

Bulk Planning Process

Second Webinar

February 26th, 2019

Today's Agenda

- Summary of first webinar
 - Review feedback and responses
- Design considerations for the Bulk Planning Process
 - What it has to achieve
 - Limitations
 - Approaches in other jurisdictions
 - 1, 3, and 5 year planning cycles
- The 1 year Bulk Planning cycle
 - Reporting and Resource Adequacy focus
- The 3 year Bulk Planning cycle
 - Transmission focus
- Next steps

1. Feedback from November Webinar

- Three submissions were received, covering a wide range of topics:
 - Many comments concerned Incremental Capacity Auction (ICA) design elements, including how Bulk Planning will determine which needs will be pursued through capacity procurement, and which will not
 - Several other comments touched on the importance of transparency in the processes (Bulk Planning and ICA) to assist stakeholders in making decisions
 - Requests were made for opportunities for stakeholder input at all stages of the Bulk Planning Process
- [Feedback and IESO responses are posted](#)

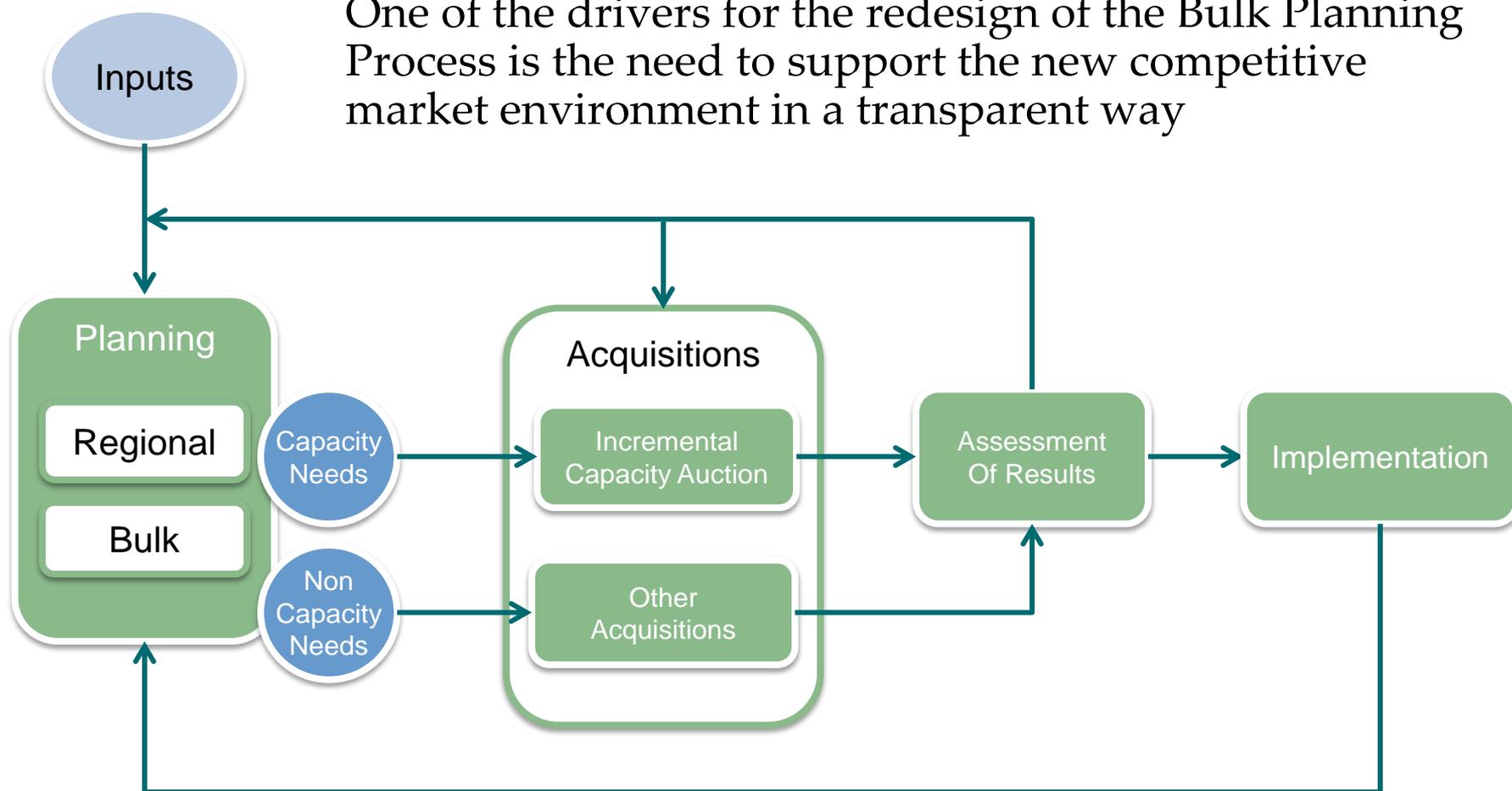
2. DESIGN CONSIDERATIONS FOR BULK PLANNING PROCESS

