Proposed Generator Data Analysis

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1 What was the 2002 spike?

2 Credit eligibility by year

I requested to meet with a librarian to fill this in.

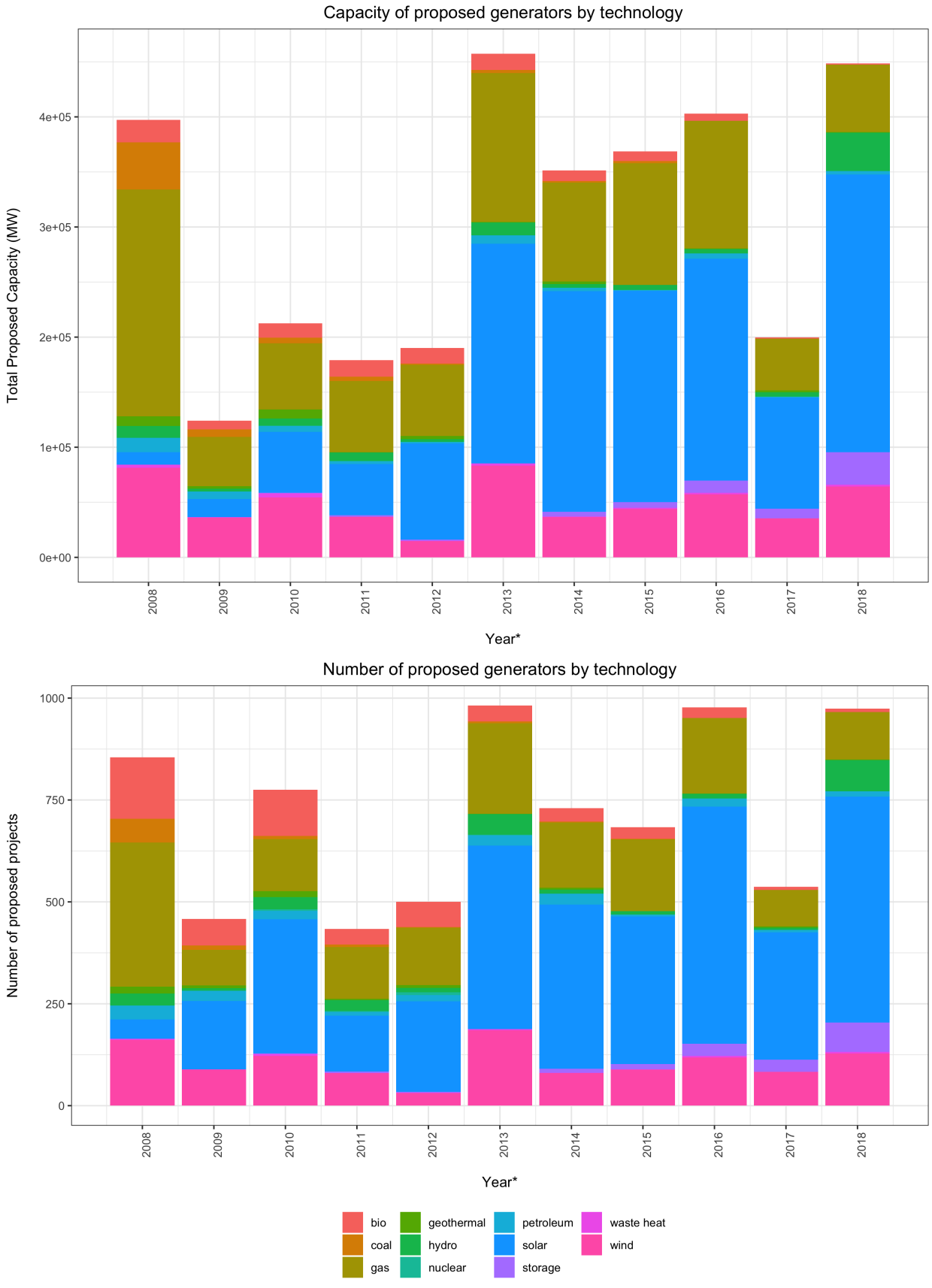
Table 1: Federal Tax Credit Eligibility

Legislation	Legislation Date	Credit	Eligible resources	Begin construction	Placed in service
Emergency Economic Stabilization Act of 2008	10/3/08	30% ITC	Solar		1-Jan-17
		30% ITC	Fuel cell, microturbine		31-Dec-16
		10% ITC	Geothermal heat pump		
		10% ITC	"Efficient" combined heat and power systems with 15-50 MW capacity		

My understanding so far:

