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**Québec Reliability Standards Compliance Monitoring and Enforcement Program  
Implementation Plan**

**2017 Annual Implementation Plan**

**Effective Date: January 1, 2017**

**Approved by the Régie: December 1, 2016**

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## **I. Introduction and Purpose**

The Québec Reliability Standards Compliance Monitoring and Enforcement Program Implementation Plan (Québec Implementation Plan) is the annual operating plan carried out by the Northeast Power Coordinating Council, Inc. (NPCC), while performing its responsibilities and duties as described in the *Québec Reliability Standards Compliance Monitoring and Enforcement Program* (QCMEP). NPCC carries out QCMEP activities in accordance with the *Agreement on the Implementation of the Québec Reliability Standards Compliance Monitoring and Enforcement Program* (QCMEP Agreement).

The 2017 Québec Implementation Plan is the third annual implementation plan created under the QCMEP and QCMEP Agreement.

As in the past two years, NPCC has developed the annual Québec Implementation plan using the same approach that is used during the development of the Electric Reliability Organization (ERO) Compliance Monitoring and Enforcement Implementation Plan and the NPCC Regional Compliance Monitoring Plan. NERC and NPCC have migrated to a risk-based approach to determine the degree of compliance oversight.

During the implementation year, NPCC, with approval from the Régie, may update the Québec Implementation Plan. Updates could be needed to reflect changes to compliance monitoring processes, major events, Régie orders, or other development. Any updates to the Québec Implementation Plan will be communicated to Registered Entities and NERC.

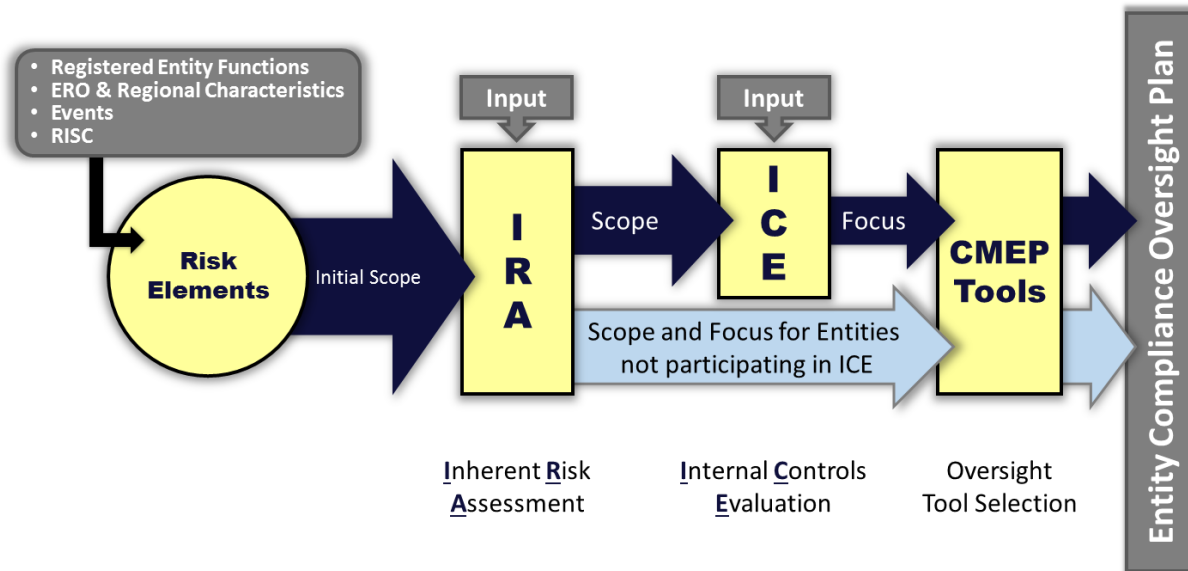
## **II. Risk-based Compliance Oversight Framework**

NPCC will implement the Risk-based Compliance Oversight Framework (Framework) developed by the ERO Enterprise, which consists of processes that involve reviewing system-wide risk elements, an assessment of a registered entity's inherent risk, and, on a voluntary basis, an evaluation of a registered entity's internal controls prior to establishing a monitoring plan that is tailored to a particular entity or group of entities. The Figure 1 below illustrates this dynamic approach.