Objectives of Planning's Activities

- ✓ **Increase Transparency/Reader Confidence:** Support IESO's vision, as described in our mission statement, by sharing relevant and valued information, data, analysis and expertise in a manner that is predictable, easy to read and audience oriented
- ✓ **Satisfy Regulatory Obligations and Market Rule Requirements:** Some obligations require the IESO to publish public facing reports or submissions to regulatory/oversight bodies
- ✓ **Ensure Reliability:** Identify supply/demand imbalances, recommend or enable actions to improve reliability through outage planning/negotiation or new investments
- ✓ **Enable Markets by Guiding Investment Decisions:** Provide developers and Market Participants a view of system needs to help them determine where, when and to what degree investments should be made. Separate reports may be required depending on the vehicle used to make investments. Clear recommendations/suggestions are key to driving a response from the market
- ✓ **Guide/Implement Policy:** Inform government policy decisions, directives, long term energy plans
- ✓ **Provide Planning Context:** Provide stakeholders a view of the overall state of Ontario's electricity system and plan for the products and services that meet Ontario's electricity needs today and tomorrow

High Level Planning Process and Market Coordination

One of the drivers for the redesign of the Bulk Planning Process is the need to support the new competitive market environment in a transparent way



The 1/3/5 Year Planning Cycles

Planning is an on-going process that is updated in cycles. The cycle duration depends on the type of planning (i.e., regional and bulk), as well as the focus of the assessment (i.e., resource and transmission adequacy)

The purpose of this slide is to illustrate the cycle duration for the different planning activities and layout the coordination between the process and the reporting

- **1 Year Bulk Planning Process: Resource Adequacy and Annual Status Reporting**
 - Based on the latest transmission plans, determines resource adequacy and determines target capacity to the ICA
 - Annual Status Reporting. Updates on the status of active planning and project development related to the 1, 3 and 5 year processes
- **3 Year Bulk Planning Process: Transmission Adequacy**
 - Each part of the province to be assessed for bulk transmission needs no less than once every 3 years
- **5 Year Regional Planning Process**
 - Separate Regional Planning Process already developed since 2013



What Bulk Planning has to Achieve

- Ensure solutions are transparently identified as needs materialize
- Support and interface with competitive markets
- Provide regular status reporting of plans and projects
- The bulk planning process will seek to achieve these outcomes by:
 - Using a regularly-updated demand forecast
 - Assessing system performance
 - Incorporating resource adequacy assessments
 - Incorporating transmission adequacy assessments

