



Electrifying the Permian Basin Initiative

PRESENTATION FOR ERCOT'S REGIONAL
PLANNING GROUP

FEBRUARY 15, 2022

Antitrust Reminder

Meeting participants are reminded that during, before and after meetings, there shall be no discussion of competitively sensitive information, including but not limited to: prices, costs, customers, output or production, commercial plans, or any other discussion that could be viewed as restraining competition between the participants or limiting any company from free access to any market, customer or vendor.

Discussion should be limited to agenda items only. Any questions about the propriety of a discussion item should be raised immediately and should be addressed with caution. When in doubt, participants should defer discussion about potentially sensitive items until after review by their respective legal counsel.

Your participation in this meeting is acknowledgement of your agreement with the above.

Introducing the Permian Electrification Initiative



Warwick King, VP Low Carbon Technologies

Initiative Overview



Major Permian oil & gas operators have all determined the need for a **consolidated power demand estimate** reflecting an increased need and pace for equipment electrification.



This estimate can help transmission/ distribution service providers, ERCOT (TX), and SPP (NM) **plan subsequent grid development** to meet that demand

Data Analysis



Facilitator



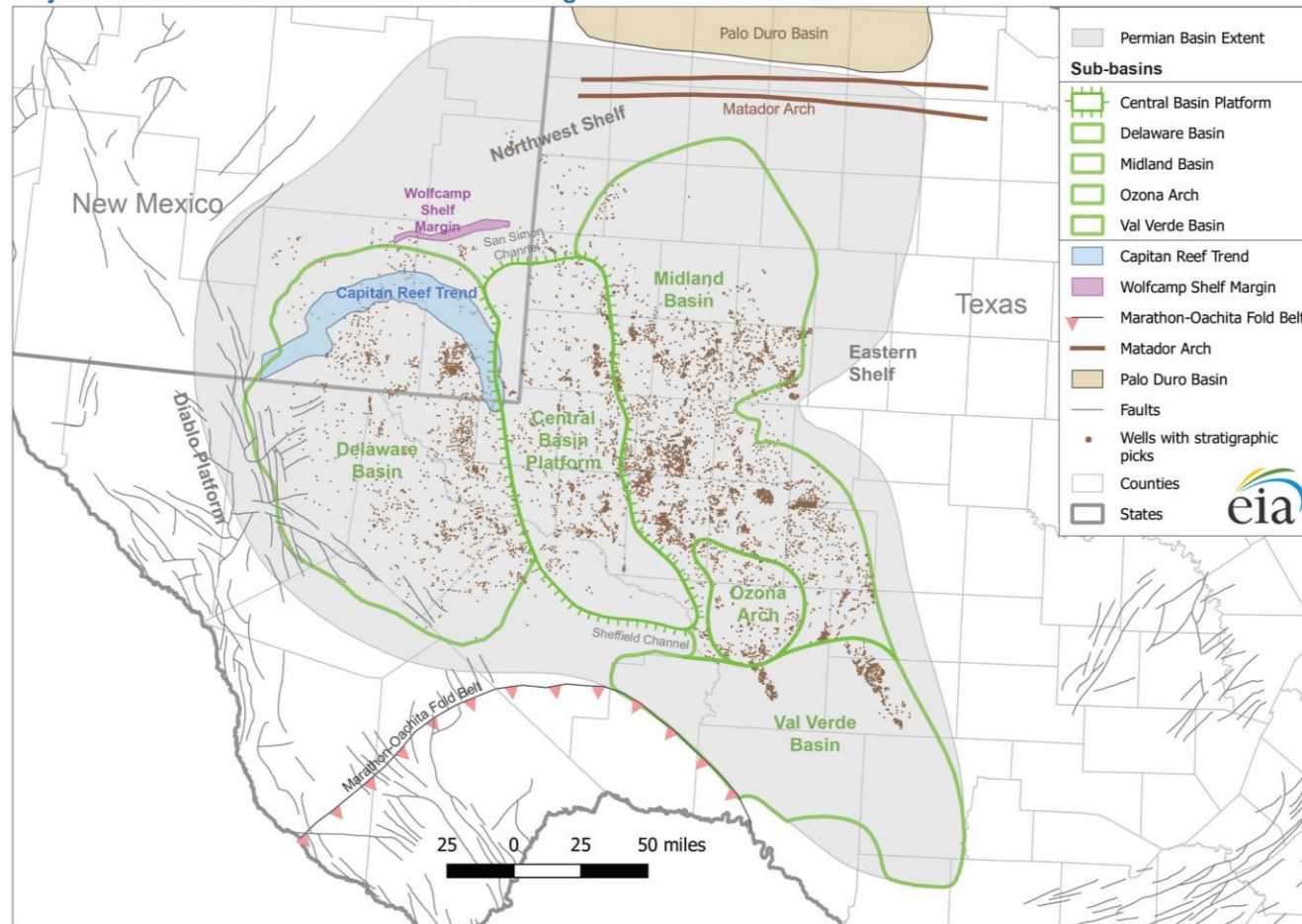
Permian Basin will continue to be the most prolific oil producing area in the US

