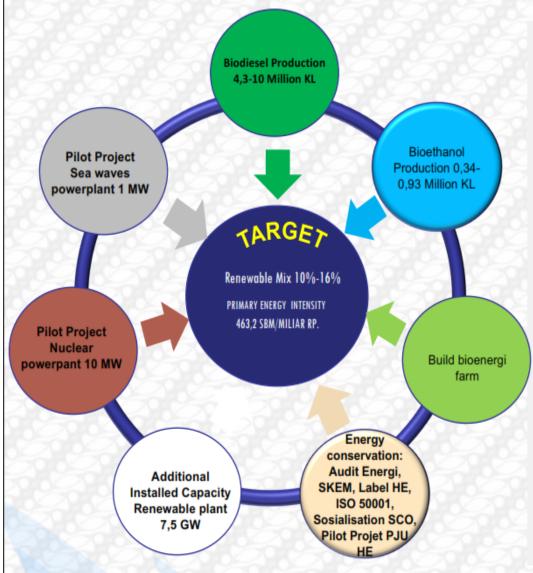
REGULATION STRATEGY TO IMPROVE DEVELOPMENT OF RENEWABLE ENERGY IN INDONESIA

# OUTLINE

- **1. POLICY STRATEGY ON ENERGY SECTOR**
- 2. REGULATION TO INCREASE RE IN INDONESIA
- 3. FISCAL INSENTIVE FOR RE DEVELOPMENT
- 4. CHALLENGE AND OPPORTUNITY



### National Mid-term Development Plan (Rpjmn) 2015-2019



#### POLICY DIRECTION AND STRATEGY:

- Improving composition of renewable energy on energy mix: (i) incentif and good price to stimulate investment; (ii) utilization of various renewables and bioenergy for powerplant (iii) utilization of biofuels.
- Improving accesibility : providing electricity for islands and remote vilages including fisherment vilages and vilage with solar power and other renewable energy.
- Improving eficiency on energy use: (i) energy saving campaign, (ii) develop incentive and financial scheme to funding energy eficiency program/effort; (iii) improving skill of manager and energy auditor; (iv) enhancing the role and capacity of energy service company (ESCO), (v) developing the use of energy efficient system and technology on industry, (vi) optimisation of energy conservation policy instrument (PP No. 70/2009 tentang Konservasi Energi).
- 4. Utilize the potential of hydro resources for hydro powerplant: (i) incentive to accelerate hydro powerplant project, which are permision for land acquirement to build hydro powerplant, regulation for ellectricity price and land provision, (ii) penyederhanaan regulasi dan dokumen persyaratan perizinan pembangunan PLTA.



N0	Priority Programme	Target
A	Increase renewable energy in the energy mix	
1	Improvement of feed in tariff and subsidy RE	Regulation in RE
2	geothermal development	<ul> <li>Procurment in 8 Area</li> <li>Exporation &amp; Exploitation Supervision in 30 Geothermal location</li> <li>the establishment of 3 new geothermal working area</li> <li>312 MW power plant</li> <li>23 recommendation on the potential region, the potential, resources or geothermal reserves</li> </ul>
3	RE supporting industrial development	RE industrial development policy package
4	bioenergy development	<ul> <li>Bioenergy power plant capacity of 4,000 kw</li> <li>Biofuel production: 6.5 million kilolitres</li> <li>Forest area of 20.000 ha for bioenergy production equivalent of 20 Mwatt</li> <li>Using of biofuels in fossil fuel by 20%</li> <li>Biogas production at 48 m<sup>3</sup> / day</li> </ul>
5	the development of solar power, hydro, wind, ocean and nuclear	<ul> <li>70 units Power plant from various RE</li> <li>: 10 documents pre FS/FS various RE</li> <li>hydropower development in 7 existing location</li> <li>Micro hydro power development : 10 SME's &amp; 6 units in conservation area</li> <li>7 document for Nuclear Infrastructure supporting development</li> <li>information of solar and wind energy potential through Automatic Solar Radiation System (ASRS) in 13 province</li> <li>Map information of solar and wind energy potential in scale 1:50.000 : 9 province</li> </ul>