As Reliability risk is not the same for all registered entities the Framework portrayed in Figure 1 examines electric power transmission risk as well as individual registered entity risk to determine the most appropriate QCMEP tool to use when monitoring a registered entity's compliance with NERC Reliability Standards. This Framework also promotes examination of how registered entities operate.

As illustrated by the blue arrows in Figure 1, the Framework tailors compliance monitoring focus to those areas that pose the greatest risk to electric power transmission reliability. The elements in Figure 1 are dynamic and are not independent; rather, they are complementary and interdependent on each another.

**Figure 1: Risk-based Compliance Oversight Framework<sup>1</sup>**



## A. Risk Elements

The first step of the Framework consists of identifying and prioritizing continent-wide risks based on the potential impact to reliability and the likelihood that such an impact might be realized, resulting in an annual compilation of ERO Enterprise risk elements. Through the identification of risk elements, the ERO Enterprise maps a preliminary list of NERC Reliability Standards to the risk elements, known as areas of focus. The areas of focus represent an initial list of NERC Reliability Standards on which the regional reliability organizations, including NPCC, will focus their compliance monitoring efforts. However, the risks and associated NERC Reliability Standards identified through this process do not constitute the entirety of risks that may affect the reliability of the electric power transmission system. NPCC also considers local risks and specific circumstances associated with individual registered entities within its footprint when developing compliance oversight plans for registered entities.

## B. Inherent Risk Assessment

NPCC performs an Inherent Risk Assessment (IRA) of registered entities to identify areas of focus and the level of effort needed to monitor compliance with NERC Reliability Standards for a particular registered entity. The IRA is a review of potential risks posed by an individual registered entity to the reliability of the electric power transmission system. An IRA considers risk factors such as assets, systems, geography, interconnectivity, prior compliance history, and overall unique entity composition when determining the compliance oversight plan for a registered entity. The IRA will be performed on a periodic basis, with the frequency based on a

<sup>1</sup> In Québec, the applicable CMEP in the NERC reference diagram is the QCMEP.

variety of factors, including, but not limited to, changes to a registered entity and significant changes or emergence of new reliability risks.

### **C. Internal Controls Evaluation**

To further tailor monitoring plans in accordance with risk for registered entities, NPCC may also take into account any information obtained through the processes outlined in the Internal Control Evaluation (ICE) Guide. For those registered entities who volunteer to undergo an ICE, NPCC will select those who will participate in the ICE process based on the risk posed by particular entities and compliance monitoring schedules.

ICE enables a further refinement of the registered entity's compliance oversight plan. Registered entities have an opportunity to: (i) provide, on a voluntary basis, information to NPCC about their internal controls that address the risks applicable to the entity and for identifying, assessing, and correcting noncompliance with NERC Reliability Standards; and; (ii) demonstrate the effectiveness of such controls. As a result of the ICE, there may be additional focus of the compliance assurance activities for an entity. Registered entities may elect not to participate in an ICE. In that case, NPCC will use the results of the IRA to determine the appropriate compliance oversight strategy, including focus and tools within the determined scope.

### **D. CMEP Tools**

NPCC recommends which of the compliance monitoring tools (i.e., off-site or on-site audits, spot checks, or self-certifications) are warranted. NPCC tailors compliance monitoring activities for registered entities in their footprint based on reliability risks. Reliability Coordinators, Balancing Authorities, and Transmission Operators will remain on an audit cycle of at least every three years. The remaining Registered Entity functions are on an audit cycle of at least every six years. The determination of the appropriate CMEP tools will be adjusted, as needed, within a given implementation year.

## **III. Annual Implementation Plan**

### **A. Risk Elements**

For 2017, the ERO Enterprise maintained the eight risk elements that were identified in 2016. Each risk element has specific areas of focus. The eight risk elements identified by the ERO Enterprise are: maintenance and management of BPS<sup>2</sup> assets, protection system failures, monitoring and situational awareness, event response/recovery, planning and system analysis, critical infrastructure protection, human performance, and extreme physical events. NERC and NPCC identified associated NERC Reliability Standards and requirements with each risk element to develop the specific areas of focus that will be considered for compliance monitoring. The set of NERC Reliability Standards subject to compliance monitoring activities will be informed by a given entity's IRA and potentially an entity's ICE.

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<sup>2</sup> Bulk Power System, as per the NERC glossary.

