



Country Report

Small Wind in Korea

April 10, 2018

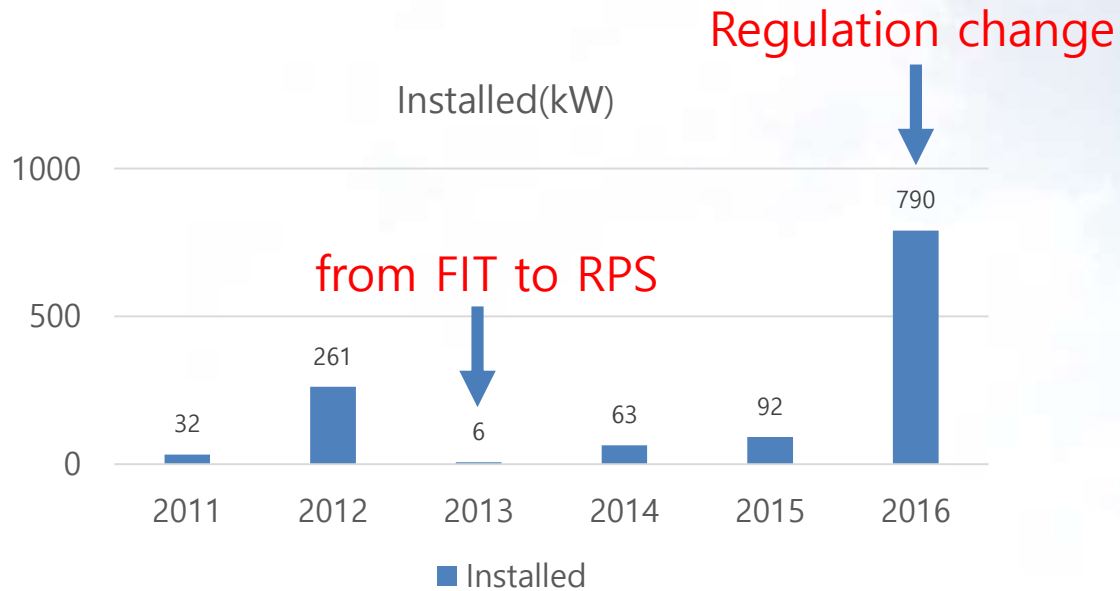
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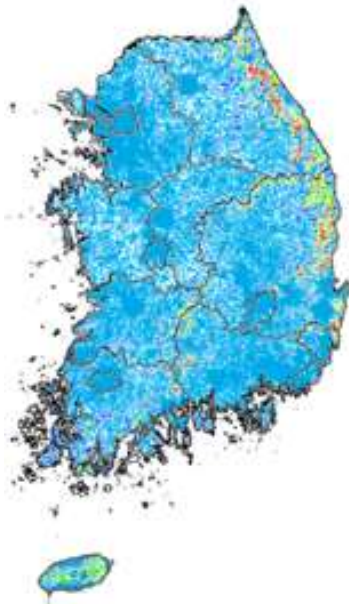
Small Wind Installed



Year	2011	2012	2013	2014	2015	2016
Installed	32kW	261kW	6kW	63kW	92kW	790kW
Accu.	3.01MW	3.76MW	3.77MW	3.84MW	3.87MW	3.87MW

Unfavorable Environment against SWT

- FIT to RPS in 2012 : focusing on MW class WT
- Set back regulation : law requires agreements by whom living within 50m
- Social acceptances : noise & structural failure
- Poor performance : reliability, O&M support, certificate