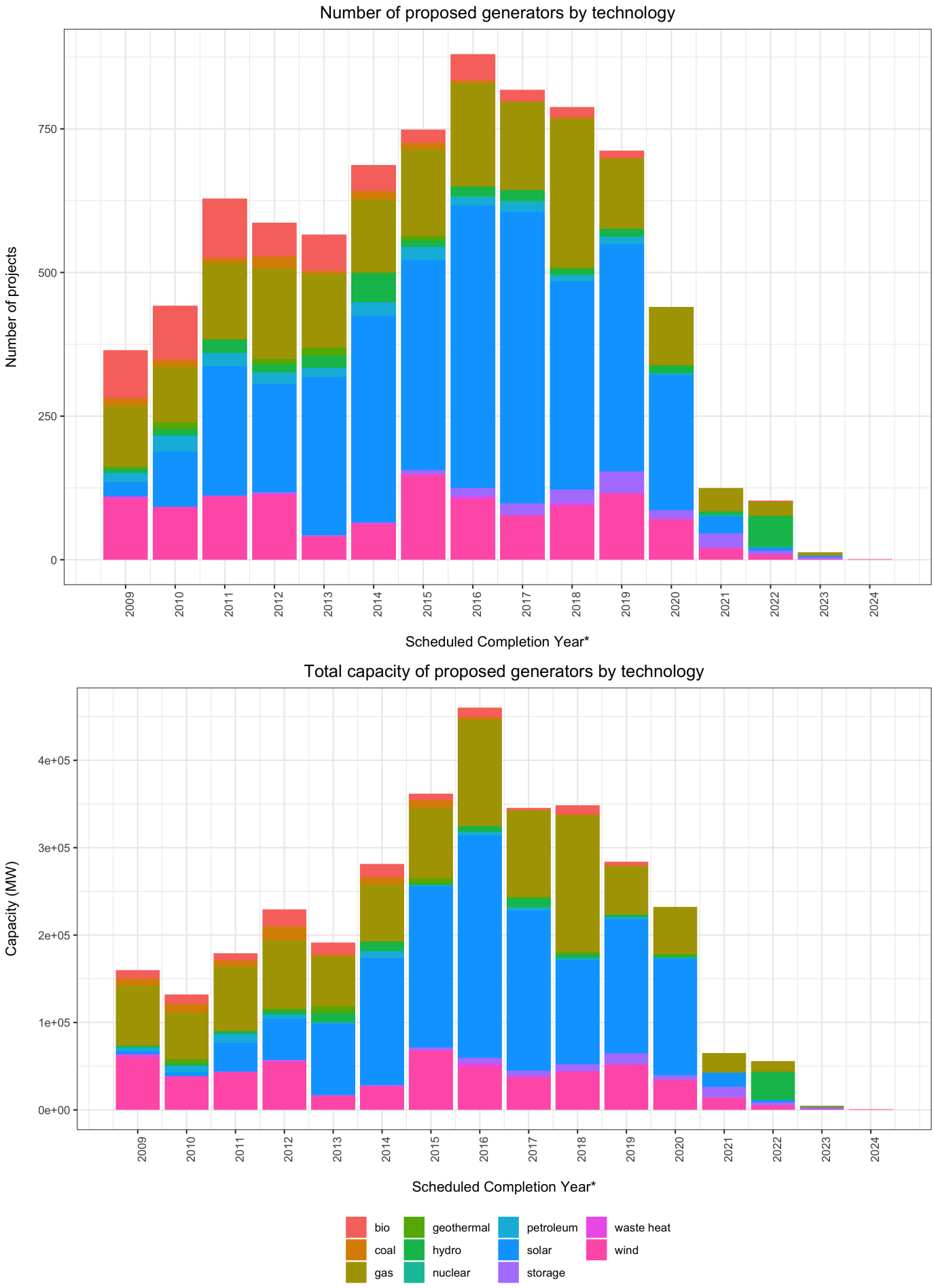
3 Summary for all technologies

Figure 1: Size and Number of Projects by "begin construction" year



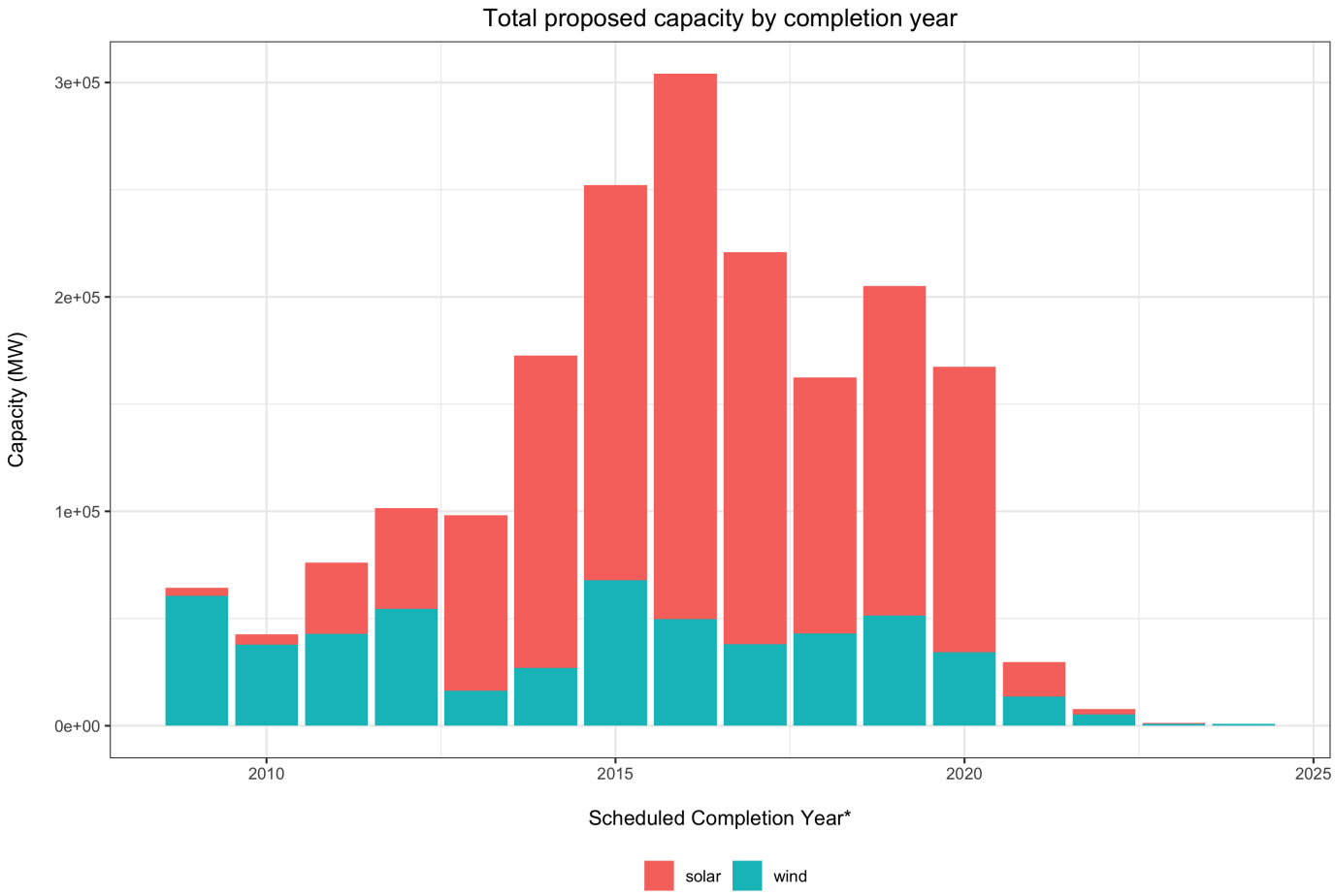
*Year indicates first year that generator appears in EIA data

