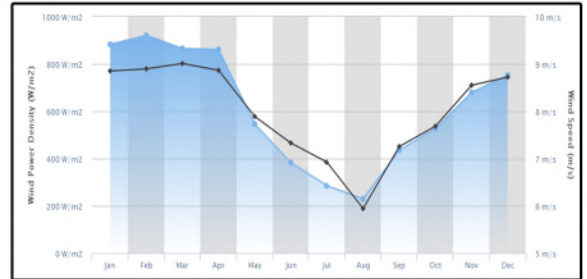
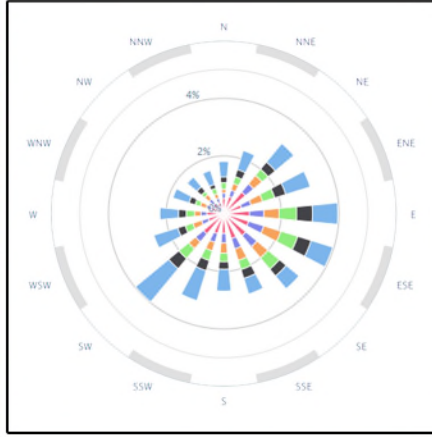
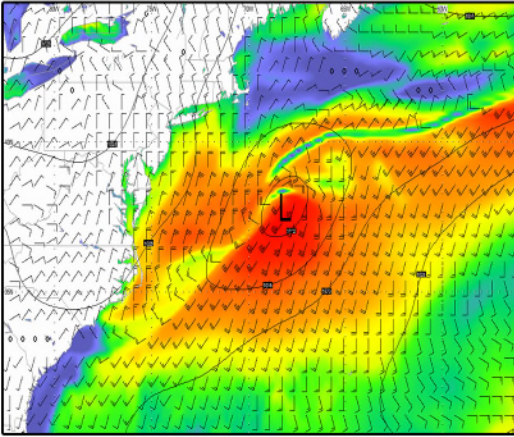
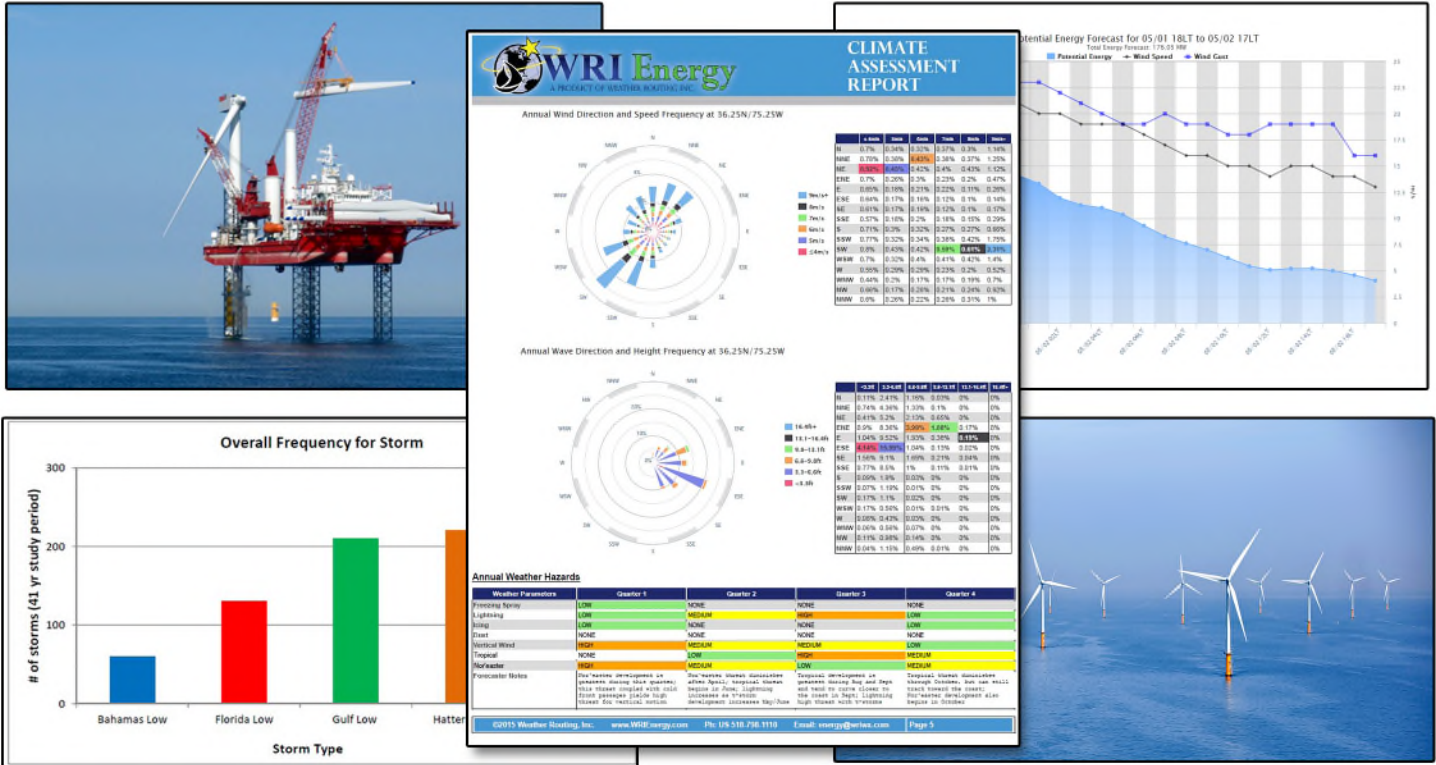


