NREL
NATIONAL RENEWABLE ENERGY LABORATORY

Technical Report
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Fall 2012 Composite Data Products – Backup Power

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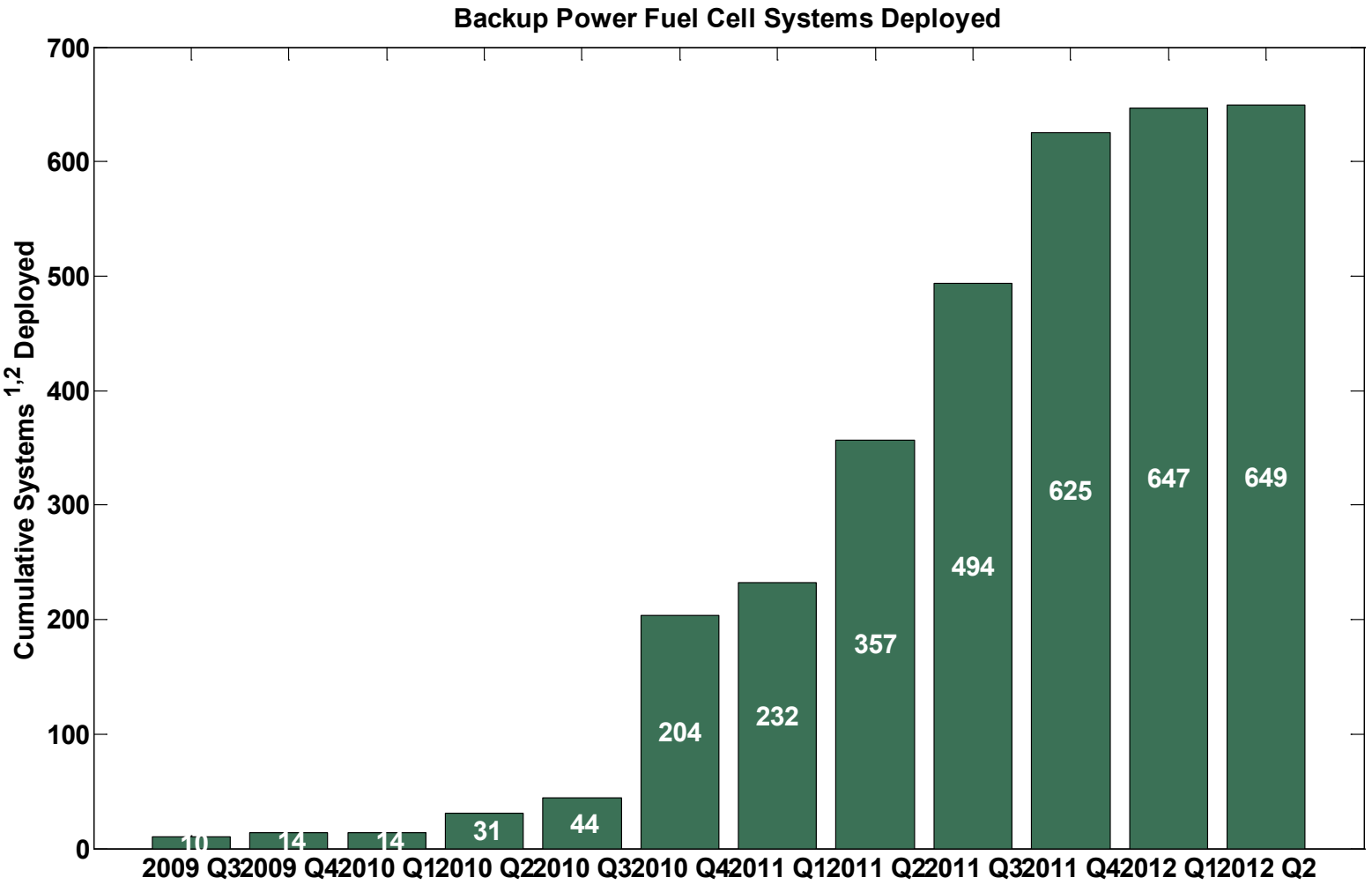
CDP-BU-01
Backup Power Fuel Cell Systems Deployed



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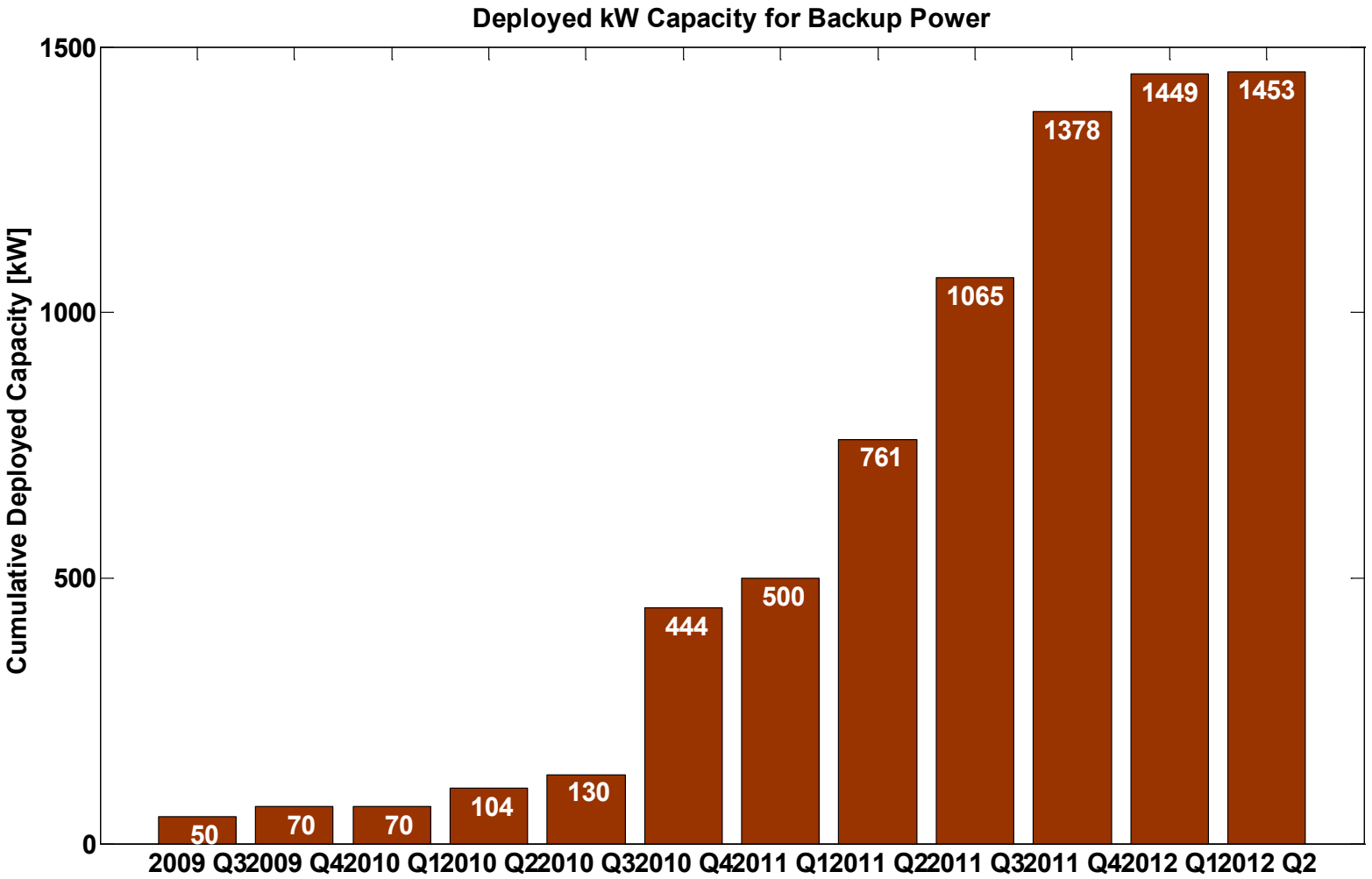
1) Sites may have more than one FC system
2) Not all FC systems are supplying operation data

