

2018-22

POWERLINK QUEENSLAND REVENUE PROPOSAL

Project Pack - PUBLIC

CP.02364
EMS Replacement

© Copyright Powerlink Queensland 2016



Delivering better value



Powerlink Revenue Reset EMS Program of Work Report

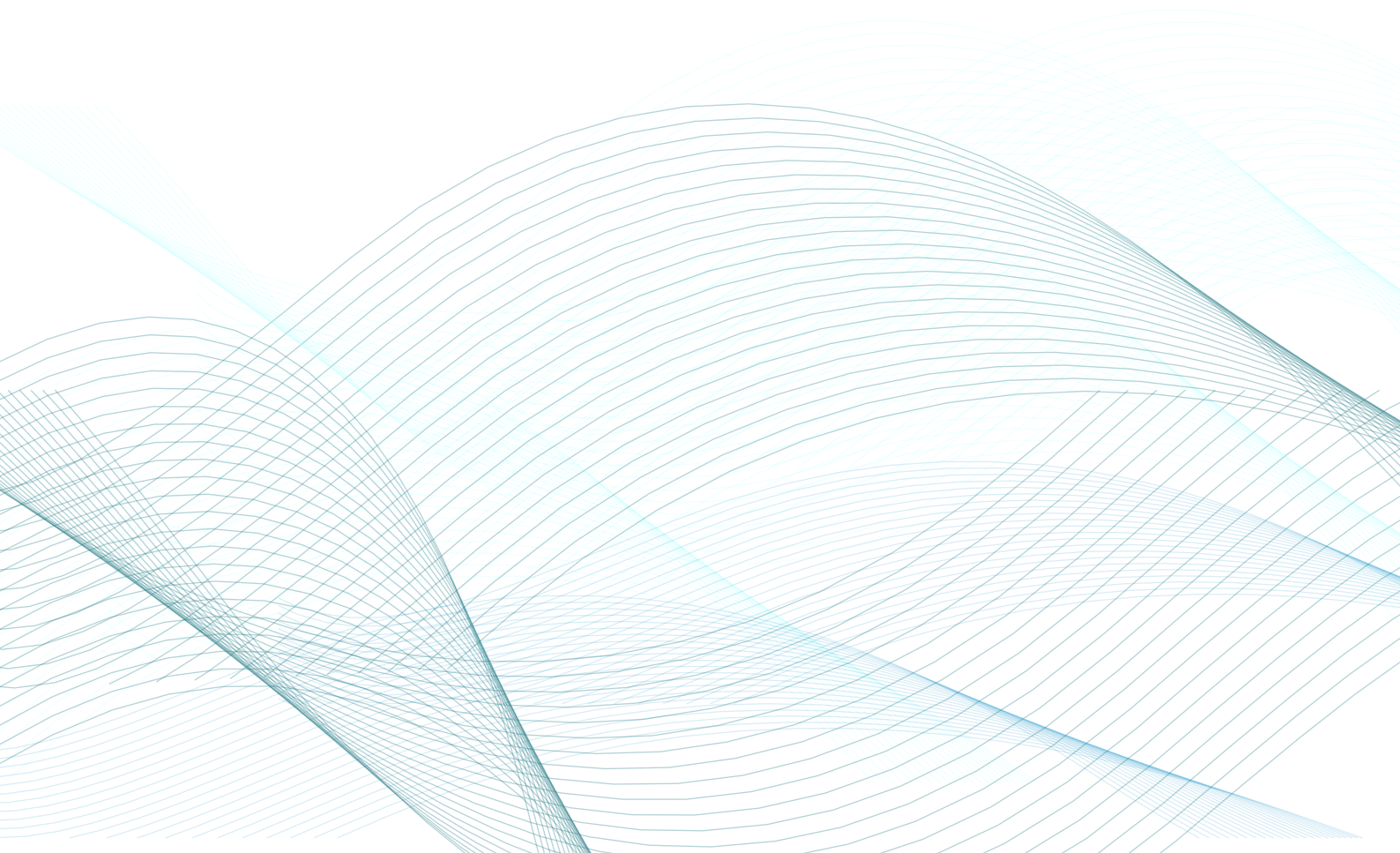
FINAL

November 2015

Hunter H2O Contract Ref: H2015-0340

Document Ref: H2015-0340-1

Presented by Hunter H₂O Pty Limited ABN 16 602 201 552



Document Details

Project/Activity	Powerlink Revenue Reset Estimation Support Services	
Activity	Report	
Release Status:	FINAL	
Document Reference No	H2015-0340-1	
Enquiries:	Greg Burgio P: 0407 892 059 E: Greg.Burgio@hunterh2o.com.au	Phillip Grieshaber P: +61 2 49 414845, 0412489252 E: Phillip.Grieshaber@hunterh2o.com.au

