

System Planning

**Monthly Status Report**

Report Highlights

* ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of $228.16 million as of December 31, 2021.
* Transmission Projects endorsed in 2021 total $2.498 billion as of December 31, 2021.
* All projects (in engineering, routing, licensing, and construction) total approximately $8.00 billion[[1]](#footnote-2) as of October 1, 2021.
* Transmission Projects energized in 2021 total approximately $1.438 billion[[2]](#footnote-3) as of October 1, 2021.

Regional Planning Group Reviews

RPG Projects under Review:

* Oncor has submitted the Nacogdoches Southeast Switch – Redland Switch – Lufkin Switch 345-kV Loop Project (RPG Project ID: 20RPG019). This is a Tier 2 project that is estimated to cost $71.26 million. This project is currently under ERCOT’s independent review.
* Oncor has submitted the Flat Iron – Barr Ranch – Pegasus South 138-kV Line Project (RPG Project ID: 21RPG010). This is a Tier 2 project that is estimated to cost $50.7 million. ERCOT completed the independent review on December 13, and the recommended project is estimated to cost $63.1 million. ERCOT has issued the ERCOT endorsement letter.
* ERCOT has submitted the Lower Rio Grande Valley System Enhancement Project (RPG Project ID: 21RPG017). This is a Tier 1 project that is estimated to cost $1.28 billion. ERCOT has completed the independent review, and TAC voted unanimously to endorse the project on November 29. The ERCOT Board of Directors endorsed the project on December 10, 2021. ERCOT has issued the ERCOT endorsement letter.
* AEPSC has submitted the Bay City to Lane City 138-kV Line Rebuild Project (RPG Project ID: 21RPG018). This is a Tier 3 project that is estimated to cost $33 million. RPG review for this project was concluded on December 1, and ERCOT has issued the acceptance letter.
* CPS has submitted the Howard Road 345/138-kV Switching Station Project (RPG Project ID: 21RPG019). This is a Tier 3 project that is estimated to cost $56.3 million. RPG review for this project was concluded on December 1, and ERCOT has issued the acceptance letter.
* CNP has submitted the Galena Park Area 138-kV Conversion Project (RPG Project ID: 21RPG020). This is a Tier 3 project that is estimated to cost $52.05 million. RPG review for this project was concluded on December 21, and ERCOT has issued the acceptance letter.
* AEPSC and Oncor have jointly submitted the Mulberry Creek 345-kV Station Improvements Project (RPG Project ID: 21RPG021). This is a Tier 3 project that is estimated to cost $49.2 million. This project is currently in the RPG comment period.
* PEC has submitted the Marshall Ford-Ruther Ford 138-kV Line Rebuild Project (RPG Project ID: 21RPG022). This is a Tier 3 project that is estimated to cost $28.8 million. This project is currently in the RPG comment period.
* AEPSC has submitted the Barrilla Junction 69-kV Loop Rebuild and Conversion Project (RPG Project ID: 21RPG023). This is a Tier 3 project that is estimated to cost $44 million. This project is currently in the RPG comment period.
* AEPSC has submitted the Tungsten 138/69-kV Station Transmission Project (RPG Project ID: 21RPG024). This is a Tier 3 project that is estimated to cost $34.9 million. This project is currently in the RPG comment period.

RPG Project Reviews Completed in 2021:

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| --- | --- | --- | --- | --- | --- |
| RPG Project ID | RPG Project Name | Submitted Entity | Tier | Estimated Cost ($ Millions) | Review Completion Month |
| 20RPG022 | Hamilton Road to Maxwell 138-kV Line Rebuild Project | AEPSC | Tier 3 | 34.0 | January |
| 20RPG023 | Royse - Commerce 69-kV Line Conversion to 138-kV | Oncor | Tier 3 | 72.1 | January |
| 21RPG003 | Midland East Area Projects | Oncor | Tier 3 | 88.5 | March |
| 21RPG004 | Venus Switch-Cedar Hill Switch 345-kV Line Project | Oncor | Tier 3 | 10.3 | March |
| 21RPG005 | Angleton to West Columbia 138-kV ckt 04 Rebuild Project | CNP | Reclassified from Tier 3 to Tier 4 per Protocol | 38.7 | April |
| 21RPG006 | Algoa Corner to La Marque 138 138-kV ckt 93 Rebuild Project | CNP | Reclassified from Tier 3 to Tier 4 per Protocol | 34.56 | May |
| 21RPG007 | Holliday - Seymour 69-kV Line Project | Oncor | Reclassified from Tier 3 to Tier 4 per Protocol | 44.3 | May |
| 21RPG008 | Burnett – Bowie 69-kV Line Upgrade Project | Oncor | Tier 3 | 79.7 | June |
| 21RPG009 | Waterfowl Substation Addition | CNP | Tier 3 | 42.4 | June |
| 21RPG001 | Bakersfield to Big Hill 345‐kV Second Circuit Addition Project | STEC & LCRA TSC | Tier 2 | 83.2 | June |
| 21RPG011 | Flewellen to Peters 138-kV ckt 25 Rebuild | CNP | Tier 3 | 76.2 | July |
| 21RPG012 | Andrews North – Mustang – Paul Davis Tap 138-kV Line Section | Oncor | Reclassified from Tier 3 to Tier 4 per Protocol | 37 | August |
| 21RPG013 | WA Parish to Nash 138-kV Ckt 02 Rebuild Project  | CNP | Reclassified from Tier 3 to Tier 4 per Protocol | 71.75 | September |
| 21RPG014 | Mason Switch to Yellowjacket 69-kV Line Transmission Project | AEPSC | Reclassified from Tier 3 to Tier 4 per Protocol | 36.9 | September |
| 21RPG015 | Munday to Throckmorton 69-kV and Albany to Throckmorton 69-kV Line Rebuild Project | AEPSC | Reclassified from Tier 3 to Tier 4 per Protocol | 83.4 | September |
| 21RPG016 | TH Wharton - White Oak 138-kV Conversion Project | CNP | Reclassified from Tier 3 to Tier 4 per Protocol | 79.9 | September |
| 21RPG002 | Port Lavaca Area Improvement Project | AEPSC | Tier 1 | 101.5 | October |
| 21RPG010 | Flat Iron – Barr Ranch – Pegasus South 138-kV Line Project | Oncor | Tier 2 | 63.1 | December |
| 21RPG017 | Lower Rio Grande Valley System Enhancement Project | ERCOT | Tier 1 | 1280.0 | December |
| 21RPG018 | Bay City to Lane City 138-kV Line Rebuild Project | AEPSC | Tier 3 | 33.0 | December |
| 21RPG019 | Howard Road 345/138-kV Switching Station Project | CPS | Tier 3 | 56.3 | December |
| 21RPG020 | Galena Park Area 138-kV Conversion Project | CNP | Tier 3 | 52.05 | December |

More information on current and past RPG projects can be found on the ERCOT MIS Secure (digital certificate required): https://mis.ercot.com/secure/data-products/grid/regional-planning

Past email communication on RPG projects can be found on the ERCOT listserv by signing up for the REGPLANGROUP list: <http://lists.ercot.com/scripts/wa-ERCOT.exe?A0=REGPLANGROUP>

Planning Model Activities

The short-term calendar of major planning model events is as follows:

* By March 1, 2022 21SSWG Update 2 cases, in PSS/E 35, and TPIT are posted
* By March 15, 2022 21SSWG Contingency definitions & Planning Data Dictionary are posted

The following table shows interconnection projects that met Planning Guide section 6.9(1) and 6.9(2) and were modeled in the SSWG cases as a full model or as a simple model in accordance with Planning Guide section 6.9.





Permian Basin Oil Rig Count[[3]](#footnote-4)



Other Notable Activities

* ERCOT has completed the Permian Basin Load Interconnection Study. The study report was posted to the ERCOT website on December 8, 2021.
* ERCOT has completed the 2021 Regional Transmission Plan (RTP). The 2021 RTP report was posted to the ERCOT website and MIS Secure on December 23, 2021. Final 2021 reliability and sensitivity cases have also been posted to MIS Secure.
* ERCOT has completed the 2021 Geomagnetic Disturbance Vulnerability Assessment (GMDVA). The 2021 GMDVA report has been posted to the ERCOT website and MIS Secure.
* ERCOT posted the 2021 Report on Existing and Potential Electric System Constraints and Needs to the ERCOT website on December 23, 2021.
1. Based on the Total Project Estimated Cost for all future projects listed in the Transmission Project Information and Tracking (TPIT) report. TPIT is updated three times each year based on information TSPs provide in Model on Demand (MOD) as specified in the ERCOT Steady State Working Group Procedure Manual. The latest TPIT is available at https://www.ercot.com/gridinfo/planning. [↑](#footnote-ref-2)
2. Based on the Total Project Estimated Cost for all completed projects with Projected In-Service Dates in 2021 listed in the TPIT. [↑](#footnote-ref-3)
3. +/- symbol indicates the increase or decrease from the previous month in oil rigs present in each county. There are 198 rigs, including an increase of 4 oil rigs, in the Permian Basin from November to December 2021. [↑](#footnote-ref-4)