CDP-BU-02
Deployed kW Capacity for Backup Power



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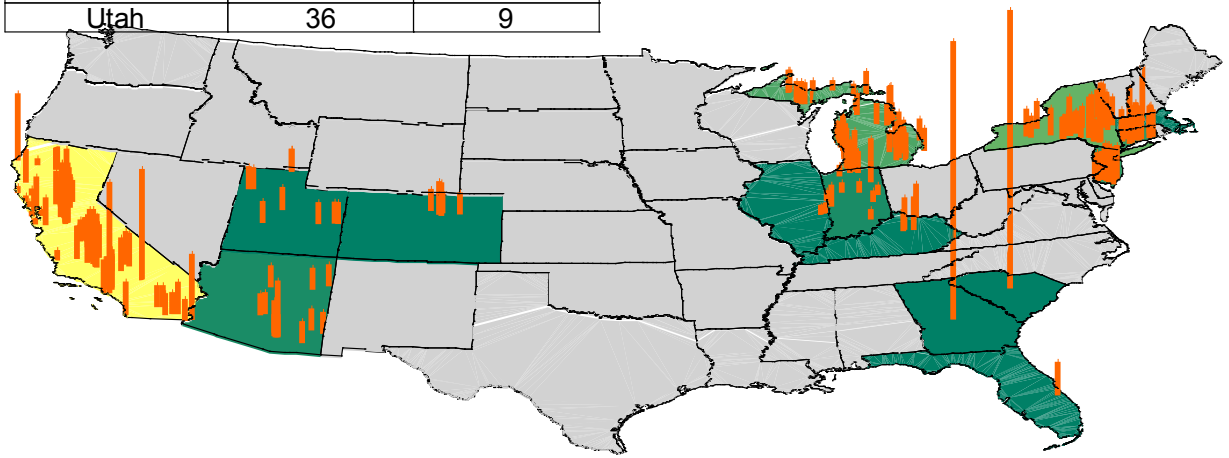
CDP-BU-03
Backup Power Deployments

State	kW Capacity	Sites
Arizona	84	16
California	567	122
Colorado	24	5
Connecticut	121	26
Florida	6	1
Georgia	50	1
Illinois	4	2
Indiana	50	16
Kentucky	22	4
Massachusetts	10	1
Michigan	164	40
New Jersey	110	27
New York	186	44
South Carolina	50	1
Utah	36	9
Totals	1484	315



Site Capacity (line height proporational to installed site kW capacity)

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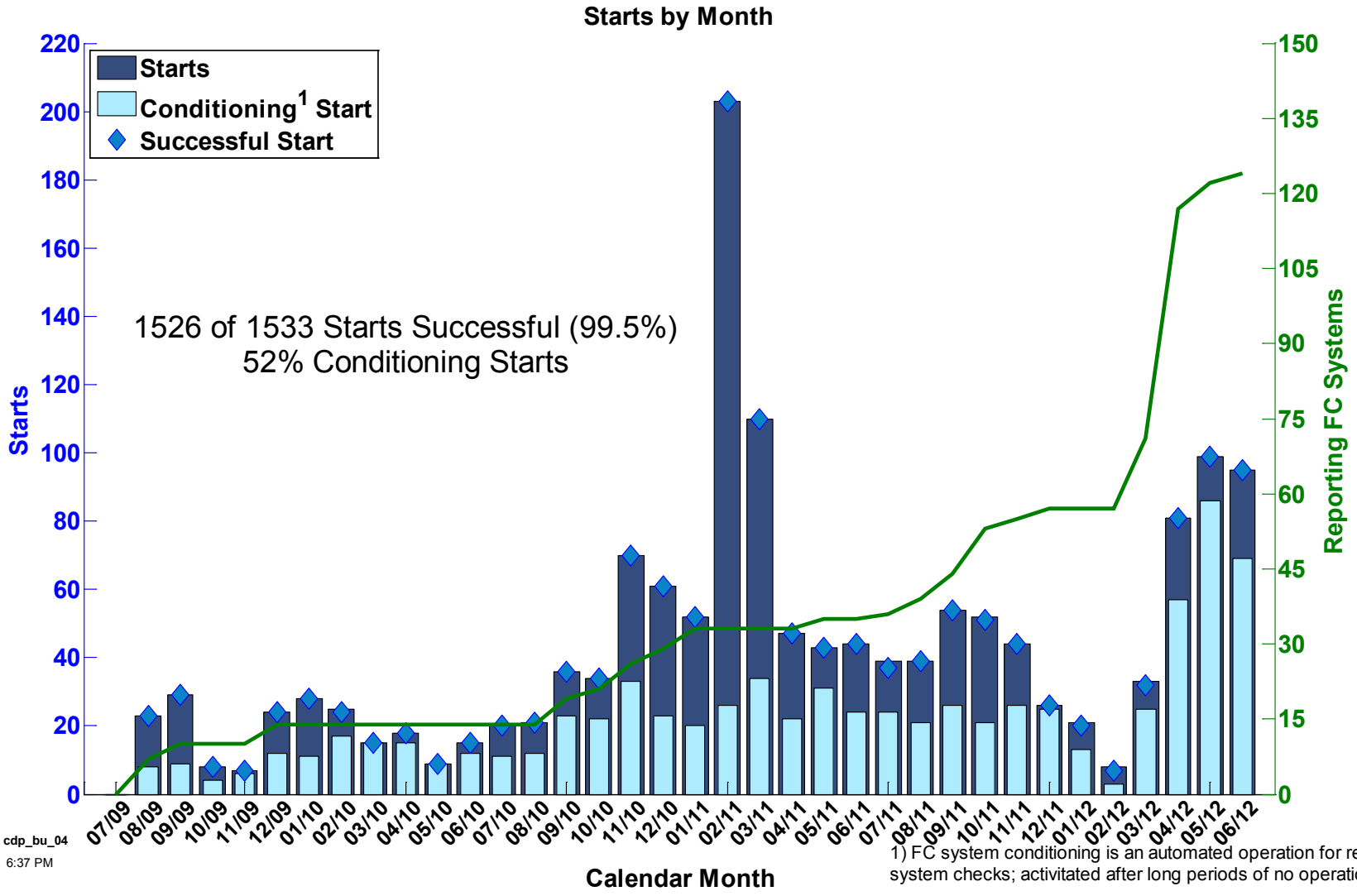
CDP-BU-04
Fuel Cell System Starts by Month



