

Performance Targets for the Customer Interconnection Process

January, 2008

Reliable **Power**

Reliable **Markets**

Reliable **People**



Purpose



Purpose of today's session:

- Provide context on the current project environment
- Present the performance target concepts outlined in the discussion paper issued in December 2007
- Enable stakeholders to obtain additional information and clarity on performance targets

Outcomes



- Stakeholders have sufficient information on proposed performance target areas and can provide comments to AESO on:
 - Performance target areas
 - Reasonable cycle times for each target area
 - Reporting on performance targets

Agenda



- Current project environment
- Customer interconnection process and performance targets
- Next steps
- Questions

Current Project Environment

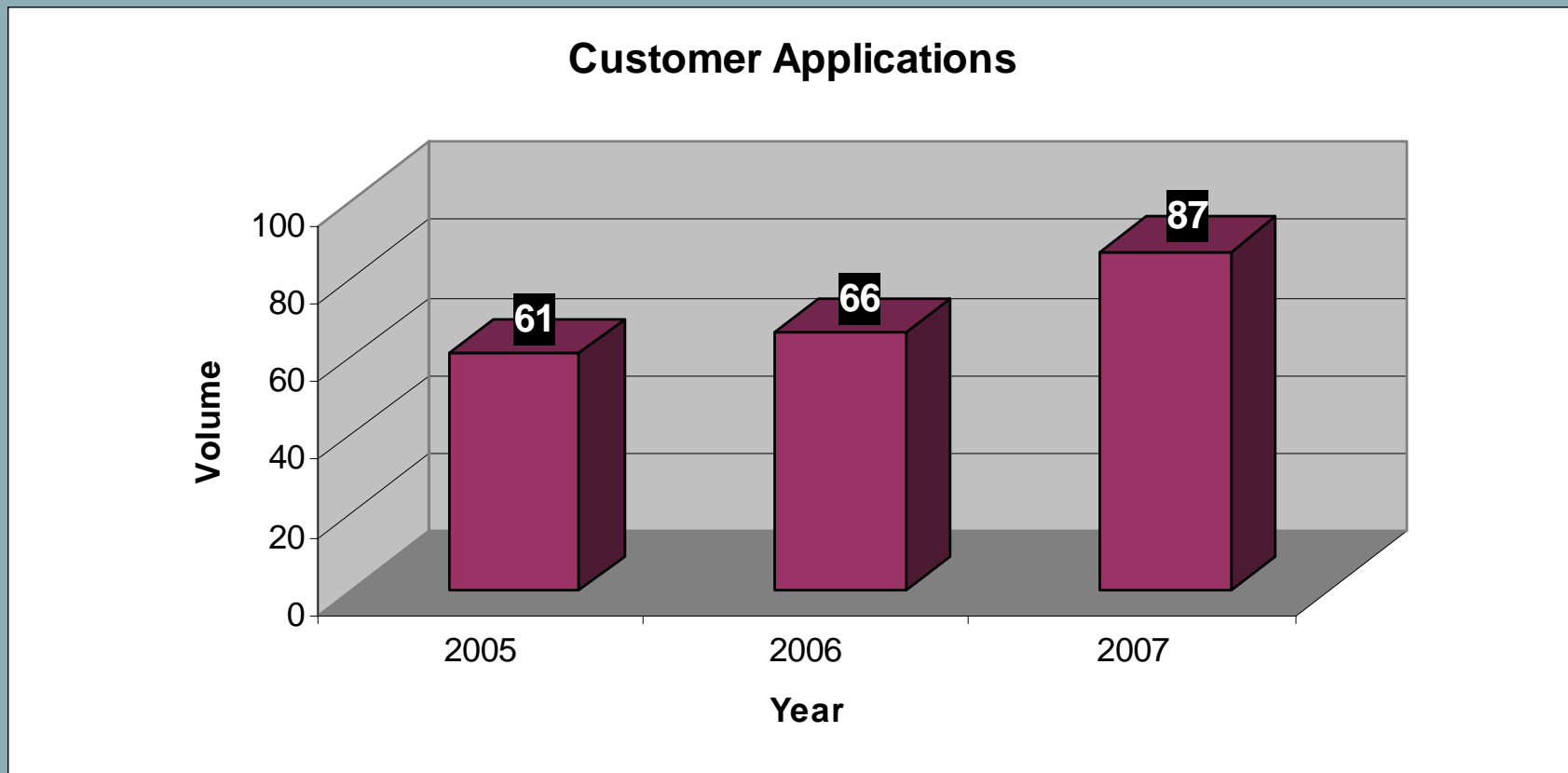


- **Alberta leading North America in load growth**
 - Growth in demand equal to adding two cities the size of Red Deer each year
 - Adequate supply in the near term but need ~ 5,000 MW by 2017 and 11,500 MW by 2027
- **Over last 20 years, power demand in Alberta has doubled but no major upgrades to the transmission backbone**
 - *Need transmission* to interconnect loads and generation for adequate supply and for reliability
 - Alberta's competitive electricity market is working and is providing more options



Current Project Environment

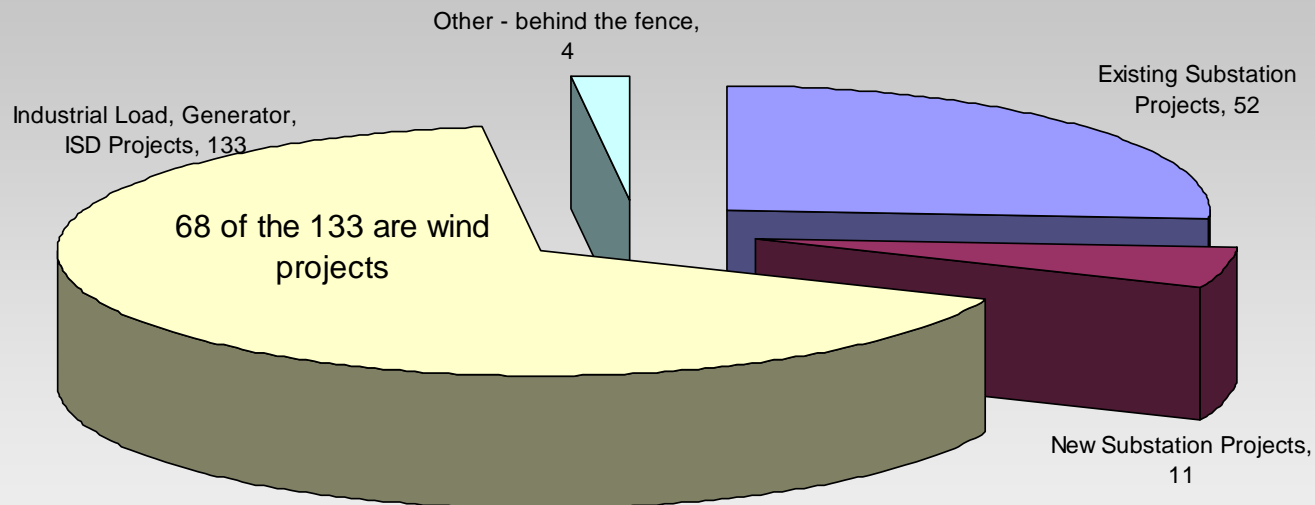
- Customer applications continue to increase