Figure 2: Size and Number of Projects by initial scheduled completion date

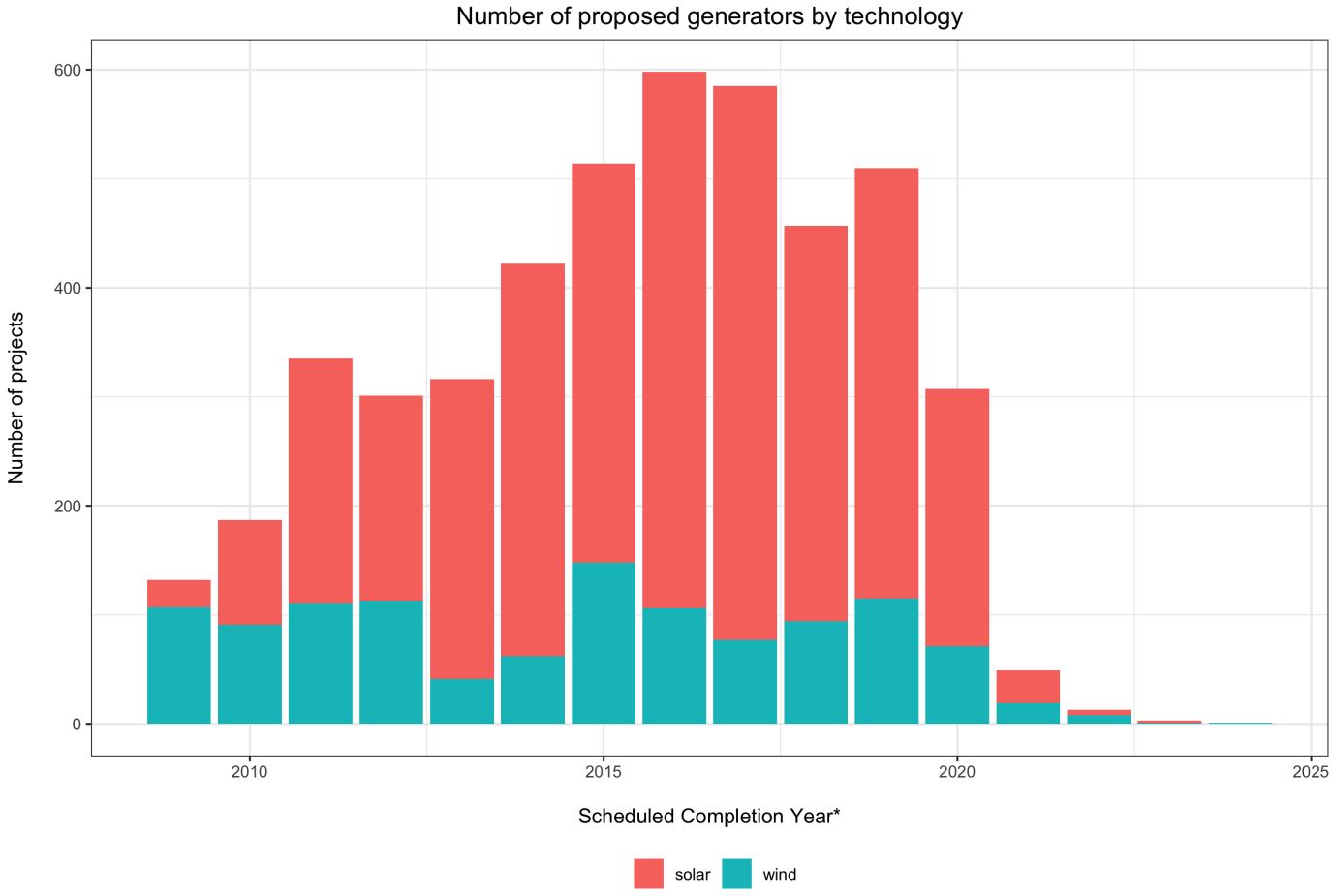


*Indicates initial scheduled completion date

Figure 3: Close up on wind and solar



*Indicates initial scheduled completion date



*Indicates initial scheduled completion date

4 Wind and solar

Figure 4: Scheduled completion year by year proposed

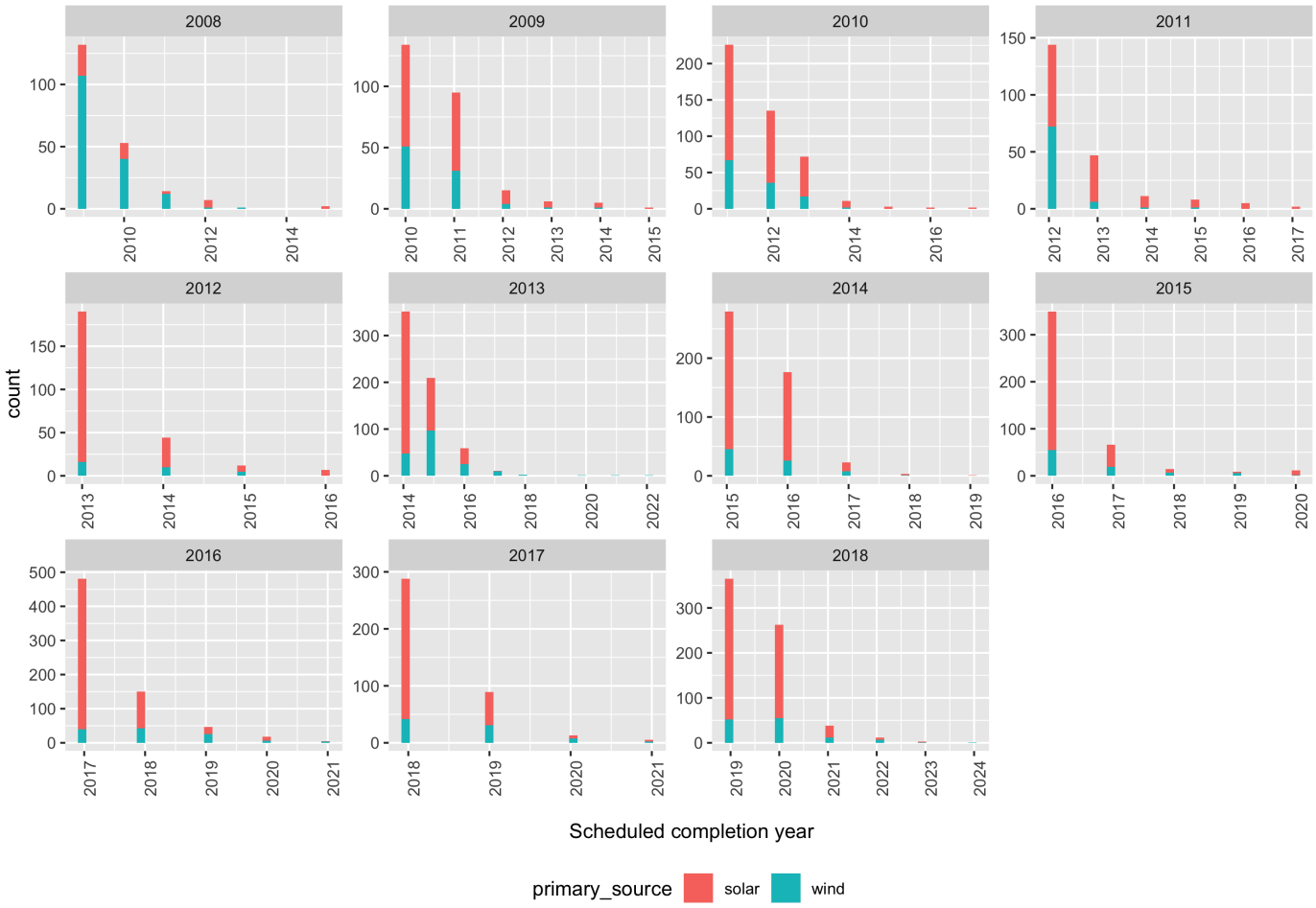


Table 2: Location of proposed solar projects, 2008-2018

region	Capacity (MW)	# Projects	Avg. Size (MW)	% Capacity
Southeast	559836	918	609.84	0.41
CAISO	271653	1069	254.12	0.20
MISO	105541	476	221.72	0.08
Northwest	101204	208	486.56	0.07
PJM	79088	204	387.69	0.06
ISO-NE	74815	208	359.69	0.05
Southwest	70118	195	359.58	0.05
ERCOT	34071	94	362.46	0.03
NYISO	46931	138	340.08	0.03
Hawaii	14967	42	356.36	0.01
District of Columbia	854	2	427.00	0.00
SPP	2627	9	291.89	0.00
Total	1361705	3563	0.00	0.99