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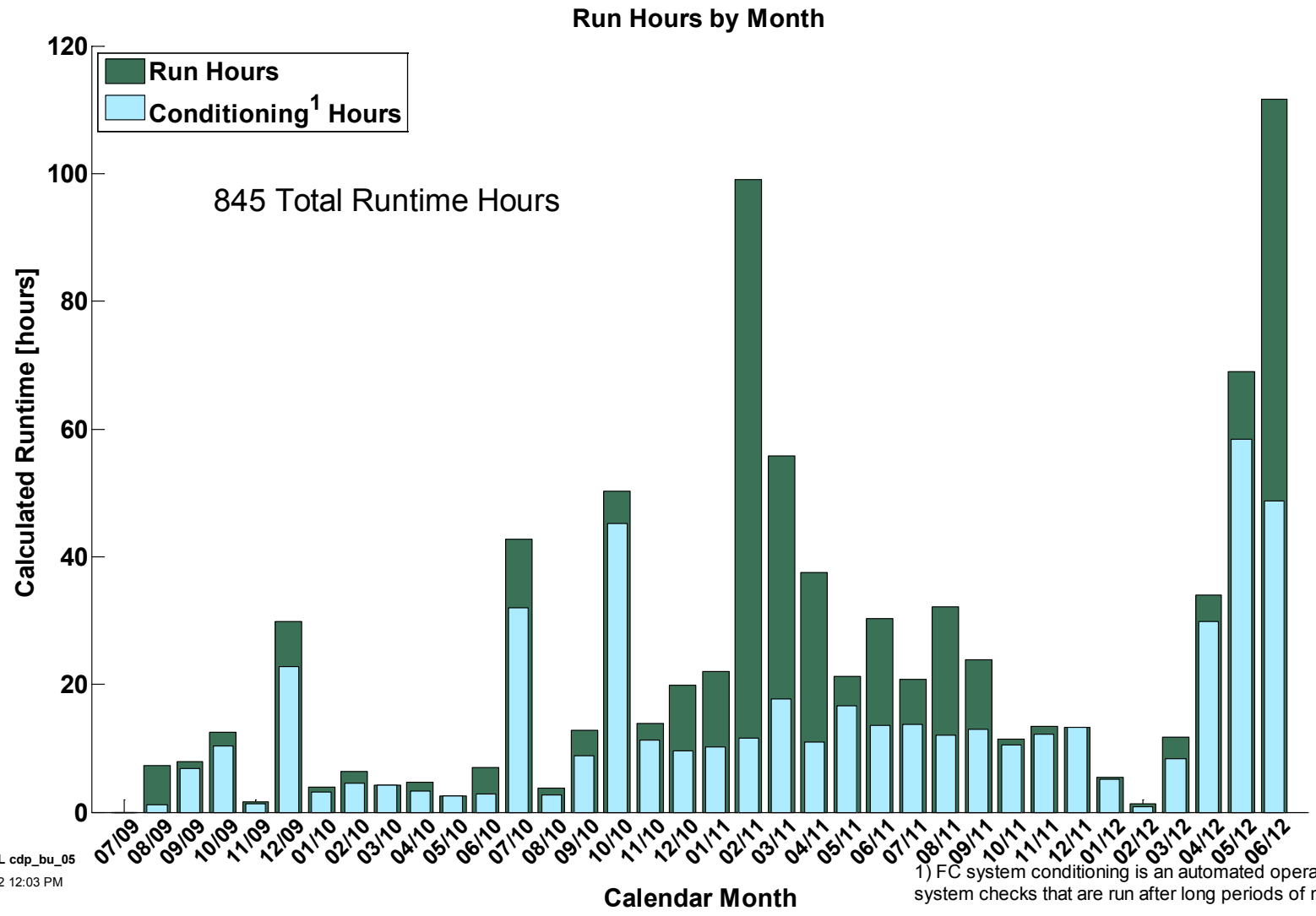
1) FC system conditioning is an automated operation for regular system checks; activitated after long periods of no operation.

CDP-BU-05
Fuel Cell System Run Hours by Month



NREL cdp_bu_05

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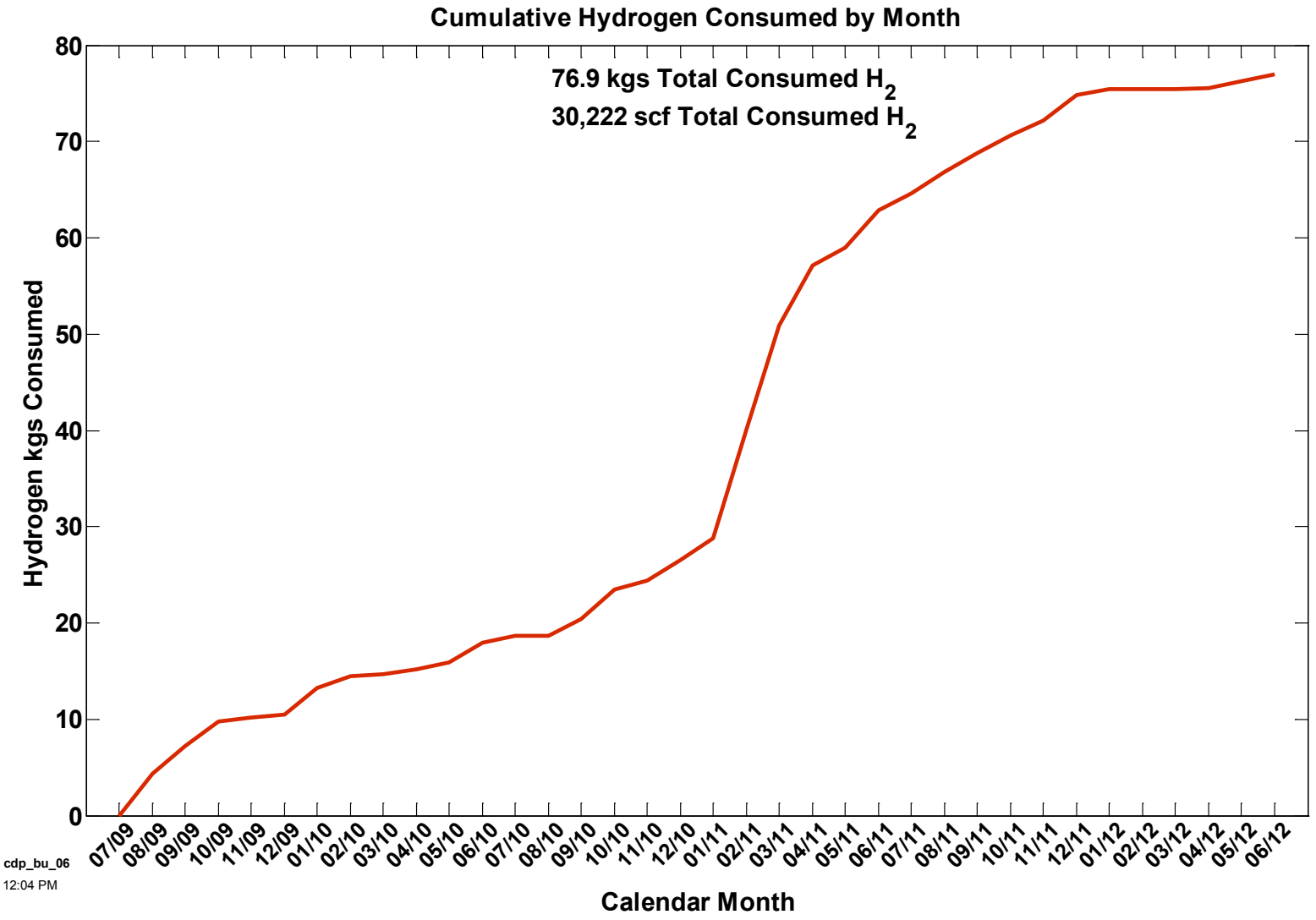
1) FC system conditioning is an automated operation for regular system checks that are run after long periods of no operation.