## B. Reliability Standards Effective

The Régie adopts and makes effective NERC Reliability Standards and their Québec appendices (the Reliability Standards). The Reliability Standards effective in Québec as of January 1, 2017 are identified in Appendix 1.

## C. Areas of Focus

NPCC compared the specific areas of focus that were developed in the 2017 ERO Compliance Monitoring and Enforcement Implementation Plan, including Appendix A3 NPCC 2017 CMEP Implementation Plan, with the Reliability Standards that are effective to develop the specific areas of focus for the 2017 Québec Implementation Plan.

In particular, NERC identified relevant requirements within nine Reliability Standards. NPCC identified relevant requirements within six Reliability Standards. NPCC also identified Québec specific relevant requirements within eight Reliability Standards. Table 1 shows the list of Reliability Standards and requirements that will be actively monitored by NPCC. It also shows the relevant area of focus and whether the risk element was continent-wide as identified in the 2017 ERO CMEP IP, NPCC area-wide as identified in the 2017 NPCC CMEP IP, or Québec specific.

Table 1: Actively Monitored Standards and Requirements for 2017				
Area of Focus Identification	Risk Element	Standard	Requirement	Monitored functions
2017 ERO CMEP IP	Critical Infrastructure Protection	CIP-002-5.1	R1, R2	BA, RC, TOP
2017 ERO CMEP IP	Critical Infrastructure Protection	CIP-005-5	R1, R2	BA, RC, TOP
2017 Québec Specific	Critical Infrastructure Protection	CIP-006-5	R1, R2, R3	BA, RC, TOP
2017 Québec Specific	Critical Infrastructure Protection	CIP-007-5	R1, R2, R3, R5	BA, RC, TOP
2017 Québec Specific	Human Performance	COM-002-2	R1, R2	BA, GOP, RC, TOP
2017 ERO CMEP IP	Event Response/Recovery	EOP-001-2.1b	R1, R2, R3	BA, TOP
2017 NPCC CMEP IP	Event Response/Recovery	EOP-001-2.1b	R4, R5	TOP
2017 ERO CMEP IP	Planning and System Analysis	EOP-002-3.1	R4	BA
2017 NPCC CMEP IP	Event Response/Recovery	EOP-003-2	R1, R2, R5, R8	BA, TOP
2017 ERO CMEP IP	Extreme Physical Events	EOP-010-1	R1, R3	RC, TOP
2017 ERO CMEP IP	Planning and System Analysis	FAC-014-2	R1, R5	RC, TOP
2017 NPCC CMEP IP	Planning and System Analysis	FAC-014-2	R2, R4	TOP, TP
2017 Québec Specific	Event Response/Recovery	IRO-001-1.1	R8	GOP
2017 ERO CMEP IP	Monitoring and Situational Awareness	IRO-005-3.1a	R1, R2	RC
2017 NPCC CMEP IP	Monitoring and Situational Awareness	IRO-005-3.1a	R10	BA, TOP
2017 NPCC CMEP IP	Monitoring and Situational Awareness	IRO-005-3.1a	R12	RC
2017 Québec Specific	Protection System Failures	PRC-001-1	R3, R4, R5	GOP, TOP
2017 Québec Specific	Maintenance and Management of BPS Assets	PRC-005-2	R3, R4, R5	DP, GO, TO
2017 ERO CMEP IP	Monitoring and Situational Awareness	TOP-006-2	R1, R2, R7	BA, RC, TOP

2017 NPCC CMEP IP	Monitoring and Situational Awareness	TOP-006-2	R3, R4, R5	BA, RC, TOP
2017 Québec Specific	Monitoring and Situational Awareness	TOP-006-2	R1	GOP
2017 ERO CMEP IP	Event Response/Recovery	TOP-007-0	R1, R2, R3, R4	RC, TOP
2017 Québec Specific	Monitoring and Situational Awareness	VAR-002-3	R1, R3, R4	GOP

Registered entities are required to maintain compliance with all requirements within the effective Reliability Standards and should self-report any non-compliances of any requirements. For the beginning of 2017, reports will be through the Régie’s Système de dépôt électronique (the SDÉ), its document filing system. The Régie is working to develop a data repository specifically for the monitoring of Reliability Standards. The timing of this new system is to be determined.

