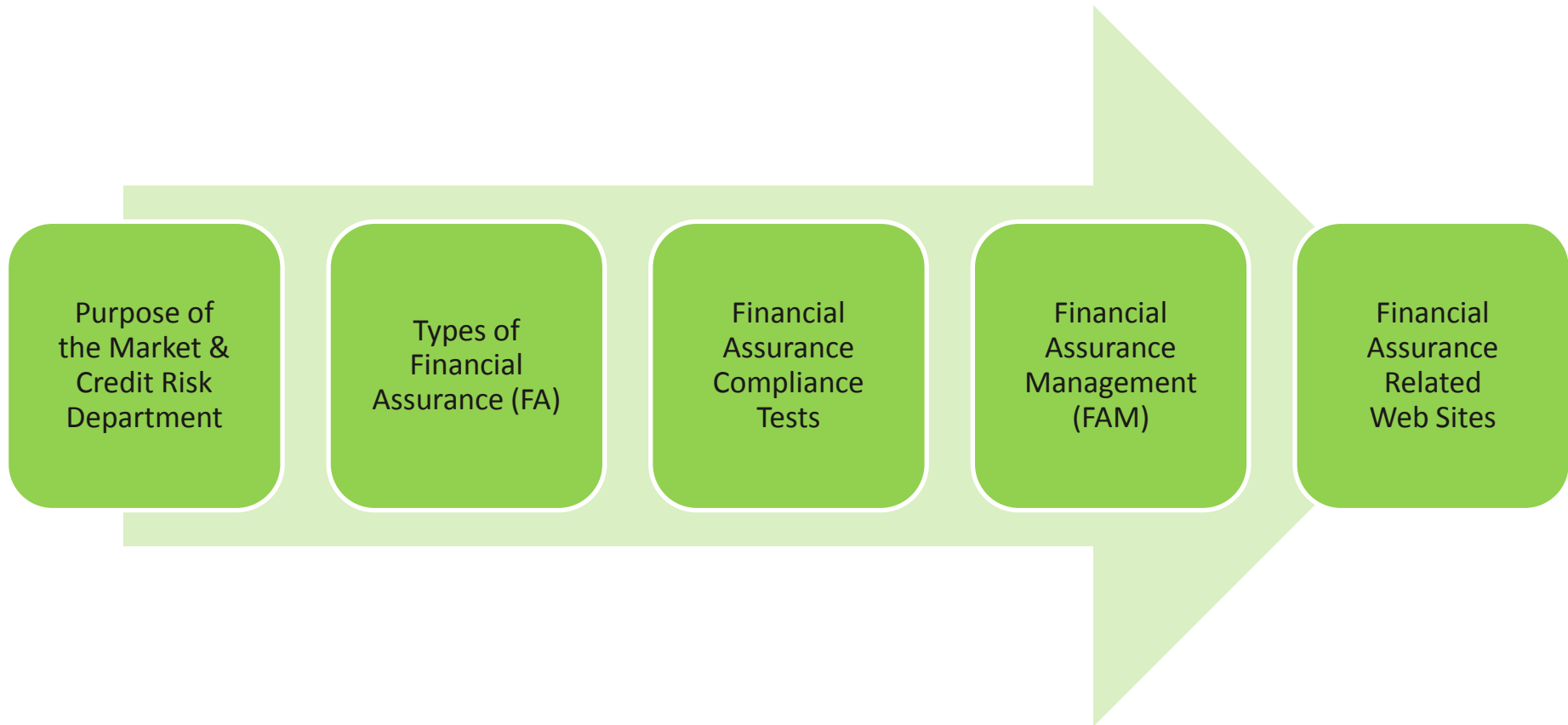
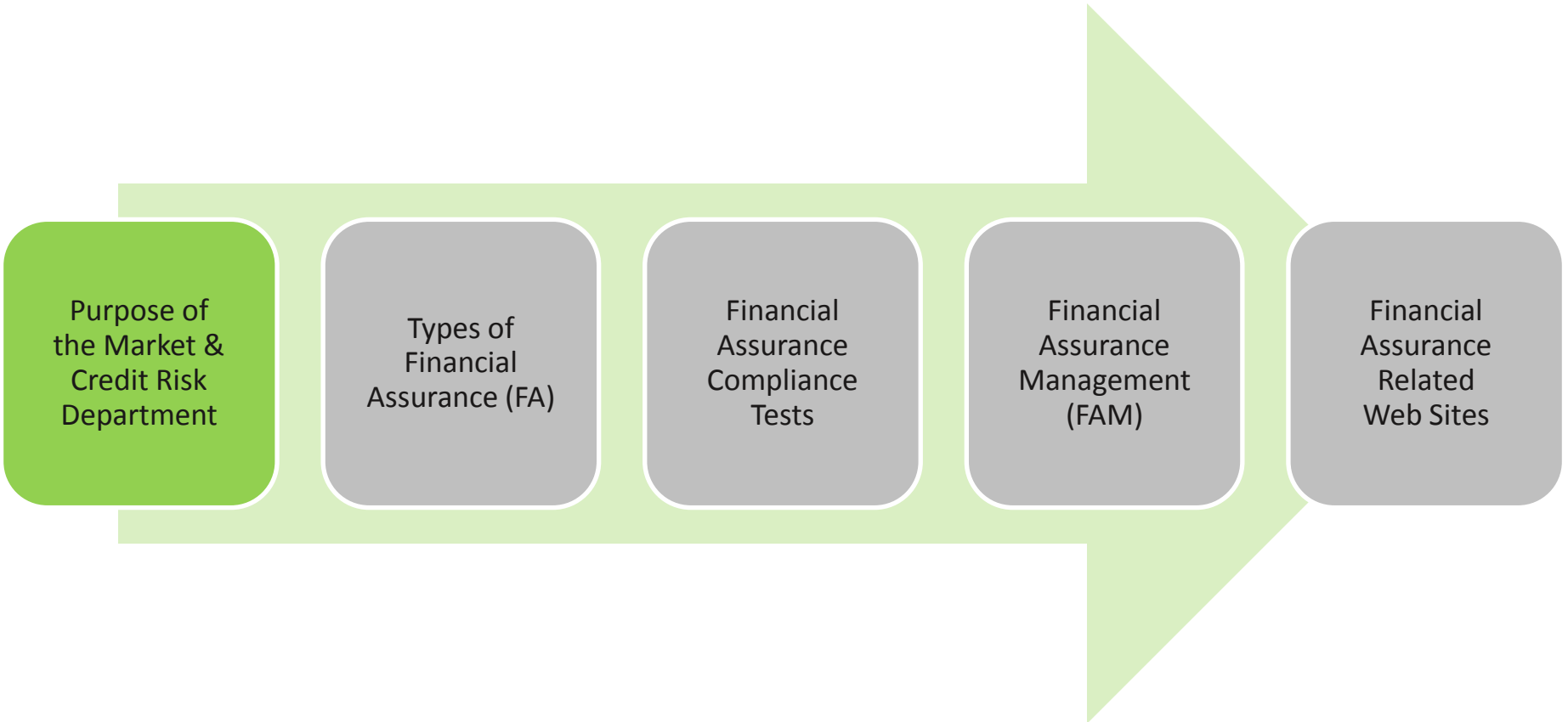