Table 3: Location of proposed wind projects, 2008-2018

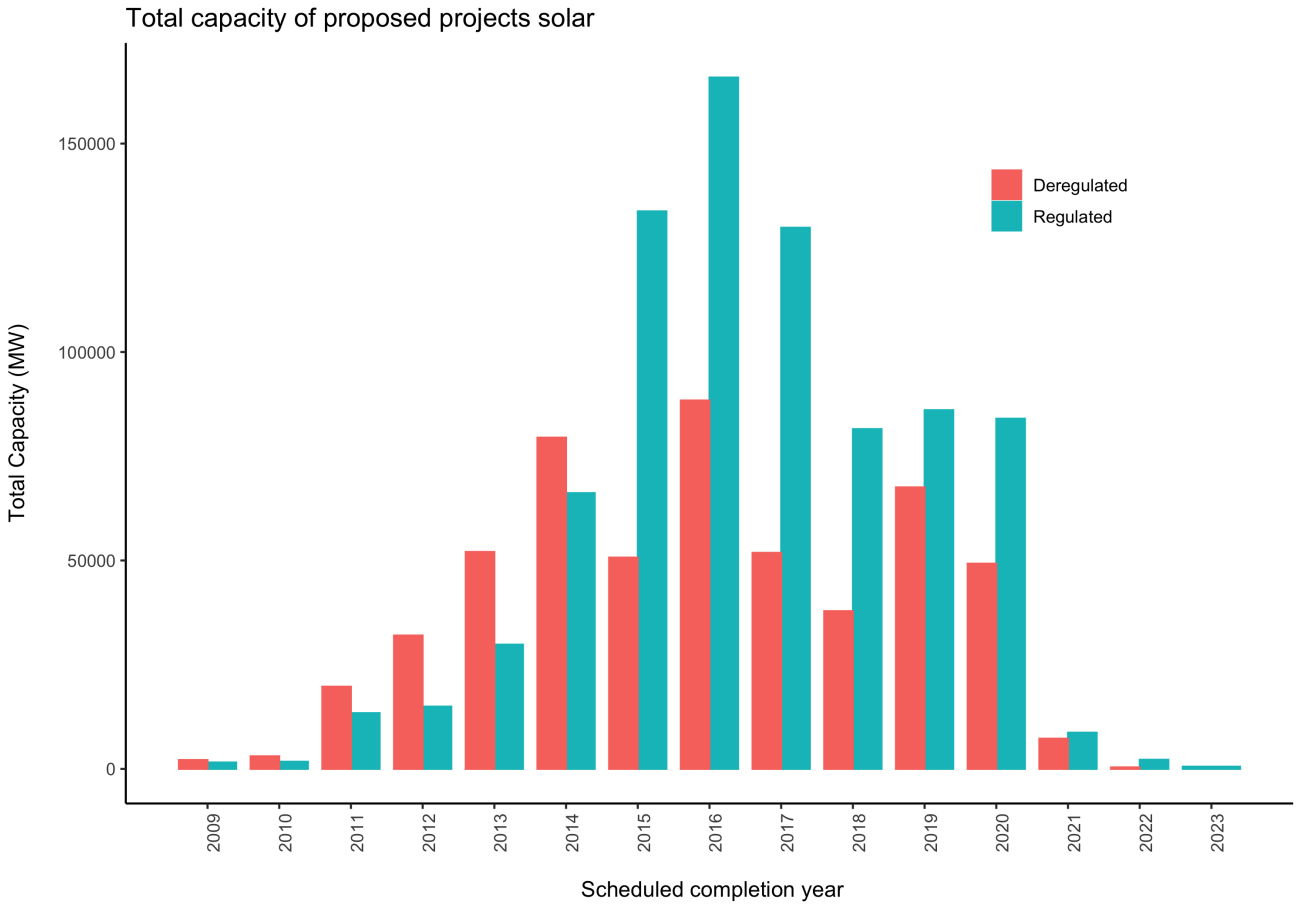
region	Capacity (MW)	# Projects	Avg. Size (MW)	% Capacity
MISO	133636	289	462.41	0.25
Northwest	89201	182	490.12	0.16
ERCOT	84168	193	436.10	0.15
SPP	72664	139	522.76	0.13
PJM	49854	103	484.02	0.09
ISO-NE	33450	68	491.91	0.06
NYISO	25072	45	557.16	0.05
Southwest	27901	55	507.29	0.05
CAISO	24049	81	296.90	0.04
Hawaii	2948	5	589.60	0.01
Alaska	487	2	243.50	0.00
Southeast	790	2	395.00	0.00
Total	544220	1164	0.00	0.99

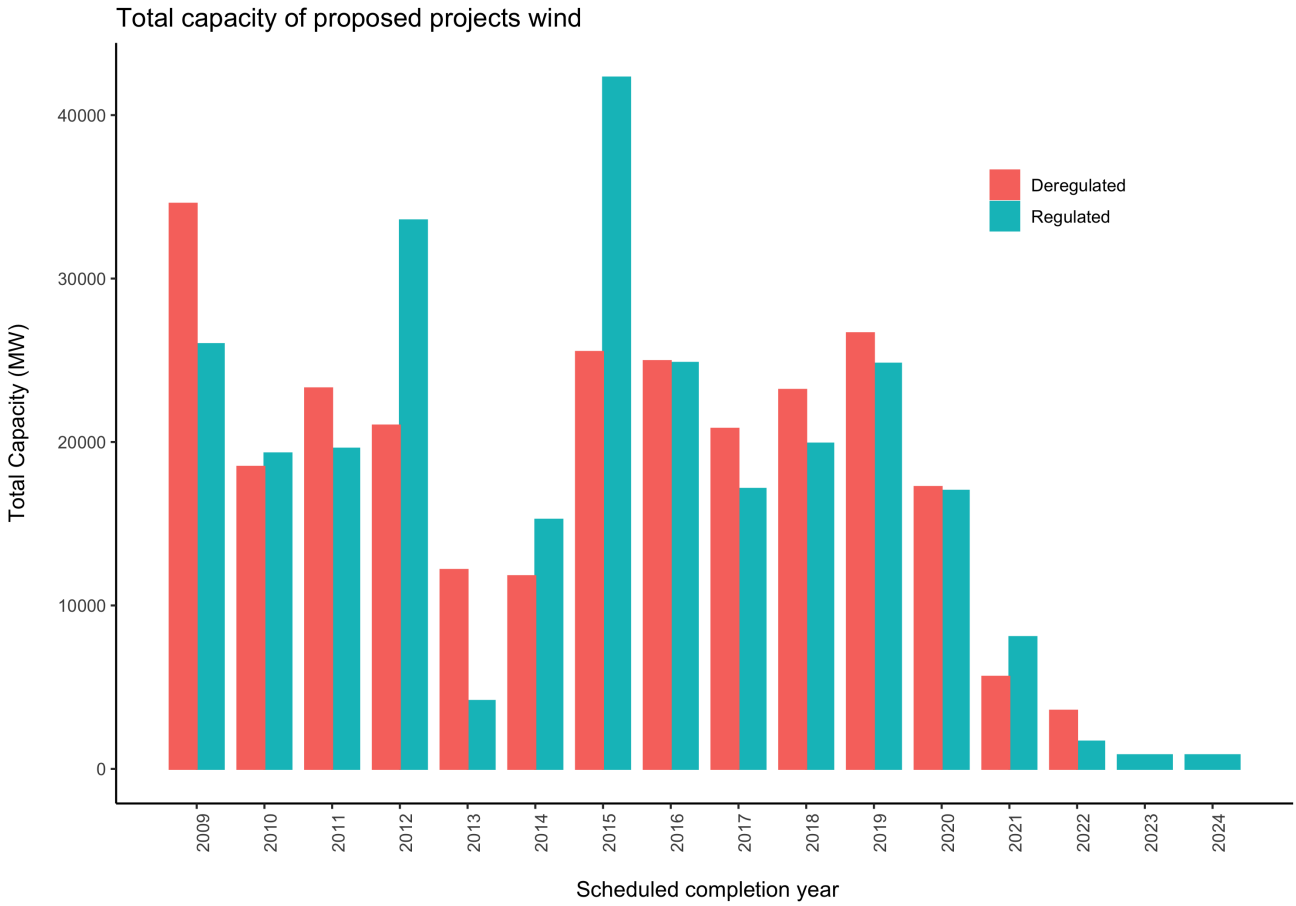
Table 4: Location of proposed solar projects, 2008-2018