# WRI Energy



# WRI's team of experienced Meteorologists are available for consultation 24 hours a day, 365 days a year.



## Our Services from Start to Finish for your Offshore Wind Farm Site

### Resource Assessment

#### Graphics and Tables

- Wind and wave roses provide profile of expected weather.

#### Meteorological Knowledge

- Trends in seasonal energy production, and weather patterns for specific wind flow regimes.

#### Report Text

- Evaluation of wind assessment characteristics, and recommendations for construction / O & M.

### Site Forecasting for O&M

#### Detailed Forecast Data for Construction & Support Vessels

- Elevated wind forecasts for crane operations, and additional surface parameters such as: temperature, currents, and precipitation

#### Support Vessel Forecasting

- Freezing spray concerns, and heavy weather alerts tailored to each vessel's constraints.

#### Tropical Surveillance & Heavy Weather Monitoring

- Dolphin website: a suite of detailed weather information including tropical track information, tsunami, and earthquake warning information.

### Energy Management Site

#### Weather & Energy Forecasting

- Hourly precise forecast reports at Hub Level out to 10 days.

#### Windfarm Monitoring Dashboard

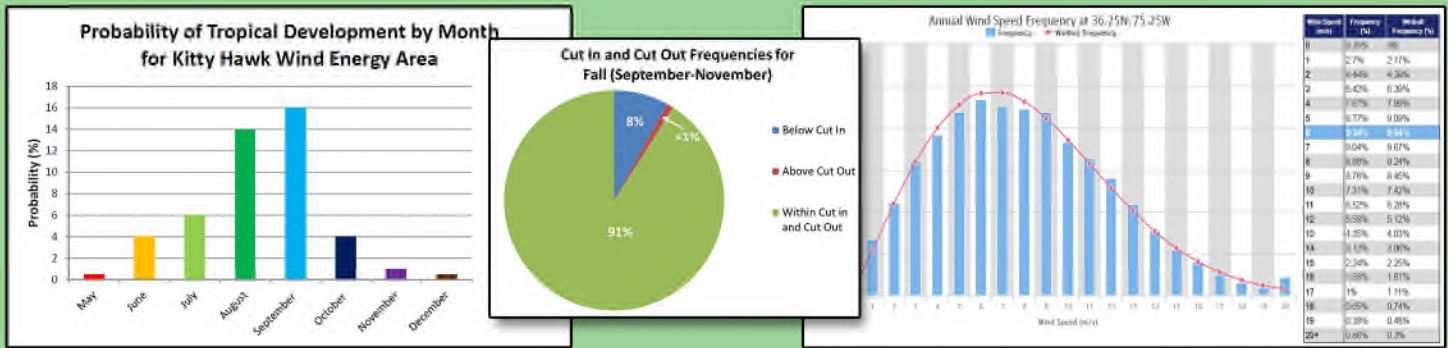
- Operations will be kept well advised of potential energy production, and resource assessment.

#### Additional Tools & Products

- Special Hazard Maps – Hazardous winds/seas, reduced visibility, piracy reports, and earthquake/tsunami advisories.