Current Project Environment

- 200 active customer projects
- 'Active' refers to projects that are at some stage between an application being received by AESO and final cost reconciliation with the customer

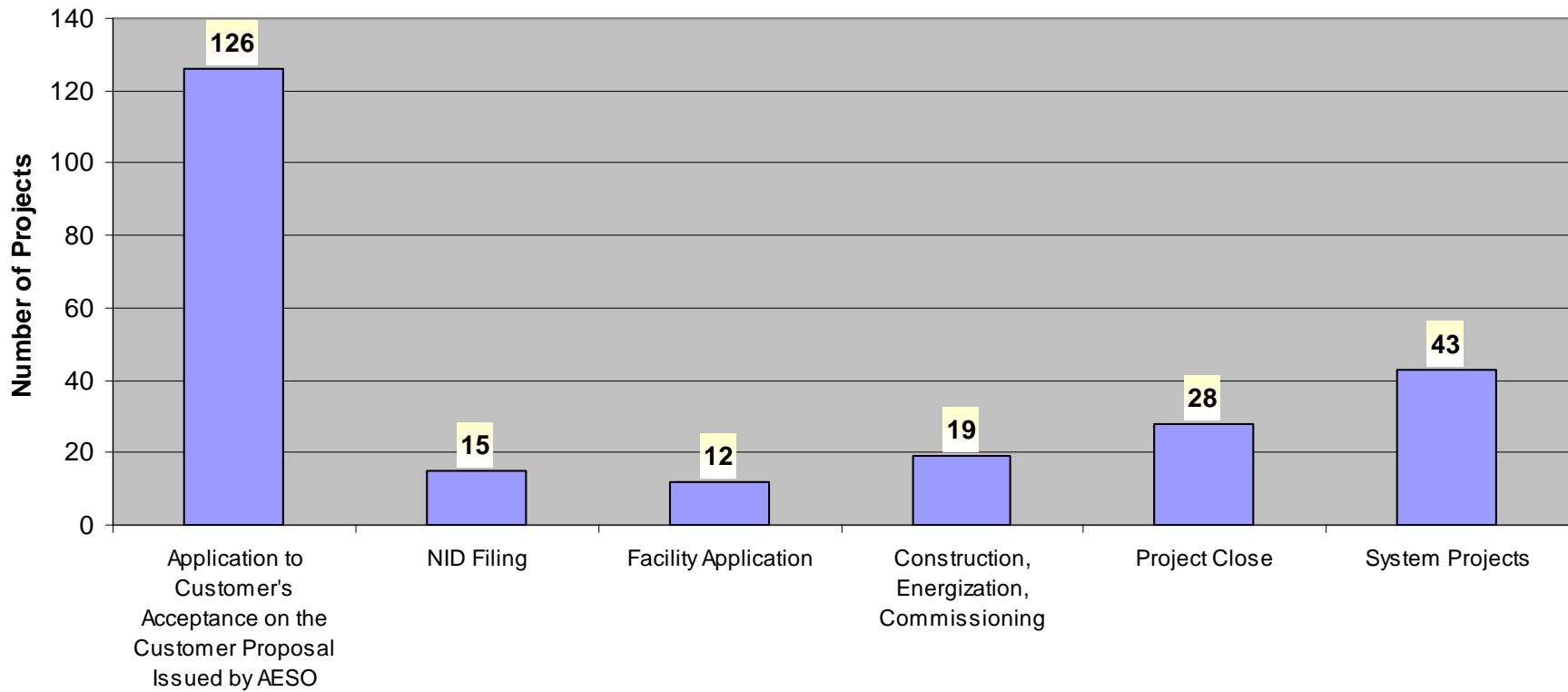
Project Analysis - by Project Type



Current Project Environment



Project Analysis

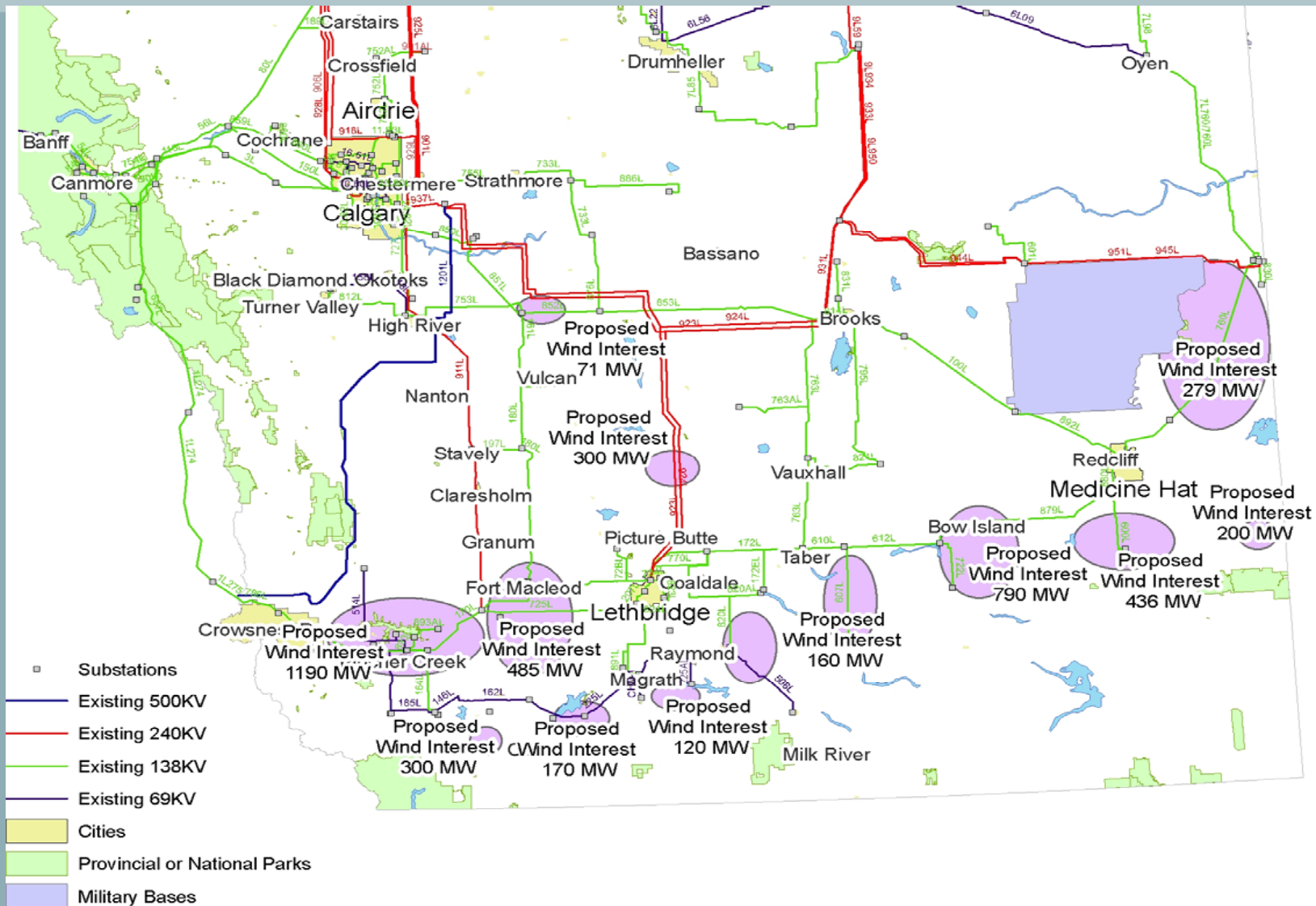


Current Project Environment

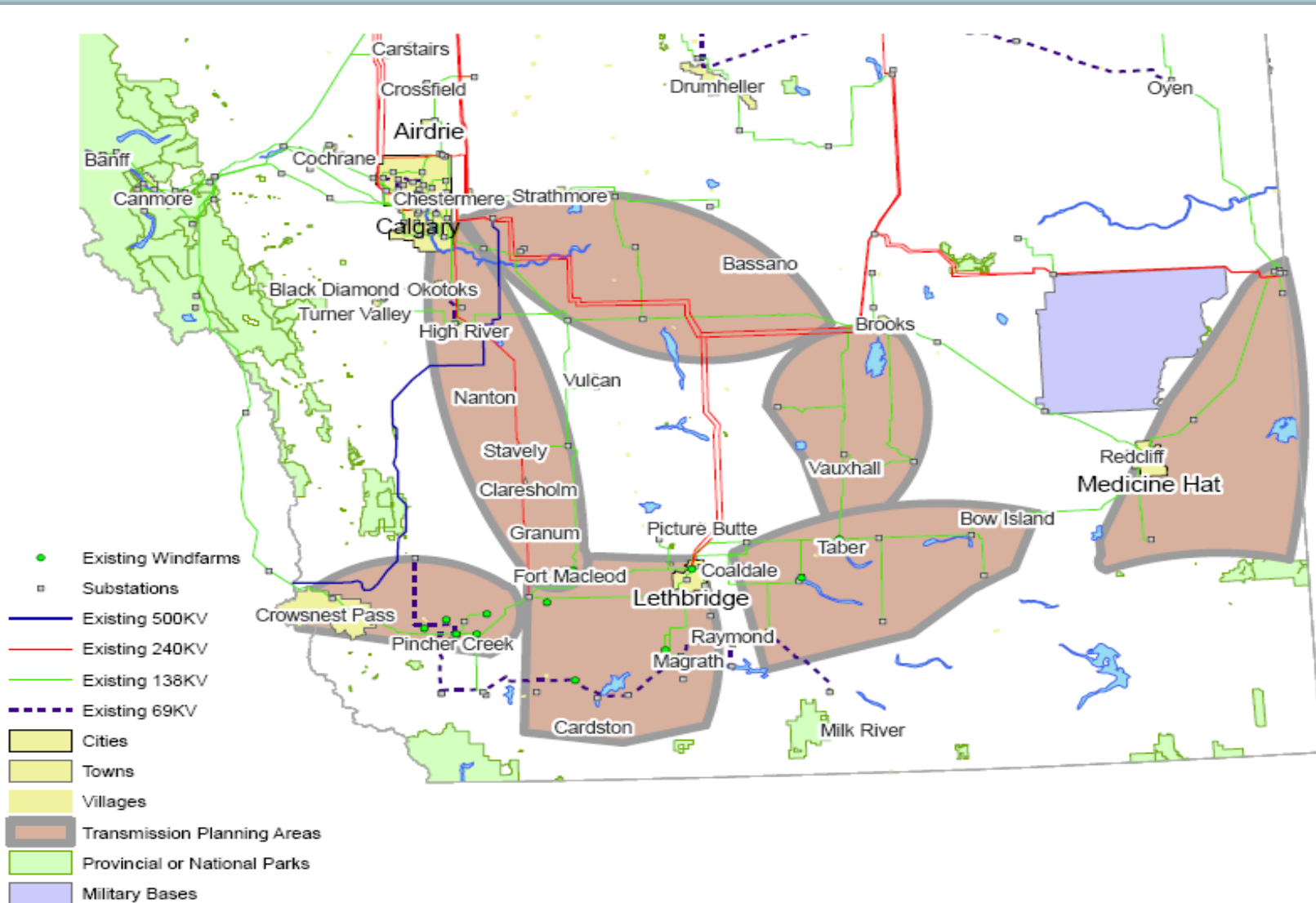


- Managing project cycle times continues to be challenging under current conditions:
 - Significant system reinforcement projects; can impact the complexity of customer projects
 - Increasing lead times for equipment
 - Transformers:
 - 240 kv @ 24+ months
 - 138 Kv @ 20+ months
 - Circuit Breakers: 24+ weeks
 - Steel poles: 26+ weeks
 - Increasing regulatory requirements:
 - Participant Involvement Program
 - Increasing project volumes
 - Results in a queue; resources may not be available to commence work immediately on each application
 - Resource capacity for the industry
 - Project volumes continue to increase
 - Tight human resource market

