

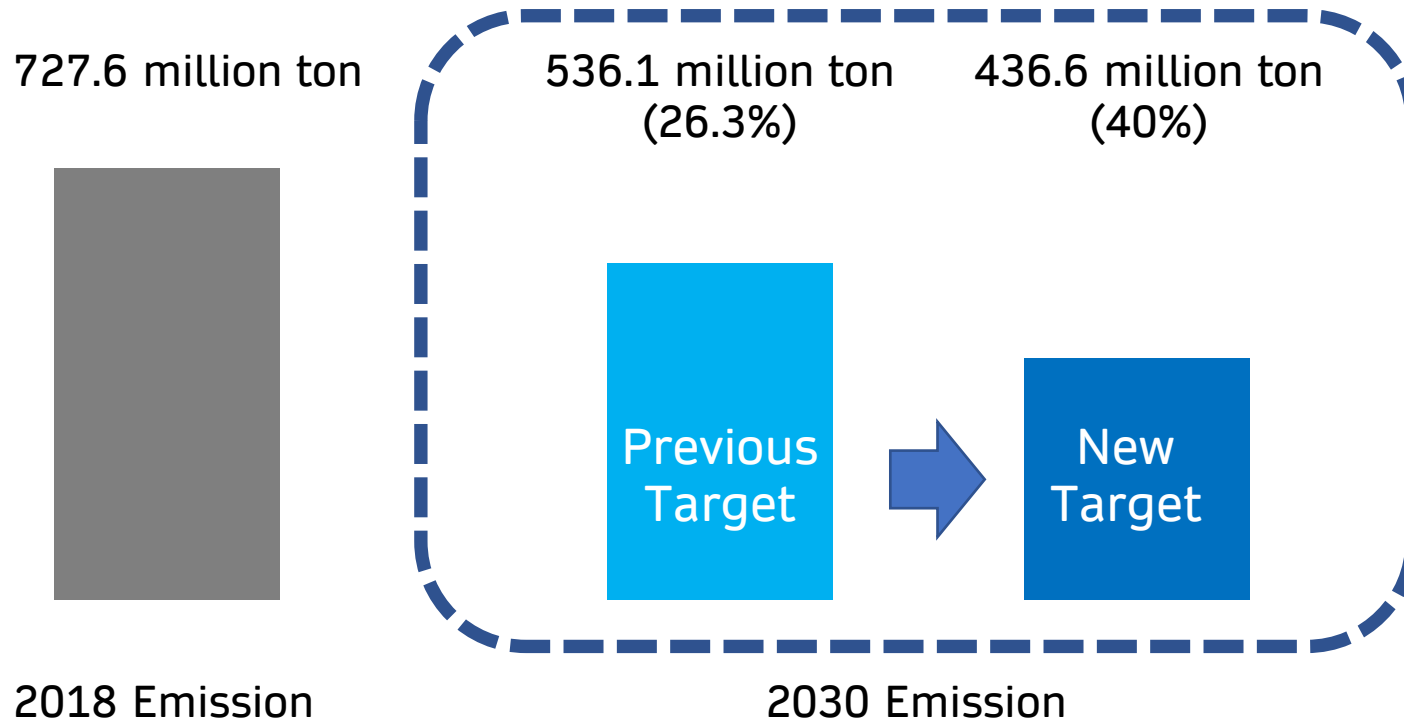
South Korea Offshore Wind Energy Development

