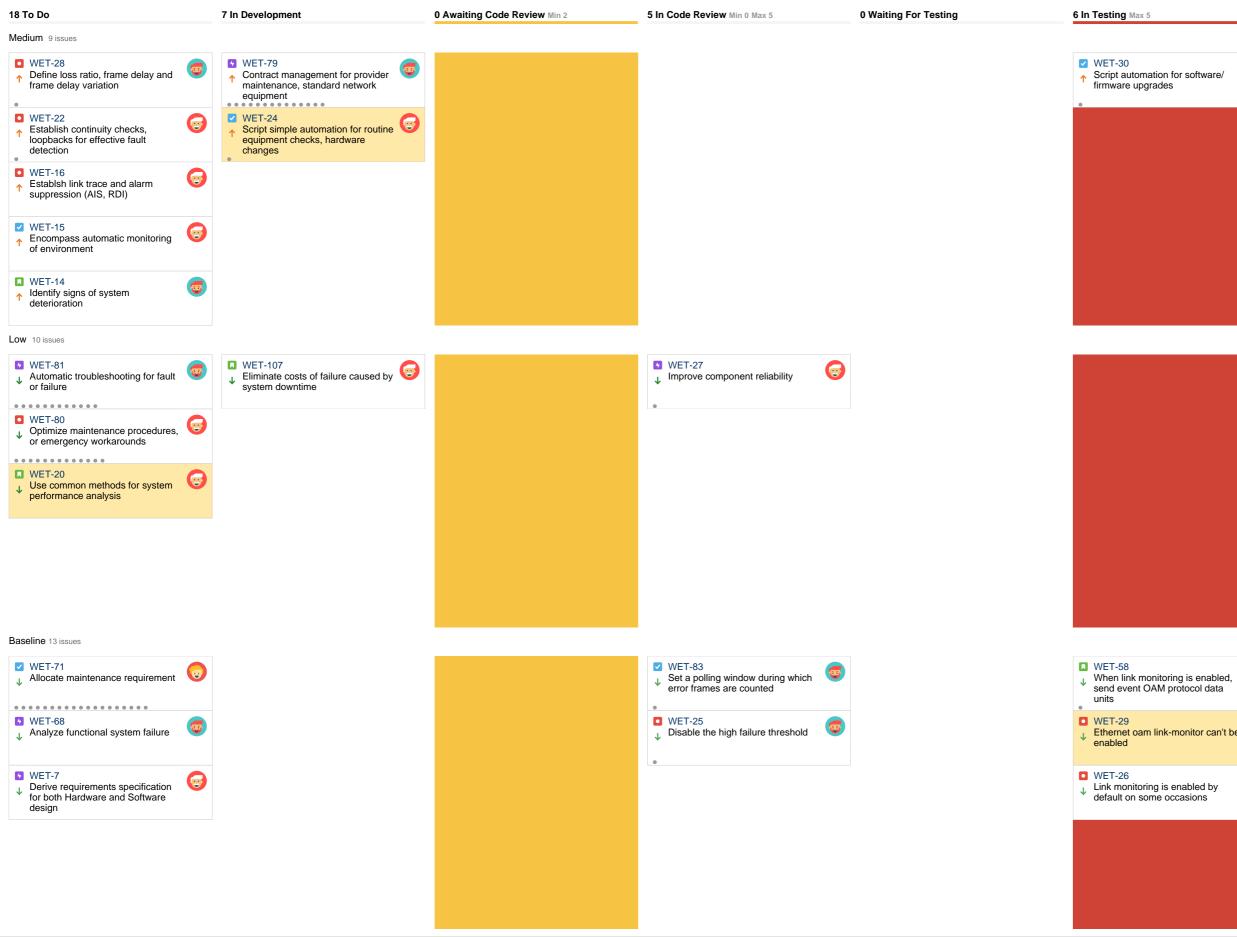
## **Energy Trading Service - Reliability Report**

