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TransAlta Corporation

Energy Trading Compliance Program Assessment

April 2016



Disclaimer

We prepared this report based on information available at the time of its preparation. Our observations and conclusions are based on the study of documents and artefacts provided by TransAlta, and interviews with selected members of TransAlta Corporation.

Our work does not constitute an audit conducted in accordance with generally accepted auditing standards, an examination of internal controls or other attestation or review services in accordance with standards established by the Canadian Institute of Chartered Accountants (“CICA”). Accordingly, we do not express an opinion, attestation or other form of assurance¹ with respect to our work or the information upon which our work was based. We are not lawyers; and do not provide legal advice. Should further information come to our attention after the analysis was completed, the results expressed herein could change.

The scope of our work was defined by and agreed with TransAlta. Our work was based primarily on the information supplied by those interviewed and we carried out this work on the basis that such information was accurate and complete. We did not check or verify the information provided to us, except to the extent expressly stated to form part of the scope of work.

This report is intended solely for the internal use of TransAlta management. Any third-party use of this report or reliance thereon, or any decision made based on it, is the responsibility of such third party. We accept no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

¹ Per the CPA Canada Handbook – Accounting, “Assurance engagement” means an engagement in which a practitioner expresses a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the outcome of the evaluation or measurement of a subject matter against criteria.

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1. PwC Engagement

Objective

PricewaterhouseCoopers LLP (“PwC”) was engaged by TransAlta to evaluate TransAlta’s Energy Trading Compliance Program from a design and operational effectiveness perspective. Specifically, our objectives for the engagement were to:

- Assess the design of TransAlta’s Trading Compliance Program in the context of our experience with other energy trading compliance programs and current energy Trading and Marketing industry practices.
- Evaluate whether the key components of the Trading Compliance Program designed by TransAlta had been placed into use and were effective for TransAlta’s purposes.
- Provide recommendations for further improving the program.

We initially assessed the design of TransAlta Trading Compliance Program through documentation review and interviews. Subsequently, we evaluated how the program is functioning within the organization by analyzing samples of activities such as the risk register, evidence of sign-off on policies, use of monitoring tools, disciplinary actions and attending relevant TransAlta meetings to observe TransAlta personnel discuss and review Trading Compliance.

Approach

We conducted the review of TransAlta’s Energy Trading Compliance Program over 14 weeks from October 19, 2015 to February 5, 2016 and incorporated:

- Interviews with over 30 stakeholders including leaders and team members from various functions.
- Study of over 200 documents including policies, sample communications, meetings minutes, management reports, compliance risk register, training materials, KPIs, and summaries of recent investigations.
- Systems analysis to evaluate compliance monitoring tools and data sources.
- Analysis of sample transactions used by the monitoring tools to evaluate the functionality of the monitoring tools and assess data quality.

1. PwC Engagement (cont'd)

Scope

Our work was limited to the specific procedures and analysis described herein and was based only on the information made available until February 5, 2016. Accordingly, changes in circumstances after this date could affect the findings and recommendations outlined in this Report. Our conclusions should not be projected to future periods, or to specific transactions.

Our work scope included studying program policies, procedures and documentation, recent compliance related issues, actions and decisions, and conducting interviews with key stakeholders. Specifically, we did not review:

- Any marketing and trading transactions to detect regulatory and legal violations;
- Whether or not the portfolio of trades or any specific trades, adhered to TransAlta's risk objectives and tolerances, or whether process and controls are in place to achieve TransAlta's risk tolerance objectives,
- The completeness of the compliance monitoring techniques used – i.e. compliance risks may exist that neither TransAlta nor PwC have identified. We did not evaluate TransAlta's compliance risks or assess TransAlta for evidence of non-compliance;
- Operational, regulatory, legal, risk, internal audit or other department objectives, policies and procedures related to their role in compliance, including processes in place to conduct compliance investigations and processes in place limiting the sharing of operational and trading information.

