

# FUEL DIVERSIFICATION TO NATURAL GAS IN DOMINICAN REPUBLIC

CARIBBEAN ENERGY CONFERENCE

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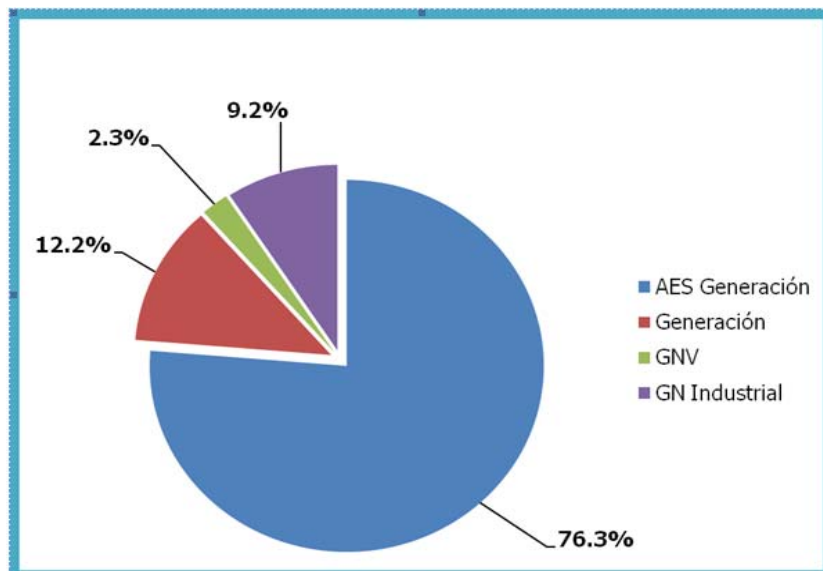


## LNG IMPORTS IN TO DOMINICAN REPUBLIC

- ▶ 2007: 0.43 MMTPA -----> Trinidad y Tobago (0.37); Nigeria (0.06)
- ▶ 2008: 0.35 MMTPA -----> Trinidad y Tobago (0.35)
- ▶ 2009: 0.40 MMTPA -----> Trinidad y Tobago (0.40)
- ▶ 2010: 0.63 MMTPA -----> Trinidad y Tobago (0.63)
- ▶ 2011: 0.69 MMTPA -----> Trinidad y Tobago (0.69)
- ▶ 2012: 0.87 MMTPA -----> Trinidad y Tobago (0.70); Qatar (0.17)
- ▶ 2013: 0.84 MMTPA -----> Trinidad y Tobago (0.84)
- ▶ 2014: 0.82 MMTPA -----> Trinidad y Tobago (0.77); Qatar (0.06)
- ▶ 2015: 0.87 MMTPA -----> Trinidad y Tobago (0.87)

Nota: MMTPA = Million Metric Tons per Annual de GNL

## NATURAL GAS USE BY SECTOR 2015



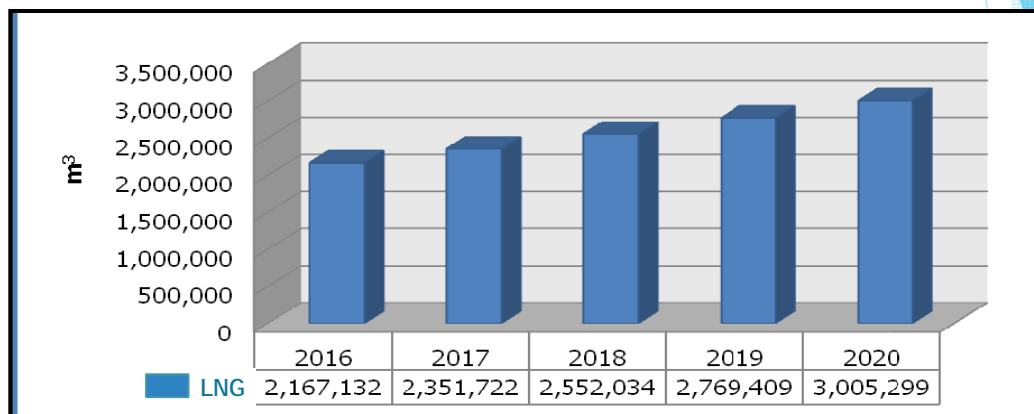
## LNG COMSUPTION PER SECTORS IN DOMINICAN REPUBLIC