#### IV. Compliance Monitoring

The list of Reliability Standards and requirements that are specific areas of focus for 2017 in Québec form the basis of the Reliability Standards and requirements that NPCC will actively monitor in Québec during 2017. Additionally, as explained above, NPCC will use the IRA process described above to add or subtract requirements and/or Reliability Standards to the individual compliance oversight plan for a registered entity. Additionally, if a registered entity volunteers, NPCC will use the ICE process described above, which could subtract requirements and/or Reliability Standards from an individual compliance oversight plan.

##### A. Compliance Audits

Compliance Audits are carried out according to the schedule set out in the Québec Implementation Plan. The Annual Audit Plan for this 2017 Québec Implementation Plan is in the table below.

Table 2 : Audit plan for 2017			
Registered Entity	Acronym	Functions Audited	Audit Date
Cartier Énergie Éolienne (AAV) Inc.	AAV	GO, GOP	TBD
Cartier Énergie Éolienne (BDS) Inc.	BDS	GO, GOP	TBD
Cartier Énergie Éolienne (CAR) Inc.	CAR	GO, GOP	TBD
Cartier Énergie Éolienne (GM) Inc.	GM	GO, GOP	TBD
Rio Tinto Alcan	RTA	TO, GO, GOP, DP	TBD

##### B. Self-Certification

NPCC is transitioning to guided self-certifications for 2017 and beyond. Guided self-certifications occur on a quarterly basis. NPCC will issue a Notice of Guided Self-Certification to each registered entity subject to a guided Self-Certification. The notification will identify whether the guided self-certification applies to the entire Reliability Standard or whether it applies to specific requirements and/or sub-requirements. The notification will also provide a specific amount of time to respond and will provide information on the evidence required to support the guided Self-Certification.

Registered entities remain subject to reporting self-certification according to the Self-Certification Schedule established in the 2016 Québec Implementation Plan. This 2016 Self-Certification Schedule, included in the Appendix 1 of the 2016 Québec Implementation Plan, contains the self-certifications that have spanned more than one calendar year. As such, the 2016 Self-Certification Schedule is repeated in Appendix 2 of the 2017 Québec Implementation Plan for reference.

NPCC is not identifying waivers to self-certifications in 2017. However, 2017 self-certifications are not required for any Reliability Standard that is not either identified in the 2016 Self-Certification Schedule, or identified during a guided Self-Certification in 2017.

### C. Spot Checks

NPCC, as authorized or requested by the Régie, may initiate a Spot Check at any time. NPCC will provide the registered entity at least 20 days advanced notice of a Spot Check.

### D. Non-Compliance Self-Reporting

A registered entity shall submit a Non-Compliance Self-Report at the time the registered entity becomes aware that it is not complying or may not have complied with a Reliability Standard declared in effect by the Régie, or that a change in the severity of a previously reported Non-Compliance has occurred. Until a new data repository specifically for the monitoring of Reliability Standards is put into place, a registered entity may self-report a non-compliance with a Reliability Standard through the SDÉ.

### E. Periodic Data Submittals

NPCC requires Periodic Data Submittals (PDS) at the dates stated in the applicable Reliability Standard, according to the schedule specified in the Implementation Plan or, with the Régie’s approval, on an as-needed basis. Until a new data repository specifically for the monitoring of Reliability Standards is put into place, PDS are made into the SDÉ. The PDS schedule for 2017 is provided in Table 3.

Table 3: PDS schedule for 2017	
Standard	Timing
BAL-001-0.1a	Monthly on the 15 <sup>th</sup> of the following month
BAL-002-1	Quarterly on the 10 <sup>th</sup> of the month following the end of the quarter

NPCC is not identifying waivers to PDS in 2017. However, 2017 PDS are not required for any Reliability Standard that is not identified in this Implementation Plan.



**V. NPCC Submission Attestation**

NPCC attests that this 2017 Québec Implementation Plan is both necessary and sufficient at this time for the monitoring of the Reliability Standards in effect in Québec.



