









OPERATIONAL READINESS REPORT

FOR: Energy.Corp



Overview findings Assurance areas

Assurance Area	Health*	Related Finding Number(s)*
FUNDING		001
ARCHITECTURE		002, 003,004
SUPPORT		005, 006, 007, 008
KNOW-HOW		009
CONTRACTS		010
PROCESS & TOOLS		011, 012, 013, 014 ,015
RISK MANAGEMENT(SECURITY)		016
CUTOVER PLAN		N.A.

*(R)ed, (A)mber, (G)reen

** See Slides 9 to 15 detailed findings

Conclusion & Recommendation

The CONSLUSUION \ You will be operational ready or not , because of xyz

Our Recommendation \ Must-do actions regardless what and alternative approaches

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Scope, background & current status of the service

The BACKGROUND \.. In 2014 individual initiatives in the Solar power (SP) and Zero Point Energy (OP) divisions were started to develop and deliver a new tool for cost estimating:

- SP: Global norms Project
- OP: Replacement of current MTO type of estimating tool(s)

Main reason for change \.. the directive from Global IT4IT, Energy.Corp is no longer supporting Dbase and spreadsheet applications (obsolete technology and security weakness). It is acknowledged that legacy systems have flaws, are security weak, are inconsistent and need to be replaced. Similar requirements have been identified in both sectors to store/maintain norms and to provide estimating/contracting functionality for Energy.Corp and her contractors, resulted in a joint development of a group IT4IT solution.

Scope, background & current status of the service

Investment Proposal \.. Solar Power has an (14M USD) investment proposal already in place and the tool development was done in close conjunction (sharing costs) with Zero Point Energy on the back of it. The Investment proposal called The Global Schedule of Norms project was for:

- 1. Development of Global Norms for key disciplines
- 2. Development of Contract Templates to execute those norms
- 3. Delivery of a web-based Contract Cost Estimating System (CCES) to hold and maintain the norms and to calculate the cost of tasks executed through the contracts. (Estimating)

The development has always been an joint management between SP and OP. Overall ownership remained in SP, the support model is also SP whereas the Global functional knowledge (Global SME) resides with OP. SP manages the IM/IT portfolio. Tool.ltd, the vendor owns the Intellectual Property, the system will be used by other operators than Energy.Corp.

Scope ,background & current status of the service

The Scope \.. CCES (Contract Cost Engineering System) is predominantly a MTO (Material Take Off) estimating system for the creation of Type 3 and 4 estimates

- The system is a Energy.Corp supported system for estimating (and control), and it progressively replaces existing applications for both Solar park and Research facility maintenance, turnaround and project tasks in both SP and OP, and in some places is used to introduce transparency in contracts (utilization of norms and Cost Items)
- 3rd party personnel are the main users of the system, and this is reflected in the functional area's and business control setup, Energy.Corp staff approves the estimates and progress for payment purposes
- CCES is a Web based application, a Energy.Corp IT4IT solution with common IT standard and Group IT architecture
- Upon completion of an estimate from within a contract , subsequent approval of the estimate, and after execution of the work the progress/ payment, a download can be generated to feed the Service entry requirements in the ERP system.

Scope ,background & current status of the service

Current status:

- Version B.1.27 is successfully rolled out all over the Globe with to date some 6000 estimates in the system. Both SP and OP and their contractors are within Energy.Corp the major users of CCES. 17000 licenses have been purchased to date but this is a growing scenario.
- Energy.Corp and Tool.Ltd are currently in the process of finishing development/ testing Version B.2 of CCES enhancing functionality to business requirements
- A number of Interfaces have been deployed and are being supported. However interfaces initially have been deployed isolated without any real architectural consideration for the overall solution. Architecture optimization and interface rationalization projects are planned for 2018 and 2019.


Objectives & Approach of the Readiness Scan

the OBJECTIVE \ .. of this Readiness Scan is to assess the Operational Readiness of the Service and estimate the effort required to transition the Service from the Old Managed Service Provider to the New Managed Service Provider




the APPROACH \ .. The responsibility of the the New Service Provider for services in their care primarily lies with ensuring that the application availability can be assured according to the agreed service tier (Continuity) and the adherence to Information Risk Management Requirements (Compliance). In order to ensure this every (new) application has to meet a pre-defined set of requirements described in the OPSASTO workbook . Though interviews and by scanning documentation and it's availability we assess the capability of fulfilling the OPSASTO assurances and register the GAP's.

* *As this is an pre-project due diligence, the assessment of Project Delivery assurances for an in-flight project is out of scope and not included.*





Budget

Health	ID	Finding	Detail
	001	Budget - Operational Expenses (OPEX)	<p>We have not been able to get an clear and comprehensive overview of the OPEX of the CCES service.</p> <p>We have identified four main cost elements.</p> <ol style="list-style-type: none">1. (the vendor) who charges the costs for usage of their platform and as a percentage of the dollar value of the transactions. But this does not include the data storage and bandwidth costs, for which consumption costs are charged additionally.2. Business Support >> no indication of charging model, probably rollup at group level.3. Interface Support >> ERP, Middleware and Other – no indication of charging model, probably rollup at group level.4. Energy.Corp Governance costs for CCES. These costs have not been estimated and are not included in the budget estimates.


