

52<sup>nd</sup> EGNRET Meeting  
18-22 March 2019, Hong Kong, China

# **RENEWABLE ENERGY DEVELOPMENT IN THE PHILIPPINES**



# BIOFUEL PRODUCERS

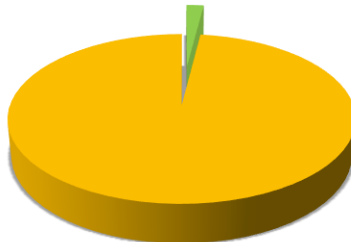
## BIODIESEL

**11** Accredited Biodiesel Producers

**574.9** Million Liters Production Capacity

Feedstock CNO

**2%** Biodiesel



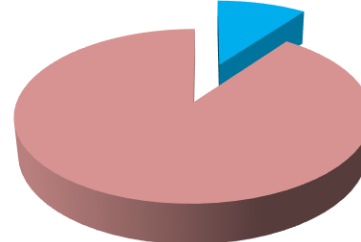
## BIOETHANOL

**10** Accredited Bioethanol Producers

**282.12** Million Liters Production Capacity

Feedstock Sugarcane and Molasses

**10%** Bioethanol



# Actual Annual Biofuel Report

	Registered with Notice to Proceed Construction		Accredited		2016 (in million liters)		2017 (in million liters)	
	# of Projects	Annual Capacity	# of Projects	Annual Capacity	Production	Sales	Production	Sales
<b>Biodiesel</b>	2	165	11	574.9	225.87	217.70	222.13	203.48
<b>Bioethanol</b>	3	149	10	282.12	230.18	226.88	234.65	234.90



90 ML Chemrez Technologies Inc., Biodiesel Plant  
(Bagumbayan, Quezon City)



54 ML Green Future Innovation Inc., Bioethanol Plant  
(San Mariano, Isabela)



## Additional Capacity

Year	Biodiesel	Potential Annual Rated Capacity
		(in million liters)
2018	Greentech Biodiesel Inc.	100
2019	Archemicals Corporation	15
	BIOREV	150

Year	Bioethanol	Potential Annual Rated Capacity
		(in million liters)
2018		
1 <sup>st</sup>	Emperador Distillers, Inc.	66
2 <sup>nd</sup>	Victorias Milling Company, Inc.	16.5
3 <sup>rd</sup>	Cavite Biofuel Producer, Inc.	38
	Kooll Company, Inc.	15.88
2020	Canlaon Alcogreen Agro Industrial Corporation	45



# BIOFUELS

OVERALL  
OBJECTIVE  
BY 2040

SHORT-TERM  
(2017-2019)

MEDIUM- TO LONG-TERM  
(2020-2040)