### Appendix 1 – Reliability Standards

Standard	Standard Title	Effective Date	Effective date of Decision
BAL-001-0.1a	Real Power Balancing Control Performance	April 1, 2015	D-2014-216
BAL-002-1	Disturbance Control Performance	April 1, 2015	D-2014-216
BAL-004-0	Time Error Correction	January 1, 2016	D-2015-168
BAL-005-0.2b	Automatic Generation Control	January 1, 2016	D-2015-168
BAL-006-2	Inadvertent Interchange	April 1, 2015	D-2014-216
CIP-002-5.1 *	Cyber Security — BES Cyber System Categorization	Multiple effective dates	D-2016-119, D-2016-138
CIP-003-5*	Cyber Security — Security Management Controls	Multiple effective dates	D-2016-119, D-2016-138
CIP-004-5.1*	Cyber Security — Personnel & Training	Multiple effective dates	D-2016-119, D-2016-138
CIP-005-5*	Cyber Security — Electronic Security Perimeter(s)	Multiple effective dates	D-2016-119, D-2016-138
CIP-006-5*	Cyber Security — Physical Security of BES Cyber Systems	Multiple effective dates	D-2016-119, D-2016-138
CIP-007-5*	Cyber Security — System Security Management	Multiple effective dates	D-2016-119, D-2016-138
CIP-008-5*	Cyber Security — Incident Reporting and Response Planning	Multiple effective dates	D-2016-119, D-2016-138
CIP-009-5*	Cyber Security — Recovery Plans for BES Cyber Systems	Multiple effective dates	D-2016-119, D-2016-138
CIP-010-1*	Cyber Security — Configuration Change Management and Vulnerability Assessments	Multiple effective dates	D-2016-119, D-2016-138
CIP-011-1*	Cyber Security — Information Protection	Multiple effective dates	D-2016-119, D-2016-138
COM-001-1.1	Telecommunications	April 1, 2015	D-2014-216
COM-002-2	Communication and coordination	January 1, 2016	D-2015-168
EOP-001-2.1b	Emergency Operations Planning	April 1, 2015	D-2014-216
EOP-002-3.1	Capacity and Energy Emergencies	January 1, 2016	D-2015-168
EOP-003-2	Load Shedding Plans	January 1, 2017	D-2016-150
EOP-005-2	System Restoration from Blackstart Resources	April 1, 2016	D-2016-034
EOP-006-2	System Restoration Coordination	April 1, 2016	D-2015-198
EOP-008-1	Loss of Control Center Functionality	April 1, 2016	D-2015-198
EOP-010-1**	Geomagnetic Disturbance Operations	January 1, 2017	D-2016-150

FAC-010-2.1	System Operating Limits Methodology for the Planning Horizon	January 1, 2016	D-2015-168
FAC-011-2	System Operating Limits Methodology for the Operations Horizon	January 1, 2016	D-2015-168
FAC-014-2	Establish and Communicate System Operating Limits	January 1, 2016	D-2015-168
IRO-001-1.1	Reliability Coordination - Responsibilities and Authorities	April 1, 2016	D-2016-011
IRO-002-2	Reliability Coordination – Facilities	January 1, 2016	D-2015-168
IRO-003-2	Reliability Coordination – Wide-Area View	January 1, 2016	D-2015-168
IRO-004-2	Reliability Coordination – Operations Planning	January 1, 2016	D-2015-168
IRO-005-3.1a	Reliability Coordination - Current Day Operations	April 1, 2016	D-2016-034
IRO-006-5	Reliability Coordination – Transmission Loading Relief (TLR)	January 1, 2016	D-2015-168
IRO-008-1	Reliability Coordinator Operational Analyses and Real-time	January 1, 2017	D-2016-150
IRO-009-1	Reliability Coordinator Actions to Operate Within IROLs	January 1, 2017	D-2016-150
IRO-010-1a	Reliability Coordinator Data Specification and Collection	January 1, 2017	D-2016-150
IRO-014-1	Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators	April 1, 2015	D-2014-216
IRO-015-1	Notifications and Information Exchange Between Reliability Coordinators	April 1, 2015	D-2014-216
IRO-016-1	Coordination of Real-time Activities Between Reliability Coordinators	April 1, 2015	D-2014-216
IRO-016-1	Coordination of Real-time Activities Between Reliability Coordinators	January 1, 2017	D-2016-150
MOD-016-1.1	Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management	January 1, 2016	D-2015-168
MOD-017-0.1	Aggregated Actual and Forecast Demands and Net Energy for Load	July 1, 2016	D-2016-066
MOD-018-0	Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load	July 1, 2016	D-2016-066
MOD-019-0.1	Reporting of Interruptible Demands and Direct Control Load Management	July 1, 2016	D-2016-066
MOD-020-0	Providing Interruptible Demands and Direct Control Load Management Data to System Operators and Reliability Coordinators	January 1, 2016	D-2015-168
MOD-021-1	Documentation of the Accounting Methodology for the Effects of Demand Side Management in Demand and Energy Forecasts	July 1, 2016	D-2016-066
PER-001-0.2	Operating Personnel Responsibility and Authority	April 1, 2015	D-2014-216
PER-003-1	Operating Personnel Credentials Standard	April 1, 2016	D-2015-198
PRC-001-1	System Protection Coordination	January 1, 2016	D-2015-168
PRC-005-2	Protection System Maintenance	January 1, 2017	D-2016-150