Financial Assurance

Kendra Radner
Supervisor, Market & Credit Risk Department

Topics Covered in this Module

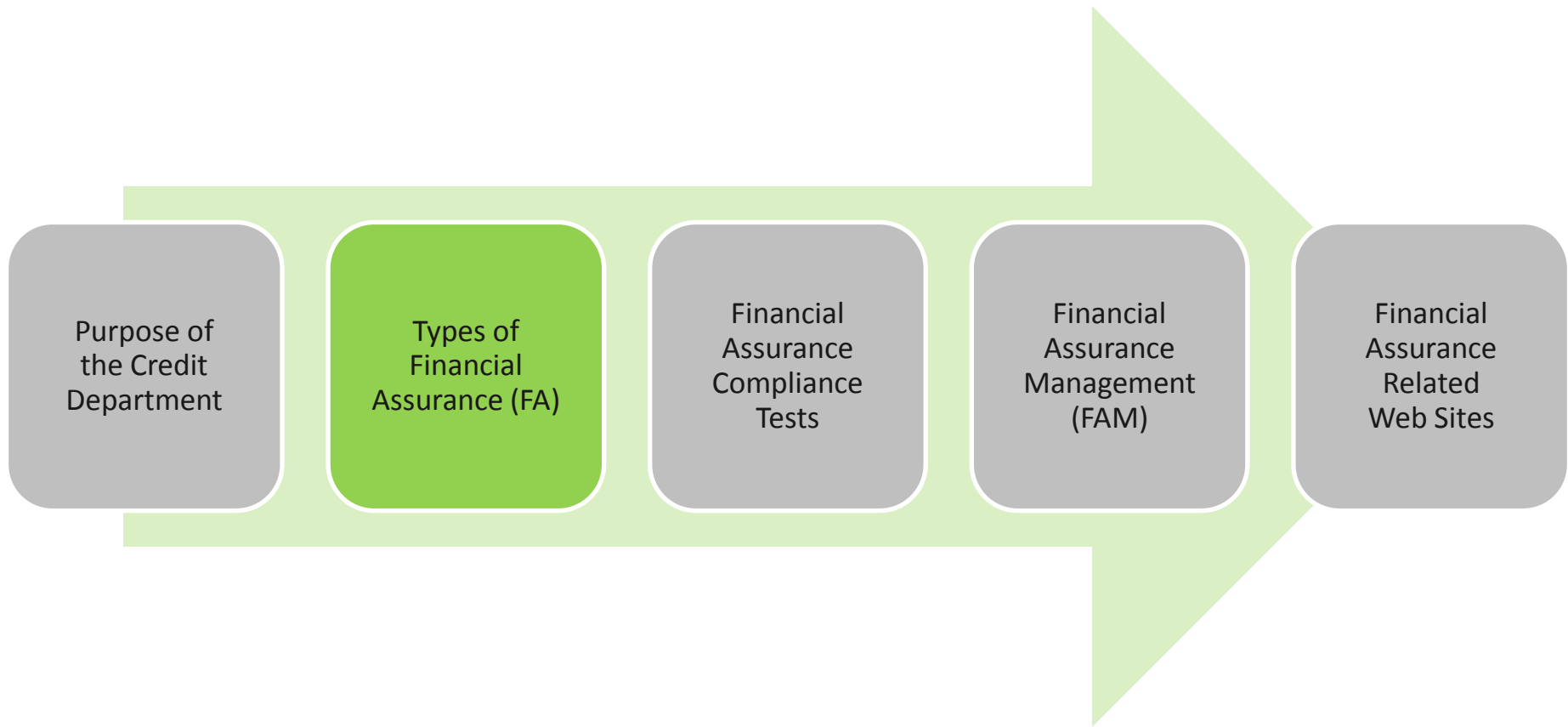




Market & Credit Risk Department

- Purpose: Work with Stakeholders to develop and maintain credit policies to match collateral requirements with the risk associated with the markets
- Goal: Minimize payment default exposure





Types of Financial Assurance:

Short-term Investments

- Short-term Investments
 - Black Rock Account



ISO Strongly Recommends Opening a BlackRock Account

Permits Participant to quickly cure defaults by wiring cash

No minimum balance or fee charged by BlackRock

Interest bearing

Participant can pay invoices via draw from BlackRock account

Participant can view statements online via Mutual Advantage to obtain daily interest balances and transaction detail

Types of Financial Assurance:

Credit Limits

Credit Limits

- Two types of limits: Market Credit Limit (MCL) and Transmission Credit Limit (TCL)
- Must have minimum Governing Rating of BBB-
- DRP-Only and FTR-Only customers do not qualify for a credit limit
- Limit based upon: credit rating (S&P, Moodys, Fitch) and tangible net worth
- Capped at minimum of:
 1. Total Net Worth calc
 2. Hard Cap of \$75M TCL, \$50M for MCL (\$25M TCL, \$25M MCL for rated municipalities and all unrated customer types)
 3. 20% of NEPOOL TADO
 4. Customer designated value < \$75M TCL, < \$50M MCL
- If not rated, must meet credit threshold (described on next slide)
- Backed by Credit Insurance Policy paid for by participants with a limit.

Requirements for Non-Rated Credit Limit

- Potential for a credit limit equal to 0.5% of that Participant's tangible net worth (Assets, Less Liabilities, Less Intangible Assets) if the credit threshold is satisfied
- Credit threshold consists of three financial ratios:
 1. Current ratio ≥ 1.0
 2. Debt-to-capital ratio ≤ 0.6
 3. Interest coverage ratio ≥ 2.0

Types of Financial Assurance:

Letter of Credit

Letter of Credit

- Bank must be on the ISO's List of Eligible Letter of Credit Issuers
- Must follow template language
- Expiration date must be set to 120 days in the future if used to cover Initial Financial Assurance Requirement
- ISO sets LCs to zero thirty (30) days prior to stated expiration date

Additional Letter of Credit Criteria

List of Eligible Letter of Credit Issuers

- Bank Organized under laws of United States or the United States Branch of a foreign bank
- Must satisfy one of the following conditions:
 - Be recognized by the Chicago Mercantile Exchange (“CME”) as an approved letter of credit bank; OR
 - Have a minimum long-term debt rating (or minimum corporate rating if no long-term debt rating) of an “A-” by S & P, or “A3” by Moodys, or “A-” by Fitch and have its letter of credit confirmed by a bank that is recognized by CME as an approved letter of credit issuer; OR
 - Have a minimum long-term debt rating (or minimum corporate rating if no long-term debt rating) of an “A-” by S & P, or “A3” by Moodys, or “A-” by Fitch and be approved by the ISO in its sole discretion

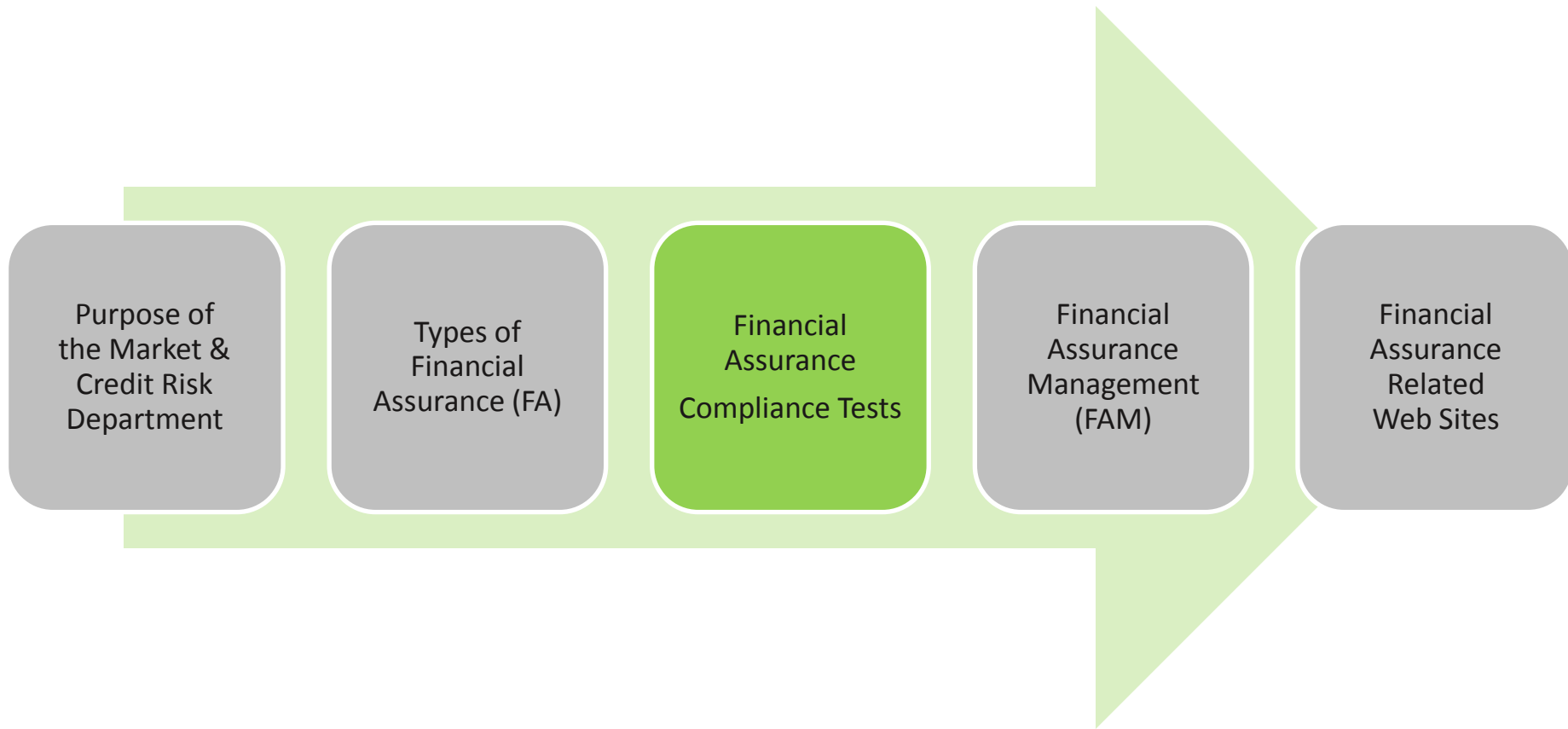
Additional Letter of Credit Criteria

No bank may issue or confirm letters of credit in an amount exceeding:

- \$100 million in aggregate for any single Market Participant
- \$150 million in aggregate for a group of affiliated entities