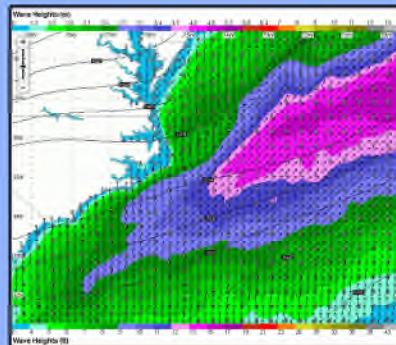
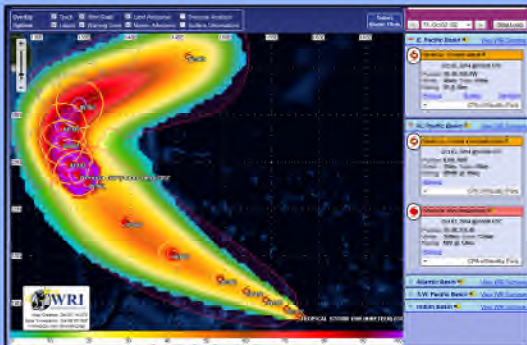
# Resource Assessment

WRI's wide array of in-house data and history of providing climatology studies for clients worldwide will benefit any company looking for a long term evaluation of a potential wind farm site. Our reports will prepare the owners of equipment and transport for expected weather hazards during construction, and then provide reliable potential energy production in seasonal/quarterly trends for investors and lenders.



# Site Forecasting for O&M

WRI combines the best of technology with a long history of marine forecast experience to provide accurate, detailed forecasts. Unlike local government sources, our reports are customized for your specific offshore site, and weather requirements.



**Weather Routing Inc. (WRI, Ltd.)**  
"Decades of Experience"

Sample Site Forecast Prepared for Sample Company

04/29/2013 12:24

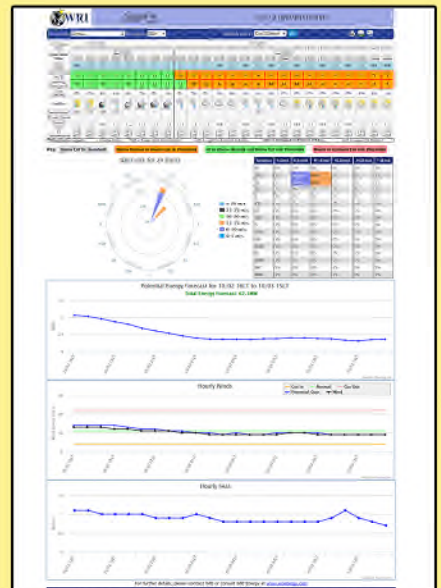
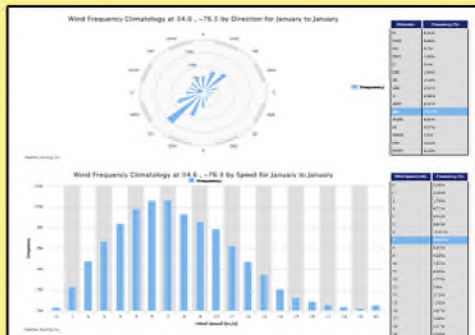
Weather Synopsis: Sun: 0.20, Sun: 0.44

None Expected Pilot Alarms.

Position	Time	Wind Speed	Wave Height	Sea State	Visibility	Clouds	Temperature	Humidity	Pressure
2013A	0	12017	18419	0.0	100	1.0	1.0	1.0	1.0
2013B	1	12018	18420	0.0	100	1.0	1.0	1.0	1.0
2013C	2	12019	18421	0.0	100	1.0	1.0	1.0	1.0
2013D	3	12020	18422	0.0	100	1.0	1.0	1.0	1.0
2013E	4	12021	18423	0.0	100	1.0	1.0	1.0	1.0
2013F	5	12022	18424	0.0	100	1.0	1.0	1.0	1.0
2013G	6	12023	18425	0.0	100	1.0	1.0	1.0	1.0
2013H	7	12024	18426	0.0	100	1.0	1.0	1.0	1.0
2013I	8	12025	18427	0.0	100	1.0	1.0	1.0	1.0
2013J	9	12026	18428	0.0	100	1.0	1.0	1.0	1.0
2013K	10	12027	18429	0.0	100	1.0	1.0	1.0	1.0
2013L	11	12028	18430	0.0	100	1.0	1.0	1.0	1.0
2013M	12	12029	18431	0.0	100	1.0	1.0	1.0	1.0
2013N	13	12030	18432	0.0	100	1.0	1.0	1.0	1.0
2013O	14	12031	18433	0.0	100	1.0	1.0	1.0	1.0
2013P	15	12032	18434	0.0	100	1.0	1.0	1.0	1.0
2013Q	16	12033	18435	0.0	100	1.0	1.0	1.0	1.0
2013R	17	12034	18436	0.0	100	1.0	1.0	1.0	1.0
2013S	18	12035	18437	0.0	100	1.0	1.0	1.0	1.0
2013T	19	12036	18438	0.0	100	1.0	1.0	1.0	1.0
2013U	20	12037	18439	0.0	100	1.0	1.0	1.0	1.0
2013V	21	12038	18440	0.0	100	1.0	1.0	1.0	1.0
2013W	22	12039	18441	0.0	100	1.0	1.0	1.0	1.0
2013X	23	12040	18442	0.0	100	1.0	1.0	1.0	1.0
2013Y	24	12041	18443	0.0	100	1.0	1.0	1.0	1.0
2013Z	25	12042	18444	0.0	100	1.0	1.0	1.0	1.0

