Monitoring and Control
For the Wind Energy Industry

The ability to capture energy from the wind provides us with new opportunities to reduce our dependency on limited resources such as gas, oil and coal. AVIDwireless' suite of Remote Product Services (RPS) tools provide a cost effective way to quickly deploy and remotely monitor site assessments and installations.

The monitoring controller (AVIDdirector) is installed at the site to constantly communicate with wireless sensors collecting readings from the anemometers, wind vanes, temperature sensors and batteries located at the site. The AVIDdirector collects the information and transmits readings to AVIDdashboard where users can review real-time site information from any web enabled PC.

AVIDwireless' Wind Energy Products are perfect for mobile assessments and for permanent installations at remote wind turbine sites or building locations, anywhere remote monitoring and control of operations needs to occur.

Features of AVIDwireless
Wind Energy Products

- **Wireless sensors decrease the cost of installation significantly, no more wires to install in order to collect readings**
- **Know when personnel are on-site to service equipment**
- **24/7 monitoring and control of equipment from any web enabled PC**
- **Constant monitoring of assessments and installations without the need for resources to be on-site**
- **Parameters are set to enable alerts and alarm notifications based on customer needs**
- **Alerts can be grouped based on any logical settings such as geographical location for ease of service**
- **Solution is battery powered and solar charged making it adaptable for any location**
- **Runs on either DC or AC power**
- **Can handle up to 100 wireless sensors similar to those in figure 1 within a 600 ft range**
- **System can be easily adapted to any type of monitoring equipment protecting your investment from future technology changes**

figure 1

AVIDwireless Wind Energy Product Suite

How Does it Work?

1. The AVIDdirector unit is installed on site to monitor the equipment and environment 24/7.
2. The information is gathered and transmitted over wireless data networks to the AVIDdashboard monitoring and control system, which handles any alerts or alarms that must be directed to specified personnel.
3. Authorized users can access the information from any web enabled PC to view readings, respond to alerts, create reports, charts or download information for use in other tools such as excel. Figure 2 shows examples of reports and charts generated from AVIDdirector.
4. Users can review all data received from any site, as shown below or constantly monitor the last readings from a site on the main monitor screen as shown below in figure 3, this provides real-time visuals into site performance.
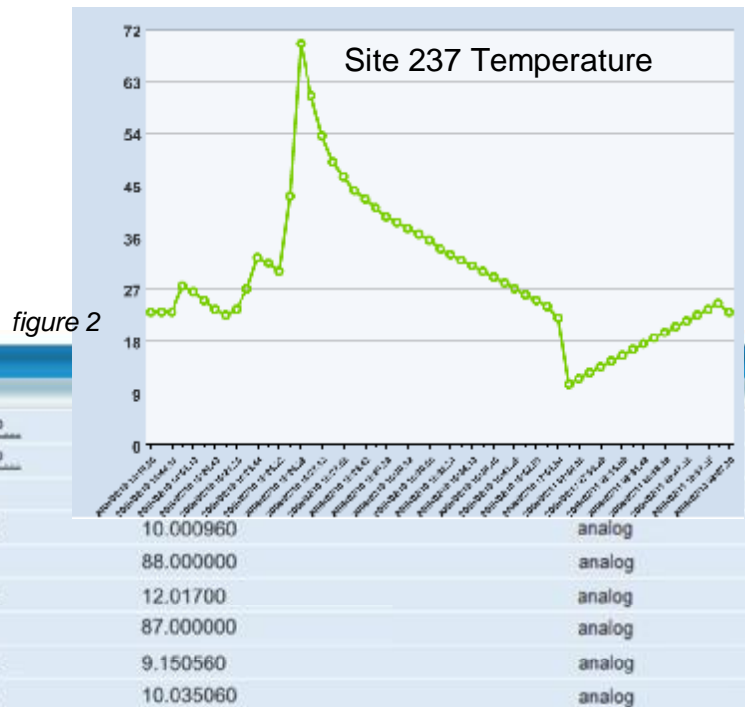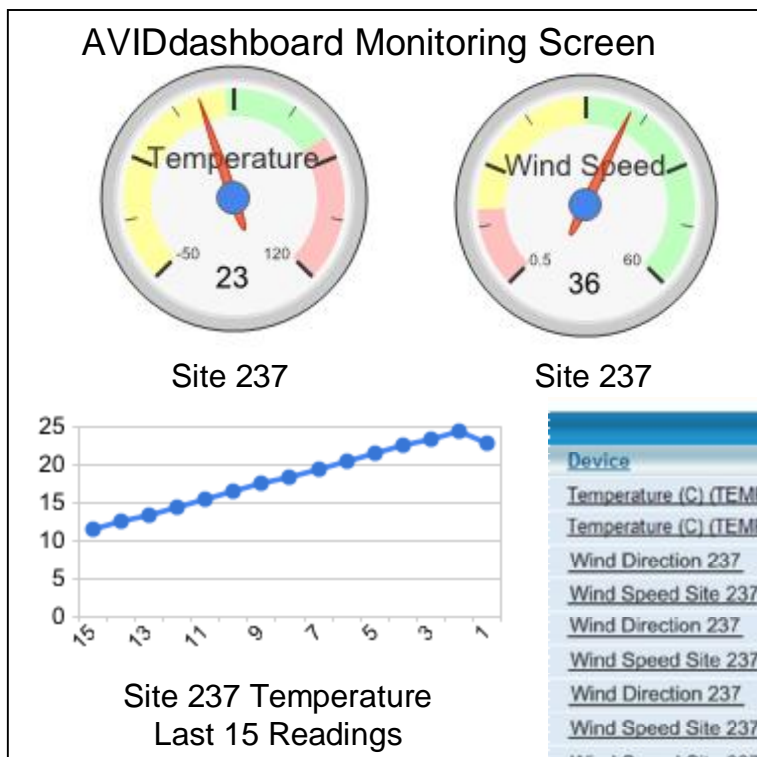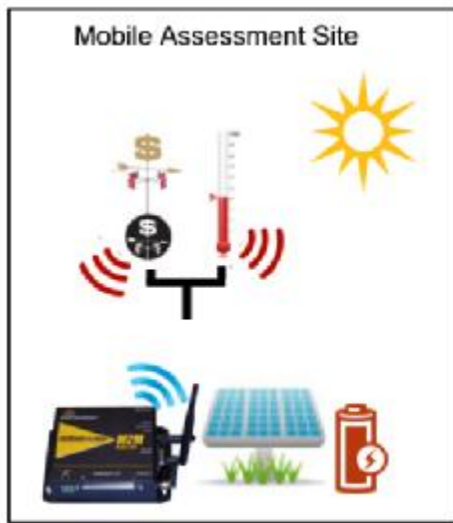

Mobile Assessment Site

Permanent Site

AVIDdashboard Monitoring Screen

Temperature
23

Wind Speed
36

Site 237

Site 237

Site 237 Temperature
Last 15 Readings

figure 3

figure 2

Site 237 Temperature

Device		
Temperature (C) (TEMP…		
Temperature (C) (TEMP…		
Wind Direction 237		
Wind Speed Site 237	10.000960	analog
Wind Direction 237	88.000000	analog
Wind Speed Site 237	12.01700	analog
Wind Direction 237	87.000000	analog
Wind Speed Site 237	9.150560	analog
Wind Speed Site 237	10.035060	analog