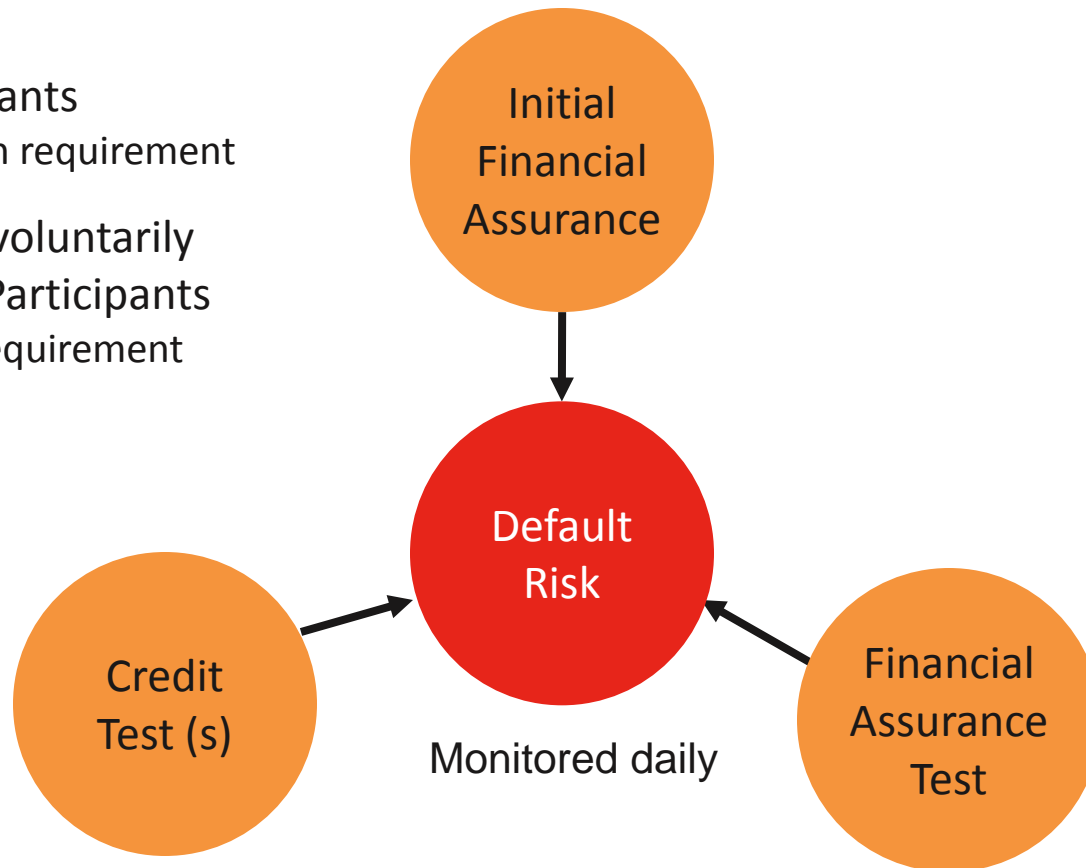
Letter of Credit cannot be issued or confirmed by an affiliate* of the Market Participant

* Affiliate, for purposes of Section I of the Tariff, is any person or entity which controls, is controlled by, or is under common control by another person or entity. For purposes of this definition, "control" means the possession, directly or indirectly and whether acting alone or in conjunction with others, of the authority to direct the management or policies of a person or entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.



Financial Assurance Compliance Tests

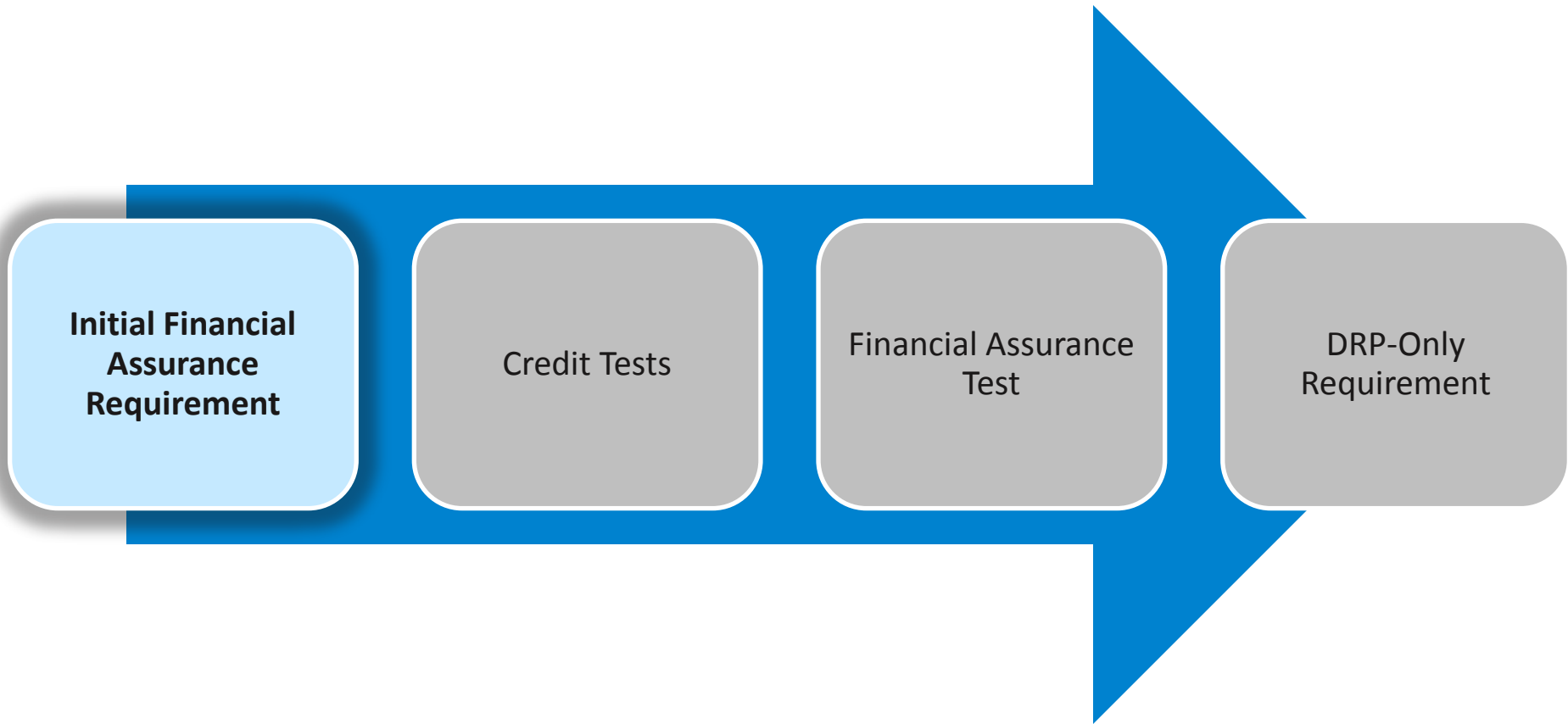
- New Participants
 - Three month requirement
- Returning Involuntarily Terminated Participants
 - Six month requirement



- Non-Municipal Participants
- Municipal Participants
- Demand Response Provider Only (DRP Only)
- Financial Transmission Rights Only (FTR Only)

- Non-Market Participant Transmission Customer (NMPTC)

Financial Assurance Credit Tests



Initial Financial Assurance

New Applicant Requirement

- Estimated activity used in calculation is sourced from the applicant's completed credit department application