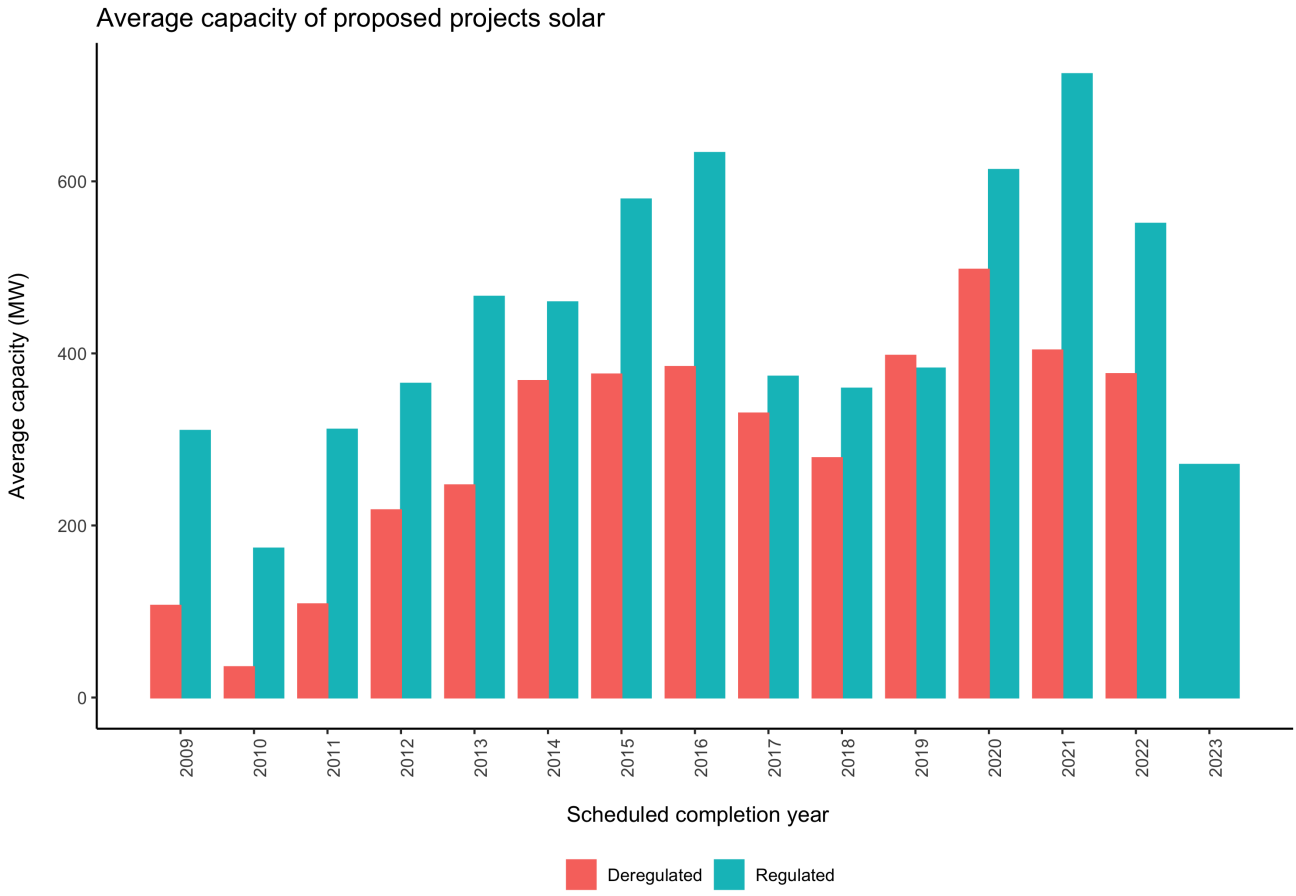
regulated	Capacity (MW)	# Projects	Avg. Size (MW)	% Capacity
Regulated	820078	1755	467.28	0.60
Deregulated	541627	1808	299.57	0.40
Total	1361705	3563	0.00	1.00