Available potential wind energy 1.6GW

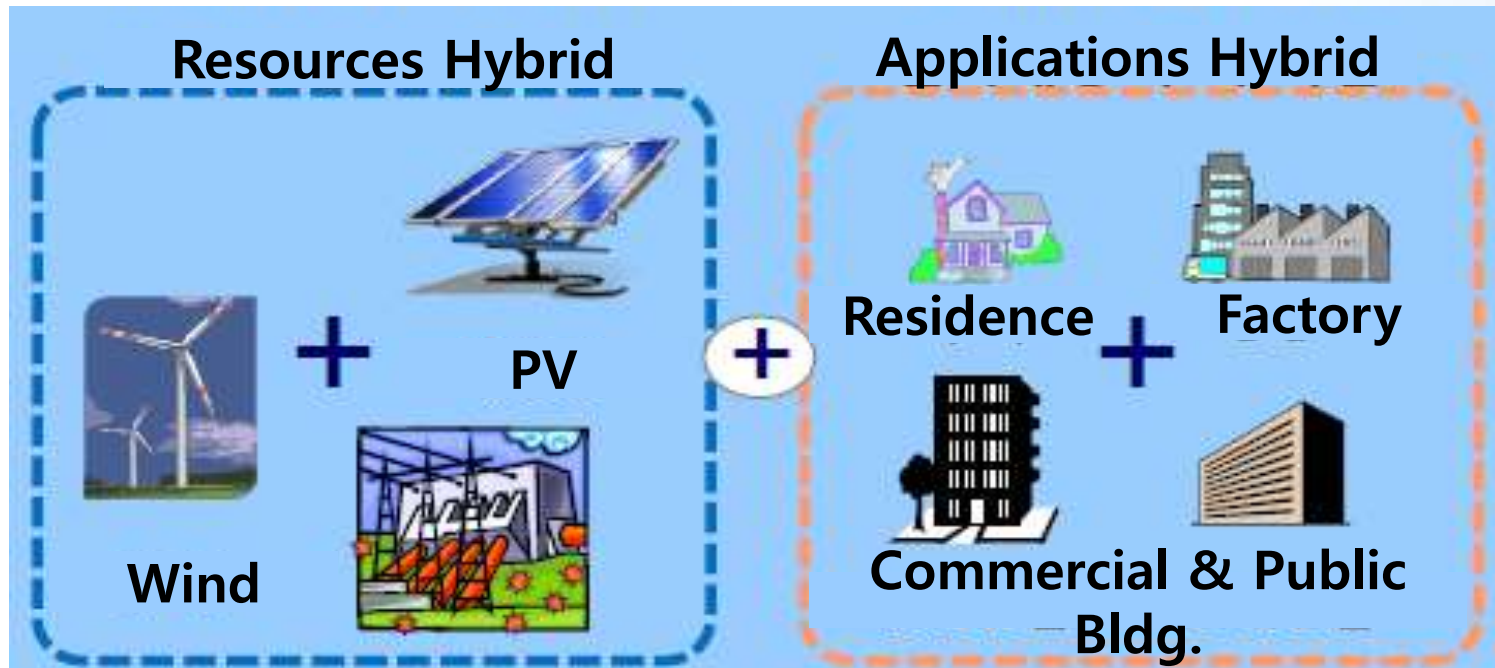
Installed WT capacity is about 1.1GW

Manufacturers

- 10 OEMs are registered thru national statistical survey
- 10 SWTs certified by 6 out of 10 manufacturers (mostly $\leq 3\text{kW}$)
- The other 4 manufacturers produce uncertified system
- The national R&D program supports SWT development
- Only one(1) project obtained certificate
- Most manufacturers are assemblers and heavily depend on empirical way

Renewables Hybrid

- The government supports 50% of total costs
 - The other 50% from local governments
- 54 mil. UDS invested for 67 projects in 2017 (65 mil. USD in 2018)
 - PV 25.6MW, **SWT 80kW**, Geothermal 17.3MW, ESS 1.55MW