# Energy Management Site

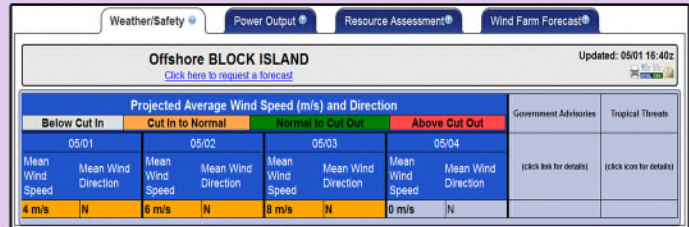
Our interactive web-based program monitors weather and oceanographic conditions that will impact the power output of your offshore wind farm. Additionally, our Dashboard will assist in surveying your offshore site in being aware of daily power output, weather concerns out 10 days, and options to request additional weather forecasting assistance during routine maintenance.



# Offshore Products

## Dashboard

- Quick glance of Cut In to Cut Out winds and direction for the first 3 days.
- Print, email, and CSV raw file downloads.

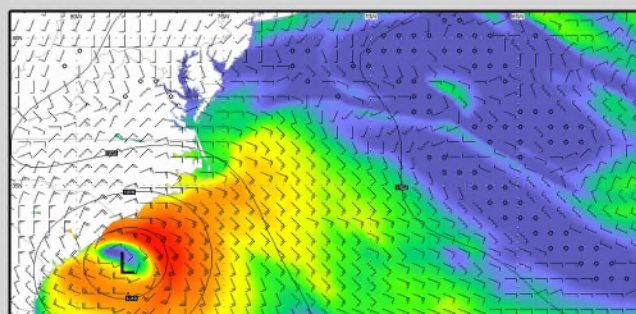
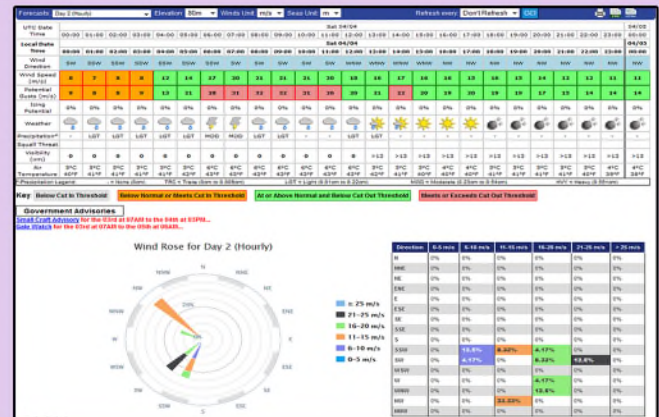


## Power Output Graphs

- Daily Total Potential Energy Predictions for the first 3 days.
- Print, email, and CSV raw file downloads.

## Wind Farm Forecast

- Hourly predictions of wind & wave roses with cut in and cut out thresholds.
- Icing Potential, sky conditions, precipitation, squall threat, visibility, and air temperature.



## Weather Charts & Hazards Maps

- WRI Low Bandwidth Map Request Menu Options.
- Additional Weather Charts & Products out to 10 days.

## Tropical Surveillance & Heavy Weather Alerts

- WRI's Tropical Advisories are a daily analysis of all officially classified tropical systems.
- WRI also pre-classifies systems as Tropical Lows usually 2-3 days before government agencies.

