



APUC Initial Cyber Security and Impact Assessment Report			
Document ID	2200-150-400-001	Information Classification	Sensitive
Rev.	1.3	Last Updated	Feb 19, 2019

This form provides the business and IT teams with the information needed to properly analyze cyber security risk and impact of new or existing systems. The review form is completed after review of the impact assessment form is completed and business/process/system owner and/or vendors provide requested information or clarity about the business process or technology.

Attach this form to the helpdesk ticket:

[Redacted]

SECTION A: SYSTEM OVERVIEW

TO BE COMPLETED BY THE REQUESTER

SYSTEM OR APPLICATION NAME:	Tesla Powerwall (Pilot Program) New Hampshire
SYSTEM OWNER:	Heather Tebbetts
DATA OWNER:	Nicole Harris
TECHNICAL OWNER:	[Redacted]
DEPARTMENTS IMPACTED:	New Hampshire Customers Selected
REQUESTER'S NAME:	Heather Tebbetts
REQUESTER'S EMAIL ID:	Heather.Tebbetts@LibertyUtilities.com
DATE OF REQUEST:	22JAN2019
REQUESTER'S DEPARTMENT:	Rates and Regulatory Affairs
TICKET NUMBER:	
WORK INTAKE NUMBER: (IF APPLICABLE)	

BUSINESS FUNCTION:

SECURITY, RISK AND COMPLIANCE OBSERVATIONS OF BUSINESS FUNCTION

The Powerwall is a rechargeable lithium-ion battery stationary energy storage product manufactured by Tesla Inc. The Powerwall is intended to be used for home energy storage and stores electricity for solar self-consumption, reduce peak demand, backup power, off-the-grid use, and potentially provide voltage and other support services needed. The pilot program will include two Phases, with Phase 1 implemented near-term and Phase 2 deferred and conditional on results of Phase 1. Phase 1 will incorporate up to 200 Tesla Powerwall 2 batteries. The program requires customers to receive two Tesla Powerwall 2 batteries and one gateway. Phase 2 will incorporate up to an additional 300 Tesla Powerwall 2 batteries if the conditions set by the Commission are met.