CDP-BU-06
Cumulative Hydrogen Consumed by Month



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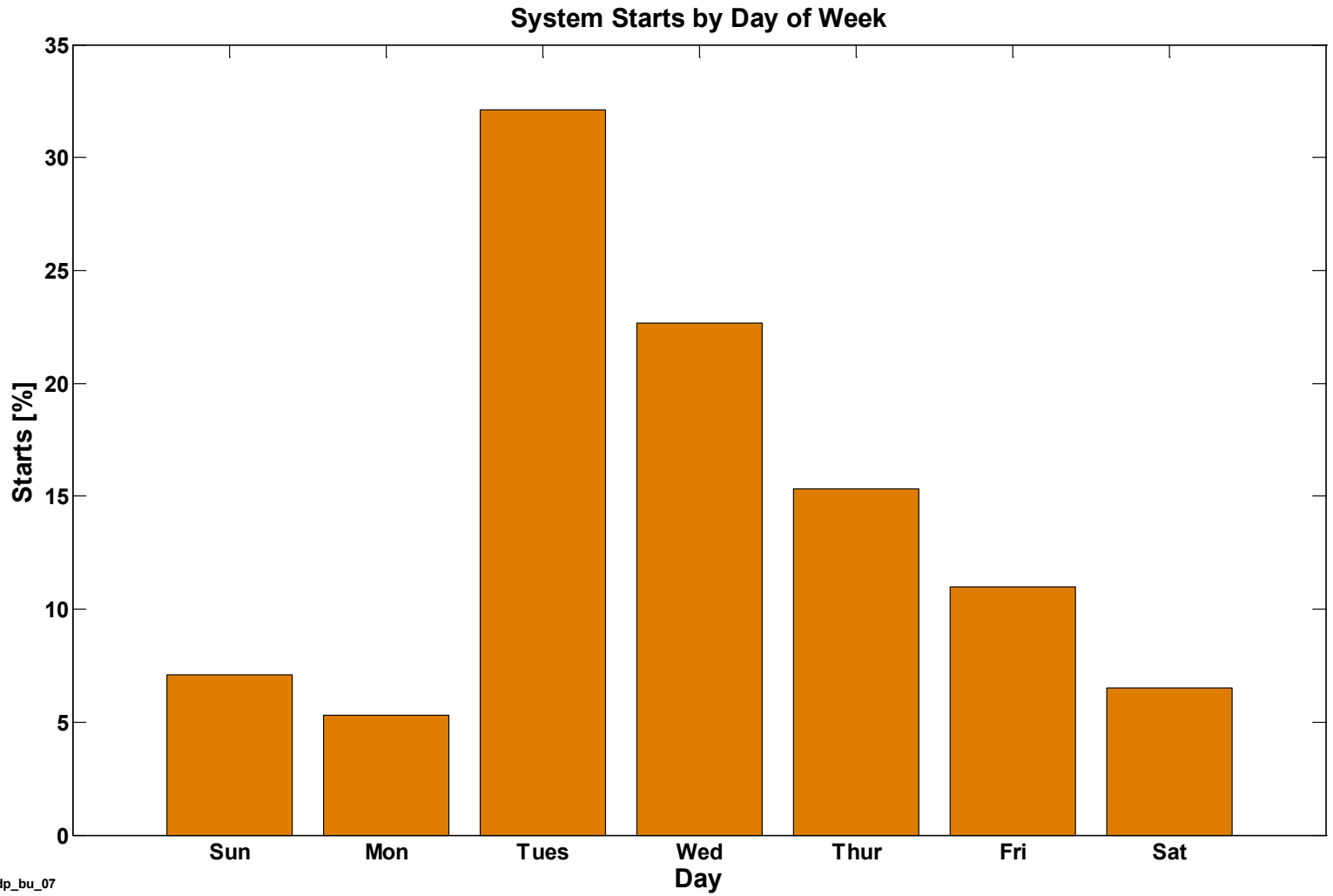
CDP-BU-07
Fuel Cell System Starts by Day of Week



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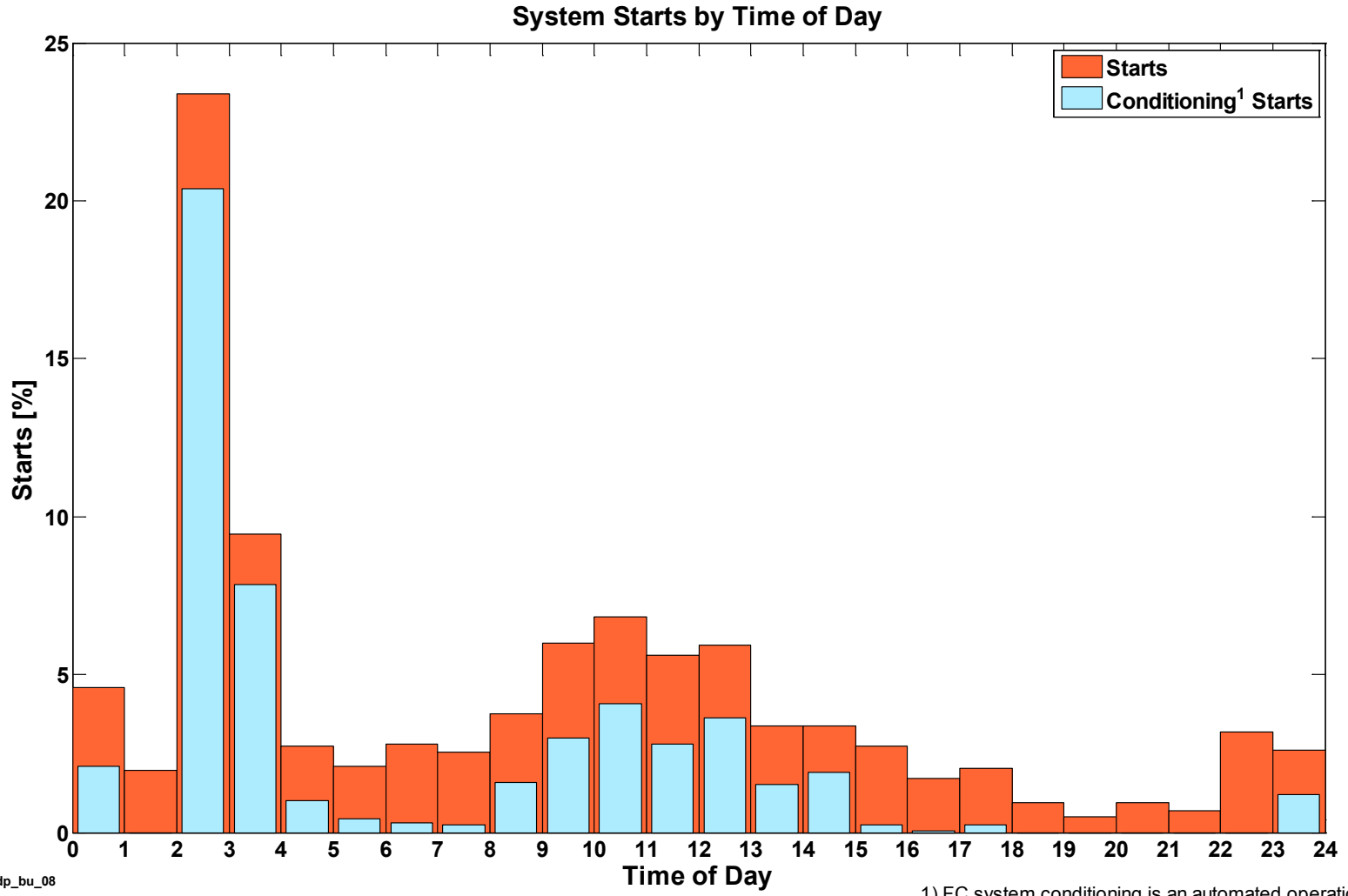
CDP-BU-08
Fuel Cell System Starts by Time of Day