Renewables obligation for public institutions

21% of its total energy consumption must be produced by renewables in 2018

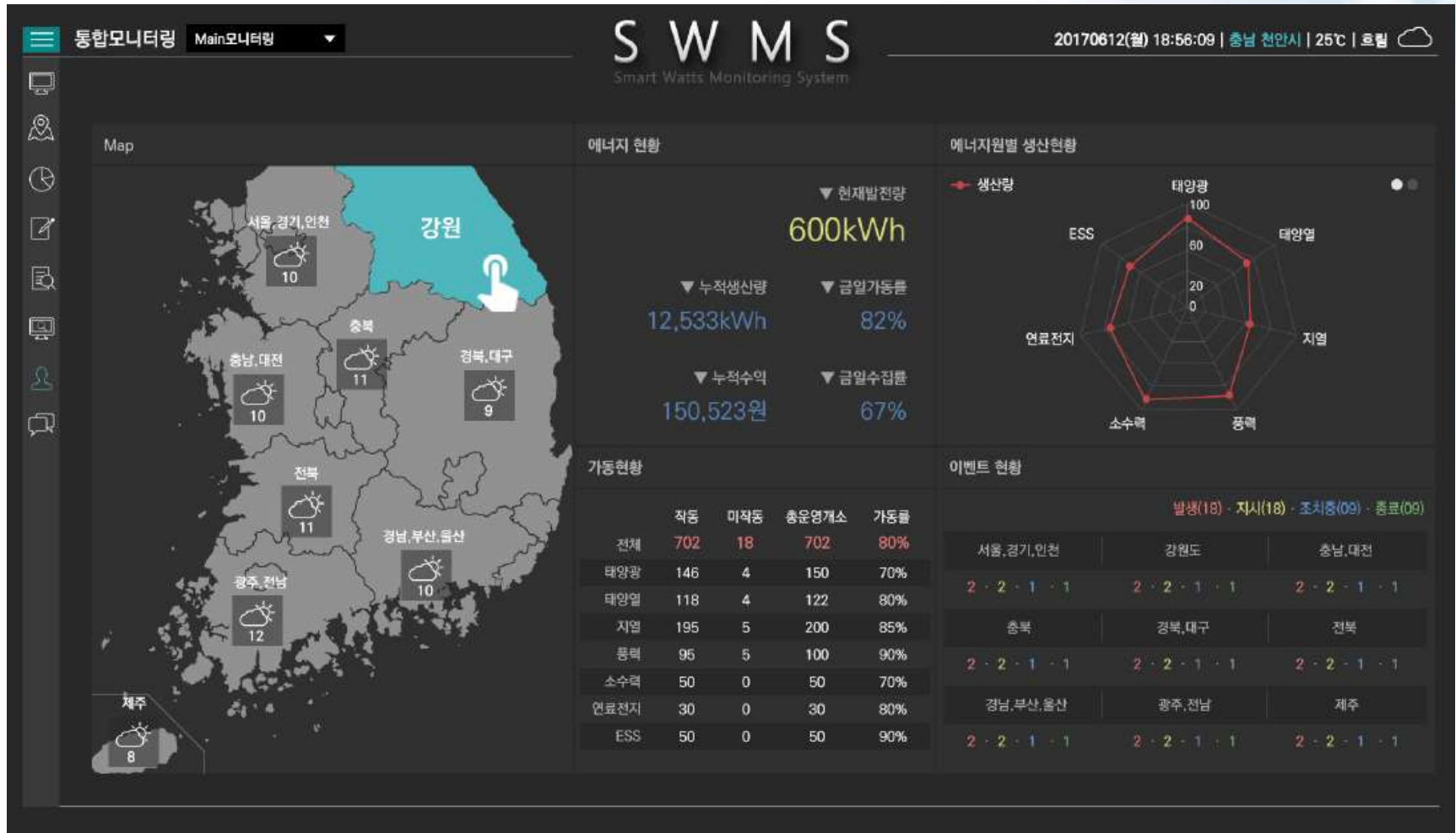
- The ratio increases annually until it reaches to 30% in 2020

	~'12	'13	'14	'15	'16	'17	'18	'19	'20
Renewables ratio (%)	10	11	12	15	18	21	24	27	30



National Monitoring System

Smart Watts Monitoring System will be in service in 2018





고성군청

태양광 태양열

누적발전량 **4,365,943 kWh**



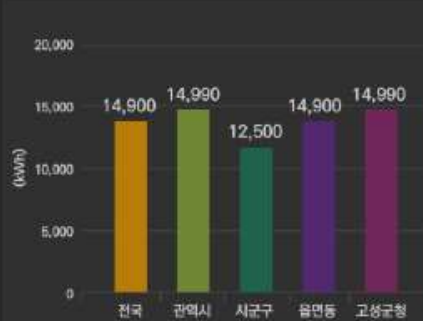
발전량 금일 2,430 kWh
 금월 156,744 kWh
 금년 324,101 kWh
 전일 2,000 kWh
 전월 156,700 kWh
 전년 324,028 kWh

CO₂배출감소량 **85,000 t**
 절감비용 **120,406 원**
 식수효과 **280,494 그루**

발전량 추이분석



발전량 전국 비교/분석



장애현황 및 과거이력

No.	발생일시	에너지원	이벤트명	상태
1	2017-05-01 14:18:58	태양광	내부팬이상	종료
2	2017-05-03 14:18:55	태양광	내부팬이상	종료
3	2017-05-05 14:18:55	태양열	내부팬이상	종료
4	2017-05-09 14:18:55	태양열	내부팬이상	종료
5	2017-05-15 14:18:55	태양열	내부팬이상	종료
6	2017-05-20 14:18:55	태양열	오류데이터	종료
7	2017-05-25 14:18:55	태양열	오류데이터	종료
8	2017-05-30 14:18:55	태양열	오류데이터	종료
9	2017-05-31 14:18:55	태양열	오류데이터	종료



Thank you



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