Document History and Status

Revision	Report Status	Prepared by	Reviewed by	Approved by	Issue Date
1.0	Issued	Phillip Grieshaber	Greg Burgio	David Bowerman	4-Nov-15

Signature Status

Revision	Role	Signatories	Confirmed	Date

Copyright © Hunter H₂O Pty Limited 2016

The concepts and information contained in this document are the property of Hunter H₂O Pty Limited for the sole use of the nominated client. Use or copying of this document without the written permission of Hunter H₂O constitutes an infringement of copyright.

Table of Contents

Document Details	1
Document History and Status	1
Signature Status	1
1 Executive Summary	4
2 Introduction	5
2.1 Background	5
2.2 Facts, Matters, and Assumptions behind the Findings	5
2.3 Structure of this Report	5
2.4 Acknowledgements	6
3 Approach to developing the cost model	7
3.1 Overview	7
3.1.1 Review the EMS Replacement Program	7
3.1.2 Consultation with utilities and vendors	7
3.1.3 Develop a cost model/program	7
3.1.4 Review of the Cost Model	7
3.1.5 Develop a DRAFT EMS Programme of works Assessment Report	7
3.1.6 Powerlink Approval and Final Report issued	7
4 Key assumptions in developing the cost model	8
4.1 Overview	8
5 Review of comparable SCADA/EMS Systems	10
5.1 Overview	10
5.2 Current state of other SCADA/EMS systems	10
5.3 Future plans for other SCADA/EMS Systems	11
6 SCADA/EMS/DMS Vendor Budgetary Information	13
6.1 SCADA/EMS Vendor Budgetary Information	13
6.2 SCADA/DMS Comparative Project Costs	14
7 Necessary Sub-projects required during SCADA/EMS changeover	15
8 Alternate implementation to reduce potential legacy communication risks	16
9 Conclusions and Recommendations	18
A. Acknowledgements	19
B. EMS Replacement Program	20

Tables

<u>Table 1</u> – [REDACTED]	<u>10</u>
<u>Table 2</u> – [REDACTED]	<u>12</u>
<u>Table 3</u> – [REDACTED]	<u>13</u>
<u>Table 4</u> – [REDACTED]	<u>13</u>
<u>Table 5</u> – [REDACTED]	<u>14</u>
<u>Table 6</u> – [REDACTED]	<u>17</u>

1 Executive Summary

[Redacted text block containing multiple paragraphs of blacked-out content]

2 Introduction

2.1 Background

[Redacted text block]

2.2 Facts, Matters, and Assumptions behind the Findings

[Redacted text block]

2.3 Structure of this Report

[Redacted text block]

[Redacted text block]

2.4 Acknowledgements

[Redacted text block]

3 Approach to developing the cost model

3.1 Overview

[Redacted text block]

3.1.1 Review the EMS Replacement Program

[Redacted text block]

3.1.2 Consultation with utilities and vendors

[Redacted text block]

3.1.3 Develop a cost model/program

[Redacted text block]

3.1.4 Review of the Cost Model

[Redacted text block]

3.1.5 Develop a DRAFT EMS Programme of works Assessment Report

[Redacted text block]

3.1.6 Powerlink Approval and Final Report issued

[Redacted text block]

4 Key assumptions in developing the cost model

4.1 Overview

[Redacted content]

[Redacted text block containing multiple lines of blacked-out content]

5 Review of comparable SCADA/EMS Systems

5.1 Overview

[Redacted]

5.2 Current state of other SCADA/EMS systems

[Redacted]

Utility Name	Current System	First Installed	Last upgraded	Upgrade/new systems costs
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]

[Redacted]

[Redacted text block]

5.3 Future plans for other SCADA/EMS Systems

[Redacted text block]

Utility Name	Future plans
[Redacted]	[Redacted]
[Redacted]	[Redacted]
[Redacted]	[Redacted]
[Redacted]	[Redacted]

[Redacted text block]

[Redacted text block]

Utility Name	Future plans
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

6 SCADA/EMS/DMS Vendor Budgetary Information

6.1 SCADA/EMS Vendor Budgetary Information

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

Items	Cost
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

Items	Cost
[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

6.2 SCADA/DMS Comparative Project Costs

[Redacted]