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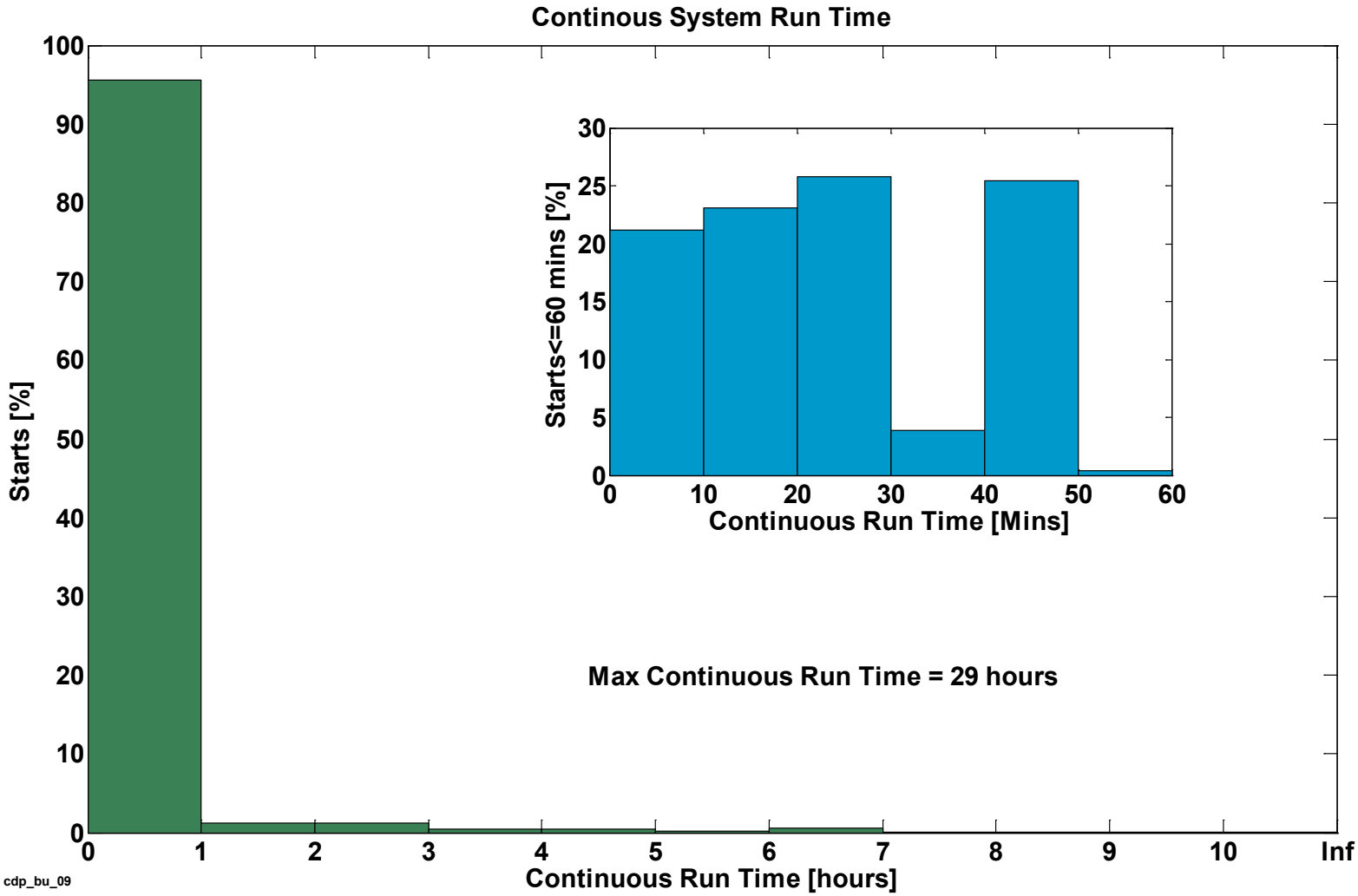
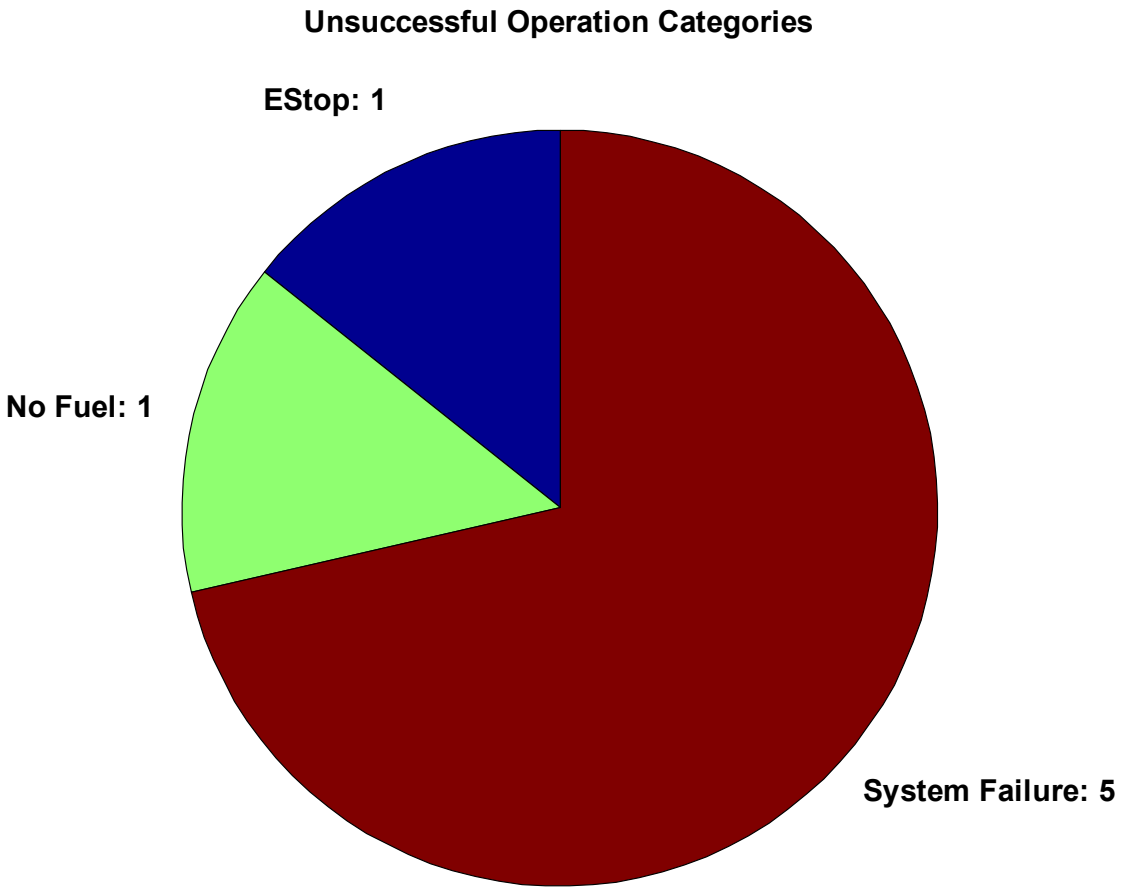
1) FC system conditioning is an automated operation for regular system checks; activitated after long periods of no operation.

