Biomass Conversion Technology for Transport in the Philippines

Regional Workshop on Overcoming Critical Bottlenecks to Accelerate Renewable Energy Deployment in ASEAN+6 Countries

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Existing Biomass Conversion Technology for Transport Sector

Biofuel Type	Technology	Feedstock
1. Bioethanol	Fermentation-Distillation-Dehydration	1. Molasses 2. Sugarcane Juice 3. Sweet Sorghum* 4. Cassava* 5. Nipa Sap*
2. Biodiesel	Transesterification-Washing-Dehydration	1. Coconut Oil 2. Used Cooking Oil* 3. Jatropha and Other Non-Food Oil Bearing Fruits*

** Under Study*

Republic Act No. 9367: The Biofuels Act of 2006

Provides fiscal incentives and mandates the use of biofuel-blended gasoline and diesel fuels

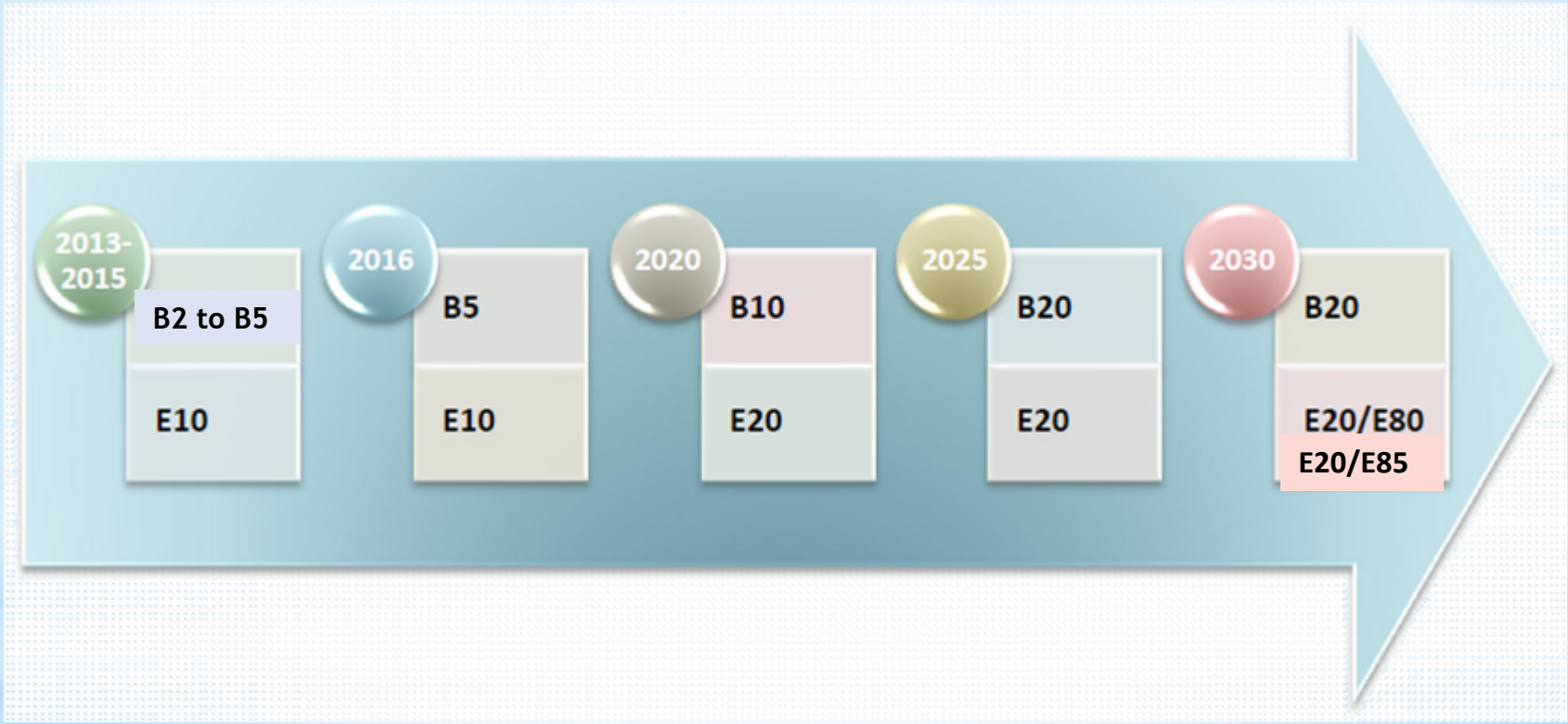
BIODIESEL

- **2015 consumption of 200 million liters (CME)**
- **2% biodiesel blend starting Feb. 6, 2009**

BIOETHANOL

- **10% bioethanol blend to all gasoline starting Feb. 6, 2012**

Targeted Biofuels Blend, 2013-2030



Biofuels Supply and Demand

BIODIESEL SUPPLY

- 11 accredited producers with annual total capacity of 584.9 million liters
- 2 pending applications with proposed total annual capacity of 90 million liters

BIOETHANOL SUPPLY

- 10 accredited producers with annual total capacity of 282 million liters
- 3 production facilities to be on-stream between 2016-2018 with total additional capacity of 149 million liters

Bioethanol Supply-Demand Outlook, 2016-2030

(in million liters)			
Year	**Gasoline Demand**	**Bioethanol Blends (Target)**	**Supply Requirement**
2016	4,203	10%	420.3
2020	4,359	20%	871.8
2025	4,948	20%	989.8
2030	5,513	20%/85%	1,102.6

Biodiesel Supply-Demand Outlook, 2013-2030

(in million liters)			
Year	**Diesel Demand**	**Biodiesel Blends (Target)**	**Supply Requirement**
2016	7,176.41	5%	358.82
2020	7,923.37	10%	792.34
2025	8,693.73	20%	1,738.75
2030	9,030.68	20%	1,806.14

Opportunities and Challenges

OPPORTUNITIES	CHALLENGES
• Biodiesel and bioethanol mandate under RA 9367	• Cost of current feedstock for both biodiesel and bioethanol including supply sustainability
• Fiscal incentives under RA 9367 and RA 9513	• High production cost
• Available areas for feedstock production	• Local bioethanol to fully serve the mandated volume requirement
	• Commercially available 2nd and 3rd generation production technology and cost

THANK YOU!!!

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