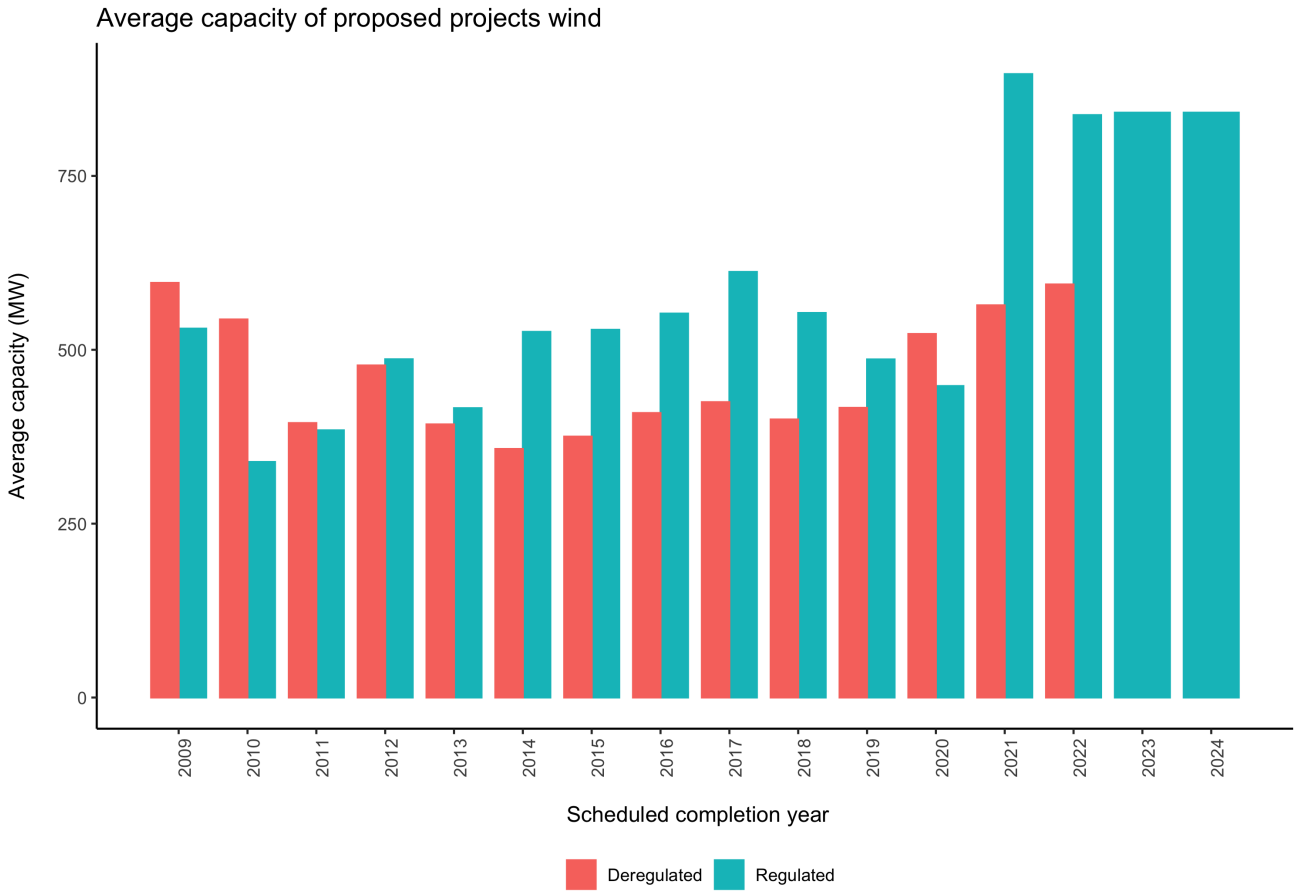
Table 5: Location of proposed wind projects, 2008-2018

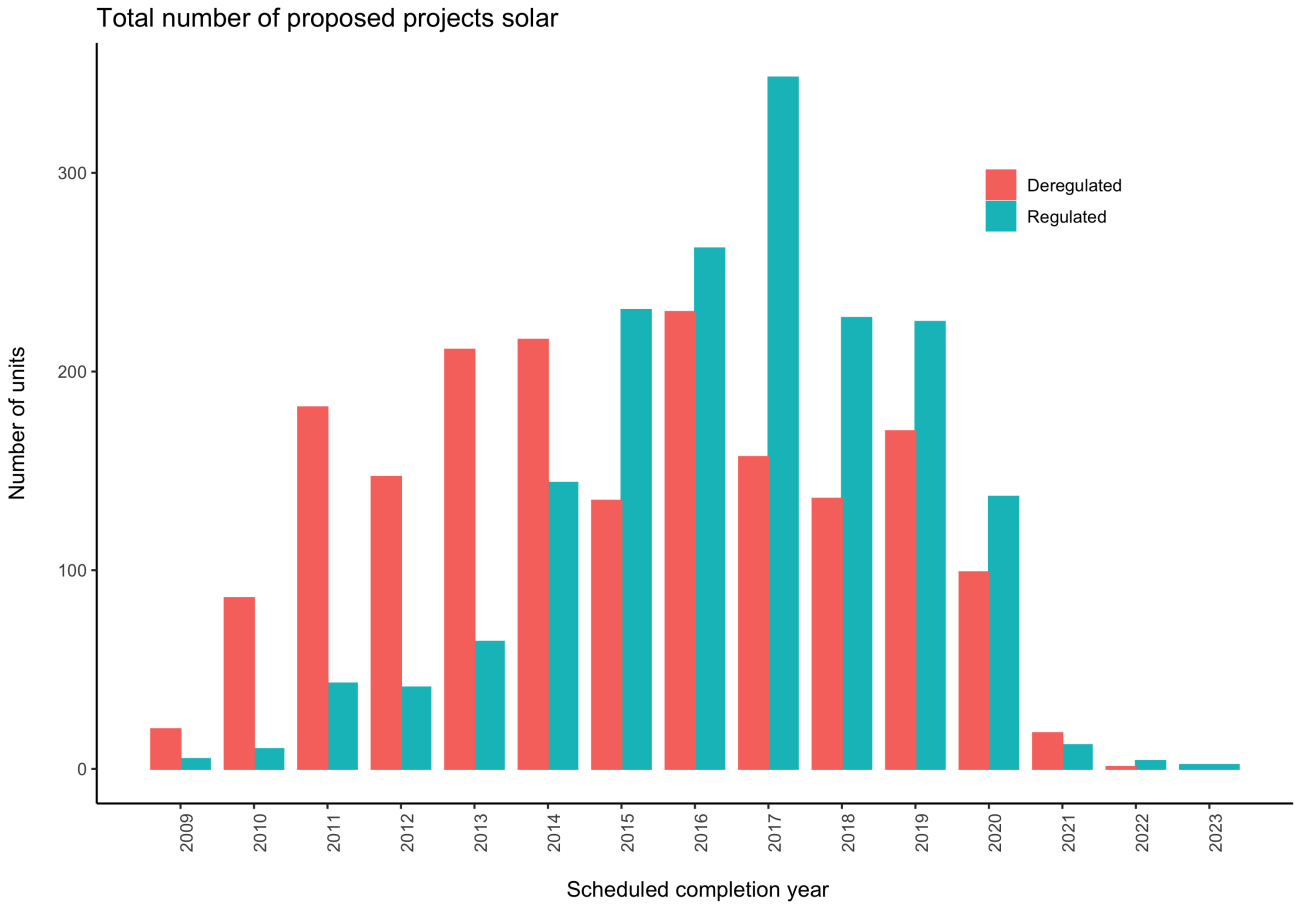
regulated	Capacity (MW)	# Projects	Avg. Size (MW)	% Capacity
Regulated	275301	556	495.15	0.51
Deregulated	268919	608	442.30	0.49
Total	544220	1164	0.00	1.00

