DG Interconnection Procedures Collaborative

February 27, 2017

Interconnection Procedures Collaborative

- State Ombudsman kick-off October 2016
- Goal: develop improvements to Con Edison's internal process for managing interconnections.
- In accordance with the New York State Public Service Commission Standard Interconnection Requirements (SIR)
- CE agrees to implement changes as appropriate following the discussions.
- Informational report filing 6 months from the initial meeting
  - Topics discussed, recommendations developed, and actions taken.

March 1: Solar Installer Training

Registration

AGENDA

8:30 - 9:00 - Security Check-in and Con Edison Complimentary Continental Breakfast

9:00 - 9:10 **Sustainable CUNY -** Welcome & NYC Solar Partnership Update

9:10 – 9:40 **Sustainable CUNY & Meister Consultants Group**
Introduction to Smart DG Hub and Overview of Smart DG Hub Roadmap

9:40 - 10:45 **Con Edison**
Interconnection Application Processes for solar and energy storage

10:55 - 12:20 **NYC Department of Buildings**
Construction & Electrical Permit Application Processes for solar and energy storage

12:20 - 1:15 **Lunch -** Can be purchased in Con Edison cafeteria or nearby restaurants

1:15 – 2:30 **Fire Department of New York**
NYC Fire Code Rooftop Access Requirements and Variance Request Process
Energy Storage Fire Code Requirements and Application Process

2:40 – 3:40 **DNV GL**
Review of NYC battery testing results and next steps

3:50 – 4:45 **Smart DG Hub Roundtable: Storage Outlook and Roadmap**
Panel includes NY-BEST, Meister Consultants Group, Sustainable CUNY, & DNV GL

Con Edison - The Learning Center Auditorium

4382 Vernon Blvd

Long Island City, NY 11101

Agenda

- Future topics and Con Edison work plan
- Topics for today's meeting
  - Regular business meetings
  - SIR workflow
  - Standardizing communications to present consistent options
- Discussion
  - Feedback on templates

Future Topics and Timeline

Suggested dates going forward

March 13 (pm) 2017: webinar

- Guide content drafts for DG technology
  - Company moving forward with PV and fuel cell guides as was presented

March 27 (pm) 2017: in-person

- New service vs DG cases coordination

April 7

- Con Edison provides draft informational report to Collaborative members

April 14 2017: in-person

- Review outstanding items
- Review draft informational report on Collaborative

Filing of Informational Report on Collaborative due April 24.