**BIODIESEL**

**B2**

Maintain 2%  
biodiesel  
blending on  
diesel

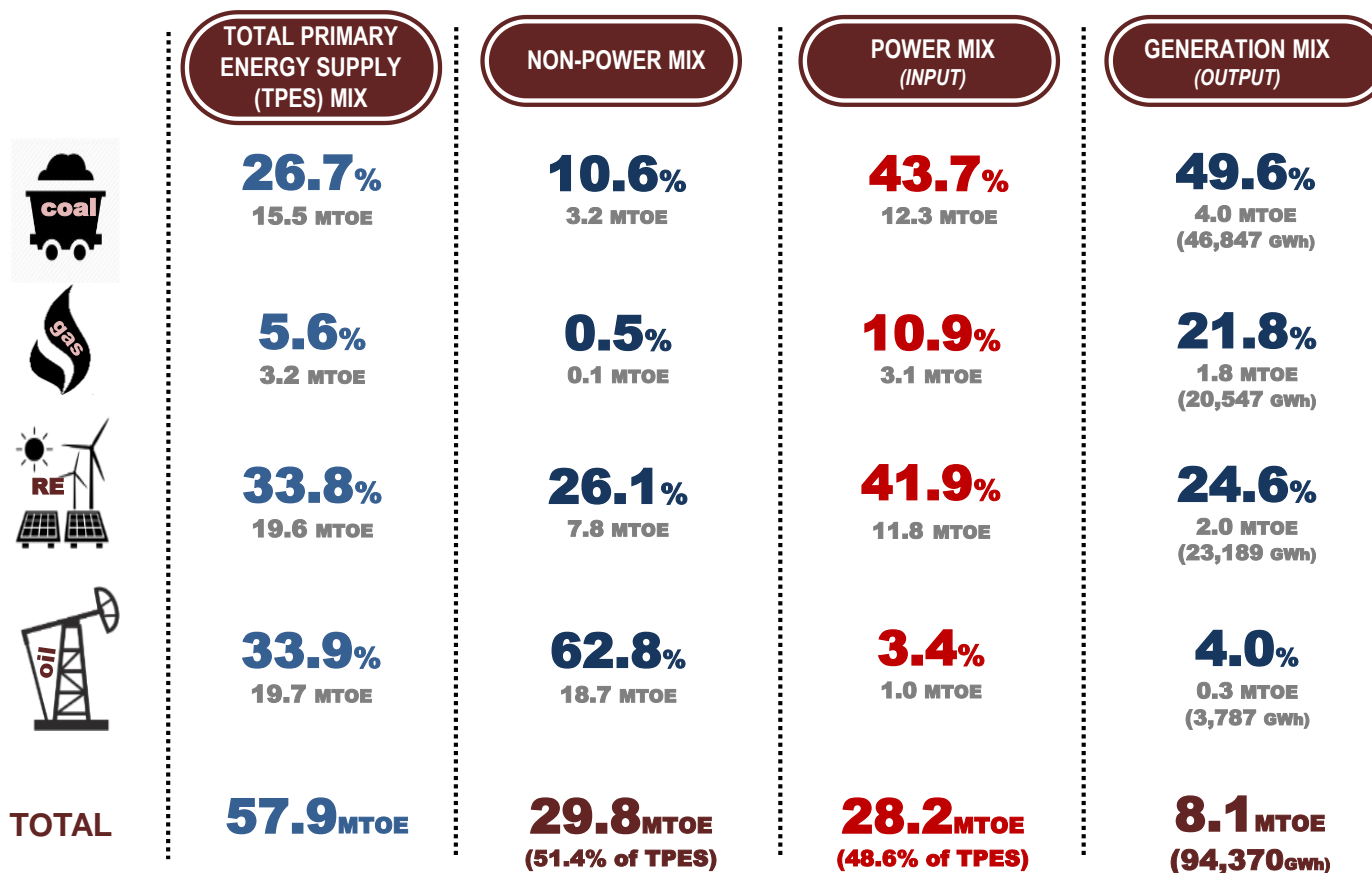
**E10**

Review the  
bioethanol  
mandate

- Revisit blending requirement and available feedstock
- Continuous conduct of research and development on feedstock sources

PURSUE THE DEVELOPMENT OF BIOFUELS IN COMPLIANCE WITH THE  
BIOFUELS ACT OF 2006 (R.A. 9367)

