**Planning Working Group (PLWG)**

**Meeting Notes**

**August 15, 2023**

**WebEx Only**

1. **Antitrust Admonition**
2. **Agenda Review**
3. **Review of PLWG Meeting Minutes from July 18, 2023**
   1. No changes were made to the meeting notes
4. **General Update**
   1. Alexandra Miller (Chair) reviewed recommendations from TAC & ROS to its working groups, including to post agendas one week prior to the meeting, record meeting minutes, and record a roster of attendees.
   2. ROS assigned [PGRR 109 Dynamic Model Review Process Improvement for IBR Modification](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Fmktrules%2Fissues%2FPGRR109&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=h96kSlfjmbNbNQAB6N%2Bz2p5PpASGhHZ8F%2BVz3wbUeKA%3D&reserved=0) to PLWG.
5. **NERC Standard FAC-002-4: Qualified Change for the Purpose of Facility Interconnection (Ping Yan, ERCOT)**
   1. [https://www.ercot.com/files/docs/2023/08/15/Qualified\_Change\_Definition\_August\_2023\_PLWG.pdf](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Ffiles%2Fdocs%2F2023%2F08%2F15%2FQualified_Change_Definition_August_2023_PLWG.pdf&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=Uyd2yWfqyNcq6LvRWH6GYltvhv3N0%2FC6ZAKeIceYlx8%3D&reserved=0)
   2. This item was originally discussed at the February 2023 meeting
   3. The FAC-002-4 standard is effective on January 1, 2024.
   4. Planning Coordinators must maintain a public definition of “qualified change”. ERCOT will publish a document referencing sections in ERCOT rules and protocols where the qualified change is defined.
      1. Generation – ERCOT Planning Guide 5.2.1(1)(c)
      2. Transmission – ERCOT Nodal Protocols Section 3.11.4.3
      3. End-User Facilities – Large Load Interconnection [PGRR 111](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Fmktrules%2Fissues%2FPGRR111&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=IYcQ%2B6jN2kkWz%2Biomr3Qw4gacFfvWBLYGHyV2cJsQpo%3D&reserved=0) (75 MW threshold)
   5. The “qualified change” definition for transmission facilities now also includes Tier 4 projects reported in TPIT and evaluated through the TIS process.
   6. ERCOT is planning to finalize the qualified changes definition by Q4 2023.
6. **PGRR 109 – Dynamic Model Review Process Improvement for IBR Modification (Sun Wook Kang, ERCOT)**
   1. [https://www.ercot.com/mktrules/issues/PGRR109](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Fmktrules%2Fissues%2FPGRR109&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=h96kSlfjmbNbNQAB6N%2Bz2p5PpASGhHZ8F%2BVz3wbUeKA%3D&reserved=0)
   2. PGRR 109 will require IBRs to undergo an as-built dynamic model review (a) prior to commissioning and (b) prior to implementing “any changes” to settings or equipment (e.g., protection and control settings) that could impact electrical performance and require dynamic model updates. In the case of operational IBRs, the interconnecting TSP may also need to conduct a “limited dynamic stability study” to compare and “reasonably evaluate” electrical performance with and without the proposed changes.
   3. PGRR 109 is aligned with recommendations from NERC in the 2022 Odessa Disturbance report.
   4. During the discussion some of the concerns raised included:
      1. Need to clarify the meaning of “any modification” in Section 5.5(4)(a).
      2. What is required when the as-designed and as-built dynamic models are identical.
      3. Why focus on IBRs versus synchronous generators. The conclusion was that would need to be filed as a separate RR.
      4. It was recommended that “any changes” be more specifically defined.
      5. Clarification of “prior to the resource commissioning date”.
      6. Clarify the meaning of “limited dynamic study”.
      7. Clarify broad “any modification to settings or equipment”.
   5. A participant summarized the discussion, saying that PGRR 109 needs clarifying edits from ERCOT and/or stakeholders. They recommended that PGRR 109 be tabled until September to allow stakeholders to comment and propose edits. The group consensus was to allow this time.
   6. A participant suggested that, since ERCOT did not commit to updating the PGRR to address the concerns of PLWG, stakeholders should form an ad hoc group to propose edits.
   7. Prabhu Gnanam (ERCOT) summarized two main concerns: the meaning of “any modification” and review timelines for operational and pre-commissioned IBRs.
   8. *PLWG will table PGRR 109 until at least the September meeting. Stakeholders are expected to file comments and propose edits before then.*
7. **Review Open Action Items**
   1. [**PGRR 107**](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Fmktrules%2Fissues%2FPGRR107&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=ChMKV8FF4UjEF%2F9XyyRqYxOK0chopnM51HnGce7szWk%3D&reserved=0) **(**[**NPRR 1180**](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Fmktrules%2Fissues%2FNPRR1180&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=1NZ9pYTHaAf%2BmAQyAK4l0FYU%2FqM7tDSedE5TgKjQe%2Bs%3D&reserved=0)**) – Inclusion of Forecasted Load in Planning Analyses.** In July, Oncor said that they would submit reply comments for PGRR 107 after ERCOT submitted comments for NPRR 1180; PLWG agreed to table PGRR 107 and NPRR 1180 until at least the August meeting. *Since Oncor and ERCOT have not filed comments, PLWG will table PGRR 107 until at least the September meeting.*
   2. [**PGRR 105**](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Fmktrules%2Fissues%2FPGRR105&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=HTQKoErCXW8hAGtZparoWrvtUtFI%2FDjHU%2F0NHS9RlY8%3D&reserved=0) **– Deliverability Criteria for DC Tie Imports.** PGRR 105 is still tabled at ROS.
   3. [**NPRR 1070**](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ercot.com%2Fmktrules%2Fissues%2FNPRR1070&data=05%7C01%7CDylan.Preas%40LCRA.ORG%7C5338c933816d4508a1ea08db9dd79566%7C31f538b956aa4ab1a7f0dcdab940fd79%7C0%7C0%7C638277321471667952%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=kUbgarm9Fs54RE7%2FJN8%2F7q%2B9mm%2Fzv2wvnZAxj6UEXWY%3D&reserved=0) **– Planning Criteria for GTC Exit Solutions.** Ping Yan (ERCOT) said that the consultants hired to study and develop this criteria are not yet finished.
   4. **KTC 15-6 RMR and MRA Services** – PLWG had requested ROS assign to a broader task force rather than PLWG, leadership is confirming the status of removing this item from assignments
8. **Other Business**
   1. (None)
9. **Adjourn**

