

Market Renewal Update

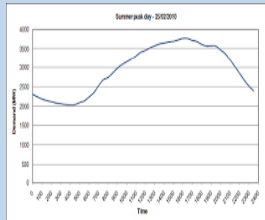
Technical Panel

February 28, 2018

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Scoping the Market Renewal Program



An **ENERGY**
work stream

- Single Schedule Market
- Day Ahead Market
- Real Time Unit Commitment



A **CAPACITY**
work stream

- Incremental Capacity Auction

MRP

- More Frequent Intertie Scheduling and other Operability/Flexibility projects will be explored as part of a broader conversation on the Future of Ontario's Electricity Market
- The IESO will also continue to explore near-term market enhancement projects that are consistent with MRP

Ongoing
Market
Initiatives

Market Renewal Program in the Big Picture

- IESO will continue to work closely with stakeholders on the MRP and other initiatives to develop the market of the future

Near Term

- Interim Flexibility
- Capacity Exports
- OR Changes
- DR Auction Enhancements

Market Renewal Program

- Single Schedule Market
- Day-Ahead Market
- Enhanced Real-Time Unit Commitment
- Incremental Cap. Auction

Future Change

- Environmental Objectives?
- New roles for LDCs/DERs?
- Enduring flexibility products?
- Other?

Market Enhancements

Stakeholder Engagement

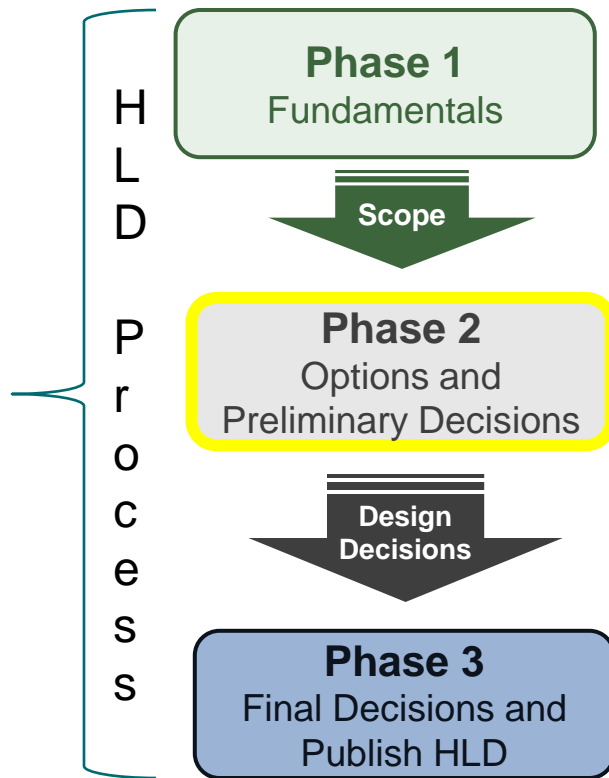
Incorporating the feedback received, the following changes have been made to our stakeholder engagement approach:

- Energy and capacity meetings are now on a two month cycle
- IESO will outline preliminary decisions as soon as possible
- Spend more time and discussion on key design elements
- Ensure discussion is on a holistic level, outlining linkages and key integration considerations

We will continue to:

- Meet monthly with the MRWG
- Quarterly meetings with key associations
- Make ourselves available to stakeholders and engage in constructive dialogue