## 2017 Philippine Energy Situation

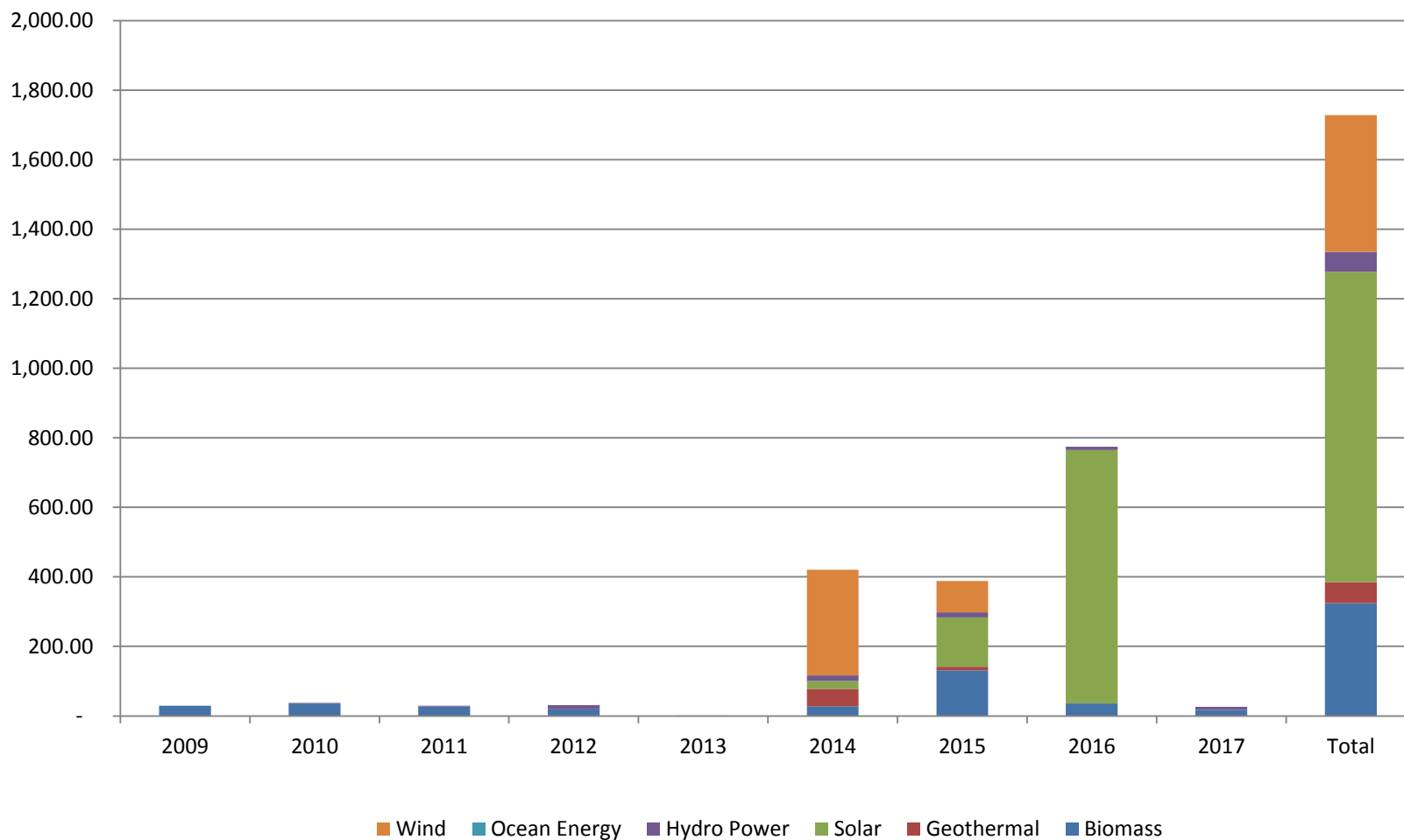


## Renewable Energy Additional Capacity Installations under RA 9513

RESOURCES	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Biomass	29.33	35.90	27.00	19.00	0.876	28.00	131.35	35.80	17.50	324.75
Geothermal	-	-	-	-	-	50.00	10.00			60.00
Solar	-	-	-	-	-	22.00	141.77	728.58	-	892.35
Hydro Power	-	2.00	2.10	11.80		16.65	14.82	10.00	8.50	57.37
Ocean Energy	-	-	-	-	-	-				-
Wind	-	-	-	-	-	303.90	90.00			393.90
<b>TOTAL</b>	<b>29.33</b>	<b>37.90</b>	<b>29.10</b>	<b>30.80</b>	<b>0.88</b>	<b>420.55</b>	<b>387.94</b>	<b>774.38</b>	<b>26.00</b>	<b>1,728.36</b>