DEMAND OF LNG 2010-2015							
(M³)							
Sector	2010	2011	2012	2013	2014	2015	%
Transportation	675,706	6,033,648	19,485,212	27,658,875	34,920,463	27,026,556	2%
Generation (AES)	832,835,803	873,794,784	881,956,331	860,351,212	928,391,064	913,592,889	76%
Generation third parties	802,524	5,380,503	141,530,140	202,194,383	115,679,279	146,133,196	12%
Industries	33,784,598	109,000,362	139,532,110	115,698,291	110,949,264	110,594,732	9%
Total	868,098,631	994,209,297	1,182,503,793	1,205,902,761	1,189,940,070	1,197,347,373	100%



## LNG DEMAND IN DOMINICAN REPUBLIC

2016-2020

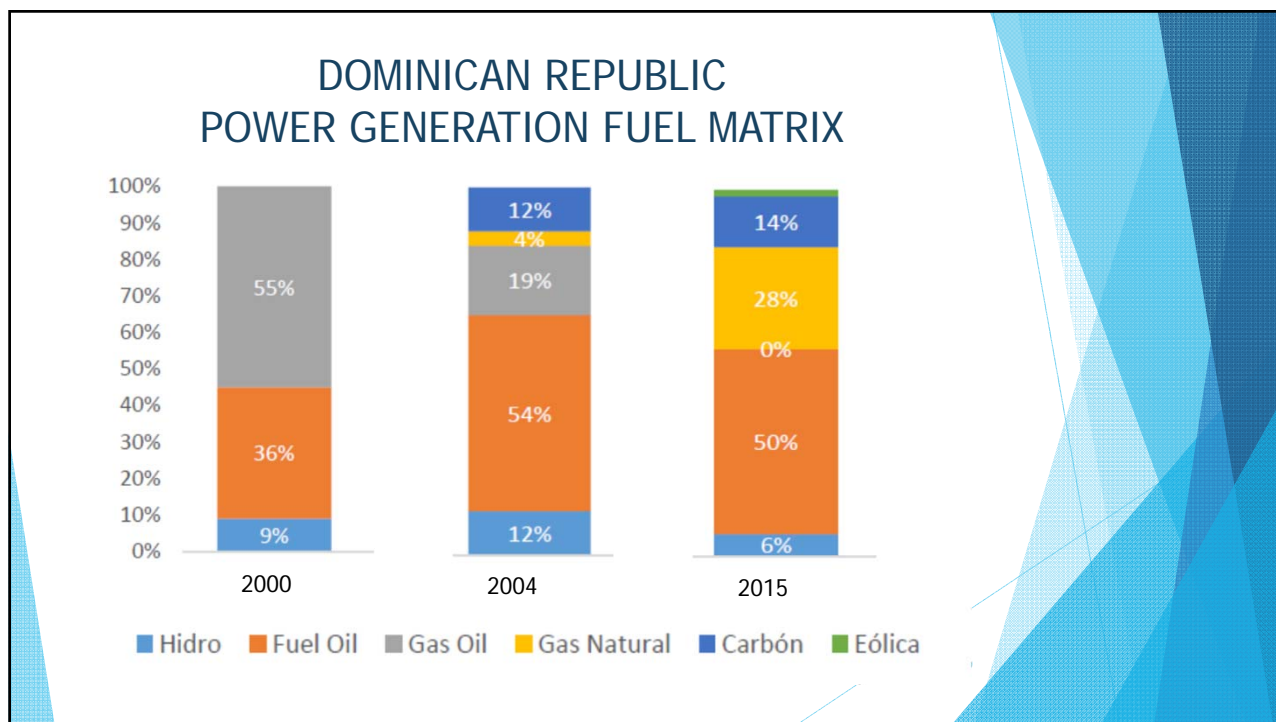
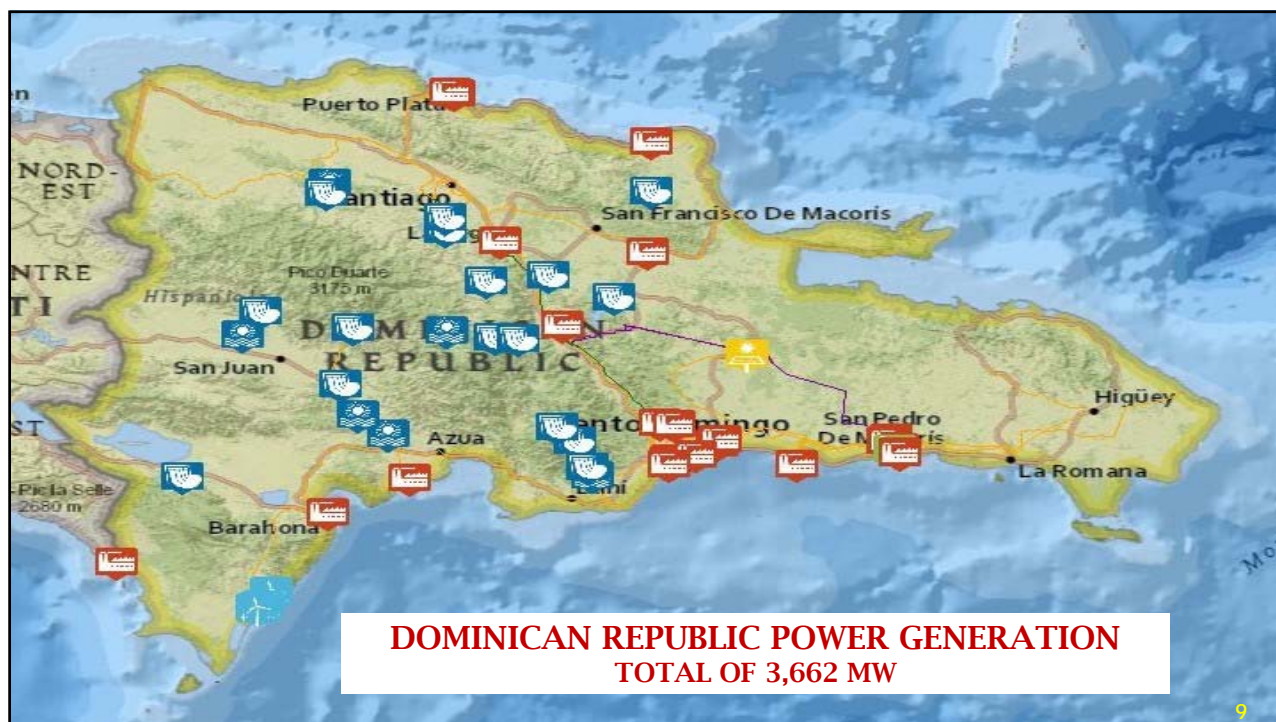