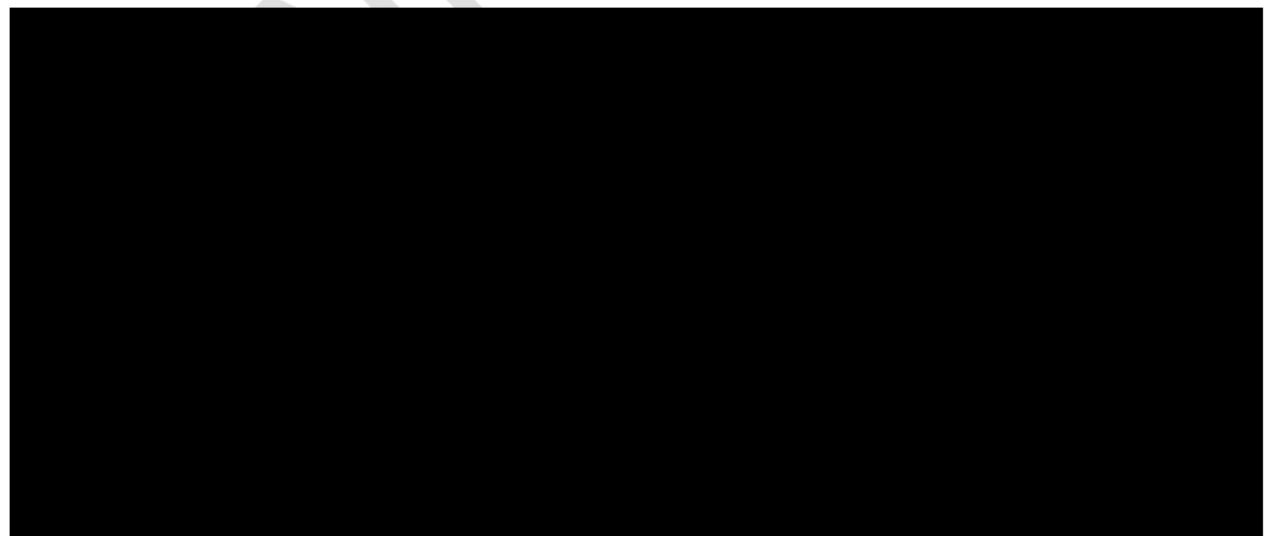
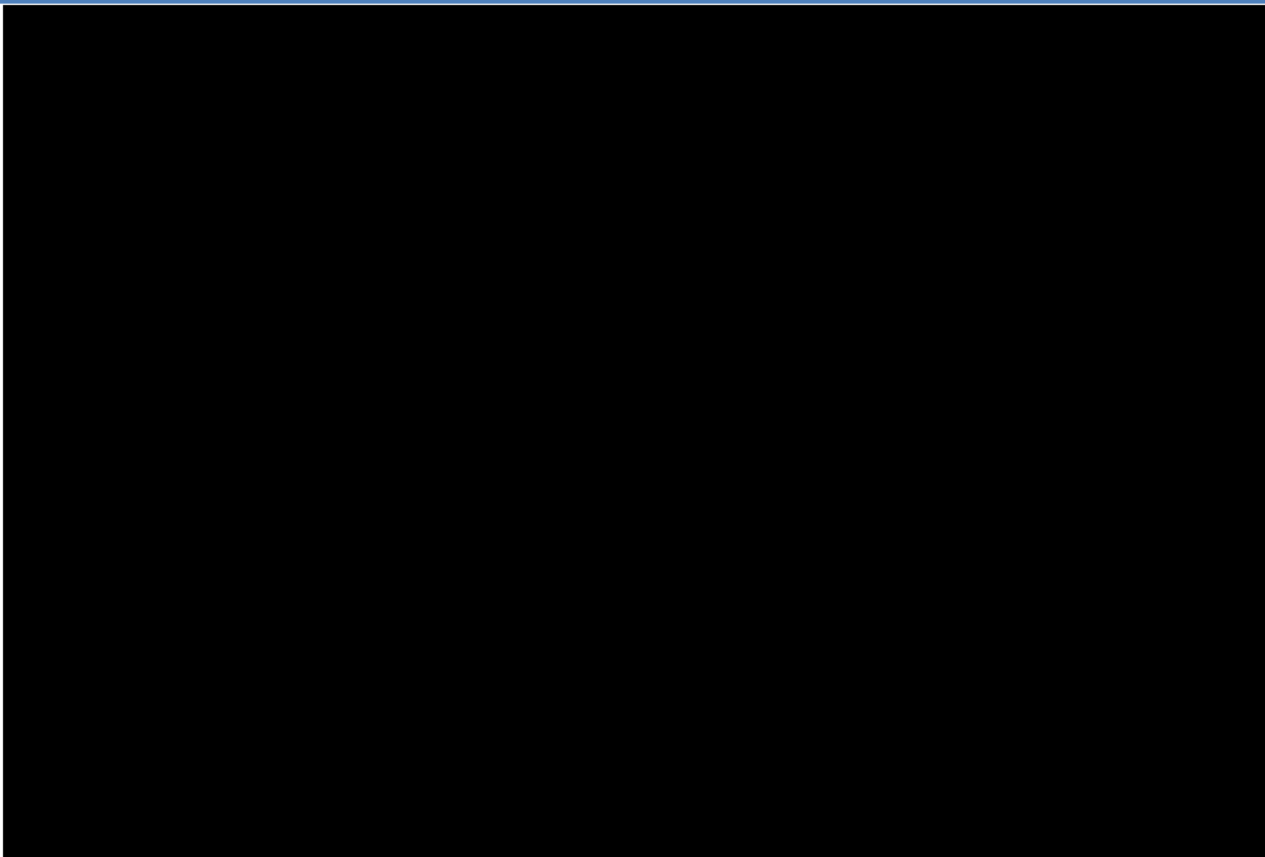
The Public Utilities Commission (PUC) has provided stringent guidelines and questions regarding the security posture of this Pilot Program and through our assessment and analysis we completed this report in support of those guidelines.



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TECHNOLOGY OVERVIEW:

SECURITY, RISK AND COMPLIANCE OBSERVATION OF THE TECHNOLOGY





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ACCESS MATRIX

Customer				
Access Group				
Liberty Control Operators				
Liberty Meter Management				
Liberty Customer Services				
Liberty IT Administrators				
Liberty Program Manager				
Tesla Administrators				
Tesla Operations				
Customer				

Tesla			
Access Group			
Liberty Control Operators			
Liberty Meter Management			
Liberty Customer Services			
Liberty IT Administrators			
Liberty Program Manager			
Tesla Administrators			
Tesla Operations			
Customer			



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Customer [REDACTED]					
Access Group	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty Control Operators	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	from Tesla
Liberty Meter Management	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty Customer Services	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty IT Administrators	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty Program Manager	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Tesla Administrators	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Tesla Operations	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Customer	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Liberty [REDACTED]					
Access Group	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty Control Operators	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty Meter Management	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty Customer Services	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty IT Administrators	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Liberty Program Manager	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Tesla Administrators	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Tesla Operations	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Customer	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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Row	Bar 1 Length (approx. %)	Bar 2 Length (approx. %)
1	100	85
2	95	90
3	98	70
4	92	10
5	95	100
6	100	100
7	85	100
8	98	100
9	100	100
10	10	10

§ 87(2)(b) [REDACTED]

§ 87(2)(b) [REDACTED]

1. [REDACTED]

[REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]



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Authentication to Tesla [REDACTED]

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

Breach Notification: [REDACTED]

Data Store Options: [REDACTED]

Data Retention:

TYPE OF INFORMATION		RETENTION PERIOD	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Encryption:

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

Redundancy & Backup: [REDACTED]

[REDACTED]

[REDACTED]



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SECTION B: SECURITY & IMPACT ASSESSMENT

