

# Direct Load Control Verification

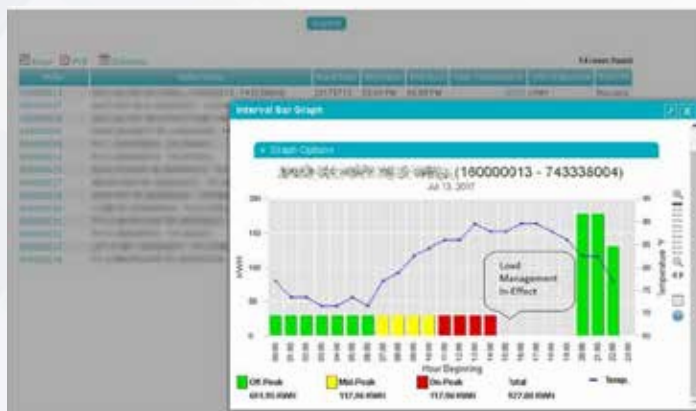
Reduce the Need for Field Investigations.

Assess load changes to determine whether there has been a significant drop in peak and/or average load, optionally accompanied by an expected drop in usage.



Direct Load Control is a critical tool in the battle to reduce load on peak days. However, when using one-way communication networks to command load control devices, it is often difficult to know if the signals got through to the devices, or if the devices responded correctly.

Nor is it clear if commands were overridden or there was device tampering. In short, it is extremely difficult to determine whether the load was reduced as expected.



**SmartWorks Compass can verify that the load was reduced as intended for each participating meter.**

This solution requires metered interval usage data to be available where the load is reduced. Where the load reduction is a significant portion of the total metered load, it is sufficient to assess the load immediately before and after the dispatch of the load control signal.

This approach is especially well suited to agricultural DLC applications, where irrigation systems are individually controlled and metered individually.

For situations where the load reduction is small in comparison to the total metered load, or the load reduction does not occur as a step function with a defined start time and stop time, SmartWorks measures load reduction by comparing metered load to a baseline. The baseline represents the expected load and is calculated through one of multiple methods, for example:

- Through regression analysis of load profile data with respect to ambient temperatures, to adjust expected load for weather variations.
- Through Machine Learning algorithms that predict expected load through analysis of multiple weather, operational and other variables
- The system is designed to monitor multiple (or all) devices in a load control group with alerts and reporting on any device failures.



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Make the Complex Simple

## Functionality

The solution can not only assess the success or failure of load reduction at the device level but also reports on aggregated load reduction at the event level or program level.

Reports and analyses are served up through the SmartWorks Compass browser-based user interface. The system indicates to the user which loads in a load control group responded as intended and which loads did not respond.

Drill down reporting displays graphical views of metered loads. Deeper reporting can be used to graph loads for one or multiple meters in relation to various weather parameters.

## Optional additional functionality includes:

- KPI dashboards to display, share and provide notifications based on specific metrics, e.g. number of devices controlled, successful/unsuccessful, event-specific data, load dropped, etc.
- Scheduled reports indicating how successfully each specific load reduction event operated.
- Alerts when loads did not drop as expected.

## Benefit

With this solution from SmartWorks, utilities can understand exactly how well their load control programs are operating. They can determine when devices are malfunctioning or being overridden.

This can dramatically reduce the need for field investigations. It can focus utility resources to only those meters that did not drop load as expected, yielding huge savings in field costs.

SmartWorks' aim is to empower the utility to get the most out of its investment in smart infrastructure and load control technology, providing visibility into system performance and allowing utility personnel to focus on their operations.

Integration	Related Modules	Additional Modules
• Any Customer Information System	• MeterSense MDM	• Targeted Customer Messaging
• Any interval meter read source	• Outage Performance	• KPI Dashboard
• ESRI-based CIS	• Line Loss Analysis	• Rate & Revenue Analysis
• Other systems as needed	• Voltage Analysis	• Blink Analysis
		• Conservation and Demand Analysis
Supported Browsers		• dataVoice International:
• Google Chrome (PC/Mac/Android)	• Microsoft Edge	Outage Management System
• Mozilla Firefox	• Opera	• Partner Software:
• Apple Safari (Mac/iOS)		Field Mapping Solutions



Contact SmartWorks today to explore ways to free up utility resources to allow utility personnel to focus on essential operations.

## FOR MORE INFORMATION

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