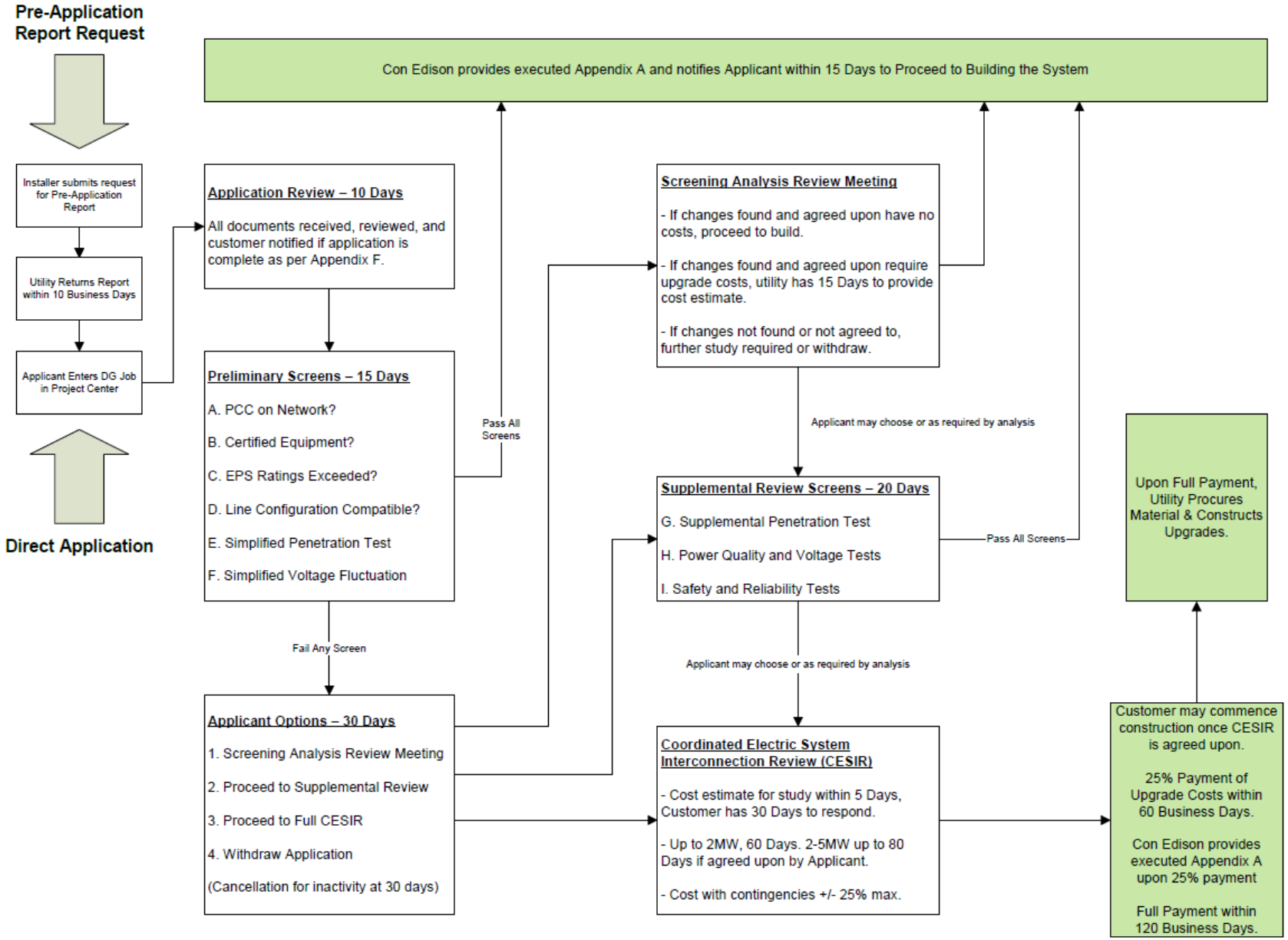
Process for regular business meetings

- Any DG >5MW normally have regular meetings
- DG Ombudsman Office and Energy Services available for meetings on request
- Pre-application discussions can help set realistic expectations on unusual schedule constraints
- Special billing considerations (RNM, CDG, Offset Tariff, etc) will meetings scheduled near commissioning for rates
- Developer feedback?
  - How to find balance between transparent communications and efficient management of ~125 cases under the new SIR >50kw.

SIR workflow discussion

- Refer to flow chart

March 2016 NYS SIR - Simplified Process Flow Chart for 50kw – 5MW



Preliminary Screening Analysis

If any screens fail, applicant must request supplemental screen or CESIR to progress or withdraw application.

- Screens performed
  - Screen A: Is the PCC on a Networked Secondary System?
  - Screen B: Is Certified Equipment Used?
  - Screen C: Is the Electric Power System (EPS) Rating Exceeded?
  - Screen D: Line Configuration Compatible w/ Interconnection Type?
  - Screen E: Simplified Penetration Test
  - Screen F: Simplified Voltage Fluctuation Test
- Deliverable:
  - Pass: Design Approval Letter and Executed Contract
  - Fail: Preliminary Review Letter Template (w/ Options)

Preliminary Screening Results

- Refer to documents

Supplemental Screening Analysis

If any screens fail, applicant must request CESIR to progress or withdraw application.