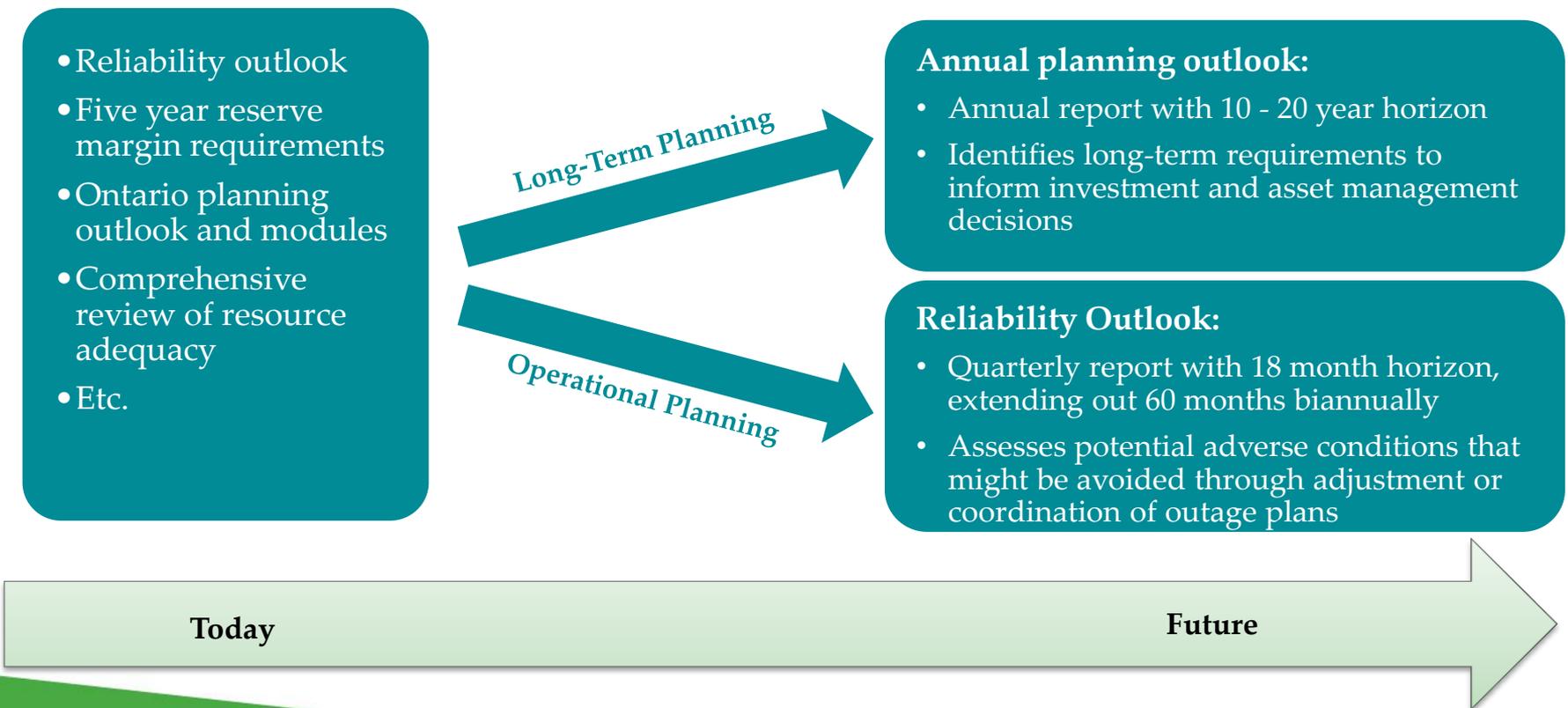
3. THE 1 YEAR PLANNING CYCLE

2019 Annual Planning Outlook

- Introduced to stakeholders on January 31, 2019 and requested feedback earlier this month
- 2019 planning outlook will be published this fall. The exact timing of future annual planning outlooks may change to respond to the development of the ICA
- The 2019 annual planning outlook will be focused primarily on informing capacity requirements in the transitional capacity auction
- Updates include reporting on planning activities as well as status of projects resulting from past plans and studies

Strategy to Evolve IESO's Planning Publications: Different Publications for Different Purposes

- Two Streams of Activities:
 - Operational Planning ensures a viable operating plan (e.g. outages); and
 - Long-Term Planning signals resource and transmission adequacy needs



IESO's 1 Year Cycle Planning Activities

Demand Forecast

Identifies future electricity demand

Transmission Assessment

Determines the limits on critical interfaces and incorporate updated transmission plans

Resource Adequacy Assessment

Assesses if sufficient resources are available to meet reliability requirements

Is plan sufficient?

Yes

Publications

No

Market

Procurement Strategy

Other

Impact analysis

Evaluates options

1 Year Planning Cycle Considerations

- Share relevant and valued information, data, analysis and expertise with the sector to guide investment decisions and market development
 - Inform sector on active transmission planning initiatives, even when assessments are still on-going and projects are still under development
- Needs to provide timely and transparent information that can vary from year-to-year, especially where markets/procurements are used on an annual basis
 - Transmission adequacy assessments, and particularly their associated plans or projects, are difficult to complete within a fixed timeline due to the large number of assumptions and reliance on external data and milestones
- Intended to provide information to support the Incremental Capacity Auction (ICA) and other acquisition processes

Transmission Updates in the 1 Year Cycle

- While the duration of transmission adequacy assessments extends beyond the 1 year cycle (as described further in upcoming slides), transmission focused updates will be provided in the Annual Planning Outlook
 - Updates include reporting on planning activities as well as status of projects resulting from past plans and studies
- In this way, stakeholders are kept informed of active transmission planning initiatives, even when assessments are still on-going and projects are still under development

4. THE 3 YEAR PLANNING CYCLE

Considerations for Design of 3 Year Planning Cycle

- Needs to:
 - Incorporate transmission adequacy assessments, which can take up to 3 years to complete
 - Factor in planning context and needs which can vary regionally
 - Consider the interactions and interdependencies with other processes that occur with other cycle durations
 - Consider a range of possible solution types, and different implementation processes
- Review of bulk planning processes in other jurisdictions showed common strategies to address these needs:
 - Regular process; interaction with stakeholders; data transparency