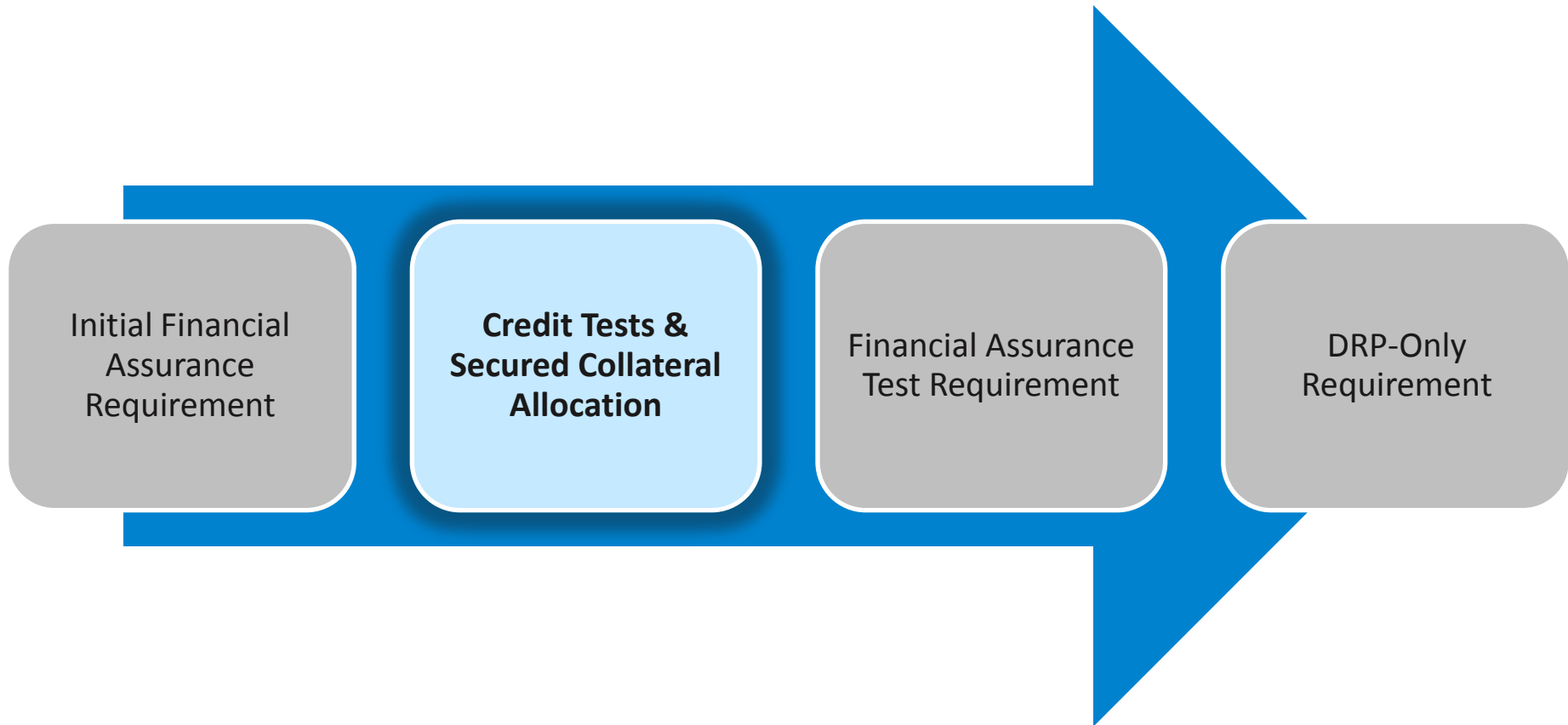
Designed to minimize exposure to an immediate IFA threshold breach

Minimum requirement for new Participants; however requirement is the greater of initial Financial Assurance or applicable financial assurance test

Can only be covered by Cash Investments (BlackRock) or Letter of Credit

Calculation estimates Participant expenses and possible exposure from activity during 3.5 week period

Financial Assurance Compliance Tests



Market Credit Test:

Market Participants

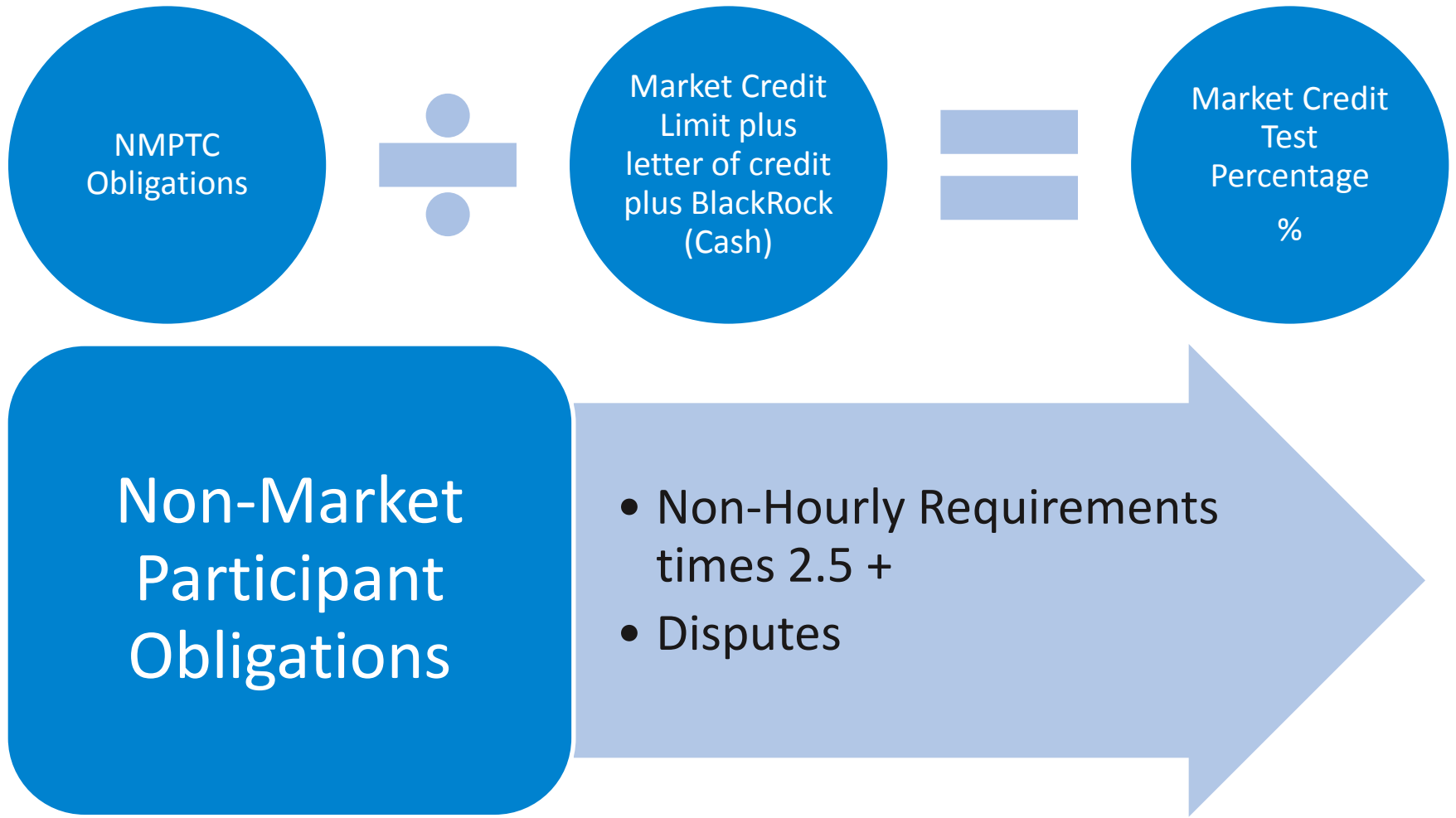


Market Participant Obligations

- Hourly Requirements +
- Non-Hourly Requirements times 2.5 +
- Virtual Requirements +
- FCM Requirements +
- Demand Resource Requirement (if applicable) +
- Disputes

Market Credit Test:

Non-Market Participant Transmission Customer (NMPTC)



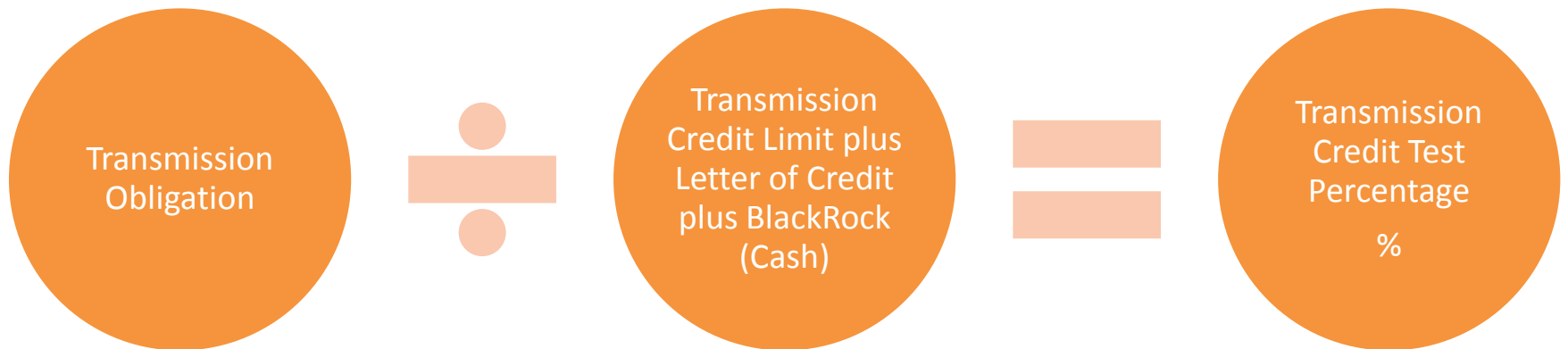
FTR Credit Test



FTR Requirements

- Settlement Risk Financial Assurance +
- Bid Financial Assurance +
- Award Financial Assurance +
- Settlement Financial Assurance