Woojin Choi

Vice chair of Korea Wind Energy Industry Association

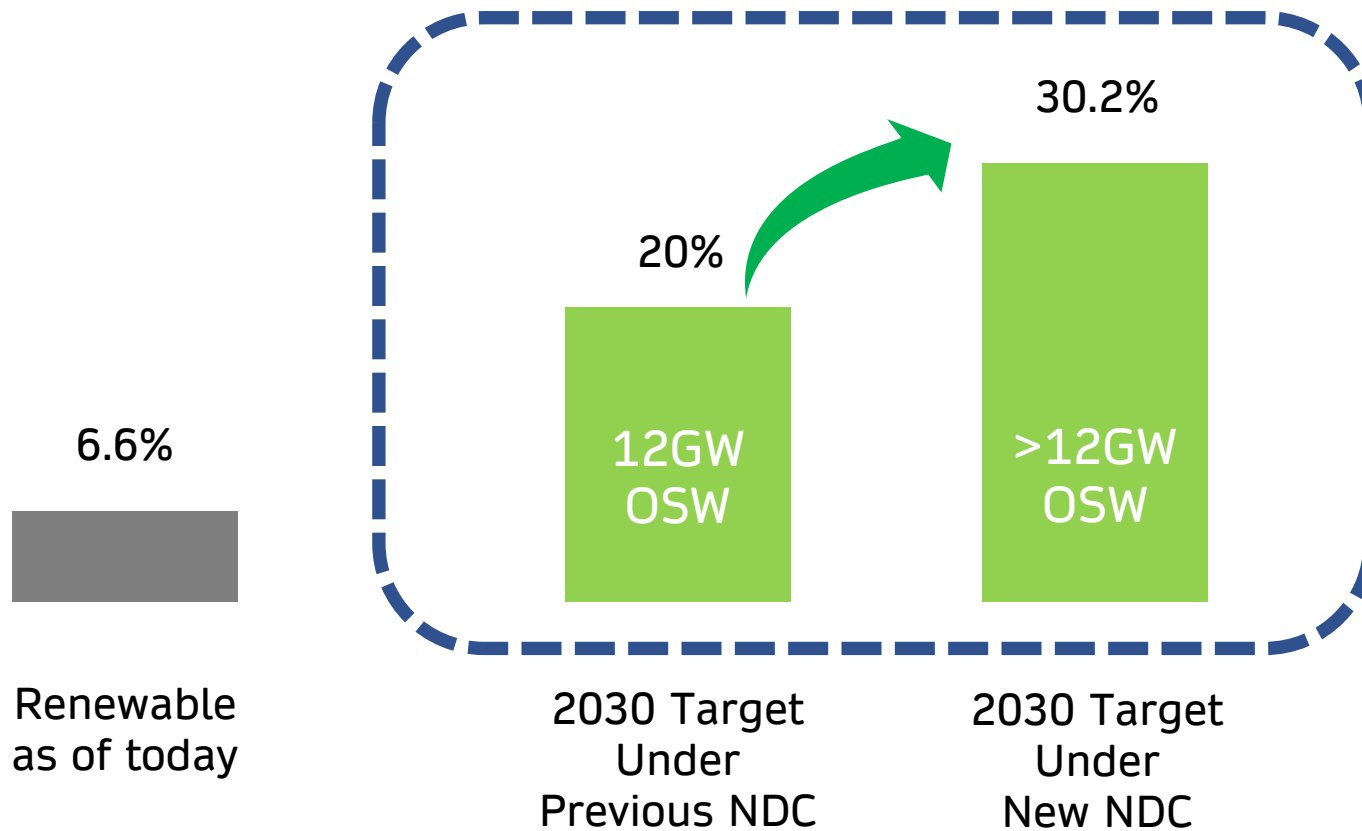


South Korea's NDC target for 2030

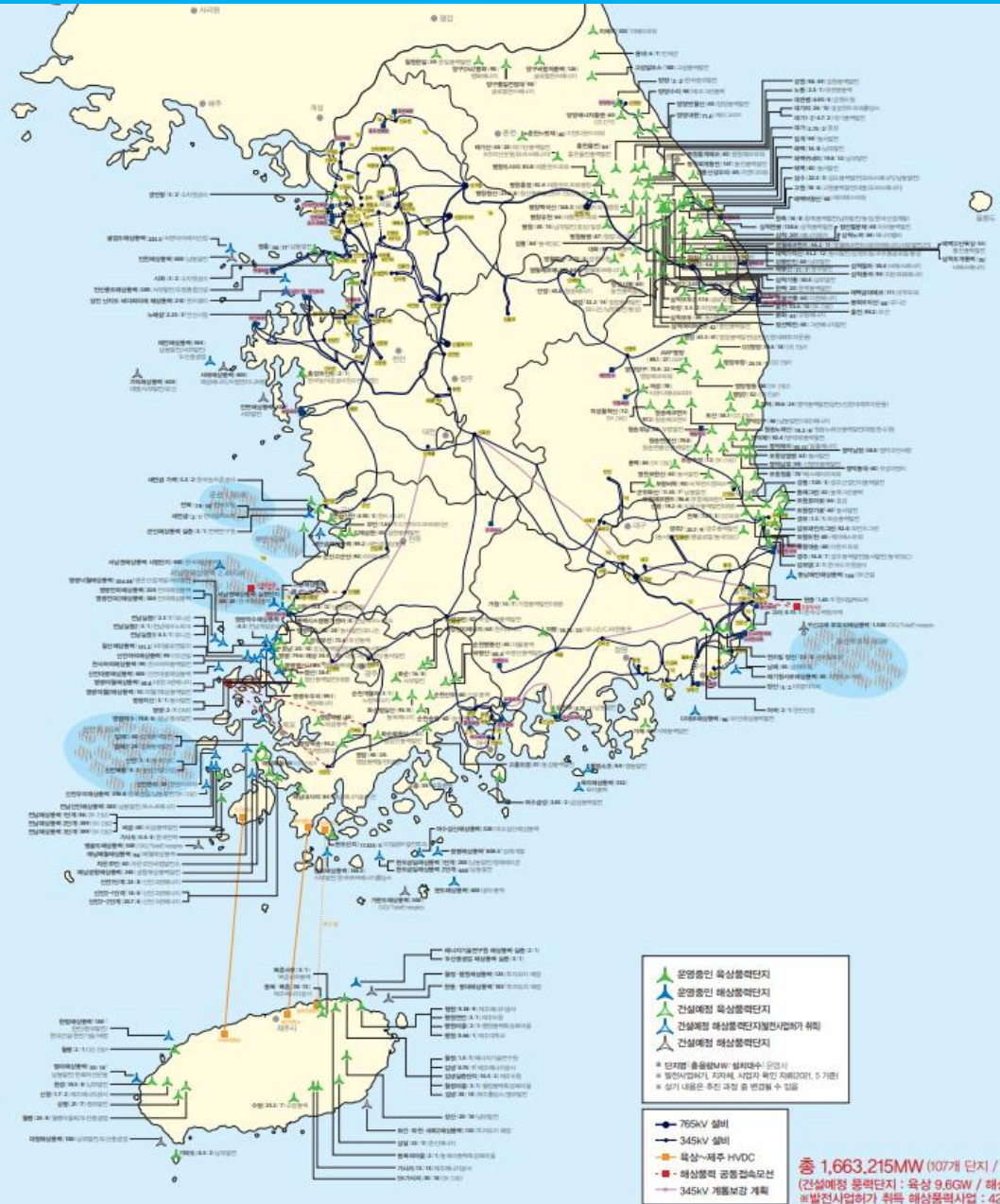


Renewable Energy Target

Renewable Energy Target by 2030



Offshore Wind Development



>12 GW

- offshore wind to be build by 2030 under the previous NDC target
- To be increased under the new NDC target

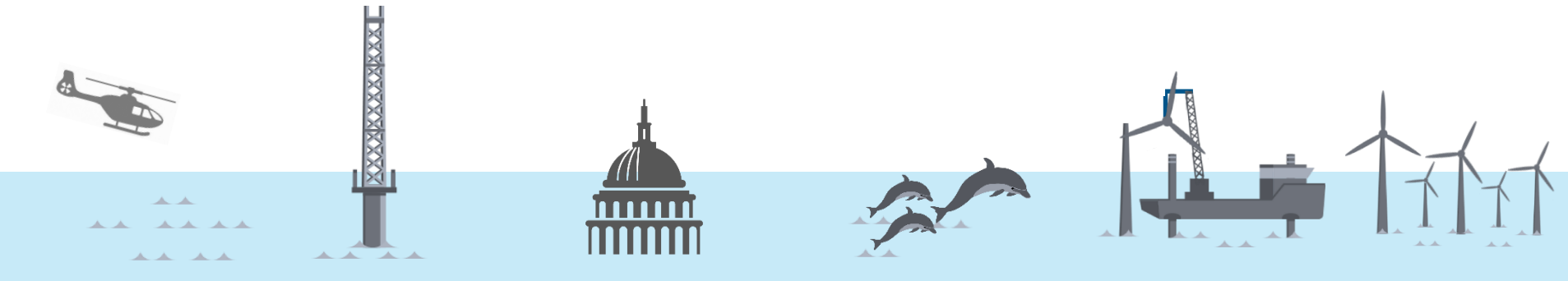
>9GW

- Electricity business license awarded to 9,334MW of offshore wind as of today

~40GW

- of offshore wind being developed/ planned as of today

Offshore Wind Development



Site Selection (1~2 years)

- Site selection by private developer
- Consultation with local municipality and stakeholders

Wind Assessment (1 year)

- >1 year wind campaign before applying for electricity business license

Electricity Business Licence

- Start of main development
- Securing grid connection

EIA & Surveys (2-4 years)

- EIA
- Ministry of Defence
- Ministry of Environment
- Ministry of Fisheries
- Various permitting authorities (9 government branches with 25 processes)

Construction (12-36 mos.)