Items	Cost	Year completed
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]

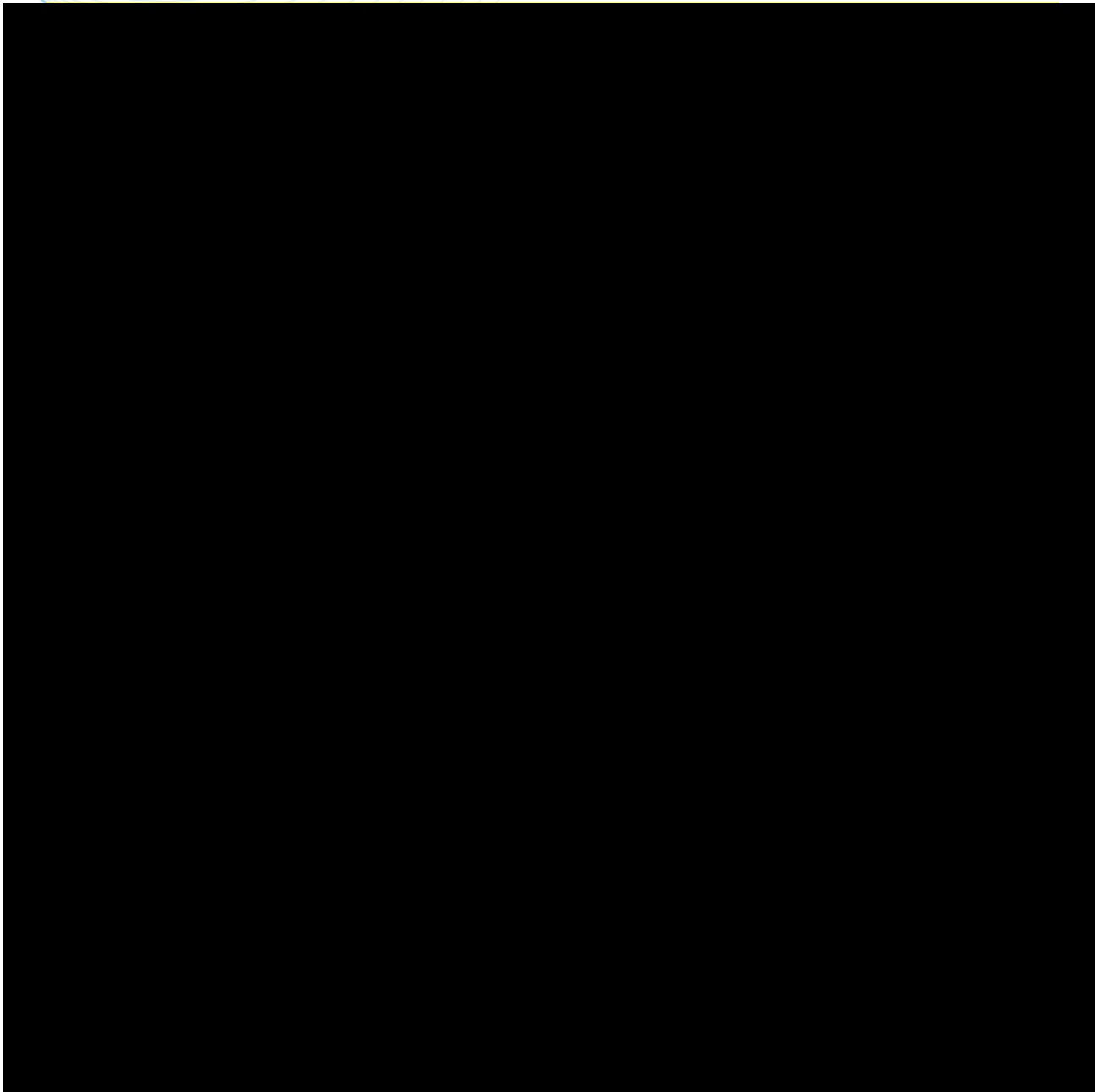
[Redacted]

[Redacted]

[Redacted]

7 Necessary Sub-projects required during SCADA/EMS changeover

[Redacted content]



A. Acknowledgements

Name	Organisation	Responded
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
[REDACTED]	[REDACTED]	<input type="checkbox"/>
[REDACTED]	[REDACTED]	<input type="checkbox"/>
[REDACTED]	[REDACTED]	<input type="checkbox"/>

B. EMS Replacement Program



Powerlink Queensland SCADA/EMS Draft Budget Costs