Transmission Credit Test

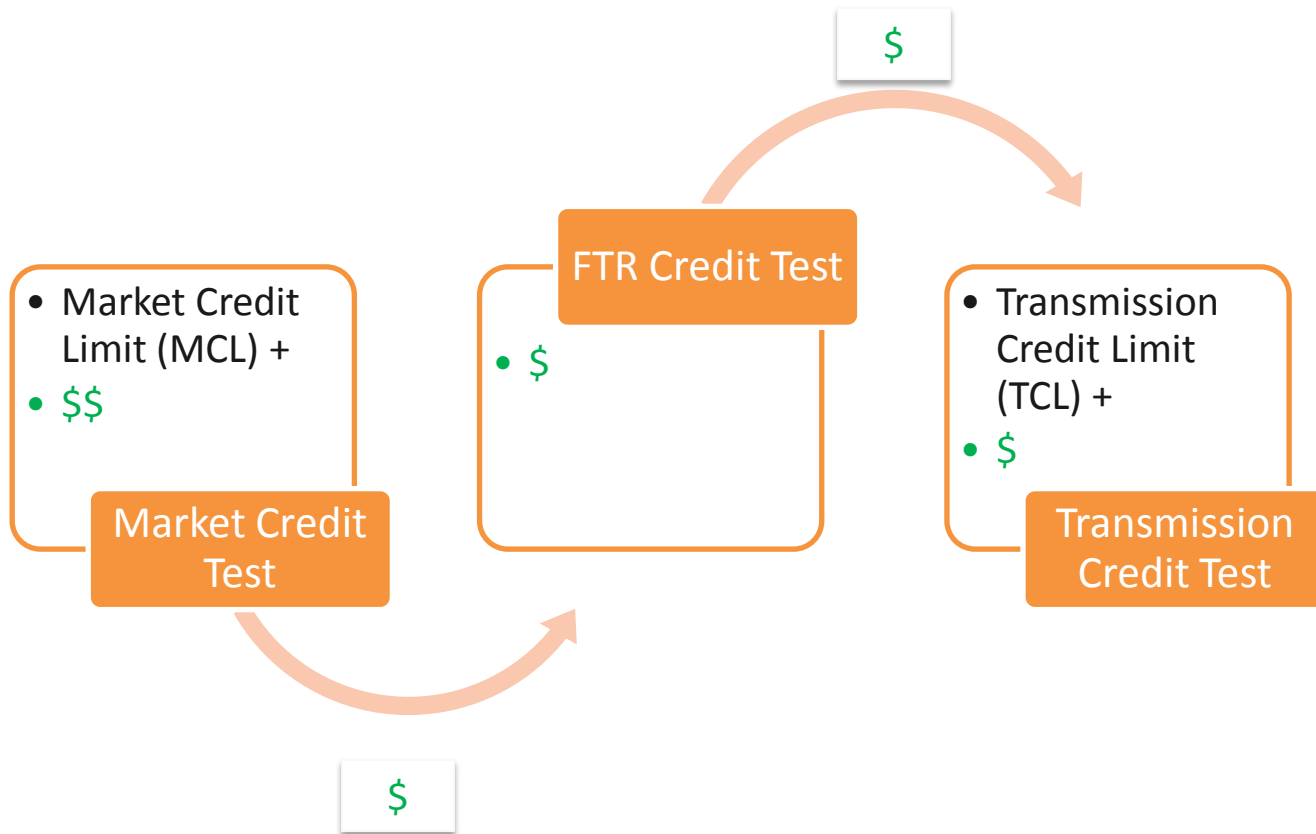


Transmission Obligation

- Transmission Requirement times 2.5
- Transmission Requirement is equal to the average of Transmission Charges (OATT schedules 1,8,9) over two most recently invoiced calendar months

Credit Test:

Secured Collateral Allocation



- Total Collateral \$\$ equals the sum of participant's Cash (BlackRock) and Letter of Credit
- Excess Collateral \$ is the remaining amount of collateral available after application to the preceding test.

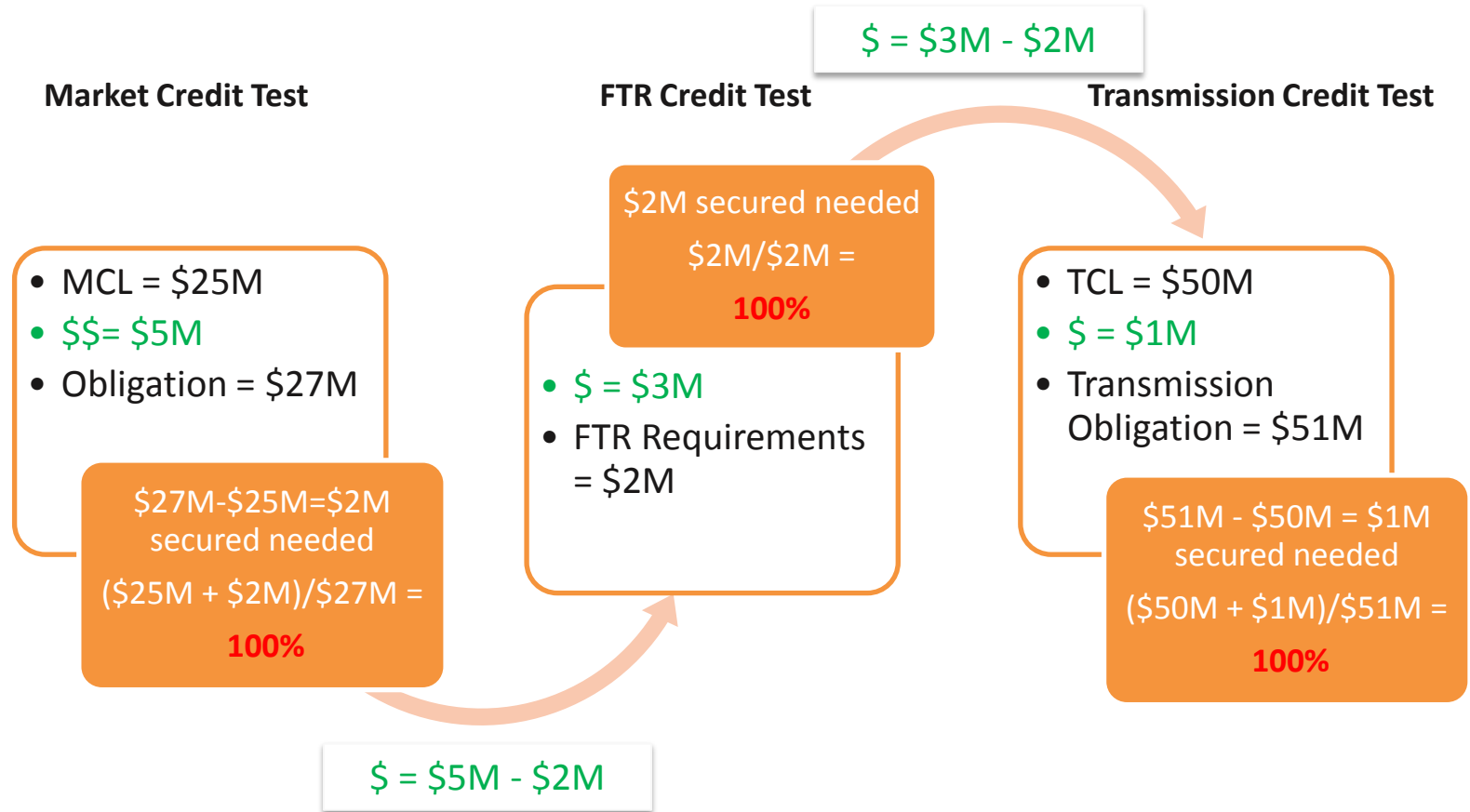
Credit Test:

Secured Collateral Allocation Example

- Example Details
 - Market Credit Limit = \$25 million
 - Transmission Credit Limit = \$50 million
 - BlackRock (cash collateral) = \$0.00
 - Letter of Credit = \$5 million
 - Market Obligations = \$27 million
 - FTR Requirements = \$2 million
 - Transmission Obligations = \$51 million

Credit Test:

Secured Collateral Allocation Example



- Total Collateral \$\$ equals the sum of participant's Cash (BlackRock) and Letter of Credit
- Excess Collateral \$ is the remaining amount of collateral available after application to the preceding test.