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## AES ANDRÉS LNG TERMINAL IN DOMINICAN REPUBLIC

- 160,000 m3 capacity
- Supplies 639 MW, 15,593 vehicles, 52 industries
- 975 MW additional can be converted

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## PLANTS, TECHNOLOGY, FUEL AND CAPACITIES POWER GENERATION IN DOMINICAN REPUBLIC

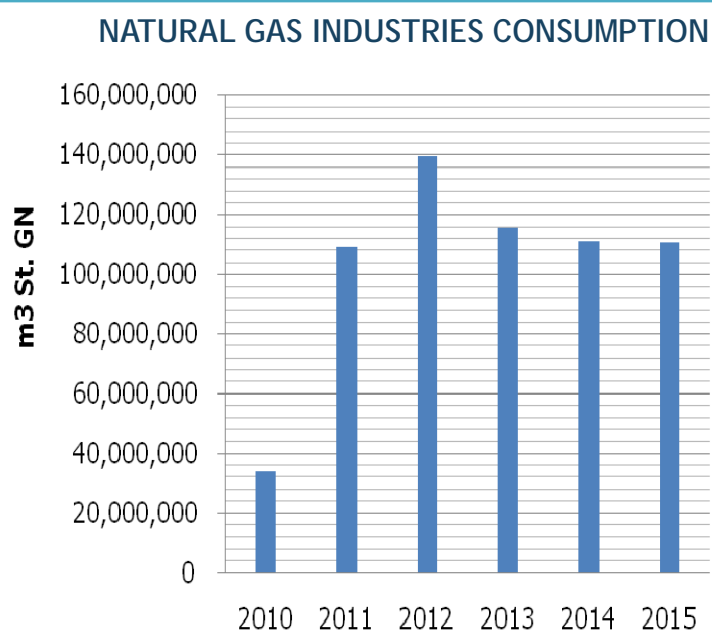
PLANT	TECHNOLOGY	FUEL	MW CAPACITY)
AES ANDRES	CICLO COMBINADO	NATURAL GAS	319
SAN FELIPE	CICLO COMBINADO	FUEL # 6 Y #2	185
CESPM 1	CICLO COMBINADO	FUEL # 2	100
CESPM 2	CICLO COMBINADO	FUEL # 2	100
CESPM 3	CICLO COMBINADO	FUEL # 2	100
CENTRAL RIO SAN JUAN	MOTOR DE COMBUSTION	FUEL # 2	1.9
CEPP 1	MOTOR DE COMBUSTION	FUEL # 6	18.7
CEPP 2	MOTOR DE COMBUSTION	FUEL # 6	58.1
LOS MINA 5	TURBINA DE GAS	NATURAL GAS	118
LOS MINA 6	TURBINA DE GAS	NATURAL GAS	118
TODAS	HIDROELECTRICA	AGUA	523.2
LA VEGA	MOTOR DE COMBUSTION	FUEL # 6	87.5
PALAMARA	MOTOR DE COMBUSTION	FUEL # 6	107
BARAHONA CARBON	TURBINA DE VAPOR	CARBON	53.6
HAINA 1	TURBINA DE VAPOR	FUEL # 6	54
HAINA 2	TURBINA DE VAPOR	FUEL # 6	54
HAINA 4	TURBINA DE VAPOR	FUEL # 6	84.9
HAINA TG	TURBINA DE GAS	FUEL # 2	100
QUISQUEYA 1	MOTOR DE COMBUSTION	FUEL # 6	215
PUERTO PLATA 1	TURBINA DE VAPOR	FUEL # 6	27.6
PUERTO PLATA 2	TURBINA DE VAPOR	FUEL # 6	39
SAN PEDRO VAPOR	TURBINA DE VAPOR	FUEL # 6	33
SULTANA DEL ESTE	MOTOR DE COMBUSTION	FUEL # 6	150
PARQUE EOLICO LOS COCOS	EOLICO	WIND	79.45
ITABO	TURBINA DE VAPOR	CARBON	260
SAN LORENZO 1	TURBINA DE GAS	FUEL # 2	32.3
PIMENTEL 1	MOTOR DE COMBUSTION	FUEL # 6	31.6
PIMENTEL 2	MOTOR DE COMBUSTION	FUEL # 6	28
PIMENTEL 3	MOTOR DE COMBUSTION	FUEL # 6	51.6
METALDOM	MOTOR DE COMBUSTION	FUEL # 6	42
INCA KM22	MOTOR DE COMBUSTION	FUEL # 6	14.6
ESTRELLA DEL MAR	MOTOR DE COMBUSTION	FUEL # 6	73.3
ESTRELLA DEL MAR 2	CICLO COMBINADO	NATURAL GAS	110
MONTE RIO	MOTOR DE COMBUSTION	FUEL # 6	100.1
QUISQUEYA 2	MOTOR DE COMBUSTION	FUEL # 6	215
LOS ORIGENES	MOTOR DE COMBUSTION	FUEL # 6	60.9
		TOTAL	3,662.35