Current Project Environment



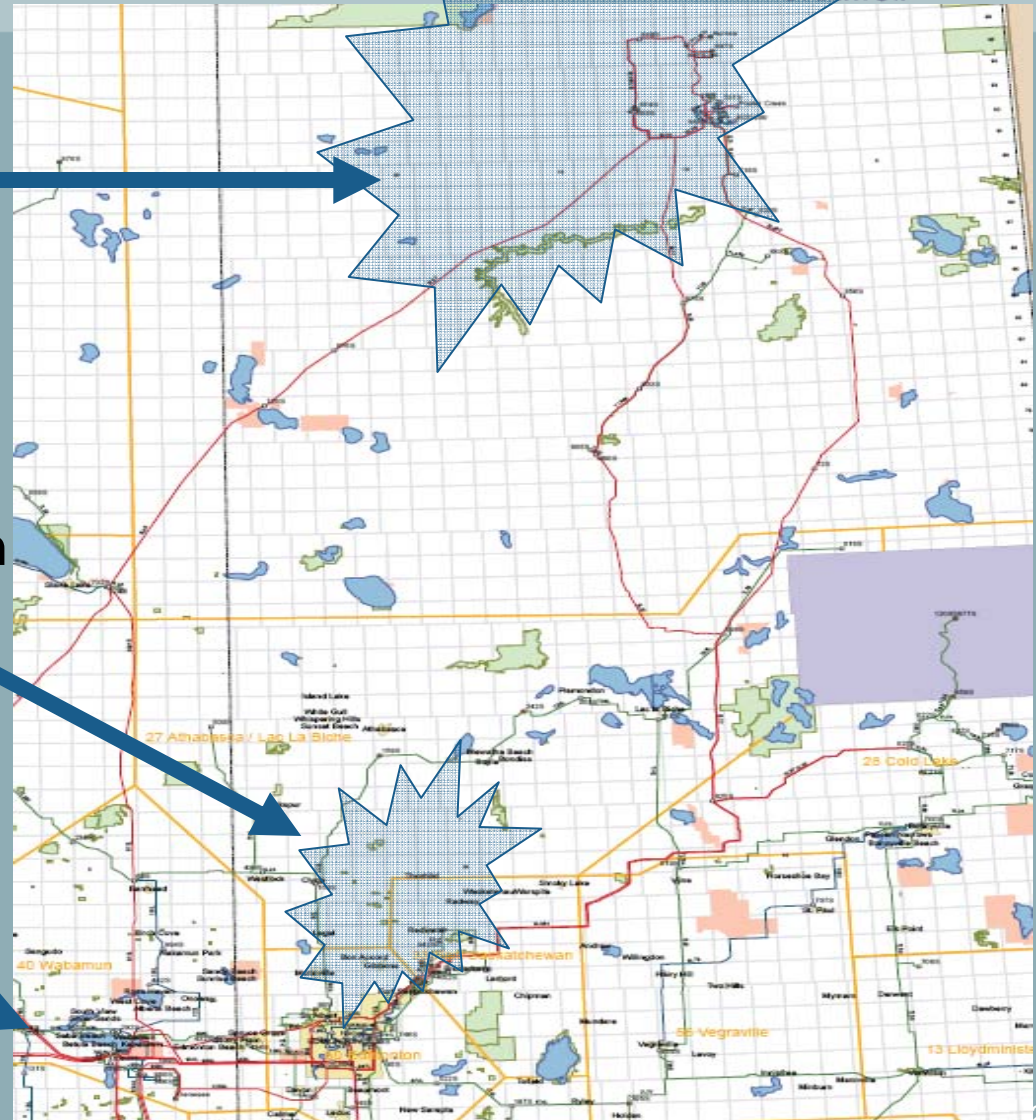
Current Project Environment



Current Project Environment



- Bitumen production in the Fort McMurray region expected to triple over the next ten years.
- New Upgraders and expansion of existing plants in Fort Saskatchewan to process the increased bitumen supply
- Both regions are supported by generation in the Lake Wabamun area



Customer Interconnection Process & Performance Targets



- Overview of the process
- Proposed performance target areas
- Actual cycle time information
- Reporting on performance targets

Performance Targets for the Customer Interconnection Process



- Opportunity to evolve the process
 - Begin by measuring performance against established targets
 - Further enhance the process based on the performance target results
- Compliance with the Transmission Regulation, Section 6
- Implementation of the performance targets by April 2008

Transmission Regulation Section 6



ISO business practices and performance targets

6 **(1)** The ISO must establish and make available to the public

(a) practices for the efficient and effective processing and making decisions about system access service applications, and

(b) performance targets and timeframes with respect to processing and making decisions about system access service applications.

- **(2)** The ISO must periodically make available to the public reports on meeting the performance targets and timeframes established under subsection (1).
- **(3)** The ISO must establish the practices, performance targets and timeframes described in subsection (1) not later than one year after this Regulation comes into force.

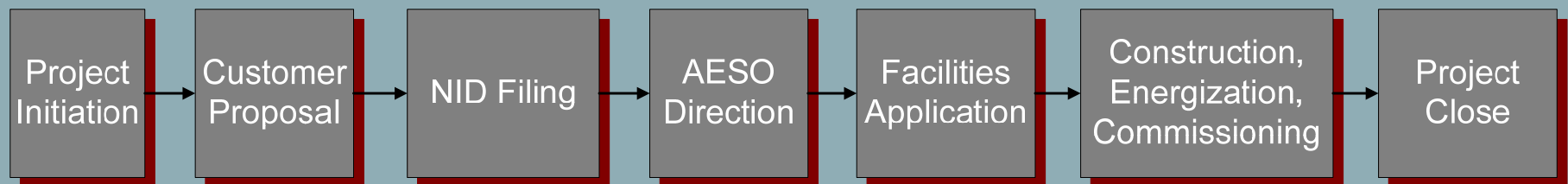
Customer Interconnection Processes & Key Phases



Processes:

- Existing Substation process
- New Substation process
- Industrial Load, Generator, ISD process

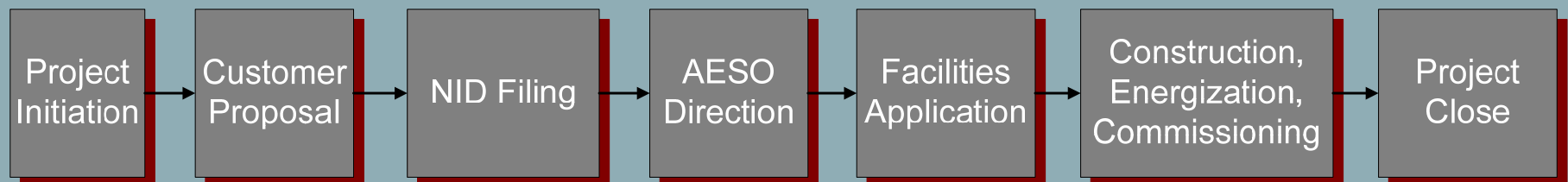
Key Phases:



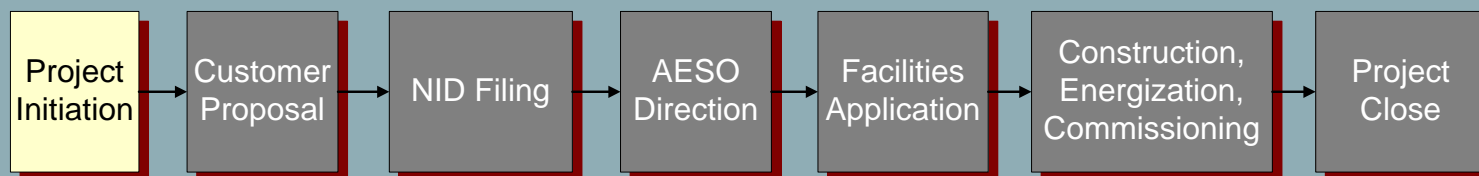
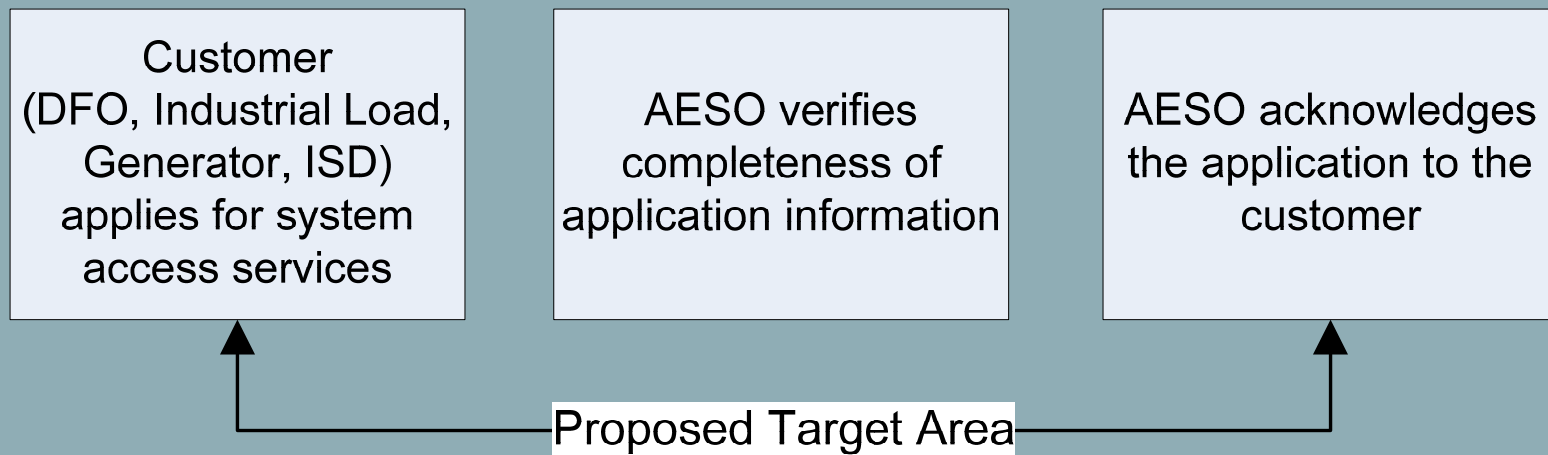
Proposed Areas for Performance Targets



1. **Project Initiation** – Receipt of Customer’s application to AESO’s acknowledgement of application
2. **Customer Proposal** – AESO’s acknowledgement of application to AESO’s issuance of the customer proposal
3. **Need Identification Document (NID) Filing** – Customer’s acceptance of the proposal issued by AESO to AESO’s filing of the NID with the Alberta Utilities Commission (AUC)
4. **AESO Direction** – AUC approval on the NID to AESO’s issuance of a Direction Letter to a Transmission Facility Owner (TFO)



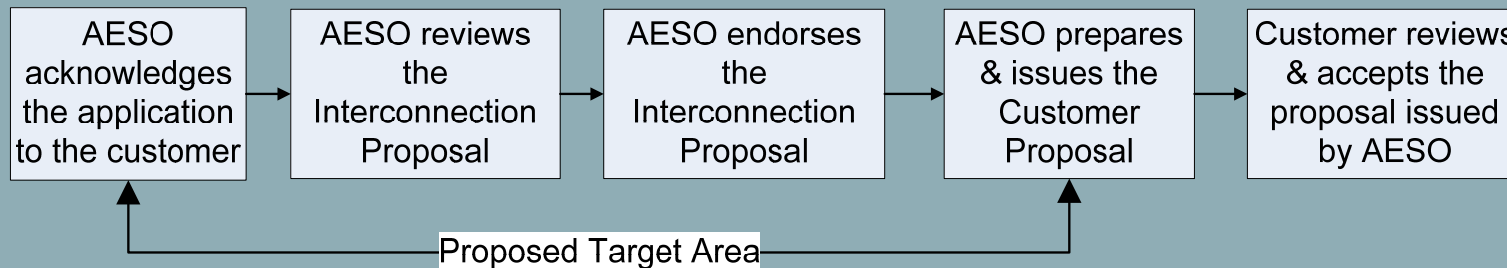
Performance Target Area – Project Initiation



Performance Target Area - Customer Proposal

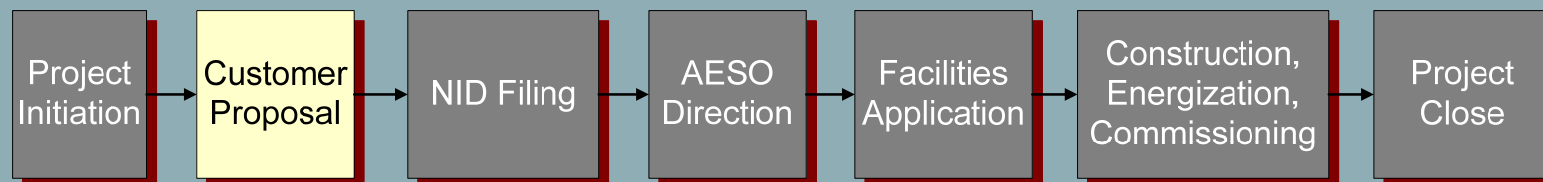
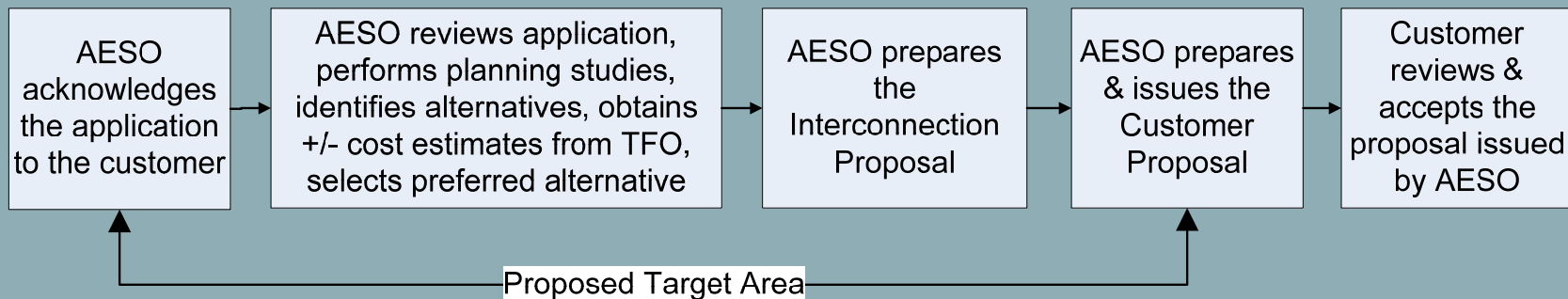