Credit Test:

Rounds of Secured Collateral Allocation

Total Collateral

(\$)



Transmission
Credit Test

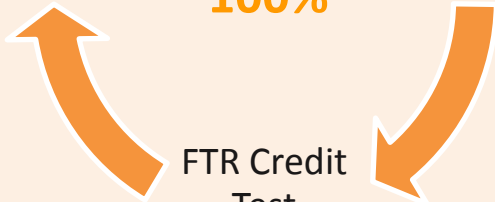
3

Round 1

100%

Market
Credit Test

1



FTR Credit
Test

2

Transmission
Credit Test

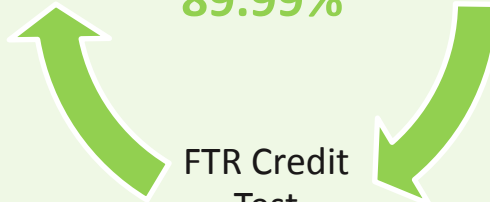
6

Round 2

89.99%

Market
Credit Test

4



FTR Credit
Test

5

Transmission
Credit Test

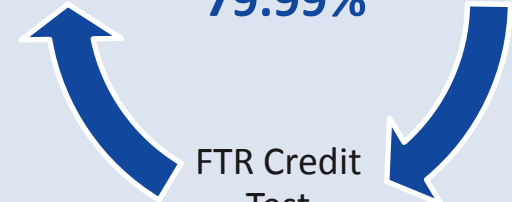
9

Round 3

79.99%

Market
Credit Test

7



FTR Credit
Test

8

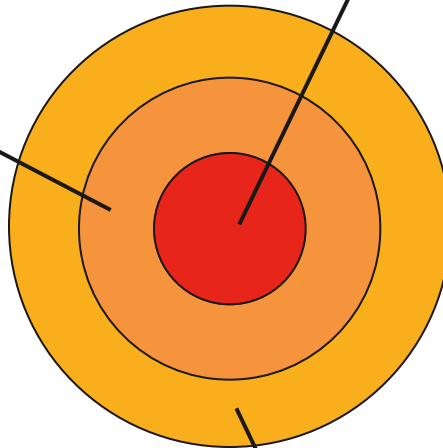
Credit Test:

Notification & Penalties

Credit Test: Targets Market Participants with a CTP \geq 80%

90% CTP

- 90% notice issued
 - CTP \geq 90%,
 - If $>$ 100% but cure amount is $<$ \$1,000
- Must cure by the fifth business day
- If not cured, All Participant Notice emailed



100% CTP

- 100% notice issued
 - CTP $>$ 100% and cure amount is \geq \$1,000
- Every Notice greater than 5 in the past twelve months results in a \$1,000 fee
- Must cure by next business day at 10:00 a.m.
- If not cured, Suspension

80% CTP

- 80% notice issued
 - CTP \geq 80%
- No action required, simply a warning

Note: For CTP \geq 90% or $>$ 100%, a single notice per day will be issued even though the participant is also considered to be in breach of lower percentage (s), 80% OR 80% and 90%, respectively.

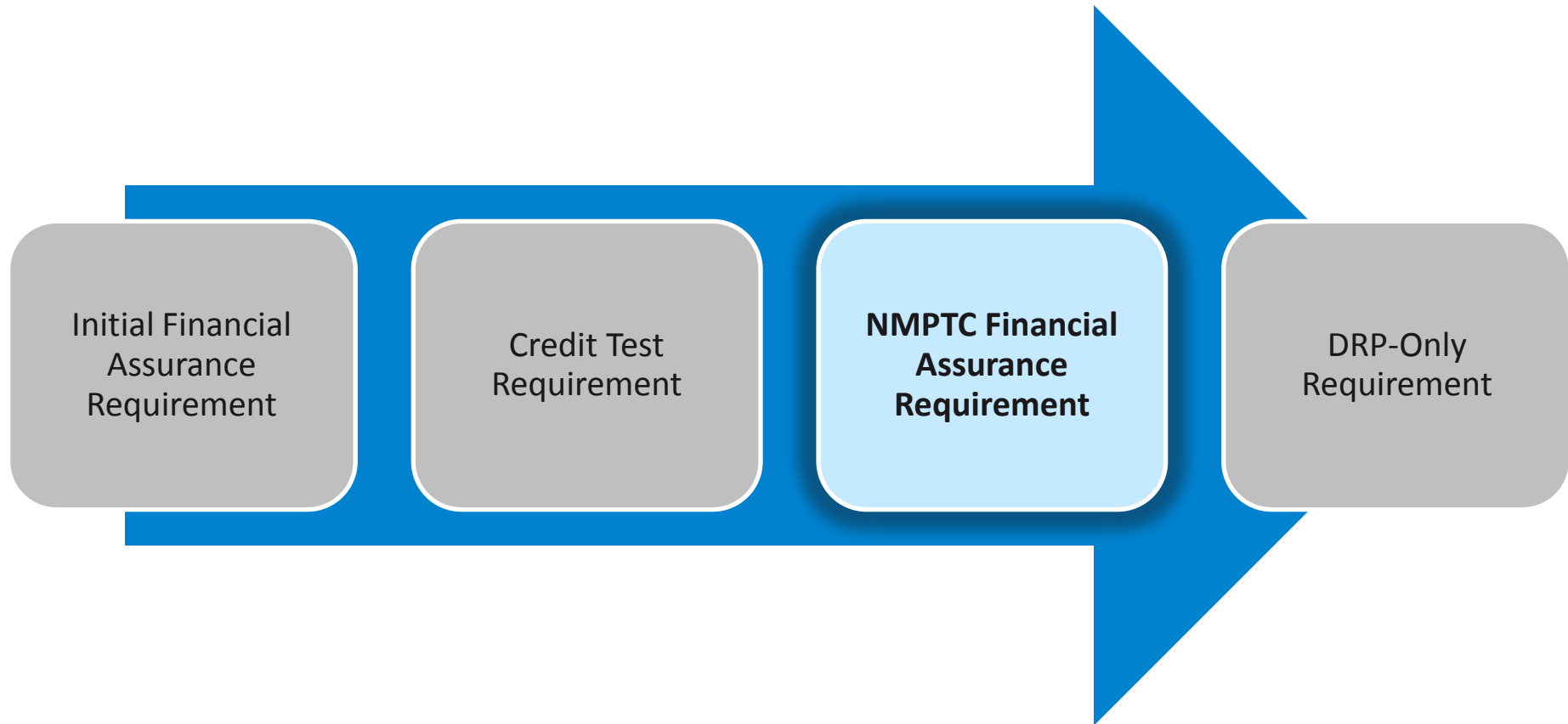
Credit Test:

*Consequences of Failure to Cure 100% Credit Threshold Breach**

- Failure to cure a 100% breach prior to deadline triggers the **Suspension Procedure:**
 - Participant will be suspended from:
 - NEPOOL markets
 - Receiving transmission service under the tariff
 - Voting on matters before the Participants or any Technical Committees
 - An “All Participants” suspension notice will be issued to:
 - All members and alternates to the Participants Committee
 - New England Governors
 - New England Regulatory Agencies
 - All billing and financial assurance (credit) contacts
 - Event is considered a FA default (counts toward termination criteria)
 - Participant will incur a \$1,000 suspension fee
 - All load assets will be reverted to Provider of Last Resort (POLR)

**Please refer to the Financial Assurance Policy for further details.*

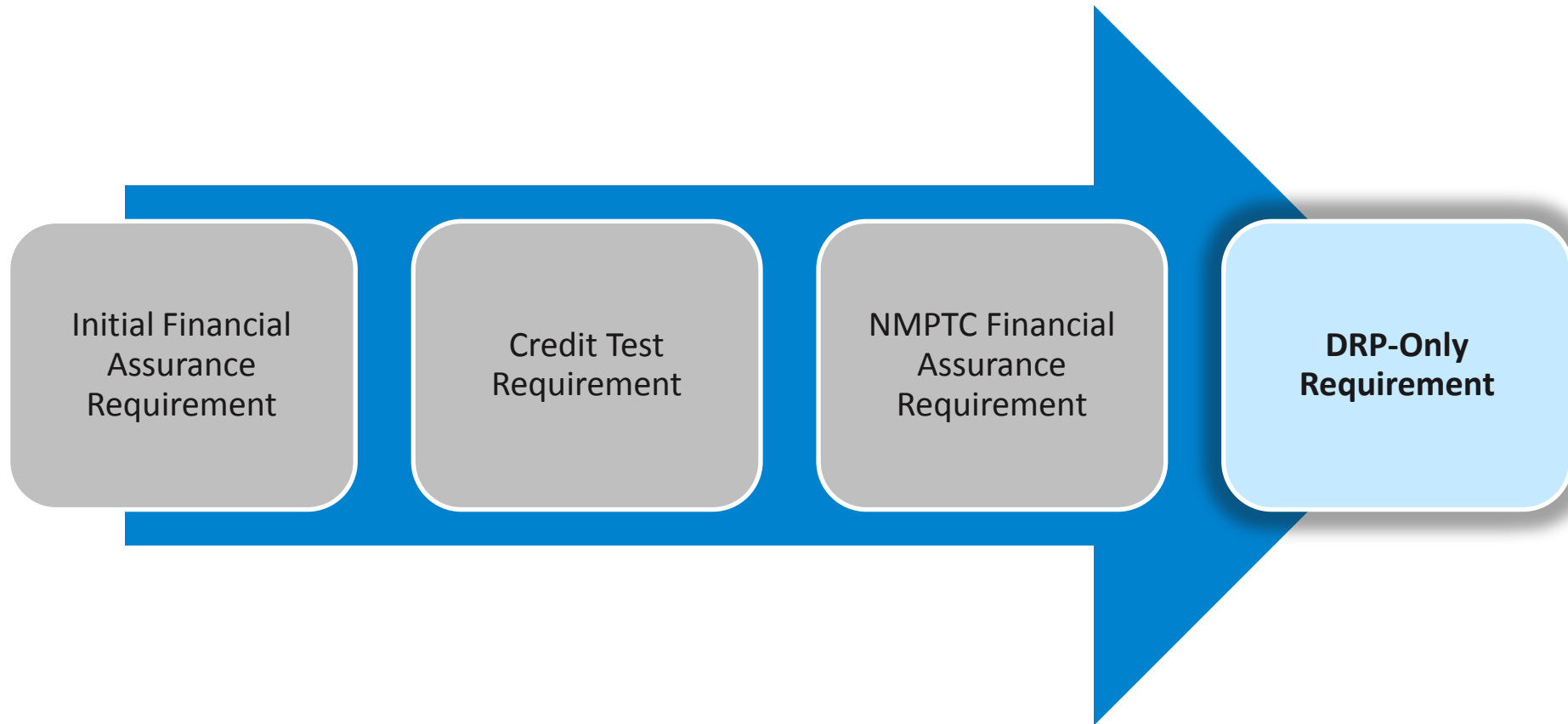
Financial Assurance Compliance Tests



Non-Market Participant Transmission Customers (NMPTC) Financial Assurance Requirement