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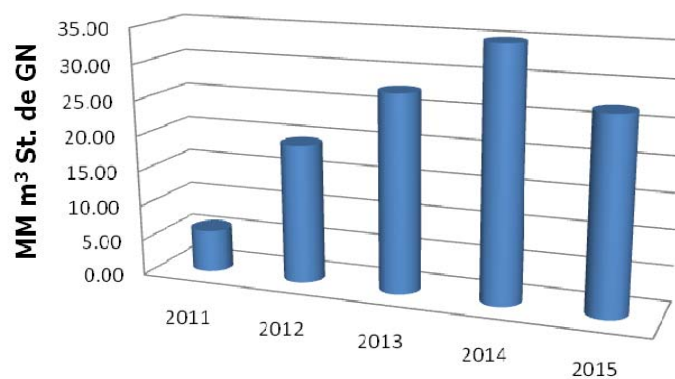
## LNG TERMINALS AND POWER GENERATIONS IN DOMINICAN REPUBLIC



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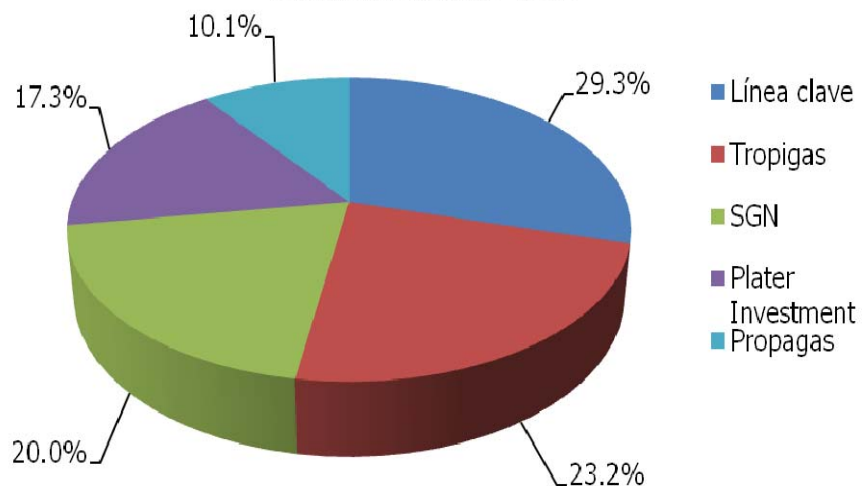


### NATURAL GAS VEHICLES CONSUMPTION



	2011	2012	2013	2014	2015
■ GNV	5.95	19.49	27.66	34.92	27.03

### NATURAL GAS WHOLESALE DISTRIBUTION COMPANIES



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### DOMINICAN REPUBLIC LNG HUB

#### OPTIONS AND FLEXIBILITY

#### AES ANDRES LNG TERMINAL

- Near Caucedo and Haina ports
- Is Operating at 30% capacity
- Exporting to Barbados and another islands

AES LNG  
TERMINAL

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## STRATEGIC POSITION AES LNG TERMINAL

	Jamaica	Curacao	Aruba	Guadeloupe	Martinique	St Lucia	Barbados	Caymans	Suriname
Dominican Republic	440	370	373	521	562	587	677	688	1170
Miami	763	1100	1080	1241	1295	1322	1419	679	1929
US Gulf	1282	1800	1777	2081	2124	2143	2243	999	2736



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## DOMINICAN REPUBLIC AND PANAMA LINKAGE



## CONCLUSIONS

- ▶ NATURAL GAS HAS INCREASED SIGNIFICANTLY
- ▶ POWER GENERATION MAIN CONSUMER OF LNG
- ▶ 1000 MW ARE READY TO CONVERT TO LNG
- ▶ DOM REP THE FIRST LNG HUB IN THE REGION
- ▶ TOURISM LNG DRIVING FORCE IN THE REGION

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## OPPORTUNITIES

- ▶ LNG NEW DEVELOPMENTS IN DOM REP BRING OPPORTUNITY FOR:
  - ❑ SUPPLY LNG
  - ❑ INFRASTRUCTURE FACILITIES (TERMINALS, POWER PLANT...)
  - ❑ EQUIPMENT
  - ❑ FINANCING
  - ❑ INVESTMENT
  - ❑ OIL AND GAS SERVICES

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# Thanks

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