18 To Do		7 In Development	0 Awaiting Code Review Min 2	5 In Code Review Min 0 Max 5	0 Waiting For Testing	6 In Testing Max 5
Emergency 15 issues		-				
4 WET-109		🛛 WET-100		WET-23		
<ul> <li>Minimize the scope of failures</li> </ul>	<b>(</b>	<ul> <li>WEI-100</li> <li>↑ Detect failed components</li> </ul>		Ability to scale the system		
• • • • • • • • • • •				•		
■ WET-84 ↑ Handle specific failure modes	<b>;</b>	<ul> <li>■ WET-78</li> <li>Notify redundant components that they should become active</li> </ul>				
• • • • • • • • • •						
<ul> <li>✓ WET-72</li> <li>↑ Define "normal" failure</li> </ul>	<b></b>	<ul> <li>✓ WET-60</li> <li>↑ Define the tools to scale the system</li> </ul>				
• • • • • • • • • • • • • • • • •						
<ul> <li>WET-12</li> <li>Enable discovery of hardware and software entities</li> </ul>	<b></b>					
<ul> <li>WET-9</li> <li>↑ Create system for assignment of active/standby roles to SW/HW entities</li> </ul>	<b>(</b>					
Severe 15 issues						
<ul> <li>WET-13</li> <li>↑ Enable in-service upgrades</li> </ul>	<b>;</b>	<ul> <li>✓ WET-82</li> <li>↑ Implement a redundant systems by executing a "rolling" upgrade</li> </ul>		■ WET-21 ↓ Upgrade the standby system after the active received SW upgrade		<ul> <li>WET-108</li> <li>↑ Ability to rapic older version</li> </ul>
<ul> <li>WET-5</li> <li>↑ Create ability to upgrade software without degrading service</li> </ul>	0			•		● WET-59 ↑ Minimize star ensure stand
						٠

	26 Deployed To Production	
	<ul> <li>✓ WET-103</li> <li>↑ Create multiple copies of a subsystem</li> </ul>	•
	• WET-73 ↑ Efficiently distribute incoming work	3
	<ul> <li>WET-70</li> <li>Can't enable active/standby communication</li> </ul>	7
	<ul> <li>WET-57</li> <li>Active subsystems need to communicate to standby subsystems</li> </ul>	<b>;</b>
	<ul> <li>WET-8</li> <li>Periodically update the standby system with any changes to its state</li> </ul>	0
	<ul> <li>WET-2</li> <li>Make hash table readable as long as one copy is running</li> </ul>	
fall back to an	WET-105     Define standby latency	<b>(</b>
y latency and correctnes	<ul> <li>₩ET-102</li> <li>Wrong configuration of "Cold" standby systems</li> </ul>	<b></b>
	<ul> <li>WET-101</li> <li>Restart a virtual machine on another physical machine if the underlying physical machine fails</li> </ul>	7
	<ul> <li>WET-99</li> <li>Unable to read the active's checkpointed state before resuming service</li> </ul>	7
	• <del>WET-69</del> ↑ Define "catastrophic" failure	0
	<ul> <li>₩ET-19</li> <li>Reduce total system cost by having fewer standby subsystems</li> </ul>	7
	• ₩ET-18 ↑ Use an all-active system model	
	<ul> <li>₩ET-17</li> <li>Activate "idle" subsystems for lower priority work</li> </ul>	7
	● ● WET-10 ↑ Define performance monitoring measurements	

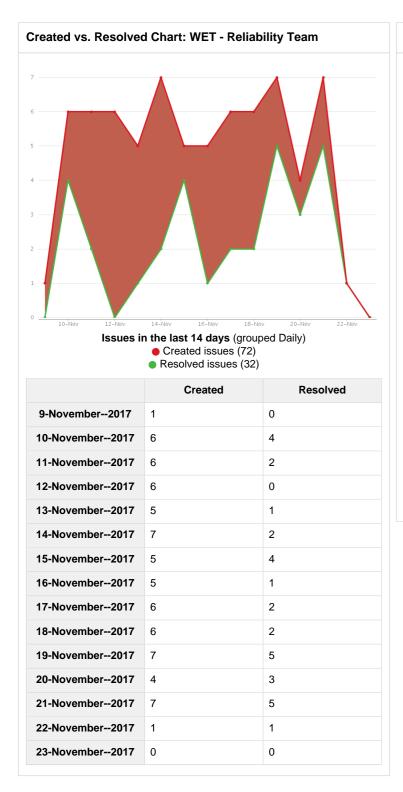
Energy Trading Service - Reliability Report