CDP-BU-09
Continuous Fuel Cell System Run Time



CDP-BU-10
Unsuccessful Operation Categories



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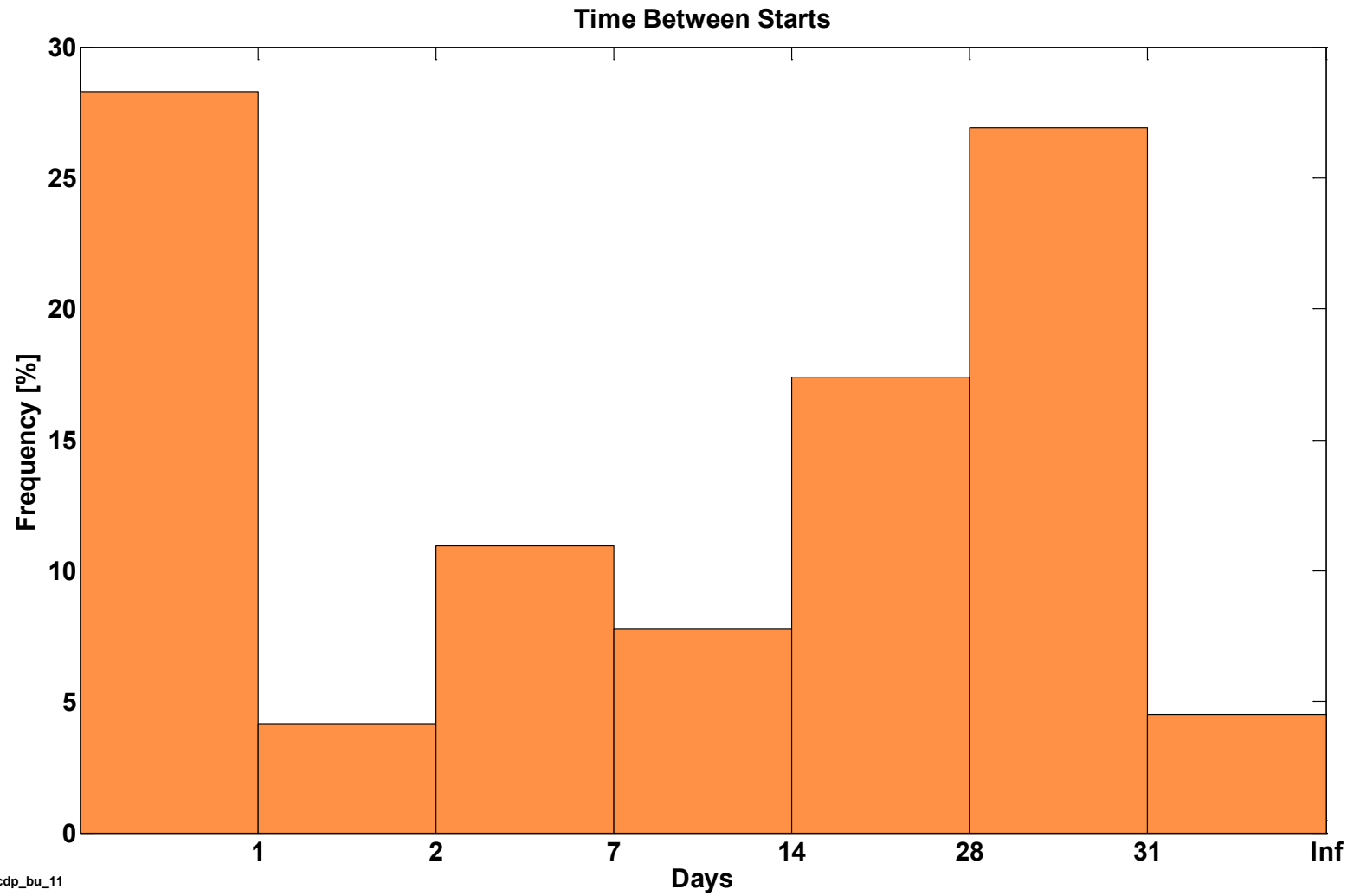
CDP-BU-11
Time Between System Starts