Bulk Planning on a 3 Year Cycle

To carry out bulk system analyses and evaluations that would not be efficient or feasible on a 1 year planning cycle. These types of studies are typically concerned with the transmission system, and have a notional 3 year cycle

- In designing the components of the 3 year planning cycle, we have a goal to deliver on the three key planning objectives:
 - Ensure Reliability and Service Quality
 - Enable Economic Efficiency
 - Support Sector Policy and Decision Making
- We will do this by designing a process that is:
 1. **Transparent.** Activities and outputs occur at regular times, with well defined procedures, criteria, and opportunities for stakeholder feedback
 2. **Complete.** Ensure all areas of the province are assessed for bulk system needs on a regular basis
 3. **Flexible.** Balance the efficiency of standard planning processes with the ability to respond on an as-needed basis

Design Considerations: Transparency

A transparent process has well defined products and components, with deliverables prepared at regular intervals, informed by engagement, and a fully documented procedures. Inputs and assumptions are also available, where possible, to help stakeholders carry out their own analysis and support their decision making

- How we've responded:
 - Leverage the 1 year planning process to provide regular updates on the status of the 3 year, transmission focused, planning cycle. Also provide updates on the status of any projects which had been initiated as a result of this process
 - Where needs were identified and a solution recommended, publish a report detailing analysis and conclusions, similar in scope to the Integrated Regional Resource Plan (IRRP) final report
- Still to resolve:
 - How much information (assumptions, decision rationale) can be made public, and at what stages in the planning process. How much of this information will already be made public through other products
 - When does engagement take place, what feedback will be sought

Design Considerations: Completeness

Needs should be identified with sufficient lead time to select and implement a preferred solution. Analysis should be thorough, and ensure all relevant reliability criteria are respected

- How we've responded:
 - Begin the 3 year cycle with an initial Ontario-wide assessment. Based on the results, carry out the detailed evaluations according to priority
 - To enable detailed analysis of priority areas, divide the province into bulk planning areas, with detailed analysis carried out for each at least once each cycle (more details on next slide)
- Still to resolve:
 - What type of evaluations are carried out during the initial assessment, as opposed to during the more detailed analysis. How is priority determined
 - How are bulk planning areas formed and/or modified over time