While the Permian has been producing for 100 years, the unconventional horizon is just starting. **Production has rebounded** post COVID, and strong growth is expected over the next decade, concentrated in the Delaware and Midland Basins

Permian Basin holds **key advantages over other US basins**: low break-even prices, elimination of regional pipeline bottlenecks, and significant untapped resources

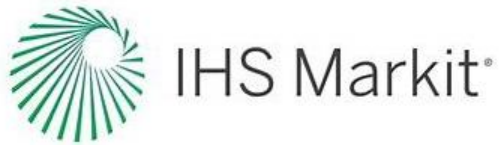
Electrification is viewed as a key source of emissions reduction, but there's a **need to align planning horizons between O&G companies**, who anticipate demand needs 1-2 years out, and transmission providers, who have longer planning cycles.

Major structural and tectonic features in the region of the Permian basin



Source: U.S. Energy Information Administration based on DrillingInfo Inc., Bureau of Economic Geology, U.S. Geological Survey.

Electrification is critical to make the Permian Basin more sustainable



In April 2020, IHS Markit completed a study of the Permian Basin's future load requirements for Oncor Electric, finding:

Permian Basin **electrical usage rose sharply since 2016, and strong load demand will continue to grow through 2030**

- **~70% increase in industrial power usage** from 2016 - 2019*, from <2,000 MW to 3,400 MW
- **Projected ~100% increase from 2019 - 2030**, from 5,160 MW to 10,180 MW

ERCOT is already using the IHS Oncor study to make grid investment decisions

However, many factors have changed:



Operators are adopting **firm electrification strategies** as a mechanism for **reducing emissions**.



Price per barrel has **made a strong post-COVID recovery** (\$80-90 dollars a barrel), accelerating drilling activities