Progress on High-Level Designs

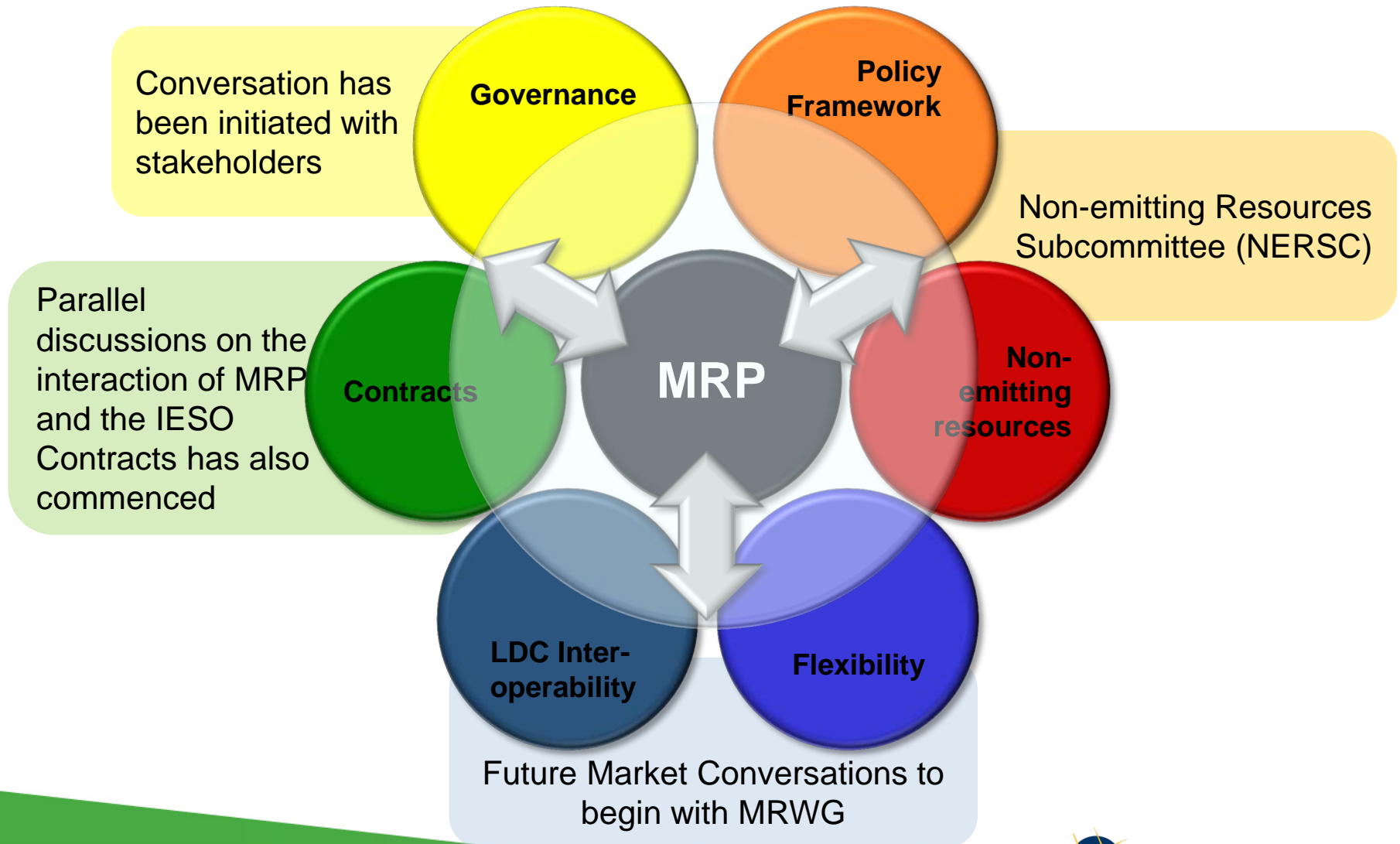


- All the MRP initiatives are progressing towards their high-level designs
- IESO has presented preliminary design decisions for stakeholder feedback:
 - SSM – preliminary design decisions for 15 of 19 design elements
 - DAM – preliminary design decisions for 13 of 18 design elements
 - ERUC – preliminary design decisions for 9 of 13 design elements
 - ICA – design options presented to stakeholders for 15 of 19 design elements