- Screen G: Supplemental Penetration Test
  - Where 12 months of line section minimum load da ta is available, can be calculated, can be estimated from existing data, or determined from a power flow model, is the aggregate Generating Facility capacity on the Line Section less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility?
- Screen H: Power Quality and Voltage Tests
  - In aggregate with existing generation on the Line Section,
    a. Can it be determined within the Supplemental Review that the voltage regulation on the line section can be maintained in compliance with current voltage regulation requirements under all system conditions?
    b. Can it be determined within the Supplemental Review that the voltage fluctuation is within acceptable limits as defined by IEEE 1453 or utility practice similar to IEEE1453?
    c. Can it be determined within the Supplemental Review that the harmonic levels meet IEEE519 limits at the Point of Common Coupling (PCC)?
- Screen I: Safety and Reliability Tests
  - Does the location of the proposed Generating Facility or the aggregate generation capacity on the Line Section create specific impacts to safety or reliability that cannot be adequately addressed without a detailed study?
- Deliverables:
  - Pass: Screen Results and Design Approval Letter and Executed Contract
  - Fail: Screen Results and Supplemental Review Letter Template (w/ Options)

Supplemental Screening Analysis Results

- Refer to documents

CESIR Results

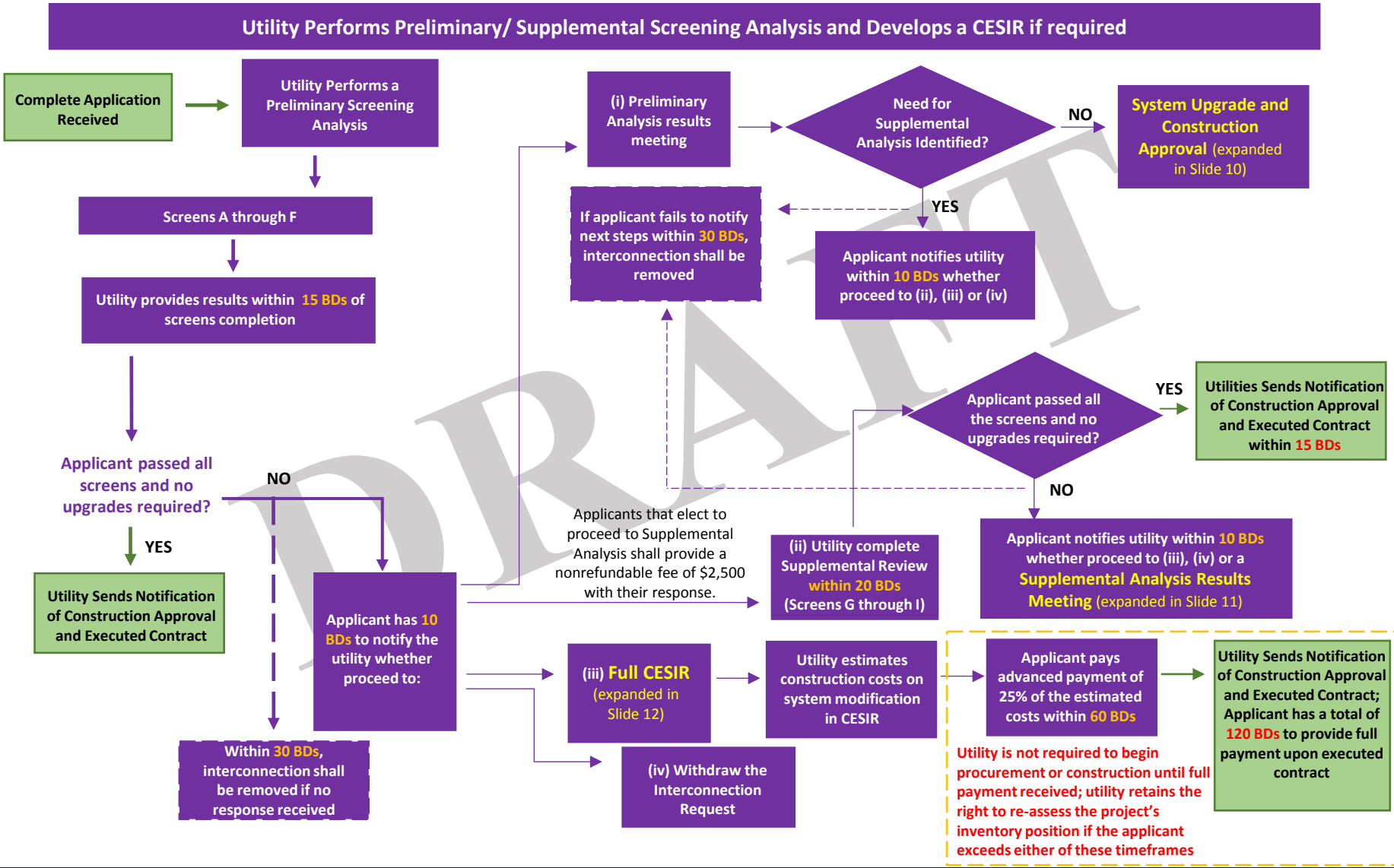
- Refer to document: template for engineering review results and next steps

