

SMH vs ICC Features

Metric	Feature	SMH	ICC
<u>Home Automation</u>			
	Data Can Be Sent To Any Control System Like Google Home, Alexa, Home Assistant, Etc	x	
	Home Assistant, Etc Can Turn Devices On / Off Based On Solar System Variables Like SOC, Load Or More	x	
	Home Assistant, Etc Can Use Timers, IE: Turn Aircon Off When Utility Fails, Turn Geyser On When Batteries Are Full	x	
<u>Enterprise</u>			
	Every Pi Can Work Stand-Alone Or Form Part Of An Enterprise Deployment	x	
	Geographical Location With Drill-Down Capability Down To Single Inverter Data	x	
	Charting And Reporting Per Device, Area, Group, Etc	x	
	Configurable Enterprise Alerting Engine With Acknowledgement, Ticket Handling And Fault Resolution Capturing	x	
	White Labelling, Making The Enterprise Portal Look Like Your Own Company	x	
	New USB Drivers For Optimal Code And Small Footprint	x	
	Detailed Analytics Have Been Moved Out Of The Desktop App To Reduce CPU Load On The Pi	x	
Security			
	Everything Happening In SMH Is Encrypted Multiple Times	x	
	End To End Encryption Between Servers, Licensing Portals, Payment Gateways, Etc	x	
	After Encryptinig Everyting, The Entire Database Is Encrypted As Well For Maximum Security	x	

Metric	Feature	SMH	ICC
<u>Accountability</u>			
-	Separate Logon Accounts For Users Or Installers	x	
-	Users Or Installesr Must Authenticate Before Doing Anything	x	
-	Any Action By The User or Installer Is Logged And Encrypted	x	
-	Logs For Any Date Can Easily Be Recalled Showing Exaclty What Happened When	x	
-	Any System Events Like Grid Loss, Overload, Battery Low, Etc Is Logged	x	
-	Users Cannot Override The Logging, No More Pointing Fingers	x	
-	Detailed Logs Helping Installers Determine The Root Cause Of Inverter Errors	x	
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<u>Reporting</u>			
	New Cloud Dashboard For System Analytics	x	
	New Cellphone Dasboard For Quick Overview Of Realtime Performance	x	
	New SMH Cloud Dashboard For Technical Monitoring	x	
	New Interactive Responsive Web-App With Cost Recovery Analysis Engine, Animations, Etc	x	
	Local Data Caching If Internet Connectivity Fails. Automatic Uploading On Connection Restore	x	
	Native IOS And Android Apps Coming Soon!	TBC	
Alerting			
	Real-Time Alerting Via Telegram	x	
	Real-time Alerting Via Email	x	
	User Defined Alerting Perefrences (Telegram, Email Or Both)	x	
	Cifigurable Alerts For Inverters In Parallel (Error 80, etc)	x	
	Alerting For Either Warnings Or Just Faults	x	
	Alerting For Inverter Communication Lost / Recovered	x	
	Alerting For Battery Communication Lost / Recovered	x	
	Alerting Engine That Can Be Read / Acknowledged The Client Of Web App	x	

Metric	Feature	SMH	ICC
<u>Main Dashboard</u>			
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-	Remote Control Clients For Windows, Linux and MacOS	x	
-	Proper New Energy Calculations Based On Countless Hours Of Inverter Measurements With The Latest Technology	x	
-	Popup Tooltips When Hovering The Mouse Over Any Data / Metric Explaining What The Data Represents	x	
-	Battery Time To Configurable Percentage Determined If BMS / BMV Is Used	x	
-	Battery Time To 100% Calculated If BMS / BMV Is Used	x	
	Fresh new gauges look / feel	x	
	Battery kWh Discharged	x	
	Battery kWh Charged	x	
	Battery Maximum W Charged	x	
	Battery Maximum W Discharged	x	
	Solar / Battery kWh used	x	
	Grid kWh Exported	x	
	Grid kWh Imported	x	
	On-Screen Notifications Of System Health, Status	x	
	Inverter Load, Pv Watts, Grid Watts, etc	x	x
	Battery Volts, Amps	x	x
	PV kWh Produced	x	x
	PVMaximum Watts Produced (Day)	x	x
	PV Maximum Watts Produced (Hour)	x	x
	Maximum Load (Day, Hour)	x	x

Metric	Feature	SMH	ICC
<u>Inverter Info</u>			
-	Alerting Via Telegram / Email For Any Faults or Warnings	x	
	Serial Number Per Inverter	x	
	Firmware Per Inverter	x	
	Fault Code Per Inverter	x	x
	PV Volts / Amps Per Inverter	x	x
	Inverter Load (Real-Time) Per Inverter	x	x
	PV kWh Generated Per Inverter	x	
	Inverter kWh Load Supplied Per Inverter	x	
	Grid Watts (Real-Time) Per Inverter	x	
	Grid kWh Used / Produced Per Inverter	x	
	Solar / Battery Watts (Real-Time) Used Per Inverter	x	
	Solar / Battery kWh Used Per Inverter	x	
	Inverter Load Percentage Per Inverter	x	x
<u>Battery Info</u>			
-	Alerting Via Telegram / Email For Low/High Voltage, Comms Lost, etc	x	
-	Completely Rewritten / Redesigned USB Communication System	x	
-	Automatic Recovery Of Disconnected Batteries / Cables	x	
-	Battery Fault Monitoring Per Battery	x	
	Voltage Per Battery	x	x
	Amperage In/Out Per Battery	x	x
	Wattage In/Out Per Battery	x	
	Temperature Per Battery	x	x
	State Of Charge Per Battery	x	
	Status (Charge or Discharge) Per Battery	x	
	AH Rating Per Battery	x	
	Cycles Per Battery	x	x
	Serial Number Per Battery	x	

Metric	Feature	SMH	ICC
<u>Settings</u>			
	User Or Installer Need To Authenticate Before Any Changes Can Be Made	x	
	Full Inverter Settings For Up To 9 Inverters Are Supported	x	
	Charge Rate And Charging Priority For Up To 9 Inverters Can Be Set Per Inverter	x	
	PV Size, Minimum And Maximum Battery Watts Can Be Configured	x	x
	System Capital Cost	x	x
	System Utility Cost Per kWh	x	x
	Different Battery BMS's Supported	x	x
	Mathematical Calculation Of SOC (If No BMS Is Present)	x	
	User Preferred Time to X Percentage	x	
	Battery Inefficiency Can Be Set Per Battery Type	x	
	Full Calculations Done Per Peukerts Energy Storage Law	x	