2. Framework for Assessment

For this assessment, we used our Compliance Effectiveness Framework, which is based on PwC's experience in compliance programs and outlines 10 key components for an effective compliance program, as follows:



3. Overall Results

Design

- In comparing TransAlta's Trading Compliance (TC) program to industry practices*, we noted that TransAlta's Trading Compliance program currently includes the key elements required and normally seen at industry peers.
- We also observed that each of the 10 components of PwC's Compliance Effectiveness Framework are reflected and addressed in the design of TransAlta's Trading Compliance Program.

Operational Effectiveness

- From an operational perspective, TransAlta's program is meeting or exceeding current industry practice in each of the ten key components.
- We have made recommendations in five of the ten components, for management's consideration, to improve and strengthen the Trading Compliance Program's operational effectiveness.

**Industry practices are dynamic and continually developed, changed and improved. To compare organizations, we consider transacting attributes and risk profile of the organization, geographical location and context complemented with standard practices guidance such as Committee of Sponsoring Organizations of the Treadway Commission (COSO), Federal Energy Regulatory Commission (FERC), Commodity Futures Trading Commission (CFTC), US Federal Sentencing Guidelines and Financial Industry Regulatory Authority (FINRA).*

Our interpretation of industry prevailing practices in the area of energy trading compliance for this engagement reflects our assessment of the capabilities of North American power and utility organizations that primarily transact in physical and financial energy markets in the United States and Canada.

3. Overall Results (cont'd)

Key Strengths of TransAlta Energy Trading Compliance

- Strong tone at the top that supports the organization's commitment to compliance.
- Risk assessment methodology to identify, manage and mitigate compliance risks.
- Clear and open lines of communication between Trading Compliance and the rest of the organization, which foster a sense of trust and reliance.
- Defined roles and responsibilities for independent governance of compliance staffed by professionals who are supported by the organization.
- Formally documented policies and procedures with regular reviews and updates, as needed.
- A formal, mandatory and recurring training program to educate TransAlta personnel on compliance.
- Implementation of monitoring tools to analyze trading transactions and relevant business communications for key compliance risks.
- Auditing procedures to continuously assess effectiveness of compliance programs.
- Formal and robust case management program to investigate instances of suspected and detected non-compliance.
- Enforcement procedures to discipline non-compliant behavior.

The above noted foundational components are in place and have the appropriate structure to address and to support uncertainties dictated by changing business, regulatory and market impacts. With structurally sound building blocks in place, TransAlta should ensure continued focus on compliance to safeguard sustained focus as TransAlta's business expands.

4. Recommendations

In the following five components, while the program meets or exceeds industry standards, we have made suggestions for greater operational effectiveness. Our recommendations to improve and strengthen Trading Compliance Program's operational effectiveness, for management's consideration, are as follows:

Risk Assessment

1. Convene an annual cross functional communication mechanism to review the risk register for completeness and share information, as part of Trade Compliance's risk assessment process.
2. Provide the Trading Compliance support functions within TransAlta (i.e., Regulatory, Risk, etc.) with access to the Trading Compliance Risk Register on SharePoint.

Roles & Responsibility

3. Cross-train current staff personnel in areas beyond their current responsibility to contribute to succession planning for Trading Compliance, and to mitigate potential risk of losing a critical employee.

Training

4. Provide aspects of annual compliance training on a more frequent basis (i.e., quarterly or semi-annually).
5. Add a formal questionnaire soliciting direct feedback to improve annual training effectiveness.

4. Recommendations (cont'd)

Monitoring

6. Improve documentation of compliance monitoring tools from an input, process and output perspective to:
 - Ensure continuity of the knowledge base inherent in the development of the tools; and
 - Clearly state the scope of risks covered at the sub-category level and the methodology used to determine the triggers/threshold for each tool.

Enforcement & Discipline

7. Include compliance performance in Trading and Marketing annual scorecards and Trader incentives to ensure that Trading Compliance violations have a clear and direct impact.
8. Create written tracking/reporting of historical repetitive warnings and perform reviews of traders to identify and evaluate patterns of non-compliance (i.e., repeated minor errors or warnings)*.

**Across the industry, as part of the normal course of tracking and ensuring compliance, minor errors and infractions are self-reported and addressed as they arise by mutual agreement with regulators.*

Thank you.



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