Materials and Resources

- All presentations and materials for MRWG, NERSC and SE sessions are posted on the IESO's website.
- The education sessions for each initiative are recorded and available on our website.
- Each initiative has its own issues and design trackers:
 - ICA: <http://www.ieso.ca/-/media/files/ieso/document-library/engage/ica/ica-design-tracker.pdf?la=en&hash=EB4DA2B3FF3D075DB0AC5394827A304E0A0C8F7E>
 - SSM: <http://www.ieso.ca/-/media/files/ieso/document-library/engage/ssm/ssm-design-tracker.pdf?la=en&hash=95A05A7745BE1CCDACFC9CD1C640F2C49FD3535C>

MRP: One Piece of the Puzzle



Governance

- IESO is working with the MRWG and other stakeholders to explore in-scope governance issues:

In Scope

- MRP design issues, such as mechanisms for stakeholder engagement and dispute resolution within MRP

Out of Scope

- Delegation of IESO decision-making authority, policy changes / sector evolution exceeding scope of MRP mandate

Contracts

- Addressing the relationship between the Market Renewal Program and supply contracts is a key priority for the IESO
- IESO is working with contract counterparties to:
 - Understand contract implications of MRP
 - Eventually address changes through contract amendments
- The IESO is not targeting value extraction from the contracts
- Initial contracts webinar was held in late 2017

of Contracts
>30,000

Contracted Capacity
>27,000 MW

Market Participants
112



Non-Emitting Resource Subcommittee

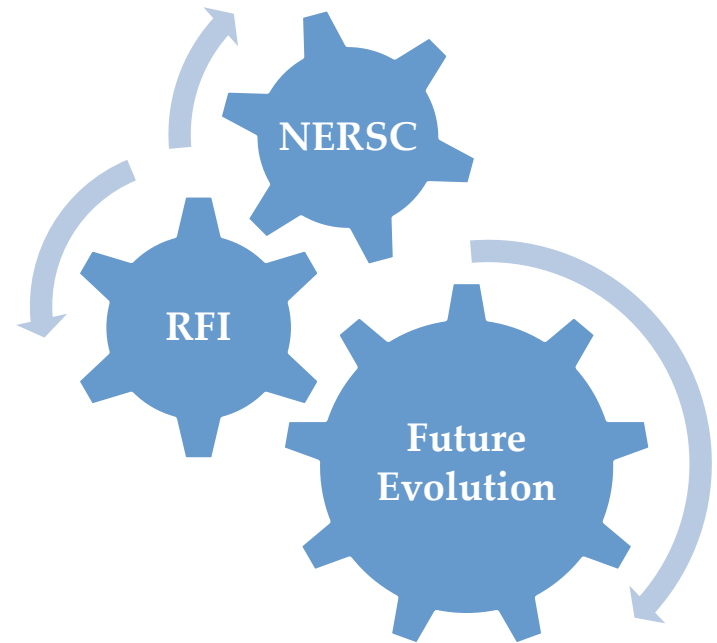
- The subcommittee will ensure the characteristics of non-emitting resources are reflected in the Market Renewal Program and the future market
- The committee will develop a report for Q3/4 2018 that explores:
 1. **Participation:** barriers to participation for non-emitting resources in the proposed MRP design
 2. **Market Efficiencies:** impact of higher levels of non-emitting resources with very low to zero marginal costs
 3. **Commercial Mechanisms:** the potential for incentive mechanisms to value environmental attributes
- The group has finalized a scope of work, established a work plan, and begun work on Focus Area 1: Participation