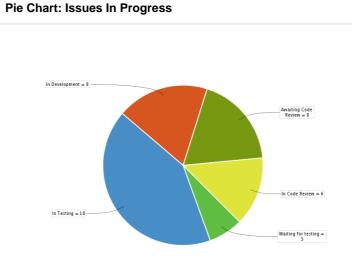


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26 Deployed To Production
                                                                                                                                            🛃 WET-6
                                                                                                                   1
                                                                                                                                                                                                                                                                         T
                                                                                                                                                        Create a new circuits for
                                                                                                                                                        provisioning (setting up new
                                                                                                                                                       equipment)
                                                                                                                                             WET-106
                                                                                                                                                                                                                                                                         7
                                                                                                                                               ↓ No system variable active for
                                                                                                                                                        reducing the likelihood or frequency
                                                                                                                                                       of failures
                                                                                                                                             ✓ WET-76
                                                                                                                                                                                                                                                                         7
                                                                                                                                                        Collect field data and find root
                                                                                                                                              T
                                                                                                                                                        causes of failures
                                                                                                                                             WET-75
                                                                                                                                             Identify and correct the causes of to be a set of the causes of the c
                                                                                                                                                                                                                                                                         .
                                                                                                                                                        failures
                                                                                                                                             ✓ WET-11

                                                                                                                                             Determine ways of coping with failuree
                                                                                                                                                        failures
                                                                                                                                             WET-3
                                                                                                                                                                                                                                                                         .
                                                                                                                                                       Apply methods for estimating the likely reliability of new designs
                                                                                                                                              ↓
                                                                                                                                             WET-104
                                                                                                                                                                                                                                                                           .
                                                                                                                                                       Unable to configure an Ethernet
                                                                                                                                                T
                                                                                                                                                        operations, maintenance, and
                                                                                                                                                        administration
                                                                                                                                             ✓ ₩ET-77

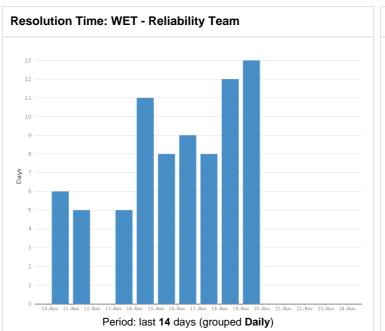
                                                                                                                                                                                                                                                                         .
Ethernet oam link-monitor can't be
                                                                                                                                                        Disable monitoring when system is
                                                                                                                                                J,
                                                                                                                                                         down
                                                                                                                                             ☑ ₩ET-74
                                                                                                                  6
                                                                                                                                                                                                                                                                         œ
                                                                                                                                                        Set a number of frames with CRC
                                                                                                                                                T
                                                                                                                                                         errors received
                                                                                                                                             ■ WET-4
                                                                                                                                                                                                                                                                         .
                                                                                                                                                        Create and share the configuration
                                                                                                                                                T
                                                                                                                                                         template
                                                                                                                                             VET-1
                                                                                                                                                       Configure a receive-crc period with
                                                                                                                                              Ŧ
                                                                                                                                                        a low threshold of 3000
```



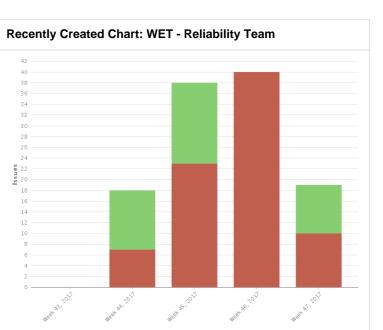




	Issues	%
In Testing	18	41%
In Development	8	18%
Awaiting Code Review	8	18%
In Code Review	6	13%
Waiting for testing	3	6%



	Issues Resolved	Total Resolution Time	Avg. Resolution Time
10-Nove- mber2017	4	27	6
11-Nove- mber2017	2	11	5
12-Nove- mber2017	0	0	0
13-Nove- mber2017	1	5	5
14-Nove- mber2017	2	22	11
15-Nove- mber2017	4	33	8
16-Nove- mber2017	1	9	9
17-Nove- mber2017	2	17	8
18-Nove- mber2017	2	25	12
19-Nove- mber2017	5	65	13
20-Nove- mber2017	3	-1	0
21-Nove- mber2017	5	-1	0
22-Nove- mber2017	1	0	0
23-Nove- mber2017	0	0	0



Total Issues: **115** Period: last **30** days (grouped **Weekly**)

0	0
7	11
23	15
40	0
10	9
	7 23 40