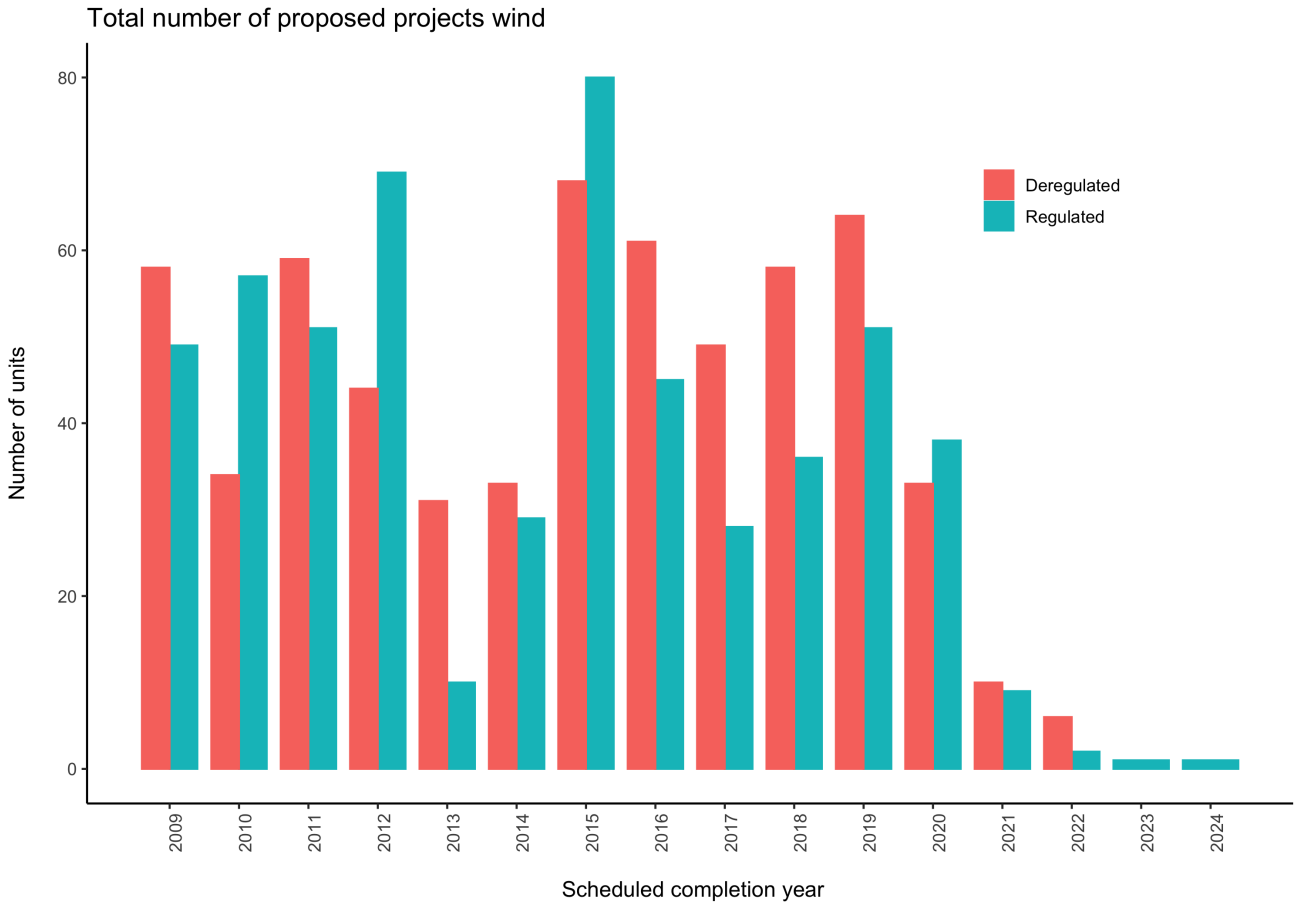

Total capacity of proposed projects solar
Total Capacity (MW)
150000
100000
50000
0
Deregulated
Regulated
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Scheduled completion year


Total capacity of proposed projects wind
Total Capacity (MW)
40000
30000
20000
10000
0
Deregulated
Regulated
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Scheduled completion year


Average capacity of proposed projects solar
Average capacity (MW)
0
200
400
600
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Scheduled completion year
Deregulated
Regulated


Average capacity of proposed projects wind
Average capacity (MW)
0
250
500
750
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Scheduled completion year
Deregulated
Regulated


Total number of proposed projects solar
Number of units
0
100
200
300
Deregulated
Regulated
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Scheduled completion year


Total number of proposed projects wind
Number of units
0
20
40
60
80
Deregulated
Regulated
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Scheduled completion year