Thank you

February 27, 2017

Appendix Slides

Flow Chart: Regular Application Process for Systems above 50 kW to 5 MW



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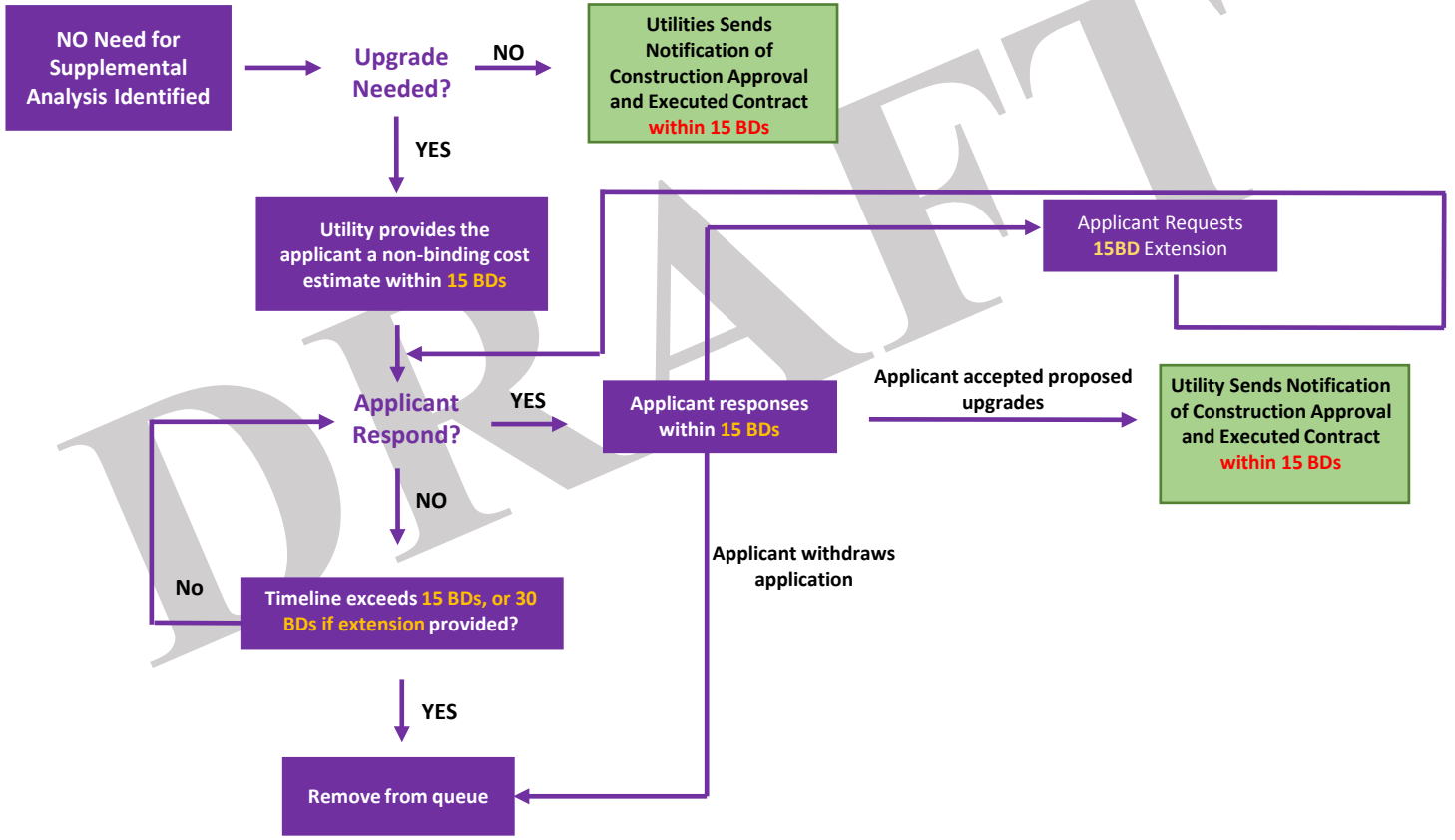
System Upgrade and Construction Approval



