



## ERCOT Wind Forecasting

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18 September 2017

# Today's Wind Forecast

- 1 forecast provider
- Granularity
  - Total
  - 5 Regions
  - Individual wind farms
- Hourly increments for 7 days
- 12 second output telemetered to provider

## Today's Wind Forecast

- Short-Term Wind Power Forecast (STWPF): An ERCOT produced hourly 50% probability of exceedance forecast of the generation in MWh per hour from each WGR that could be generated from all available units of that Resource.
- Wind-powered Generation Resource Production Potential (WGRPP): The generation in MWh per hour from a WGR that could be generated from all available units of that Resource allocated from the 80% probability of exceedance of the Total ERCOT Wind Power Forecast (TEWPF).

# EMS Detail STWPF/WGRPP

A - IGUNIT, IGDINT[EMS] ittlems0001b.ercot.com(A) Page: 1 - default -

File Navigate HABITAT Applications ERCOT EMP Applications Transmission Frequency Related Displays Help

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Unit Load OPA Wind Region Solar Region

### Responsive Reserve Service Sufficiency Monitoring

QSE	Station	Unit	Resource Type	Hot	Intermediate	Cold	Hot to Intermediate	Intermediate to Cold				
ID	Time	Resource Status	Reg. Up	Reg. Down	RRS	NSP	HSL	LSL	Inertia	STWPF	WGRPP	Avail. Gen
<b>INDL</b>				<b>INDL_INADALE1</b>		<b>WIND</b>		<b>0.0</b>				
H-2	13-Sep-2017 08:00:00	ON	0.0	0.0	0.0	0.0	16.4	0.0	0.0	14.0	0.0	0.0
H-1	13-Sep-2017 09:00:00	ON	0.0	0.0	0.0	0.0	13.1	0.0	0.0	14.2	0.0	0.0
H00	13-Sep-2017 10:00:00	ON	0.0	0.0	0.0	0.0	7.1	0.0	0.0	6.3	0.0	0.0
H01	13-Sep-2017 11:00:00	ON	0.0	0.0	0.0	0.0	4.7	0.0	0.0	4.2	0.0	0.0
H02	13-Sep-2017 12:00:00	ON	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	0.0
H03	13-Sep-2017 13:00:00	ON	0.0	0.0	0.0	0.0	4.2	0.0	0.0	4.2	0.0	0.0
H04	13-Sep-2017 14:00:00	ON	0.0	0.0	0.0	0.0	3.6	0.0	0.0	3.6	0.0	0.0
H05	13-Sep-2017 15:00:00	ON	0.0	0.0	0.0	0.0	4.4	0.0	0.0	4.4	0.0	0.0
H06	13-Sep-2017 16:00:00	ON	0.0	0.0	0.0	0.0	5.5	0.0	0.0	5.5	0.0	0.0
H07	13-Sep-2017 17:00:00	ON	0.0	0.0	0.0	0.0	8.8	0.0	0.0	8.8	0.0	0.0
H08	13-Sep-2017 18:00:00	ON	0.0	0.0	0.0	0.0	12.5	0.0	0.0	12.5	0.0	0.0
H09	13-Sep-2017 19:00:00	ON	0.0	0.0	0.0	0.0	12.3	0.0	0.0	12.3	0.0	0.0
H10	13-Sep-2017 20:00:00	ON	0.0	0.0	0.0	0.0	21.3	0.0	0.0	21.3	5.1	0.0
H11	13-Sep-2017 21:00:00	ON	0.0	0.0	0.0	0.0	32.0	0.0	0.0	32.0	15.9	0.0
H12	13-Sep-2017 22:00:00	ON	0.0	0.0	0.0	0.0	33.5	0.0	0.0	33.5	17.3	0.0
H13	13-Sep-2017 23:00:00	ON	0.0	0.0	0.0	0.0	54.0	0.0	0.0	54.0	37.8	0.0
H14	14-Sep-2017 00:00:00	ON	0.0	0.0	0.0	0.0	70.1	0.0	0.0	70.1	53.9	0.0
H15	14-Sep-2017 01:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86.1	69.9	0.0
H16	14-Sep-2017 02:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.7	74.5	0.0
H17	14-Sep-2017 03:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.5	72.3	0.0
H18	14-Sep-2017 04:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.3	72.2	0.0
H19	14-Sep-2017 05:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.1	76.0	0.0
H20	14-Sep-2017 06:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.8	78.7	0.0
H21	14-Sep-2017 07:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.9	77.7	0.0
H22	14-Sep-2017 08:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.6	66.5	0.0
H23	14-Sep-2017 09:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.8	49.6	0.0
<b>HHOLLOW4</b>				<b>HHOLLOW4_WND1</b>		<b>WIND</b>		<b>0.0</b>				
H-2	13-Sep-2017 08:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0
H-1	13-Sep-2017 09:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0
H00	13-Sep-2017 10:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
H01	13-Sep-2017 11:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
H02	13-Sep-2017 12:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
H03	13-Sep-2017 13:00:00	OFF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0