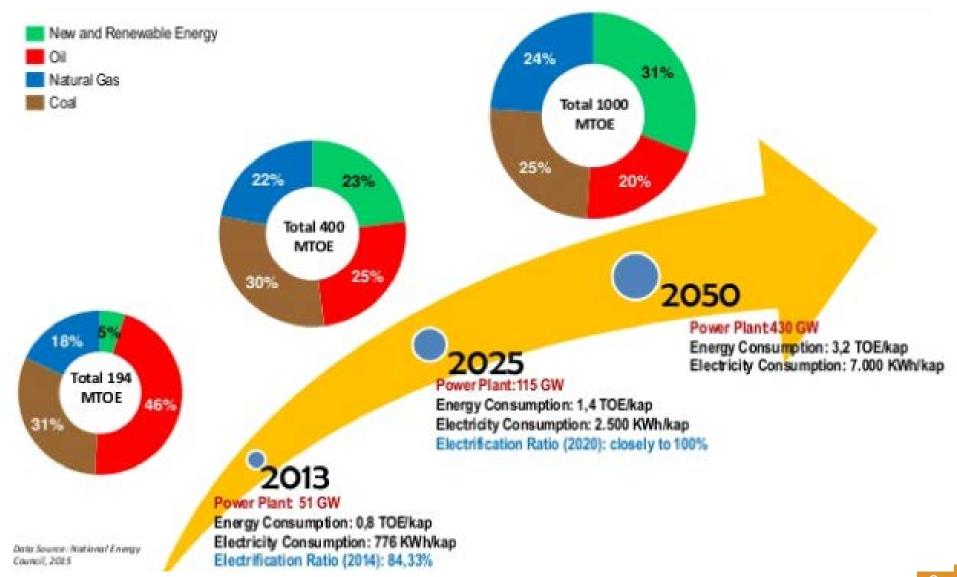
## **National Energy Policy**



Energy sources	Application
All types of renewable energy	Electricity
Solar energy	Electricity and nonelectrical energy for industry, households and transportation
Biofuel	Replacement of fossil fuel, especially for transportation and industry (with a consideration of achieving food security)
Biomass and waste to energy	Electricity and transportation
Fossil fuel	Commercial transportation which cannot use other energy sources
Gas	Industry, electricity, households and transportation (priority is given to one of these purposes with the highest value added).
Coal	Electricity and industry
New energy in liquid form such as liquefied coal and hydrogen	Transportation
New energy in solid and gas form	Electricity

National Energy Policy is stipulated in the Government Regulation No.79/2014 that provides guidelines for managing Indonesia with the aim of achieving national indepence and security to support sustainable development







- Government Regulation No. 79 of 2014 on National Energy Policy
- Presidential Regulation No. 4/2016 on the Acceleration of Infrastructure Electricity, Article 14 mandates that accelerated implementation of priority electricity infrastructure and renewable energy utilization.
- Minister Regulation No. 12 of 2015 on obligation to use biodiesel by 20% in 2016 and will be increased gradually to 30% by the year.
- Regulation of the Minister of Energy and Mineral Resources No. 12 Year 2017 on Utilization of Renewable Energy Sources for Electricity Supply.



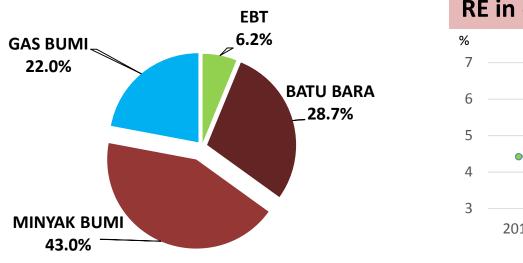
- TAX HOLIDAY. Ministry of Finance Regulation Number 159 year 2015 concerning the Issuance of Corporate Income Tax Reduction Facility. Incentive to reduce on corporate income tax from 10% 100% of the total corporate income tax payable for a period from 5 to 15 years, since the start of commercial production object.
- TAX ALLOWANCE. Government Regulation Number 18 year 2015 regarding Income Tax Facilities for Investment in Specific Sectors; (including: mining business of petroleum and natural gas and geothermal, smelter, the business field of power generation, as well as business sectors procurement of natural gas and artificial) to investment in areas of certain businesses and / or particular area)

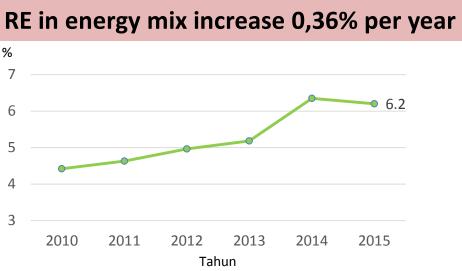


- VALUE ADDED TAX EXEMPTION ON CAPITAL GOODS. Stipulated in Government Regulation Number 31 Year 2007 on Import and / or Delivery of Certain Strategic Taxable Goods Exempt from Value Added Tax. This facility is provided, among others for capital goods such as machinery and factory equipment
- INCOME TAX BORNE BY THE GOVERNMENT (DTP) GEOTHERMAL. the tax borne by the Government applied for Geothermal industries that operated by signed contract before the enactment of Law No. 27 Year 2003 on geothermal.



Indonesia target for renewable energy in the energy mix is quite ambitious, 23% (2025) and 31% (2050). In the year 2015, renewable energy of the energy mix is about 6,2% percent.







# Some challenges are:

- regulations changes on RE pricing creates uncertainty for investor
- Process of applying tax incentives require a long time and uncertain
- Relatively high cost
- Small scale and scattered
- Limited interconnection
- However, Indonesia Indonesia has great potential to develop additional renewable energy power plants such as hydropower, geothermal, biomass, solar, wind etc



# Thank you