Bulk Transmission Planning Areas

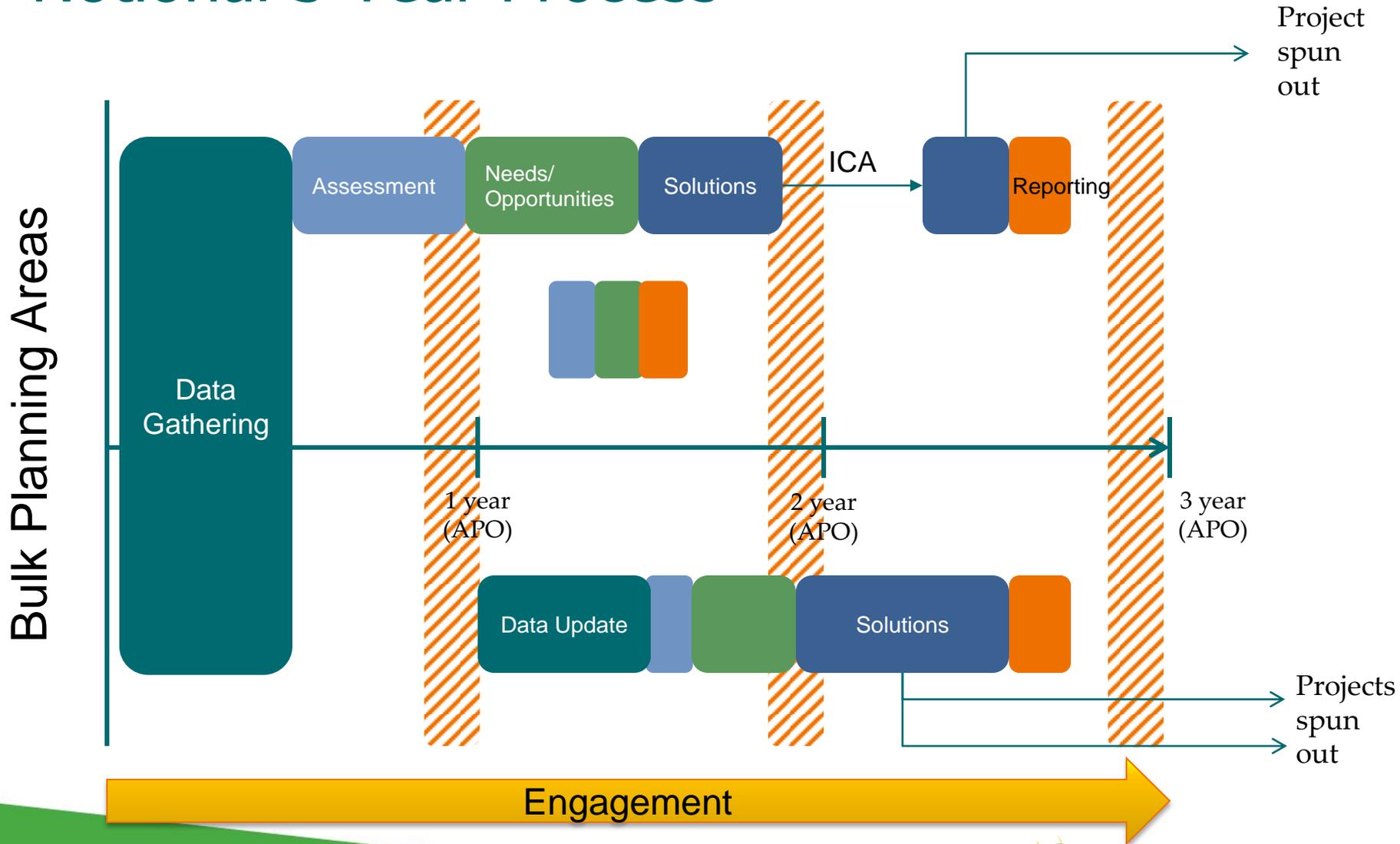
- The full system will be assessed at the beginning of the 3 year cycle to identify needs which may emerge across Ontario, broadly. This will help identify areas to be prioritized for detailed follow up assessments
- The proposal to break the transmission system into areas to study independently was made for several reasons:
 - Different sections of the bulk transmission system are more constrained under different generation and demand scenarios. Studying each one at a time allows for assumptions to be tailored for the assets under investigation
 - Although the bulk system is interconnected, needs often emerge across a defined asset or interface, which requires detailed analysis
 - Carrying out transmission adequacy assessments can be a major undertaking. Dividing up the province into allows more urgent needs to be prioritised

Design Considerations: Flexibility

A well defined process with standard approaches and templates improves overall efficiency and transparency. At the same time, system conditions and assumptions can change quickly, meaning the process should be flexible enough to adjust as required, particularly where needs become more urgent and must be prioritised

- How we've responded:
 - Bulk Planning Areas are studied in order of anticipated priority. Study can be reinitiated at any time if new information becomes available
 - Front end stages of the process (data gathering, identifying needs and opportunities, selection of solution type) should occur as part of the regular planning cycle, while project development may be “spun out” and occur on its own timeline
- Still to resolve:
 - How much project development occurs before it is “spun out”, and what is the role of bulk planning at this point

Notional 3 Year Process



5. NEXT STEPS

Next Steps

- Seek feedback based on today's deck
 - Questions focus on reporting schedules, challenges of engaging for bulk planning projects, and range of stakeholder data needs
- Begin design of sub processes at a high level
- Design interactions between the 1 and 3 year planning cycles
- Continue alignment with other planning activities, Market Renewal, and reporting initiatives
- Develop strawman description of process for review

Engagement

Timing	Engagement Activity
February 26 – March - 19, 2019	Window for survey responses/written submissions for the Second Bulk Planning Webinar
Q2 2019	Third Bulk Planning Webinar. Include summarized feedback from Second Webinar
	Window for survey responses/written submissions for the Third Bulk Planning Webinar
Summer 2019	Post draft strawman of Bulk Planning Process for comment
Q3 2019	Respond to comments on draft Bulk Planning Process
	Finalization of formalizing the Bulk System Planning Process

The timing and activities are subject to change.

Feedback and Wrap up

- We encourage all stakeholders to provide feedback and comments on the content/questions posed during today's presentation. A [feedback form](#) has been posted alongside this deck
- Window for written submissions runs until March 19, 2019
- Feedback received will help inform IESO's planning processes and further discussions at future stakeholder engagement meetings
- Feedback will be consolidated, and will be discussed at the next webinar, tentatively scheduled for Q2 2019
- Email us: engagement@ieso.ca