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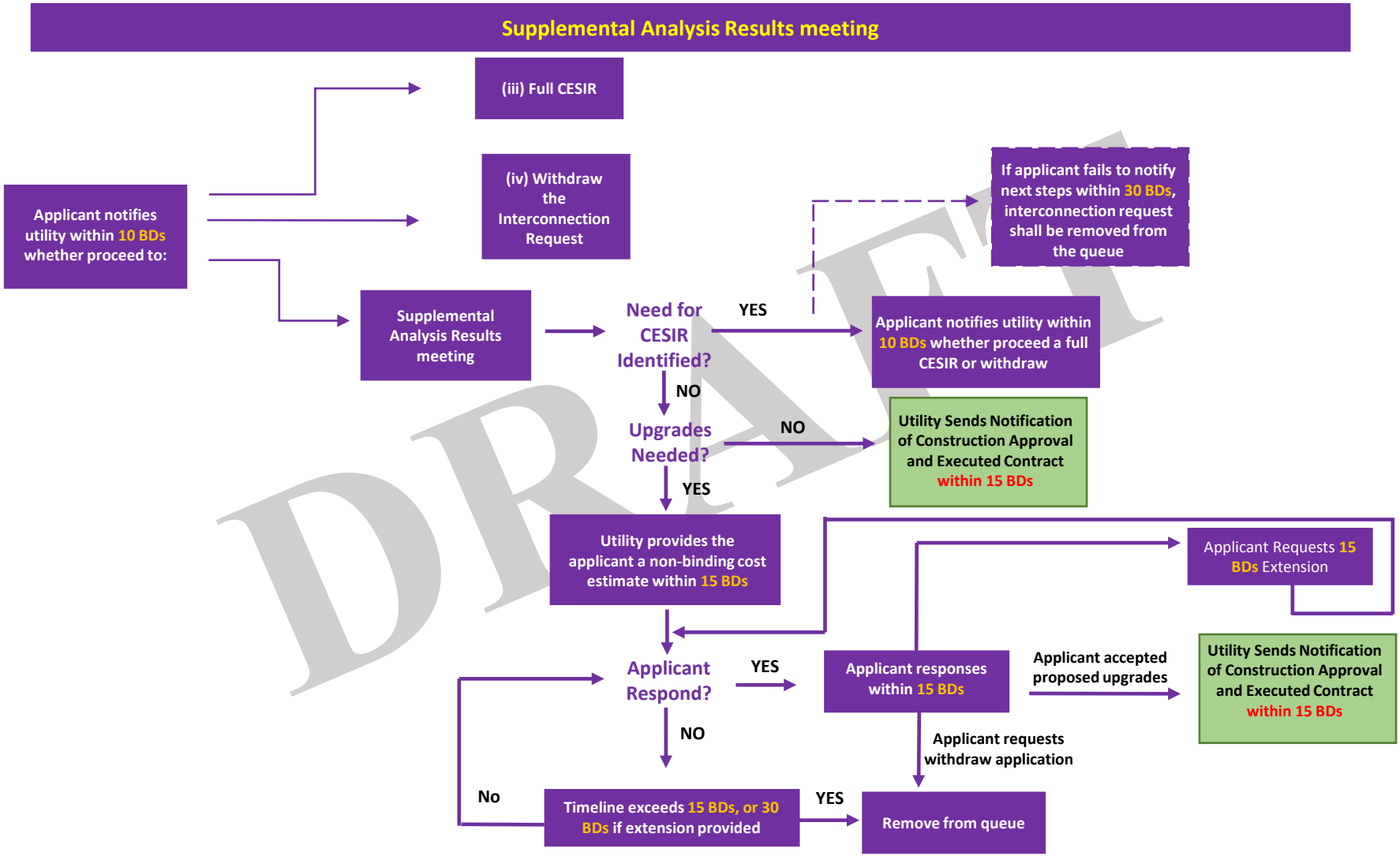