Existing Substation Process

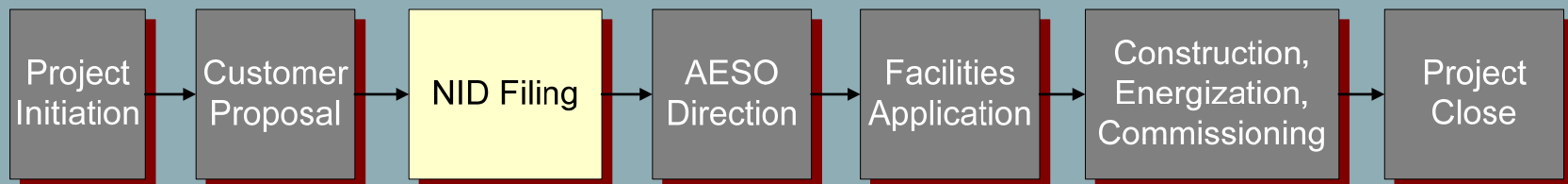
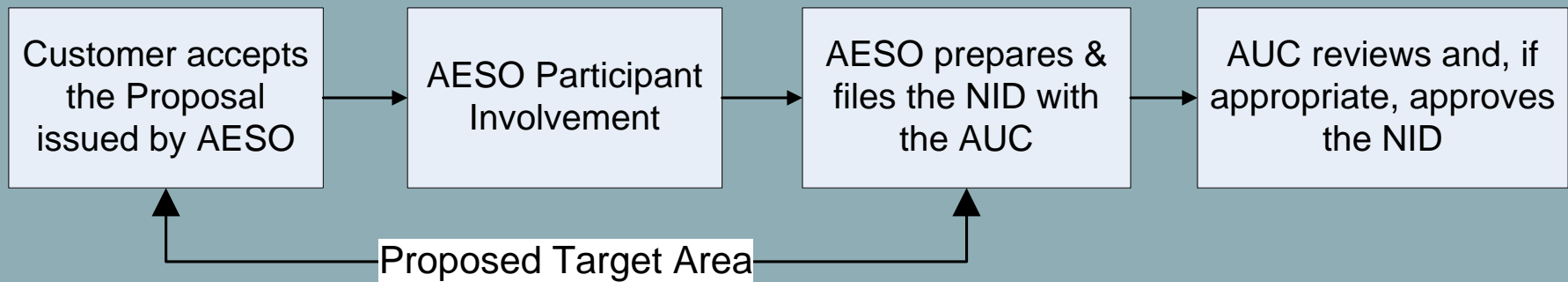


New Substation Process

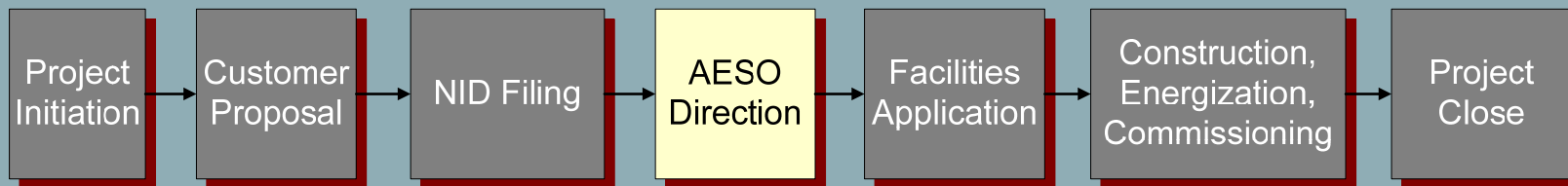
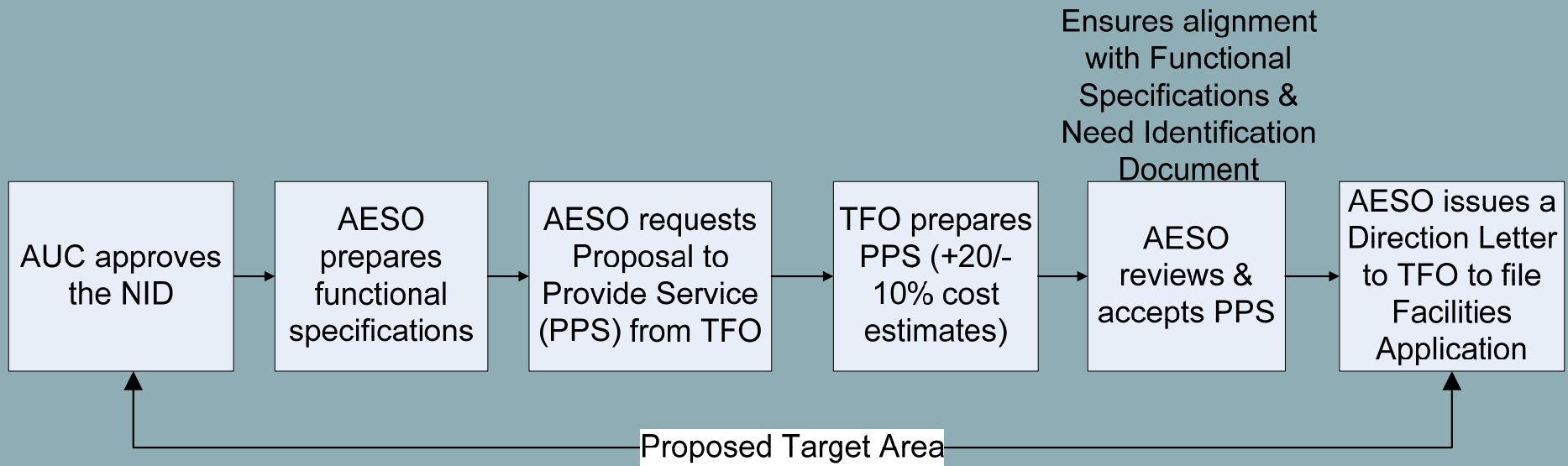
Industrial Load, Generator & ISD Process



Performance Target Area – NID Filing



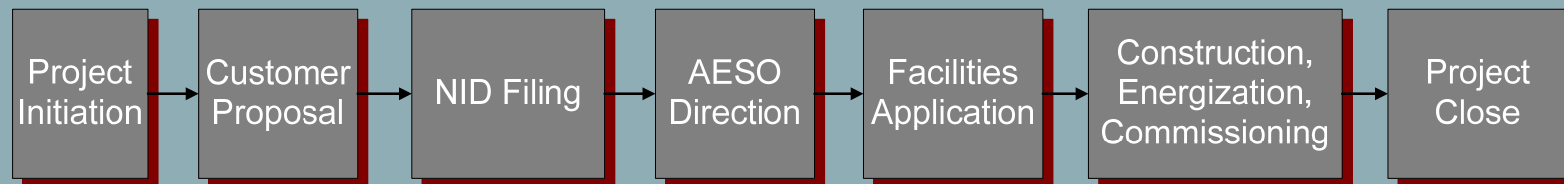
Performance Target Area – AESO Direction



Facilities Application

- TFO prepares and files a facilities application.
- AUC reviews the application and if approved, issues a permit and license.
- AESO Quarterly Reports provide facility application filing date and application approval date for each project.