PRC-019-1	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	January 1, 2017	D-2016-150
PRC-021-1	Under-Voltage Load Shedding Program Data	July 1, 2016	D-2016-066
TOP-001-1a	Reliability Responsibilities and Authorities	January 1, 2016	D-2015-168
TOP-002-2.1b	Normal Operations Planning	July 1, 2016	D-2016-059
TOP-003-1	Planned Outage Coordination	January 1, 2016	D-2015-168
TOP-004-2	Transmission Operations	April 1, 2015	D-2014-216
TOP-005-2a	Operational Reliability Information	April 1, 2016	D-2016-011
TOP-006-2	Monitoring System Conditions	July 1, 2016	D-2016-059
TOP-007-0	Reporting System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) Violations	April 1, 2015	D-2014-216
TOP-008-1	Response to Transmission Limit Violation	April 1, 2015	D-2014-216
VAR-001-4.1	Voltage and Reactive Control	January 1, 2017	D-2016-150
VAR-002-3	Generator Operation for Maintaining Network Voltage Schedules	January 1, 2017	D-2016-150

\* Please refer to the text of the decisions mentioned above for further information on the conditions and the precise date when an entity becomes subject to CIP standards.

\*\* Only requirements R1 and R3 of EOP-010-1 will be put into effect on January 1, 2017. The Régie has reserved its decision with regards to the coming into effect of requirement R2 of the standard.



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### Appendix 2 – 2016 Self Certification Schedule

Reliability Standard	Requirement	Start of Reporting Period	End of Reporting Period	Due Date	BA	DP	GOP	LSE	PA	PC	RC	TOP	TP	TSP
COM-002-2	R2	2016-06-01	2017-05-31	2017-07-31	BA						RC	TOP		
EOP-001-2.1b	R4, R5	2016-06-01	2017-05-31	2017-07-31	BA							TOP		
EOP-002-3.1	R4, R6, R7	2016-06-01	2017-05-31	2017-07-31	BA									
EOP-002-3.1	R8	2016-06-01	2017-05-31	2017-07-31							RC			
FAC-011-2	R1, R2, R3	2016-06-01	2017-05-31	2017-07-31							RC			
FAC-014-2	R1	2016-06-01	2017-05-31	2017-07-31							RC			
FAC-014-2	R2	2016-06-01	2017-05-31	2017-07-31								TOP		
FAC-014-2	R3, R6	2016-06-01	2017-05-31	2017-07-31					PA	PC				
FAC-014-2	R4	2016-06-01	2017-05-31	2017-07-31									TP	
FAC-014-2	R5	2016-06-01	2017-05-31	2017-07-31					PA	PC	RC		TP	
IRO-004-2	R1	2016-06-01	2017-02-28	2017-05-01	BA							TOP		TSP
IRO-015-1	R1, R2, R3	2015-12-01	2016-11-30	2017-02-01							RC			
IRO-016-1	R1, R2	2015-12-01	2016-11-30	2017-02-01							RC			
PER-001-0.2	R1	2016-06-01	2017-02-28	2017-05-01	BA							TOP		
PRC-001-1	R1	2016-01-01	2016-12-31	2017-02-15	BA		GOP					TOP		
PRC-001-1	R2	2016-01-01	2016-12-31	2017-02-15			GOP					TOP		
TOP-003-1	R1	2016-01-01	2016-12-31	2017-02-15			GOP					TOP		
TOP-003-1	R2, R3	2016-01-01	2016-12-31	2017-02-15	BA		GOP					TOP		
TOP-004-2	R1 through R6	2016-06-01	2017-02-28	2017-05-01								TOP		
TOP-007-0	R1, R2, R3	2016-06-01	2017-02-28	2017-05-01								TOP		
TOP-007-0	R4	2016-06-01	2017-02-28	2017-05-01							RC			