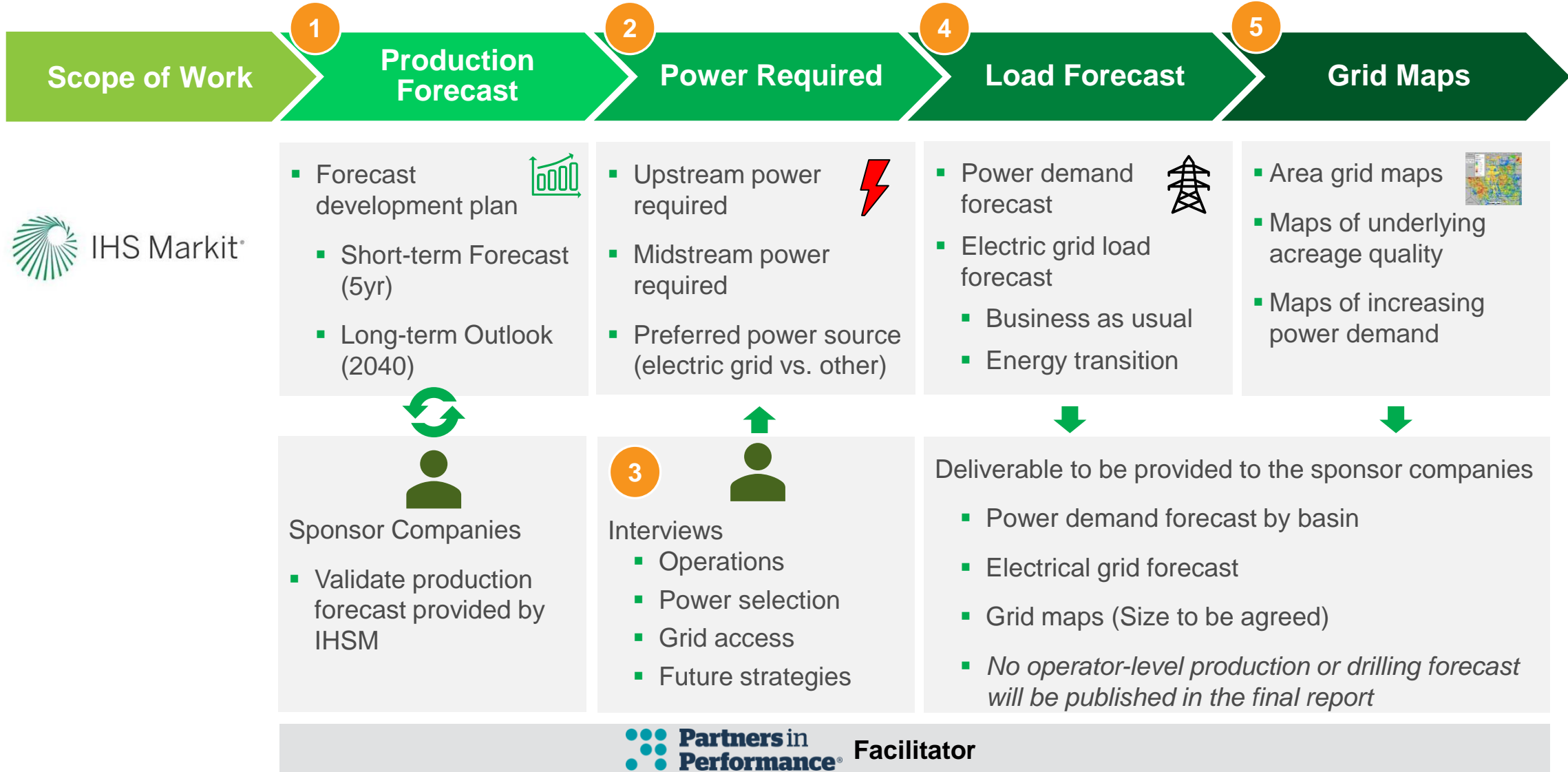
Regional competition from other industrials is increasing (cryptocurrency farms*)



Several stakeholders are projecting that their demand will be higher and pace quicker than IHS-M's original estimate, which is being revised in this study to further support grid investment planning

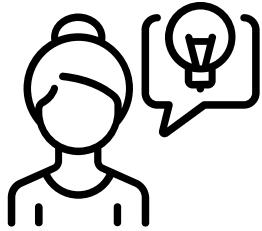
*Source: EIA Drilling Productivity Report, Bloomberg :[Texas Plans to Become the Bitcoin Capital, Vulnerable Power Grid and All \(bloombergquint.com\)](#)

IHS-Markit is updating their April 2020 demand forecast, using input from the Permian's largest operators



We'd like to coordinate with you moving forward

1. Indicate interest



- We would like your input into this initiative, and relevant points of contact (POC)
- Send a note to Rachel.Paulk@pip.global

Requested by: 25 February 2022

2. Meet w/O&G Participants



- Discuss Permian Electrification Initiative w/participating oil & gas companies
- Option to present to the group
- March 10th at ConocoPhillips Headquarters

Initiative Touchpoint: March 10, 2022

3. Review Study Deliverables



- Anticipate sharing study deliverables in mid-April
- Understand barriers to higher degree of electrification
- Prioritize focus areas and strategies
- Will schedule time to discuss any questions or comments
- Exact scheduling to follow

Deliverable Discussion: ~April 20, 2022