[www.aeso.ca>>transmission>>project updates>>quarterly reports](http://www.aeso.ca>>transmission>>project%20updates>>quarterly%20reports)

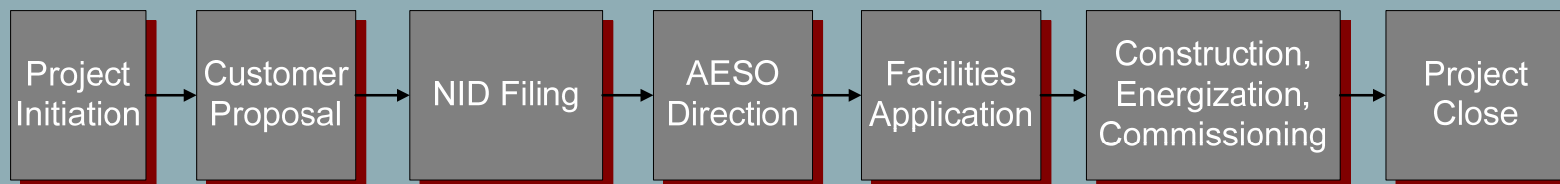


Construction, Energization, Commissioning



- TFO completes the detailed engineering, procures materials and constructs the facilities.
- Once all energization requirements are met AESO signs off on energization.
- TFO energizes facilities.
- Generators perform commissioning activities.
- AESO Quarterly Reports provide planned, forecast and actual energization dates.

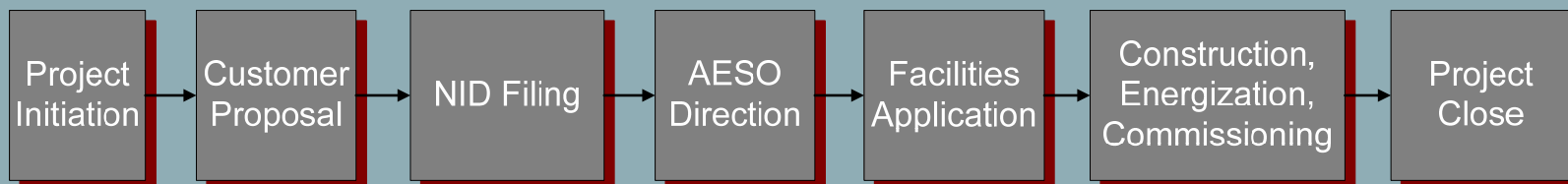
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Project Close



- AESO receives final costs from the TFO.
- AESO reconciles final costs with the customer contribution and contract terms.



Actual Cycle Times Based on Current Customer Projects



	Existing Substation Projects	New Substation Projects	Industrial Load, Generator, ISD Projects
Project Initiation	11 days	14 days	14 days
Customer Proposal	55 days	143 – 532 days (range)	90 - 541 days (range)
Need Identification Document Filing*	11 days	9 days	19 days
AESO Direction	34 days	--	37 days

1. Unless indicated as a range, all cycle durations are the median for those projects having completed that particular process phase; information presented in “calendar” days.
2. Median is the midpoint in a set of data (e.g. 50% falls above the median and 50% fall below the median)

*Reflect cycle times prior to the AUC Participant Involvement Program requirement.

Reporting

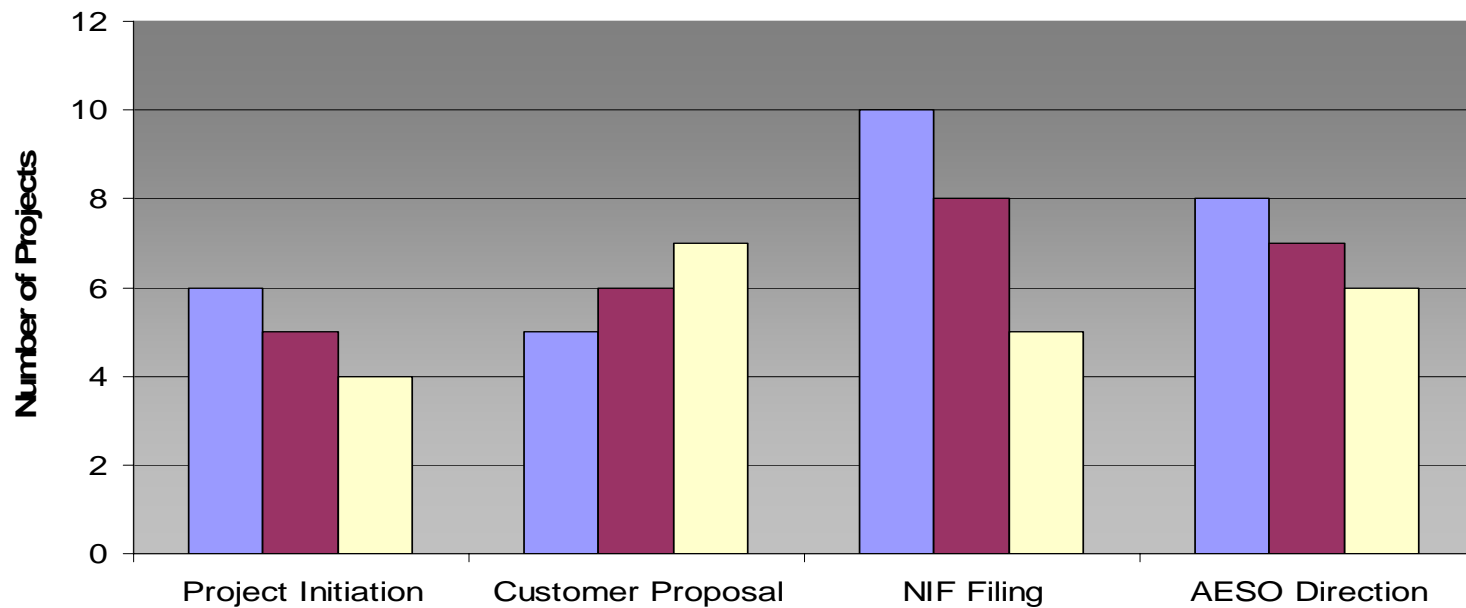
(Data presented is for illustrative purposes only and does not represent actual project data)