Request for Information (RFI) Objectives

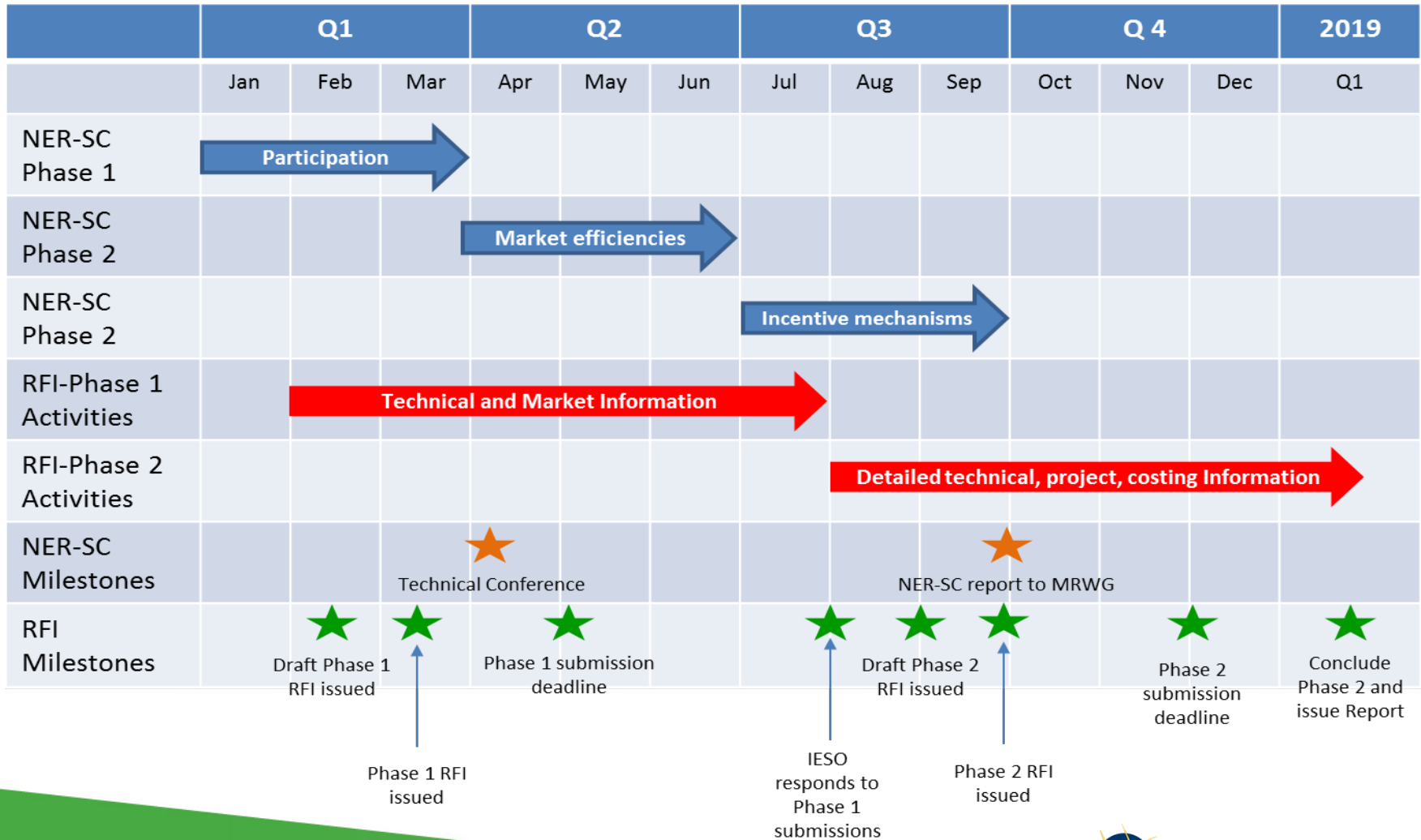
- The IESO will issue an RFI to gather broad information on non-emitting resources
- The information will expand the IESO's understanding of:
 - The technical characteristics of existing resources and potential projects
 - The potential barriers facing different resource types from participating in the IESO's current and future administered markets
- The RFI will include two phases over the course of 2018
 - Phase 1 (the current phase) is seeking information related to how non-emitting resources can participate in the current and future electricity markets
 - Phase 2 (to be issued later in 2018) will focus on how non-emitting resources are developed and get information on a number of broader considerations