Architectural Assurance

Health	ID	Finding	Comments
	002	Single Sign-on	Single Sign-on mechanism might break after an CCES upgrade (Tool.Ltd cannot/does not test this). However users can continue to login by manually entering their credentials
	003	Unknown Interfaces	It could be there are interfaces we currently do not have on the radar. f.i. it is not clear where the crystal interface should fit in current landscape.
	004	Test / Acceptance Environment	Tool.Ltd uses a test/acceptance environment for testing new release, but this environment is different from the production environment. On several occasions a new release has led to significant disruption due to errors, even though in acceptance no errors were found. It is suspected that part of the difference is to be explained by not having a proper established test approach (full integration, unit test, etc) . Tool.Ltd would f.i. generate test files with human intervention and Tool.Ltd does not really do user regression testing.


Support Model

Health	ID	Finding	Comments
	005	Super User Function (Support Model)	there is an super user function present which is staffed by Solar Power personnel. The Super users are able to solve around 70 – 80 % of the functional support related
	006	Tier 1 technical support (Support Model)	Tier 1 support function \.. Is provided by the Old Service Provider Service Desk. Issues can be raised via phone, email or a webform and ServiceNow is used as ticketing system. Knowledge and /or personnel will need to be transferred to New Manager Service Provider Service Desk. New Manage Service Provider Service Desk does not provide Phone Support
	007	Tier 3 support function	A Tier 3 support function is provided by the application vendors Tool.Ltd Tool.ltd uses it's own ticketing system. Tool.ltd has repeatedly not been able to meet KPI's. Tool.ltd holds IP of the application hence it will be difficult to change the support provider for this function.
	008	Tier 2 Support	a Tier 2 support function is provided by an 3 rd party offshore team. The team is working in two shifts in two locations. On Brazil, and one India based shift both working on local office hours. The 3 rd party is currently not one of the New Service Provider Partners, Knowledge will need to be transferred to the New Service Provider.

Know-How

Health	ID	Finding	Comments
	009	Documentation	We haven't been able to find almost* any technical documentation, architecture or design documentation for the interfaces (* we have been able to find an architecture diagram with an as/is overview and a roadmap for 2016 & 2017, however the architect indicated that the as/is drawing could be incomplete).


Contracts

Health	ID	Finding	Comments
	010	End To End accountability	There is no End to End responsibility for service levels and limited integration between the individual support functions. The Transition project will need to develop and agree a view on the extend of the New Managed Service Provider responsibility and the required level of integration.

Processes and Tools

Health	ID	Finding	Comments
	011	Ticketing Tool	The Business Support Function does not have a proper ticketing system in place. Currently a rudimentary solution in sharepoint is used.
	012	Ticketing Tool	Tool.Ltd uses it's own ticketing system. There is no agreement about how tickets should flow between Tool.Ltd and the Energy.Corp support functions is in place. The transition project will need to develop and agree a solution for this
	013	KPI Reporting	There is no KPI reporting in place. Depending on the outcome of the level (E2E) responsibility of the New Managed Service Provider a solution will need to be developed.
	014	Service Management Processes	There are no structured processes in place for incident, change problem and release management. It is advisable to have the Transition project take the remediation into it's scope, however strong commitment from the business support functions is required in order for this to be successful.
	015	Release testing	Tool.Ltd does three major releases per year and several minor releases. The impact on the interfaces is not included in the testing activities. Tool.Ltd uses a "push and accept" release approach, there is a limited time window to test the release and Energy.Corp has no option to halt a release.

Risk Management (Security)

Health	ID	Finding	Comments
	016	Business Impact Analysis (BIA)	<p>The only information I have been able to find was from the initial release project folders.</p> <p>This holds an BIA dated December 2014. As this BIA is almost three years old the assessment needs to be updated against current standard and situation. However In the 2014 BIA confidentiality and integrity are rated as high and there is a footnote about business risks with regards to reputation, delivery and contract management.</p> <p>there is external access from vendors to the application.</p> <p>It is assumed that the application is business critical however I have not been able to confirm this</p> <p>In a 2017 BIA this will very likely be a mid or high risk application and and controls will need to be in place. I have not been able to asses if controls are in place.</p>

list of interviewed people and consulted information sources

- Lee Brown – Service Desk Lead - 3rd Company
- Karla Gelb – IT Manager Energy.Corp
- Natasha Martinoska – Service Delivery Manager, New Managed Service Provider
- Wah Leng Tan – Business Process Owner
- Michael Warren – Developer Tool.Ltd
- Project and Service Management documentation

Hidden slide – traffic lights