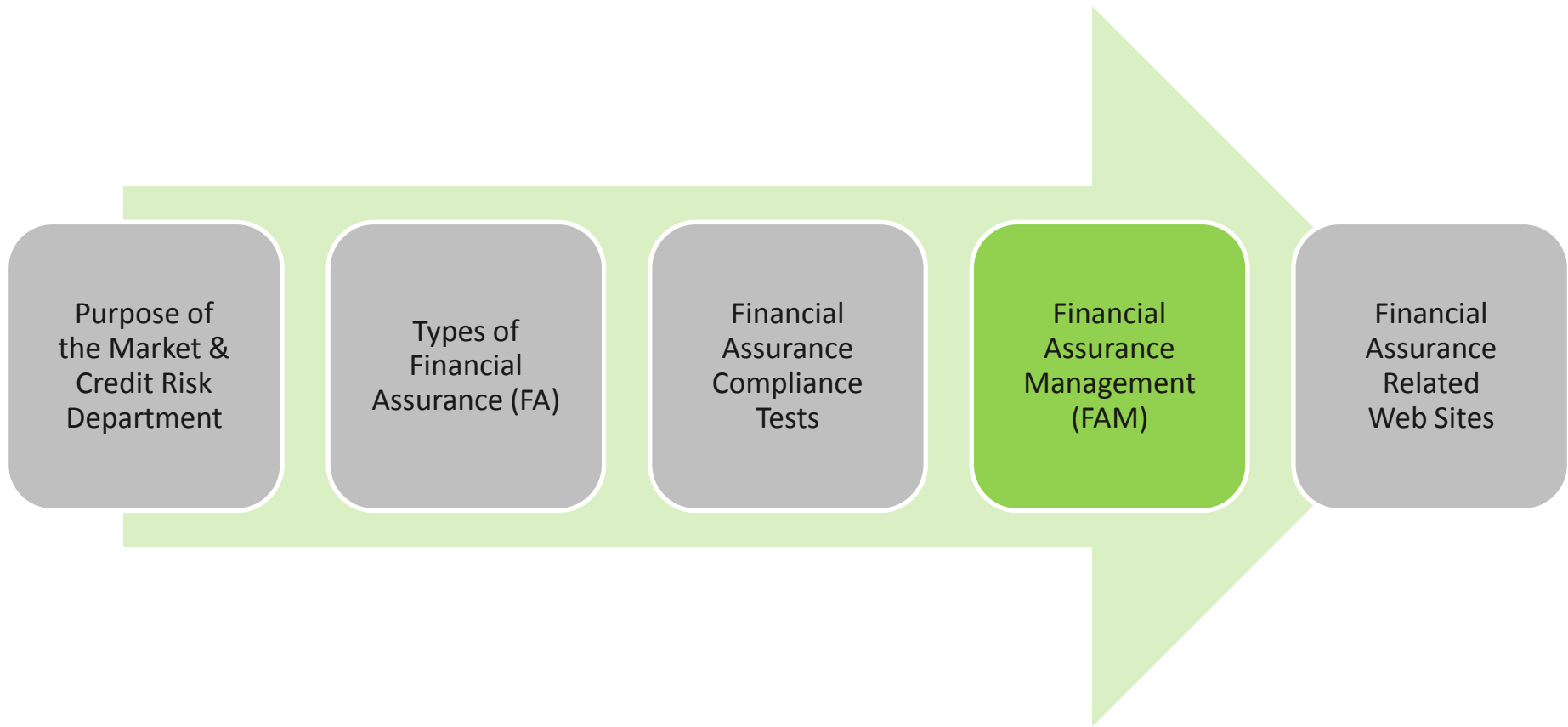
- Two and one-half (2.5) times the average monthly Non-Hourly Charges for such Non-Market Participant Transmission Customer over the two most recently invoiced calendar months (which amount shall not in any event be less than \$0); plus
- Amount of any unresolved Disputed Amounts received by such Non-Market Participant Transmission Customer

Financial Assurance Compliance Tests



DRP-Only Requirement

- Financial Assurance Requirement (Day-Ahead Load Response Program Only):
 - Registered Demand Resources < 2 MW
 - No FA requirement
 - Registered Demand Resources \geq 2 MW
 - FA requirement greater of:
 - \$1,500 x Total Registered MW
 - Individual TADO x 2.6 + Disputes
 - Available forms of FA are limited to BlackRock (cash) or Letter of Credit
 - Has the same penalties as CTP 80%, CTP 90%, and CTP 100%



FAM User Interface

General Tab

ISO new england
Financial Assurance Management
You are logged in as Radner, Kendra (User ID 600026853)

Customer Management

General
Requirements
Obligations Detail
Credit Limits

General Info

Please click the button to view the Warning messages

1234 – ABC Company Current Data Save Update Credit Limits Print PDF Print CSV

Show Terminated Show CTO Find

Customer Edit ?

Cust #	1234	Phone	9788275714		
Name	ABC Company				
Type	Rated Municipal Participant				
Address					
City		State		Zip	

Compliance Test Status ?

100% Defaults

365-Day Default Count 0

Default Date

100% Only Event History

Default Date	Def Type	Cure Date/Time	Cure Amount	Action
No items found.				

Misc Information Edit ?

Governance Only	No
Provisional NEPOOL Member	No
Standing Order	No
Black Rock Account Number	
Member Effective Date	03/01/2003
Member Termination Date	
ISO Eligible LOC Issuer	No
Financial Reporting Reqs Met	Yes
Market Credit Limit Opt-Out	No
Transparency Credit Limit Opt-Out	No

Payment Defaults Add ?

No items found.

Market Suspensions Add ?

No items found.

Contacts ?

Only Show Contacts Of Type(s): Billing: FA:

Name	Job Title	Phone	Email
John Doe	Manager	413-123-4567	john.doe@abc.com


Email All Contacts

Comments Add

No items found.

FAM User Interface

Requirements Tab



Financial Assurance Management

You are logged in as Radner, Kendra (User ID 600026853)

Customer Management
General
Requirements
Obligations Detail
Credit Limits

Requirements

[Please click the button to view the Warning messages](#)

1234 – ABC Company
Current Data
Save
Update Credit Limits
Print PDF
Print CSV

Show Terminated Show CTO Find

Participant's Financial Assurance Results

Test Requirement	Value	Initial FA Requirement	Value
Total Collateral	\$0.00	✂ ✖ Calculated Requirement	
Market Credit Limit	\$15,027,707.46	Total FA	N/A
Transmission Credit Limit	\$25,000,000.00	Requirement Expiration Date	

	Market Credit Test	FTR Credit Test	Transmission Credit Test	IFA Test	Cure Amounts
Available FA	\$15,027,707.46	\$0.00	\$25,000,000.00		
Obligation	\$36,330.94	\$0.00	\$74,791.00		
Credit Test Amount	\$15,027,707.46	\$0.00	\$25,000,000.00		
Credit Test Percentage	0.24%	0.00%	0.30%	N/A	
Deficient FA@100%	\$0.00	\$0.00	\$0.00	N/A	\$0.00
Deficient FA@89%	\$0.00	\$0.00	\$0.00	N/A	\$0.00
Deficient FA@79%	\$0.00	\$0.00	\$0.00	N/A	\$0.00

Participant's Obligations

Hourly Requirements	\$13,056.29
Non-Hourly Requirements	\$13,423.58
Virtual Requirements	\$0.00
Disputes	\$87.67
FCM Requirements	\$9,763.40
Total Market Obligations	\$36,330.94
FTR Requirements	\$0.00
Total Transmission Obligations	\$74,791.00

Participant's Collateral

▶ Cash Investments	\$0.00
✂ Interim BlackRock Reductions	\$0.00
✂ Letter of Credit	\$0.00

FAM User Interface

Obligations Detail Tab

ISO new england
Financial Assurance Management
You are logged in as Radner, Kendra (User ID 600026853)

Customer Management
Credit Limits

General
Obligations Detail

Obligations Detail

Please click the button to view the Warning messages

1234 - ABC Company Current Data Save Update Credit Limits Print PDF Print CSV

Show Terminated Show CTO Find

Hourly Requirements

Unpaid Hourly Charges	\$2,745.06
Transactions (Early/Late Pmt)	\$0.00
Unbilled Hourly Settlements	\$4,401.12
Unsettled Hourly Obligation Estimate	\$5,910.11
Subtotal	\$13,056.29

Virtual Requirements

Bids w/ Proxy (uncleared) - Bucket 1	\$0.00
Bids w/ Proxy (cleared) - Bucket 2	\$0.00
Cleared Bids w/ LMPs(Unsettled - DA & RT) - Bucket 3	\$0.00
Cleared Bids w/ LMPs (Unsettled - RT Only) - Bucket 4	\$0.00
Subtotal	\$0.00

Non-Hourly Requirements

Average of Prior 2 Months Non-Hourly Charges	\$5,369.43
Adjustment Factor	2.50
Subtotal	\$13,423.58

Unsettled Virtual Detail (information only)

No items found.