RFI and Market Renewal

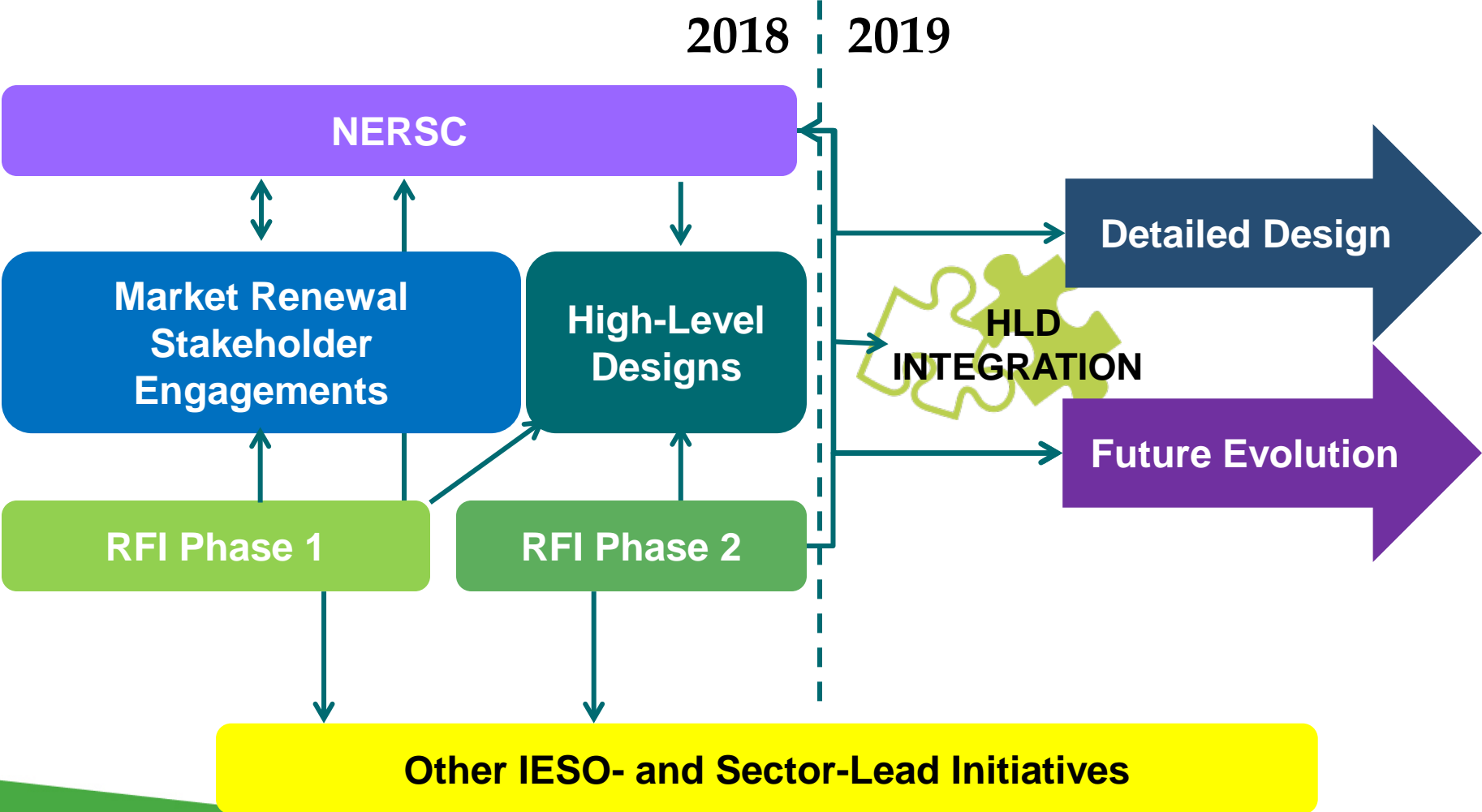
- Phase 1 of the RFI will support the work of the non-emitting resource sub-committee (NERSC)
- Phase 2 will inform the next steps that follow from NERSC
- A NERSC technical conference will help respondents submit complete responses to phase 1 of the RFI
- Phase 1 RFI responses will inform research on barriers to participation and exploration of market efficiencies



NERSC and RFI Timelines



NERSC, RFI and the Big Picture



THANK YOU!