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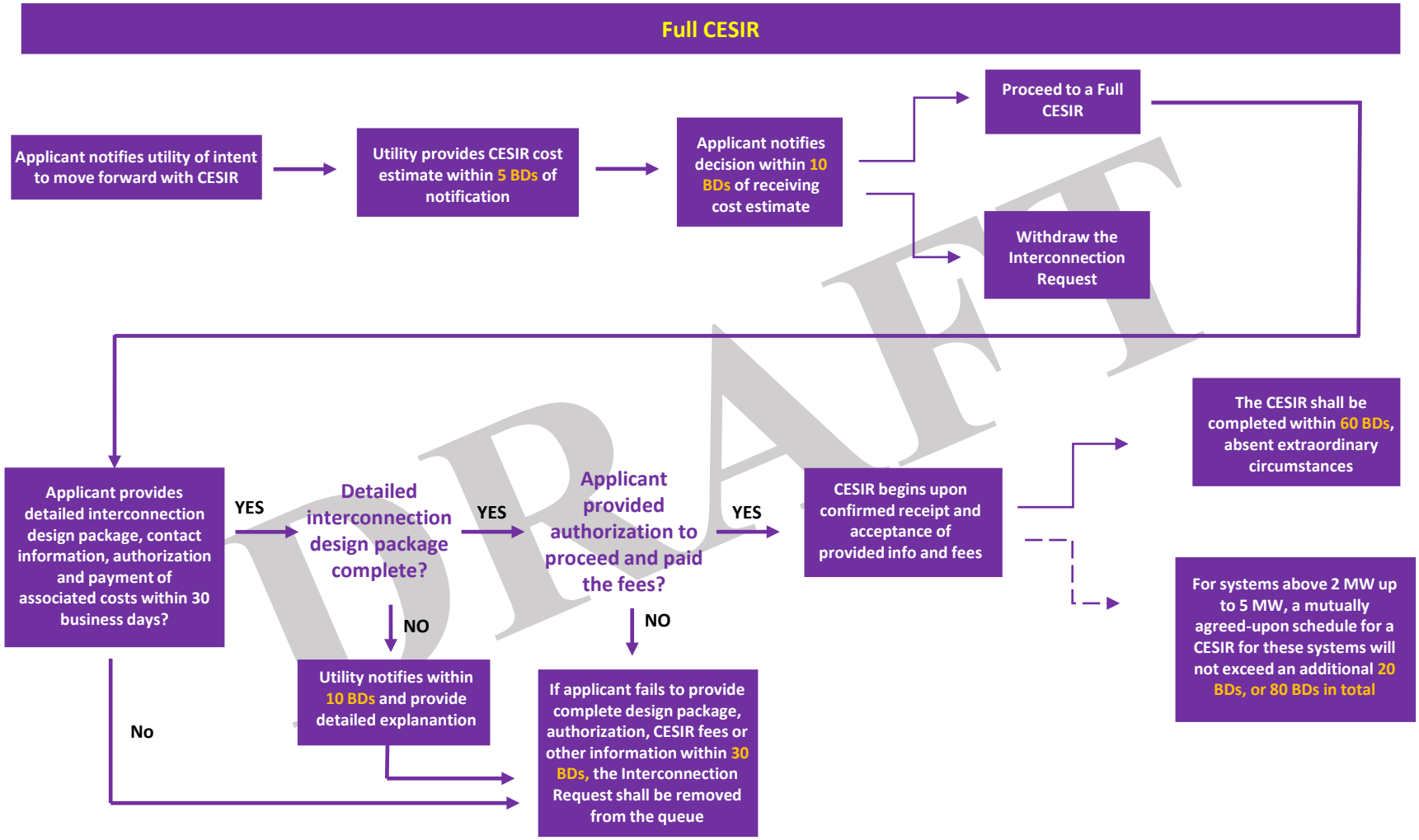