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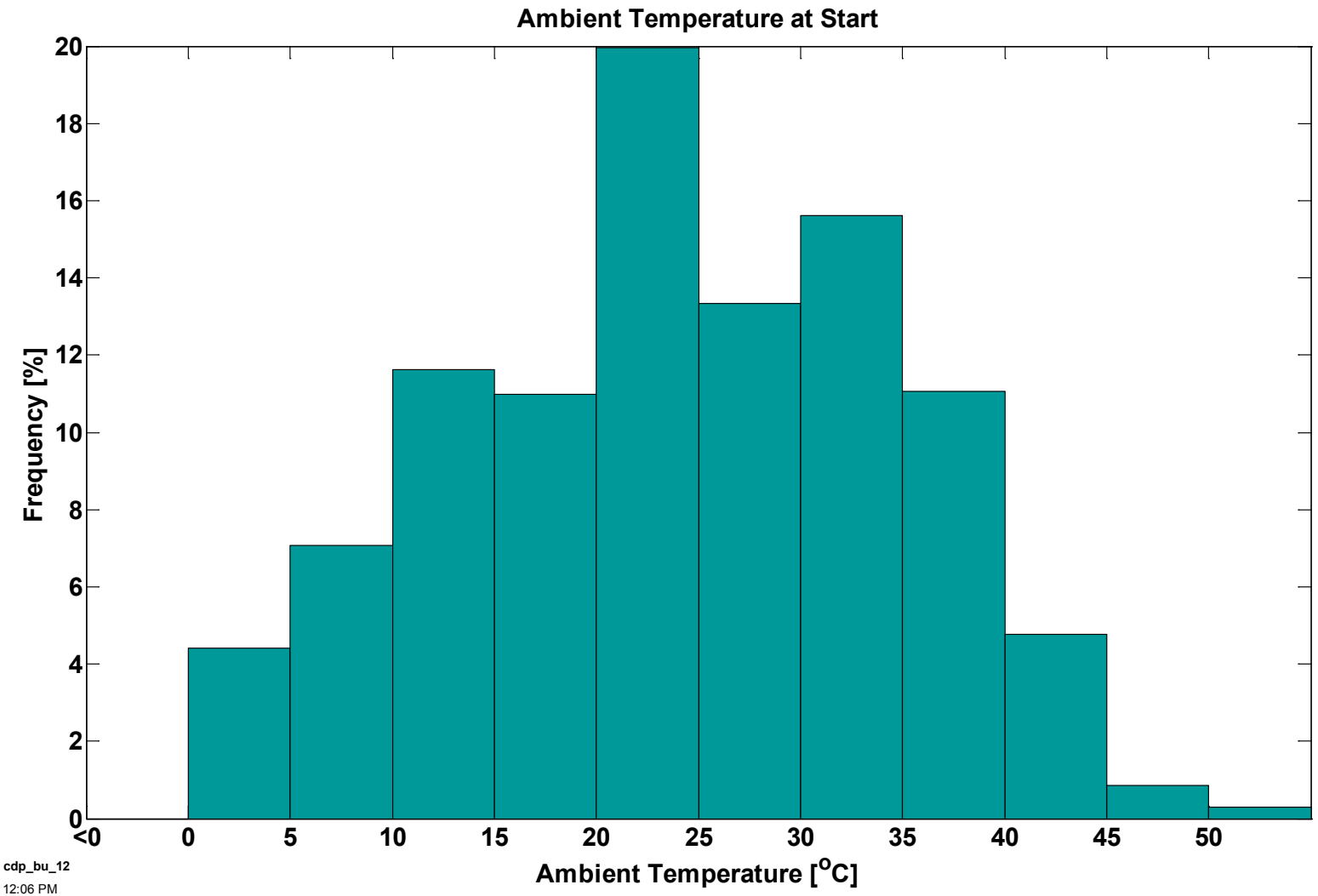
CDP-BU-12
System Start Ambient Temperature



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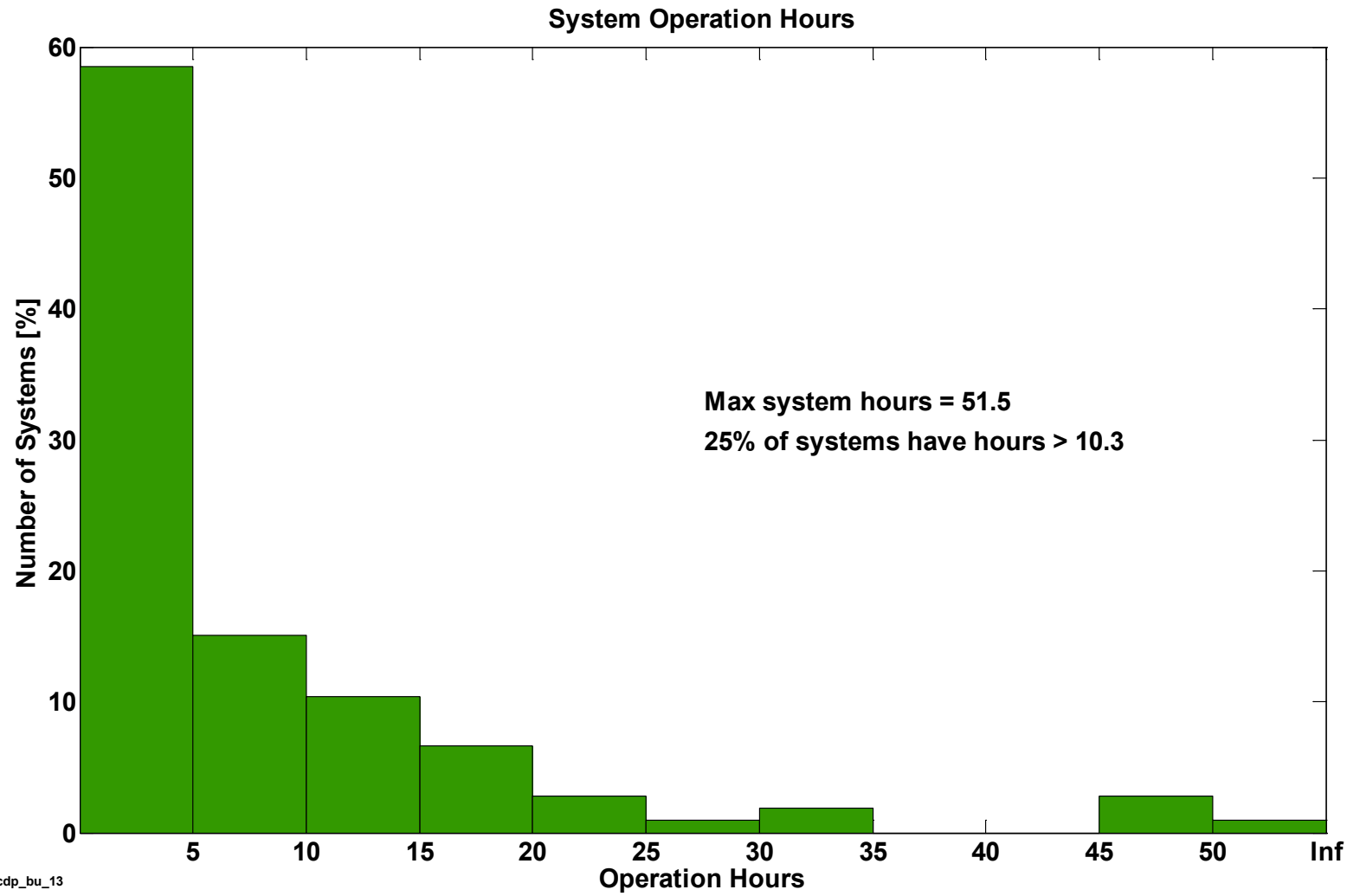
CDP-BU-13
System Operation Time