Number of Projects that Completed a Performance Target Area (January 1 - December 31, YYYY)

- Existing Substation Process
- New Substation Process
- Industrial Load, Generator, ISD process

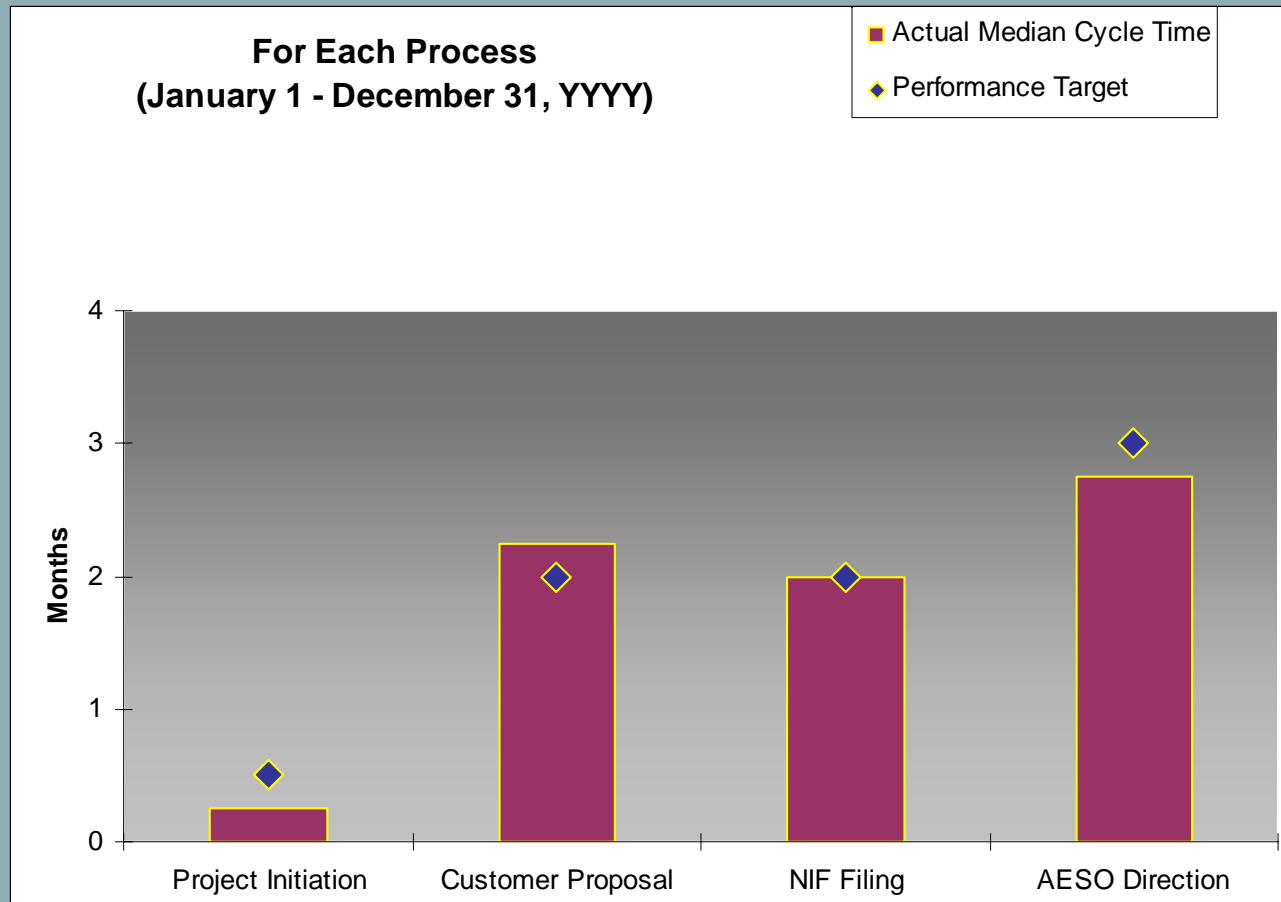
Total Active Customer Interconnection projects as at December 31, YYYY is ###



Suggested Reporting Frequency – January 31st each year, commencing January 2009.

Reporting

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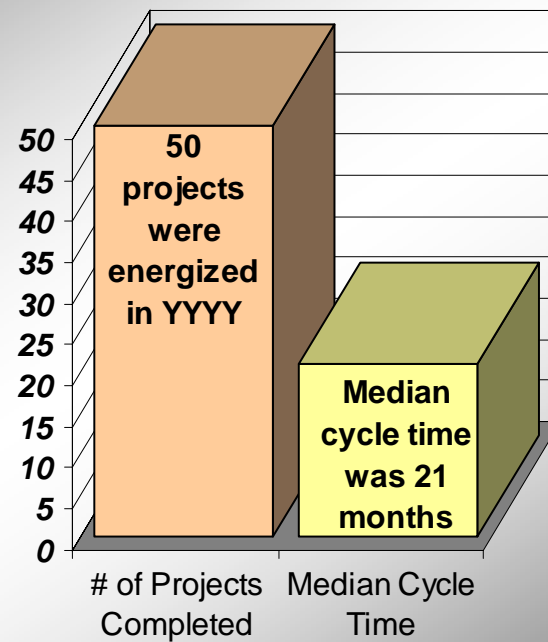
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Reporting

(Data presented is for illustrative purposes only and does not represent actual project data)



Project Cycle Time
(From application through to energization)



Suggested Reporting Frequency – January 31st each year, commencing January 2009.

Summary



Stakeholders are encouraged to comment on:

- Proposed target areas:
 - Project Initiation
 - Customer Proposal
 - NID Filing
 - AESO Direction
- Reasonable cycle times for each target area and for each process:
 - Existing Substation process
 - New Substation process
 - Industrial Load, Generator, ISD process
- Reporting approach and frequency:
 - Graphs
 - Annual reporting

Next Steps



- Presentation will be posted on AESO website by Friday, January 11, 2008
- Stakeholders submit written responses to AESO by January 24, 2008
 - hollie.giggie@aeso.ca
- AESO summarizes stakeholders comments with AESO responses and posts on AESO website by February 15, 2008
- Performance targets will be finalized, implemented and communicated to stakeholders by March 31, 2008

Performance Targets for the Customer Interconnection Process



Questions

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