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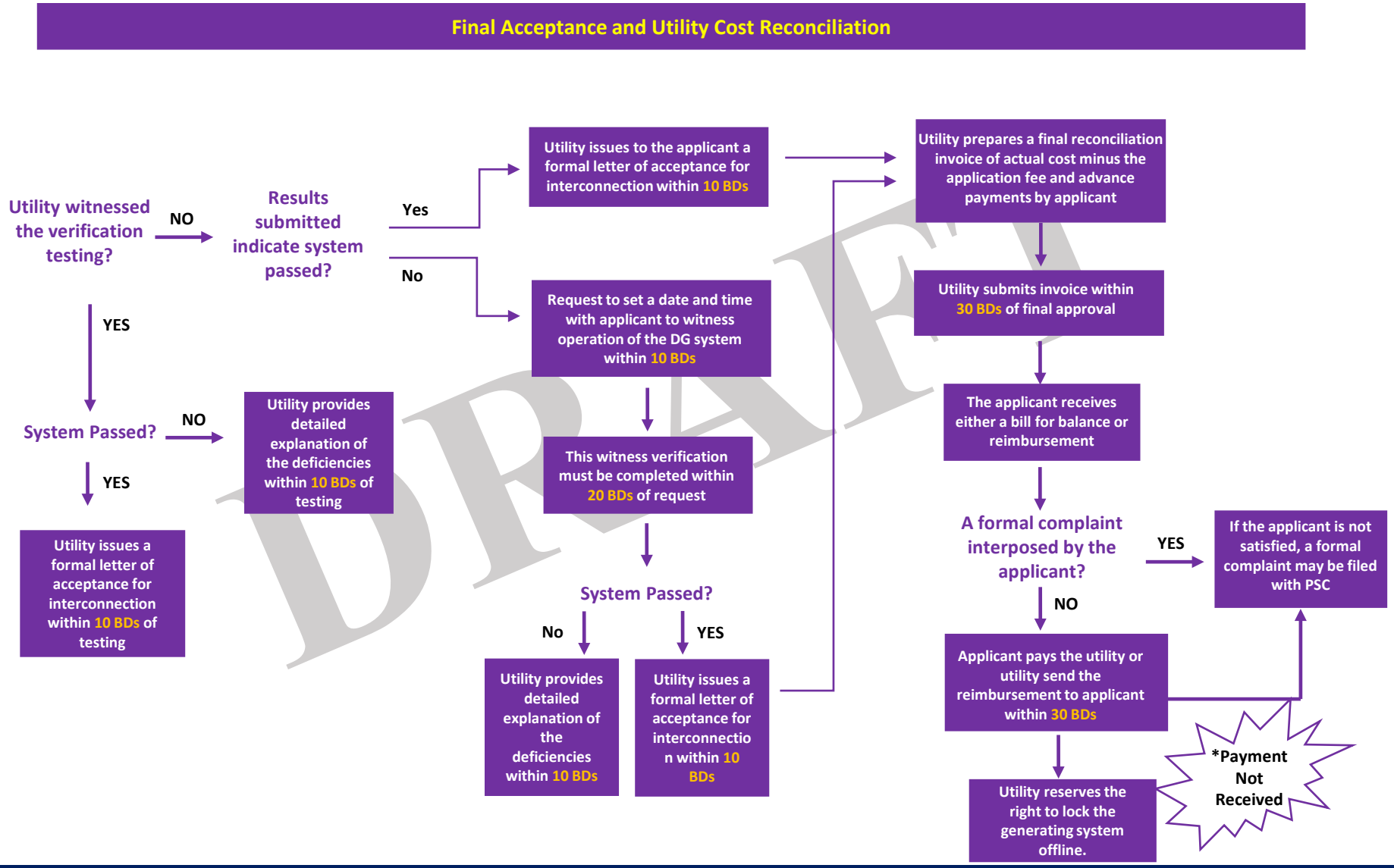

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