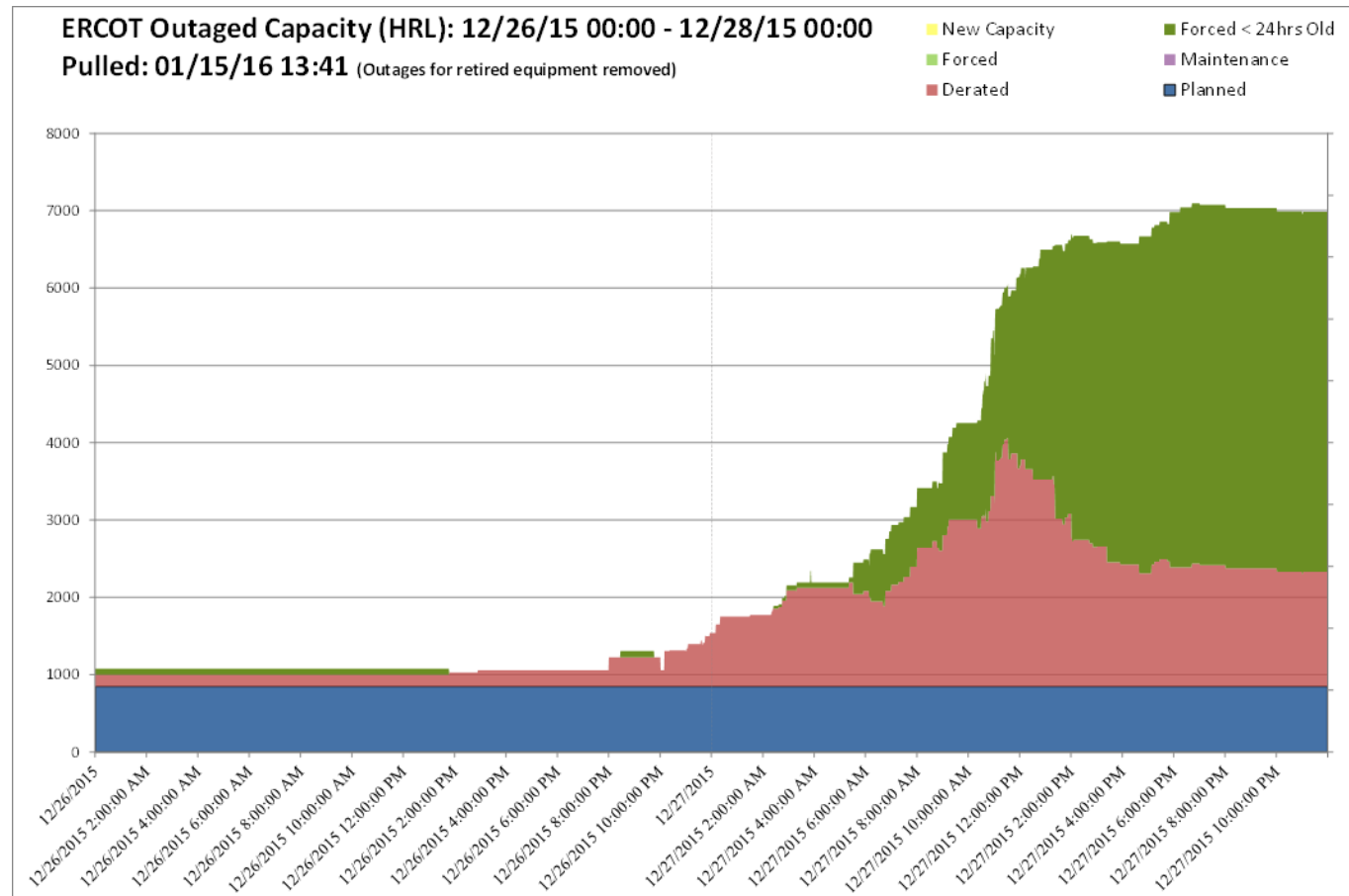


# PI Regional Summary



# Icing Event Dec 26-27, 2015

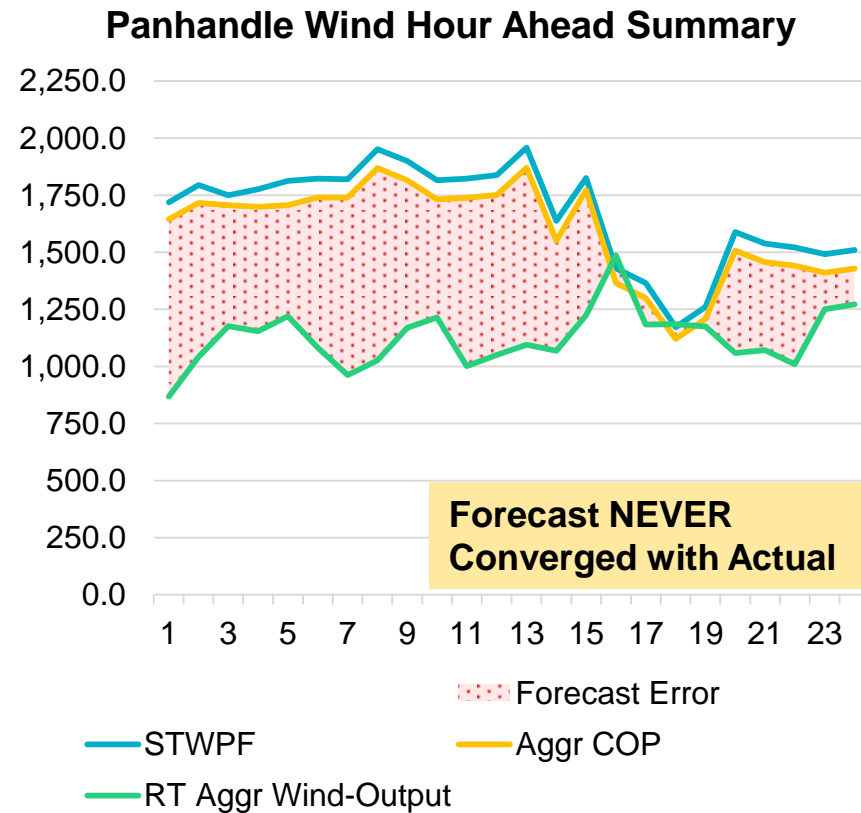
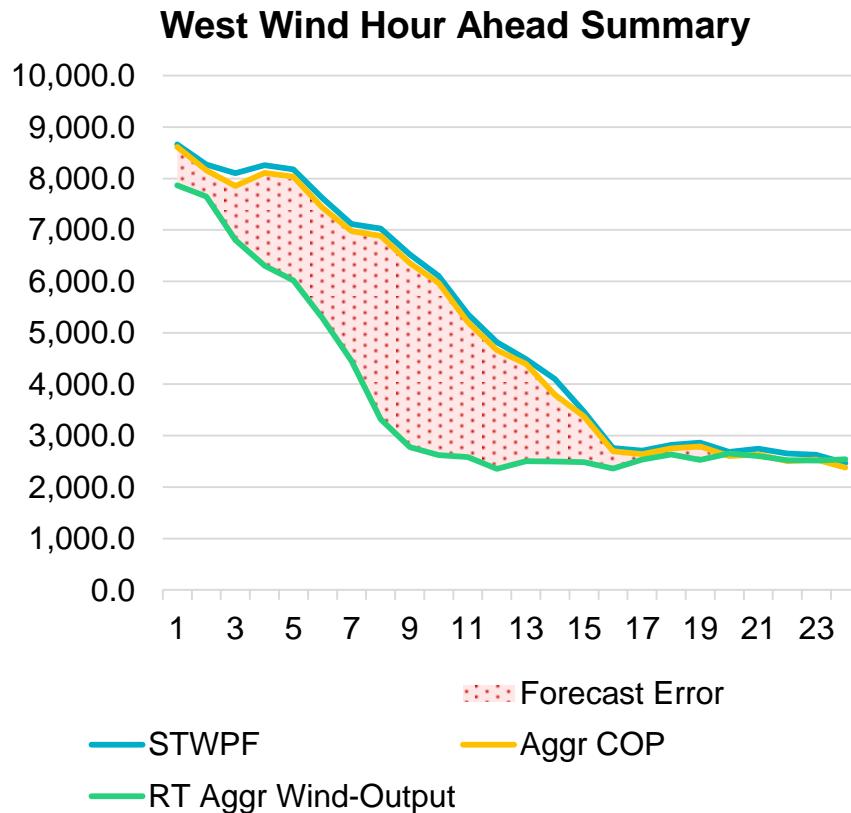
- Freezing temperatures resulted in icing conditions in the Panhandle triggering about 6000 MW of derates/outages.





# Icing Event Dec 26-27, 2015

- By 3:00 AM on Dec 27, wind forecasting error had reached about 1700 MW.
- Icing was continually reported throughout the day and forecasting error reached nearly 4500 MW by the hour ending HE08.





## Tomorrow's Wind Forecast

- 2 forecast providers
- Granularity
  - Total
  - 5 Regions
  - Individual wind farms
- Hourly increments for 7 days
- 5-minute increments for 3 hours
- 12 second output telemetered to provider

## Tomorrow's Wind Forecast

- STWPF
- WGRPP
- STWPF + likely extreme weather
- STWPF + worst extreme weather

## Tomorrow's Wind Forecast

- STWPF
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