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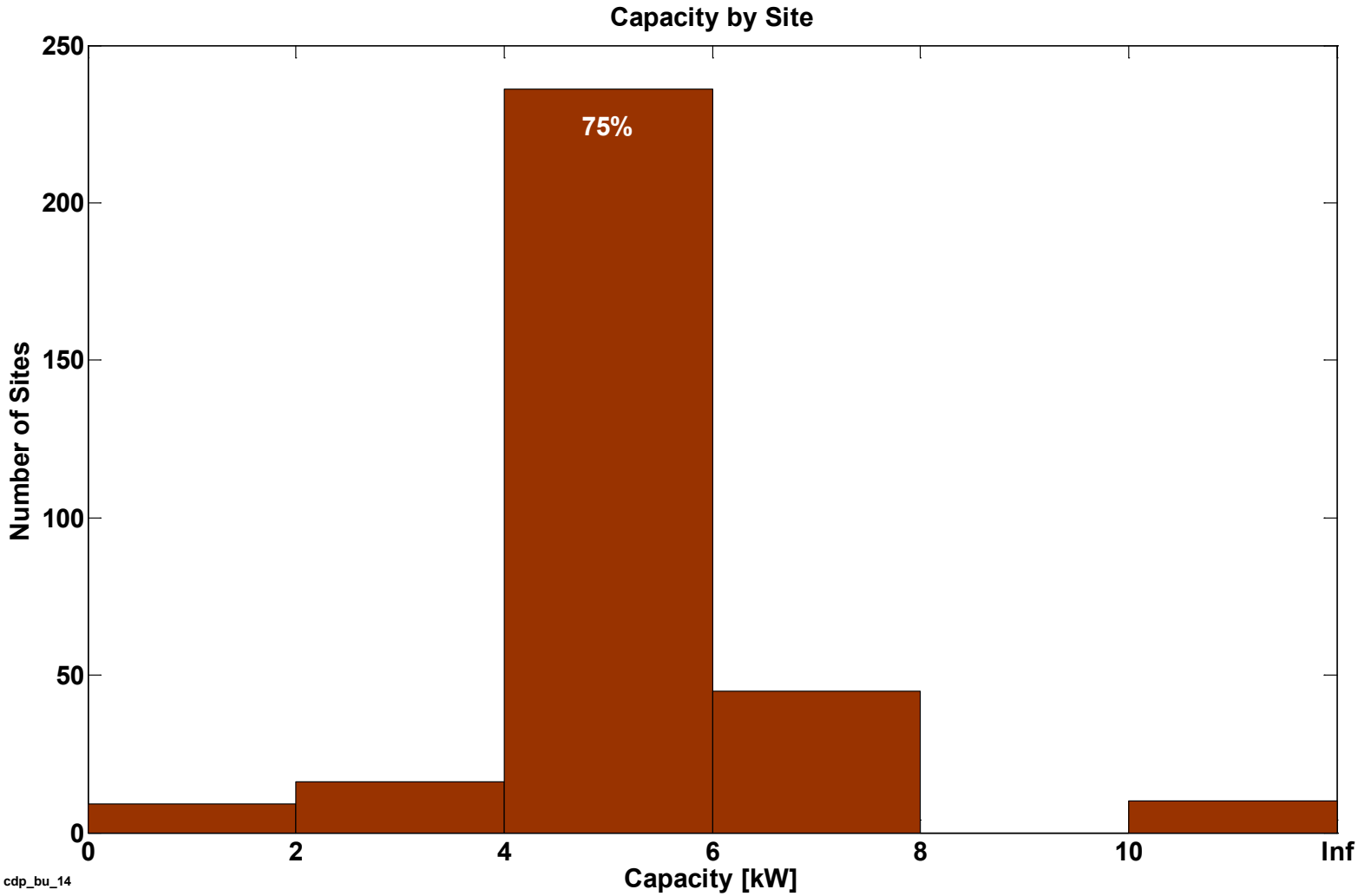
CDP-BU-14
Site Capacity



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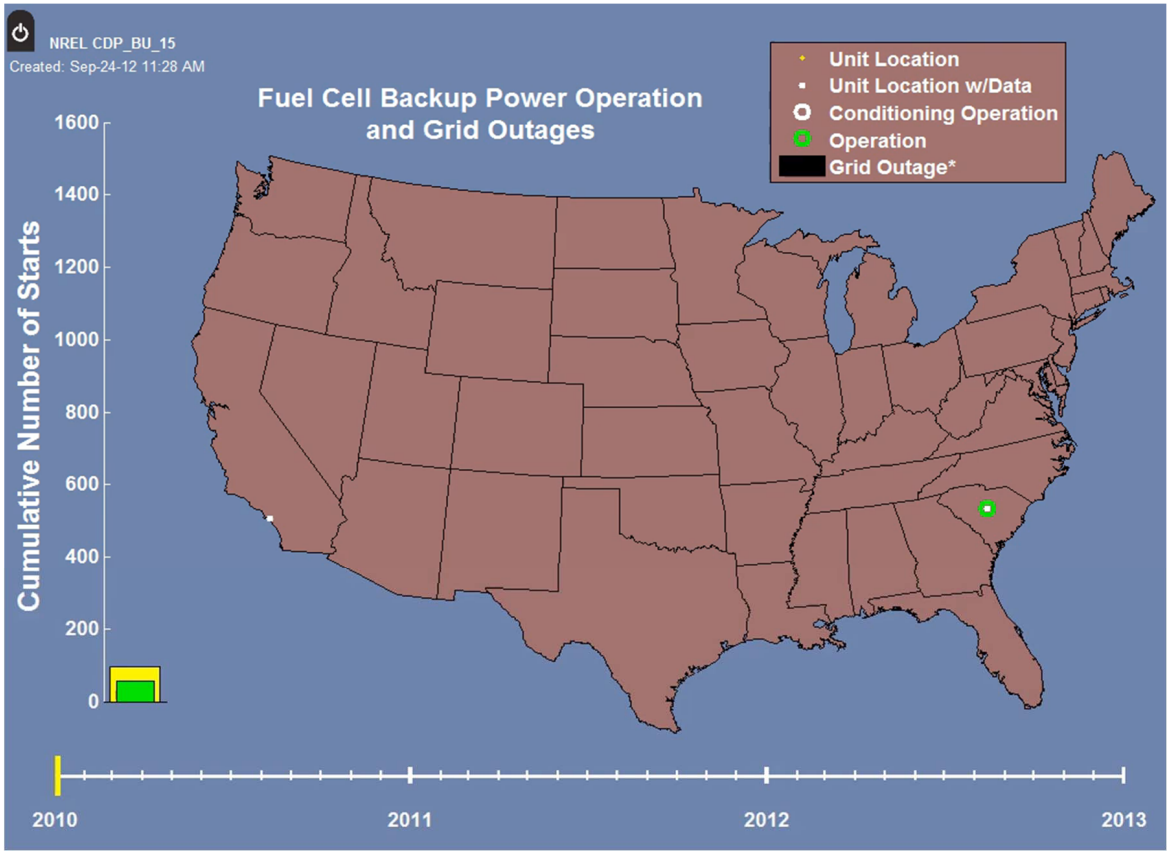
CDP-BU-15
Backup Power Operation with Grid Outage from 01/2010 – 06/2012

CDP-BU-15
Backup Power Operation with Grid Outage from 01/2010 – 06/2012



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