**Attendees (Webex)**

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| Erin Wasik-Gutierrez | ERCOT |
| Dylan Preas | LCRA TSC |
| Alex Miller | EDFR |
| Andres Maynez |  |
| Blake Gross | AEP Service Corporation |
| Bob Wittmeyer | Longhorn Power |
| Brad Bell | Solar Proponent |
| Brian Koz |  |
| Bridget Headrick | Customized Energy Solutions |
| Brigid Clifford |  |
| Charles DeWitt | PEC |
| Christina Minchew | CTT |
| Clarissa Heiner | ERM |
| Connor Anderson | AB Power Advisors |
| Constance McD Wyman | |
| David Hering | BTU |
| David Milner | CPS Energy |
| Deborah Ingraham |  |
| Doug Evans | AEP |
| Edward Lopez | BTU |
| Epallarez | ETT |
| John Schmall | ERCOT |
| Ping Yan | ERCOT |
| Robert Golan | ERCOT |
| Sun Wook Kang | ERCOT |
| Prabhu Gnanam | ERCOT |
| Pengwei DU | ERCOT |
| Eric Lotter | GridMonitor |
| K. Sills | GP&L |
| James Okenfuss | Shell Energy |
| Jessica Greenberg |  |
| Jim Lee | CenterPoint Energy |
| Ken Donohoo | OwlERC LLC |
| Kristen Cook | Southern Power |
| Kshitij Korde |  |
| Larisa Loyferman |  |
| Andrew Hamann | LCRA TSC |
| Long Tran |  |
| Manny Uy | Hunt Energy |
| Mark Bruce |  |
| Mark Dreyufus |  |
| Marty Downey |  |
| Matthew Hall |  |
| Maribel Murillo |  |
| Harsh Naik | Oncor |
| Neeraja Dharme | EDFT |
| Noah Hanson | National Grid Renewables |
| Orijit Ghoshal | esVolta |
| Raja Kakarla | CNP |
| Ramya Ramaswamy | PUCT |
| Regan Fink |  |
| Ryan Pfefferle |  |
| Sam S |  |
| Sandra Morris |  |
| Senen Paule | Luminant Energy |
| Shams Siddiqi | Crescent Power Consulting |
| Suzi McClellan |  |
| Todd Chwialkowski | EDF |
| Ward Jablonski | MEPPI |
| Wes Woitt |  |