- 20 year fixed price SMP+REC bundle contract

Operations (20 yrs.)

Renewable Portfolio Standard



RPS Obligor



Renewable
Energy Operator



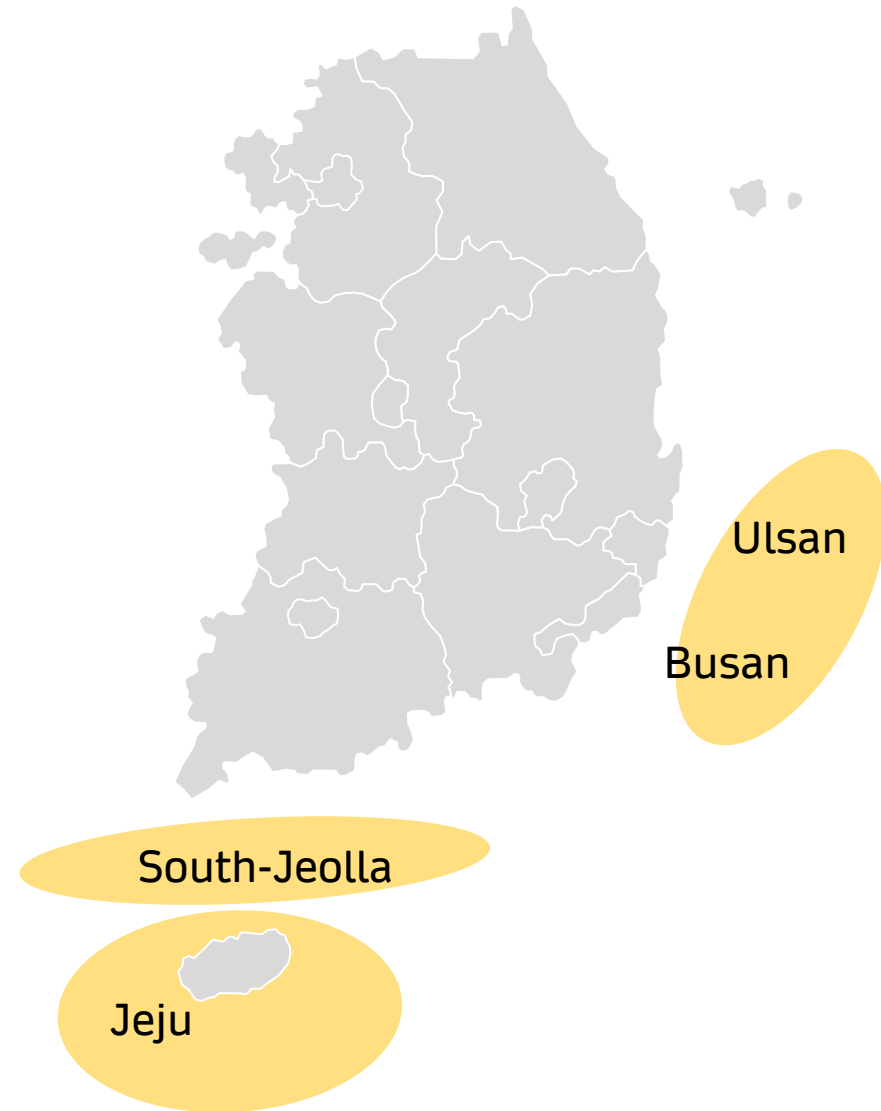
REC multiples and 20 year fixed bundle price

	REC multiples	SMP+REC bundle price (KRW per MWh)	SMP+REC bundle price (USD per MWh)
Solar	0.5 ~ 1.6	120k~140k	100~120
Onshore Wind	1.2	140k~170k	120~140
Offshore Wind	2.5 ~ 4.9	250k~350k	210~300

Floating Offshore Wind



Ulsan City's advertising image



Challenges & Reformation

- One Stop Shop law
→ In discussion at National Assembly
- Guideline on Stakeholders' acceptance
→ In preparation by government
- Local Content Requirement
→ Clear rule to be stipulated
- Grid Connection
→ Preemptive upgrade to be initiated

[Current grid and upgrade plan]