TO BE COMPLETED JOINTLY BY CYBER SECURITY/IT & IMPACTED SYSTEMS/INFORMATION/BUSINESS OWNER

ASSESSMENT AND COMMENT OF BELOW RESPONSES INFORMATION:

FINANCIAL:	No
EMPLOYEE PERSONAL IDENTIFIABLE INFORMATION:	No
CUSTOMER PERSONAL IDENTIFIABLE INFORMATION:	No
CRITICAL INFRASTRUCTURE:	Yes – Distribution Load Schemes
COMPUTER INFRASTRUCTURE OR OPERATIONS:	No
UPTIME AND IMPACT:	
COMPLIANCE REQUIREMENT:	No
REGULATORY REQUIREMENTS:	Yes New Hampshire Annual Cyber Security Review
BIA/DR/BC:	Yes. The business has identified that this system cannot be down for greater than 1 week. [REDACTED] [REDACTED] [REDACTED]
VENDOR RISK REVIEW:	Yes
SYSTEM ARCHITECTURE AND USAGE:	
ON PREMISE:	[REDACTED]
CLOUD (SAAS, PAAS OR IAAS):	[REDACTED] [REDACTED]
MOBILE DEVICES ACCESS:	[REDACTED]
ACCESSIBLE FOR ONLY APUC:	[REDACTED] [REDACTED]
ACCESSIBLE FROM MOBILE DEVICES:	[REDACTED]
NUMBER OF USERS:	[REDACTED]
NUMBER OF CLIENT SYSTEMS:	[REDACTED]

SENSITIVE

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SECURITY, RISK AND COMPLIANCE OBSERVATION OF THE RISK OVERVIEW

[illegible]

Service	Percentage
Online banking	92%
Mobile banking	88%
ATM	85%
Branch	78%
Other	65%

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

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Data Being Provided to Tesla:

Tesla will not receive sensitive customer data from Liberty as part of the use and operation of Powerhub and Autobidder. Tesla will not utilize any data from the Liberty smart meter network. All data will be stored per Tesla's privacy policy and will be retained / destroyed per Tesla's data policy.



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RISK MATRIX SCORING			
[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]	[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]

DATA CLASSIFICATION OVERVIEW

[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]



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Solution and Vendor Risk Ranking:

SOLUTION RISK RANKING:

[Redacted]

[Redacted]
[Redacted]
[Redacted]
[Redacted]

[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

[Redacted]
[Redacted]
[Redacted]

VENDOR RISK RANKING:

[Redacted]

[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

[Redacted]
[Redacted]
[Redacted]

[Redacted]
[Redacted]
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SECTION C: SYSTEM REVIEW APPROVAL

☐ Approved ☐ Rejected ☒ Conditionally Approved (comment below)

Approved

09/16/2019

Comments:

[Redacted Comments]

**BUSINESS/SYSTEM
OWNER**

Heather Tebbetts Manager, Rates and Regulatory Affairs
(Print Name)

Heather M. Tebbetts

(Signature)

9/16/19

(Date)

IT/CYBER SECURITY

SHAWN ECK SR. MANAGER IT SECURITY, RISK AND COMPLIANCE

S. Eck

(Signature)

(Date)

**PRIVACY OFFICE
(REQUIRED IF
PRIVACY
INFORMATION
INVOLVED)**

(Print Name)

(Signature)

(Date)

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Appendix A:

List of Documents Reviewed & Parties Interviewed

Aggregation Platform Agreement 20170118

CS Agreement IT Questions

IT Questions on Tesla Gateway

Liberty Cybersecurity Letter 20190731

Liberty Tesla Customer Agreement Final

Penetration Testing Scope of Work

Powerwall2 AC Owner's Manual

TE Information and Document Management Policy v1.1.3

Tesla Aggregation Platform Datasheet

Tesla Powerwall 2 AC Utility Documentation

Tesla API Integration Testing Plan

Tesla API Manual

Tesla API Manual v1.31

Tesla Energy Security Review Report (Initial)

Tesla Powerwall Gateway Assessment Hardware 2018-04-13

Tesla Powerwall Gateway Assessment WEB 2018-04-13

Tesla Powerwall2 Proof of Concept New Hampshire IT Architecture

Tesla Powerwall 2 (New Hampshire Tesla Powerwall Future Draft Conceptual Desired State)

Tesla Powerwall (Tesla Energy Management Platform GridLogics)

Personnel Coordinated with During Assessment

Heather Tebbets	Liberty Utilities (Manager, Rates and Regulatory Affairs)
Shawn Eck	Liberty Utilities (Sr. Manager, IT Security Risk and Compliance)
	Liberty Utilities (Sr. Manager, Systems Architecture)
	Liberty Utilities (Sr. Analyst, IT Security Risk and Compliance)
	Liberty Utilities (Supervisor, IT Security Risk and Compliance)
	Liberty Utilities (Manager Application Services, Business IT)
	Tesla Energy (Sr. Project Development Manager)
	Tesla Energy (Staff Product Manager)
	Tesla Energy (Account Manager, Commercial Sales (Utilities))
	Tesla Energy
	Tesla Energy (Cyber Security)
	Tesla Energy
	Tesla Energy
	Tesla Energy