FCM Requirements

Type	Obligation
Capacity Load Charge	\$9,763.40
Current Subtotal	\$9,763.40

FTR Requirements

Unbilled FTR Settlements	\$0.00
Auction Obligations	
Pre-awarded Bids ST	\$0.00
Pre-awarded Bids LT	\$0.00
Total Award Obligations (TAO) ST	\$0.00
Total Award Obligations (TAO) LT	\$0.00
Settlement Risk Obligations	
Pre-Awarded Bids ST	\$0.00
Pre-Awarded Bids LT	\$0.00
Awarded ST	\$0.00
Awarded LT	\$0.00
Subtotal	\$0.00

Transmission Requirements

Average of Prior Two Months Transmission Charges	\$29,916.40
Adjustment Factor	2.50
Total Transmission Obligations(Adj Factor X 2-Month Average)	\$74,791.00

Disputes

Request for Billing Adjustment #	Amount
11/10/02	\$2.75
09/10/02	\$84.92
Subtotal	\$87.67

FAM User Interface

Credit Limit Tab

ISO new england
Financial Assurance Management
You are logged in as Radner, Kendra (User ID 600026853)

Customer Management
Credit Limits

General
Requirements
Obligations Detail
Credit Limits

Credit Limits

Please click the button to view the Warning messages

1234 – ABC Company Current Data Save Update Credit Limits Print PDF Print CSV

Show Terminated Show CTO Find

Credit Limit Edit ?

Tangible Net Worth	Rating Factor	
\$0.00	X 0.03050 =	N/A
NEPOOL TADO		
\$75,138,537.30	X 20% =	\$15,027,707.46
Eligibility Flags		
Specified Market CL Cap =		N/A
Specified Transmission CL Cap =		N/A
Customer Type Max Cap =		\$25,000,000.00
Market Credit Limit = \$15,027,707.46		
Transmission Credit Limit = \$25,000,000.00		

Credit Rating Edit ?

Agency	Rating
S&P	None
Moody's	A1
Fitch	None

Governing Rating: **A1**

Tangible Net Worth Edit ?

Assets	\$0.00
- Liabilities	\$0.00
- Intangible Assets(patents, goodwill, etc.)	\$0.00
= Tangible Net Worth	\$0.00

Un-Rated Credit Limit Criteria

EBITDA Edit ?

Earnings	\$0.00
+ Interest	\$0.00
+ Taxes	\$0.00
+ Depreciation	\$0.00
+ Amortization	\$0.00
= EBITDA	\$0.00
Interest Expense \$0.00	
EBITDA To Interest Expense Ratio = $\frac{\$0.00}{\$0.00} = 0.000$	

Credit Threshold requires EBITDA to Interest Expense Ratio >= 2.0

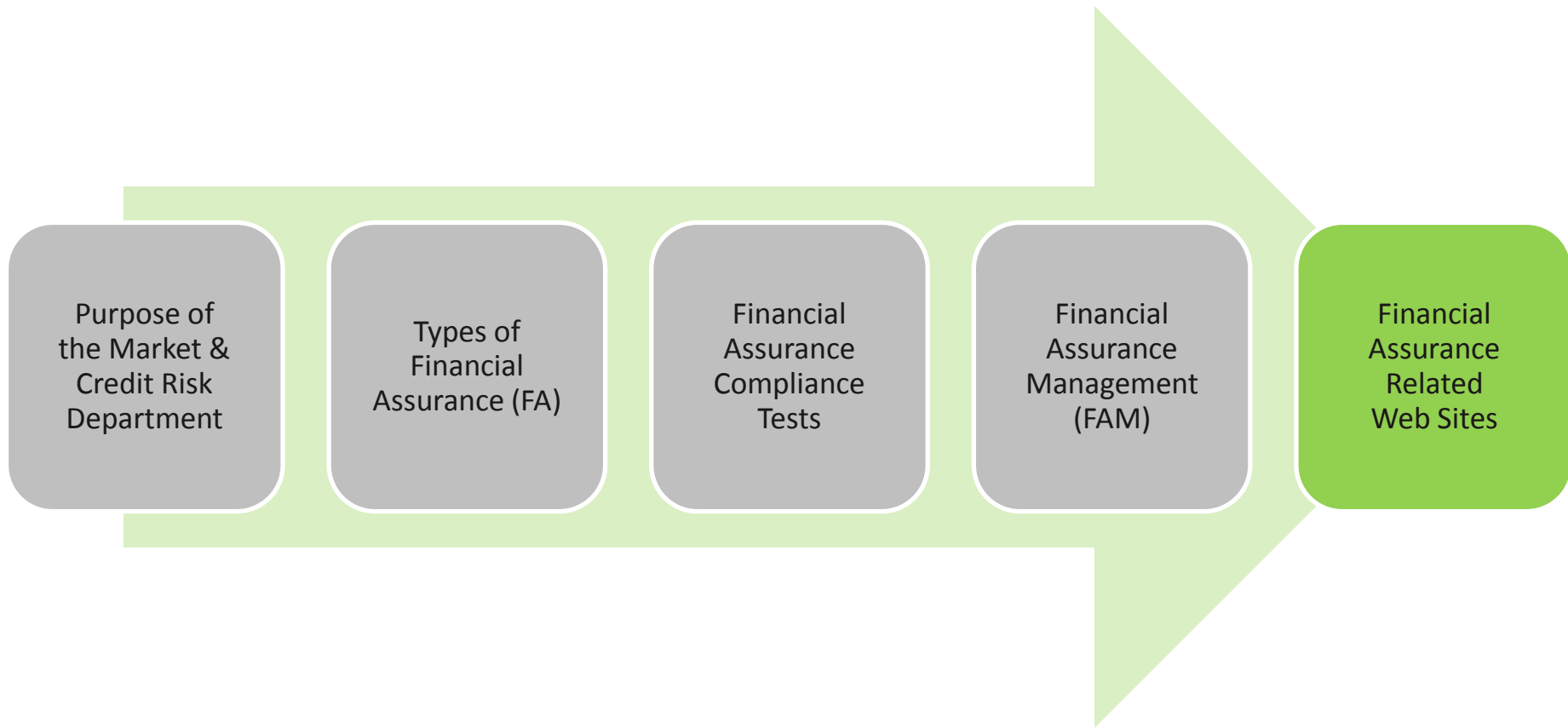
Debt To Capital Ratio Edit ?

Total Debt(Including Borrowing)	\$100.00
Shareholder Equity	\$10.00
Debt To Capital Ratio = $\frac{\$100.00}{\$10.00 + \$100.00} = 0.909$	

Credit Threshold requires Debt to Capital Ratio <= 0.60

Current Ratio Edit ?

Current Assets	\$0.00
Current Liabilities	\$0.00



Financial Assurance Related Websites

- ISO-TEN (Training):
[Support > Training > ISO Training & Events Network](#)
 - Financial Transmission Rights & Virtual FA Requirements Training
 - Forward Capacity Market FA Requirements Training
- Financial Assurance Home Page:
[Settlements > Financial Assurance & Credit](#)
 - FA Policies & Amendments, New Application Documents, List of Eligible Letter of Credit Issuer list, Collateral Documents, FA Reports, FA Spreadsheet Templates, FA Reports (Virtual Bid Proxy & DALMPC), Bill Payment with Cash Collateral, and Miscellaneous (includes FTR obligations example)
- Frequently Asked Questions: [Support > FAQs](#)

Financial Assurance Related Websites

- Order 741 & 741-A Compliance Filing
Minimum Eligibility Criteria (Information Disclosure, Communications, Risk Management, Capitalization), \$50M Individual and Corporate Family Credit Limit Caps, 2 Day Collateral Cure Periods, Clarifies Material Adverse Change Clause
 - Filing: [Regulatory > Filings & Orders > ISO New England FERC Filings > June > ER11-3953-000](#)
 - Summary Presentation: [Committees & Working Groups > Participant Committee & Working Group > Participants Committee > Materials > May 6, 2011 > Supplemental Notice](#)

Contact Information

- For questions regarding outstanding margin calls (80%, 90%, 100% notices)
 - Contact Market & Credit Risk Department
creditdepartment@iso-ne.com
- For all other inquiries
 - Contact Market Services, Customer Support
custserv@iso-ne.com