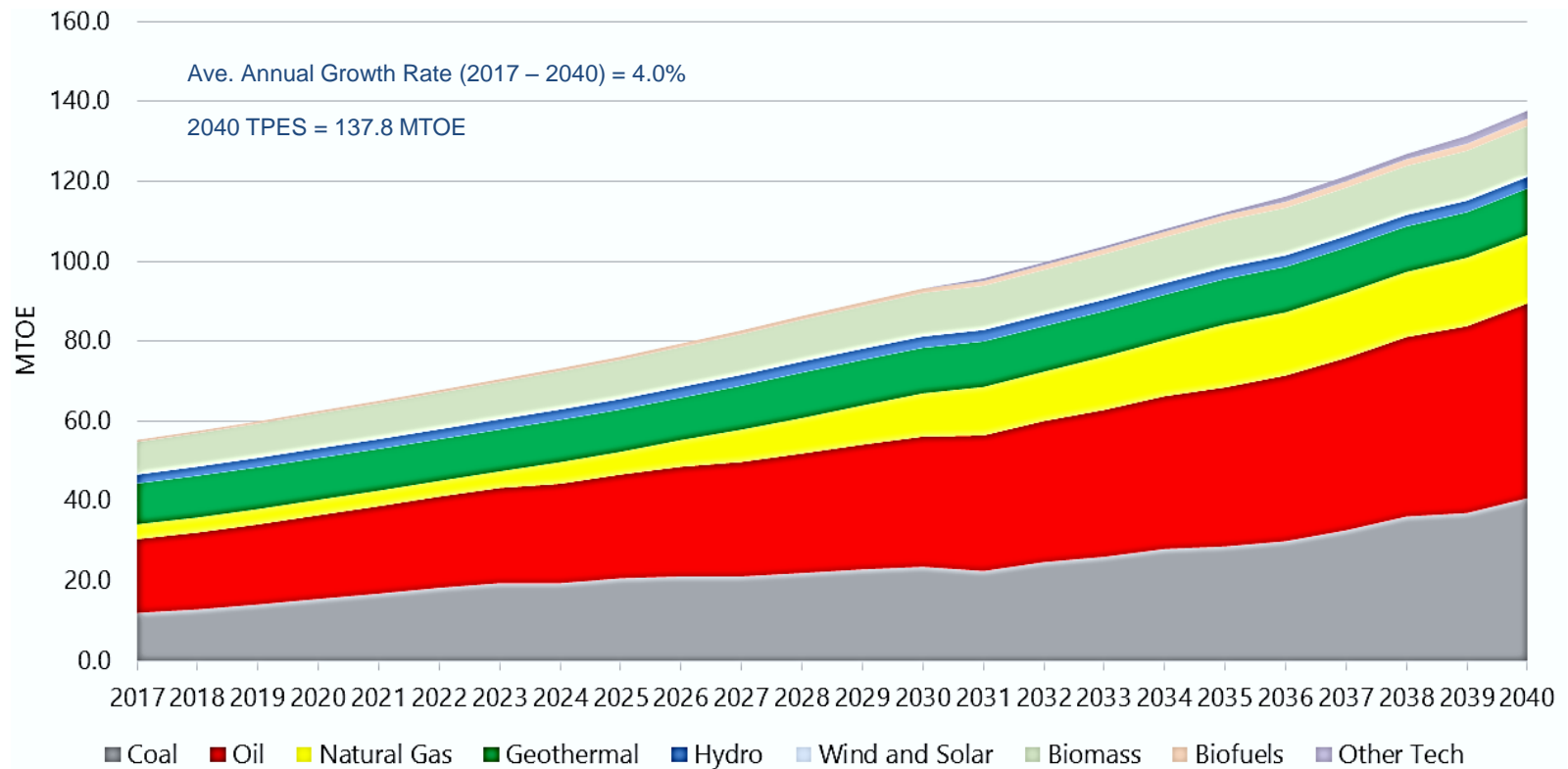


## Renewable Energy Additional Capacity Installations under RA 9513





# Energy Supply Outlook 2017 – 2040

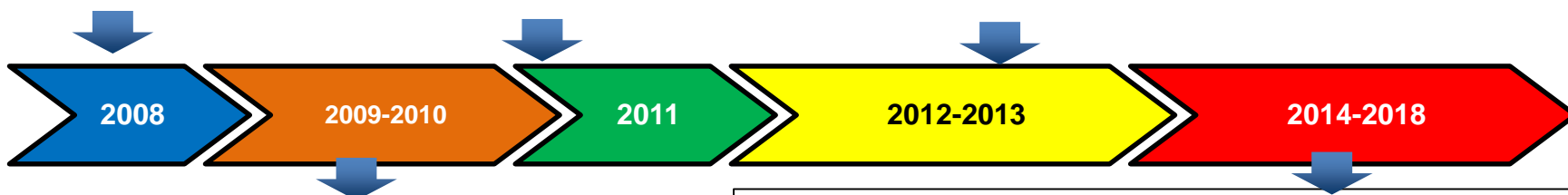


# Milestones: RA 9513

**Enacted the R.A. 9513:  
Renewable Energy Act of 2008**

• **Published the National  
Renewable Energy  
Program (NREP) 2010-  
2030**

- The ERC approved the FIT Rates (July 2012)
- DOE issued Guidelines for the Selection Process of RE Projects under FIT System and Award of Certificate for FIT Eligibility under Department Circular No. 2013-05-0009 (May 2013)
- Implementation of the Net-Metering Program (July 2013)
- ERC issued FIT Allowance (FIT-ALL) Payment and Collection Guidelines (December 2013)



- Issued the Implementing Rules and Regulations
- Administrative Frameworks for Awarding RE Service Contracts, Accreditations
- Establishment of Renewable Energy Management Bureau (REMB)
- Creation of DOE's RE-Review and Evaluation Committee
- Initial awards of RE Contracts under the RE Law
- Convening of National Renewable Energy Board (NREB)
- ERC Issued Feed-in-Tariff (FIT) Rules (August 2010)

- ERC approved FIT-All Rates 0.0406 Php/kWh (2014-2015), October 2014 and effective January 2015
- Amendment of DOE's Installation Target
  - April 2014, 50 MW to 500 MW for Solar
  - April 2015, 200 MW to 400 MW for Wind
- ERC issued new FIT Rates for Solar (March 2015) and Wind (October 2015)
- **DC2017-12-0015 (RPS Rules for On-Grid Areas/22 Dec. 2017)**
- **DOE endorsed to ERC the FIT Installation Target completion for Biomass and ROR Hydro until EO Dec. 2019**
- **DC2018-07-0019 (GEOP Rules/18 July 2018).**
- **DC2018-08-0024 (RPS Rules for Off-Grid/24 August 2018).**



# Challenges and Way Forward

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- Awareness and social acceptance
- Streamlining of Administrative Process
- Bringing down power cost thru RE
- Post Harvest Use
- Grid congestions/geographical boundaries
- Climate resiliency



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# Thank you!

**Philippines Renewable Energy Development**

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