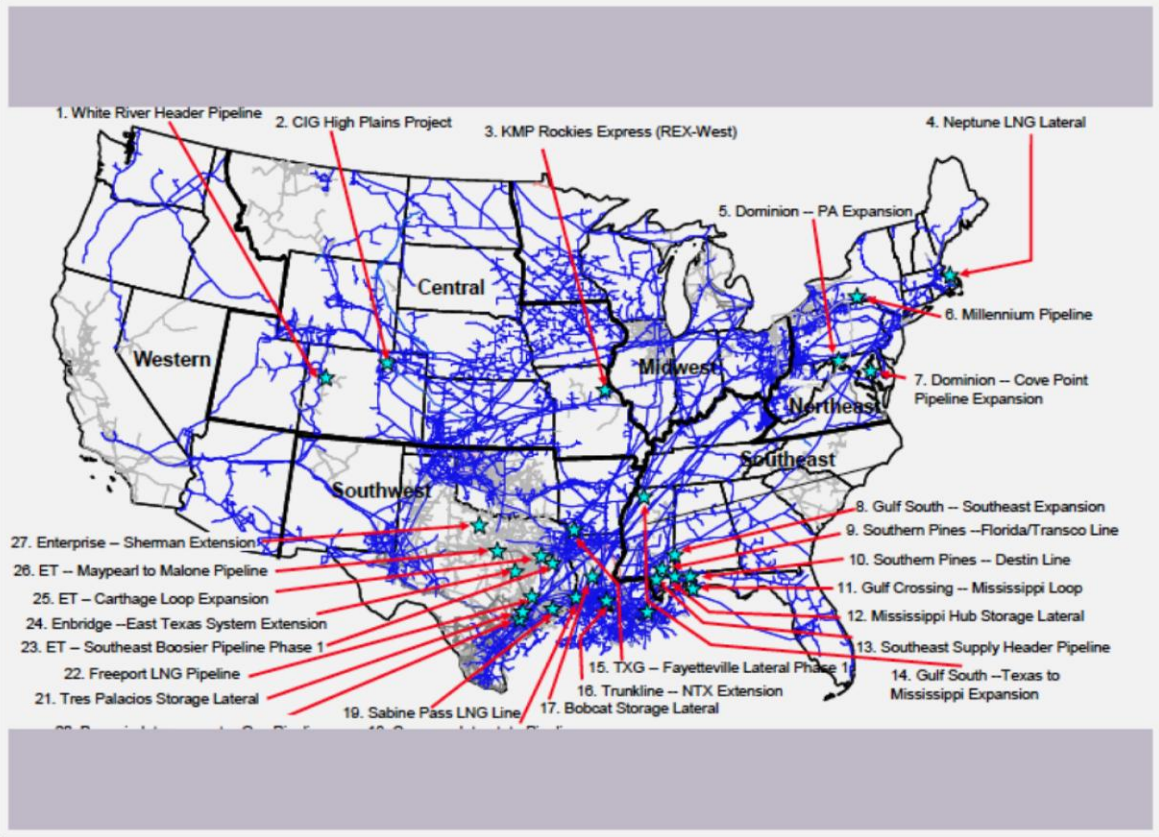
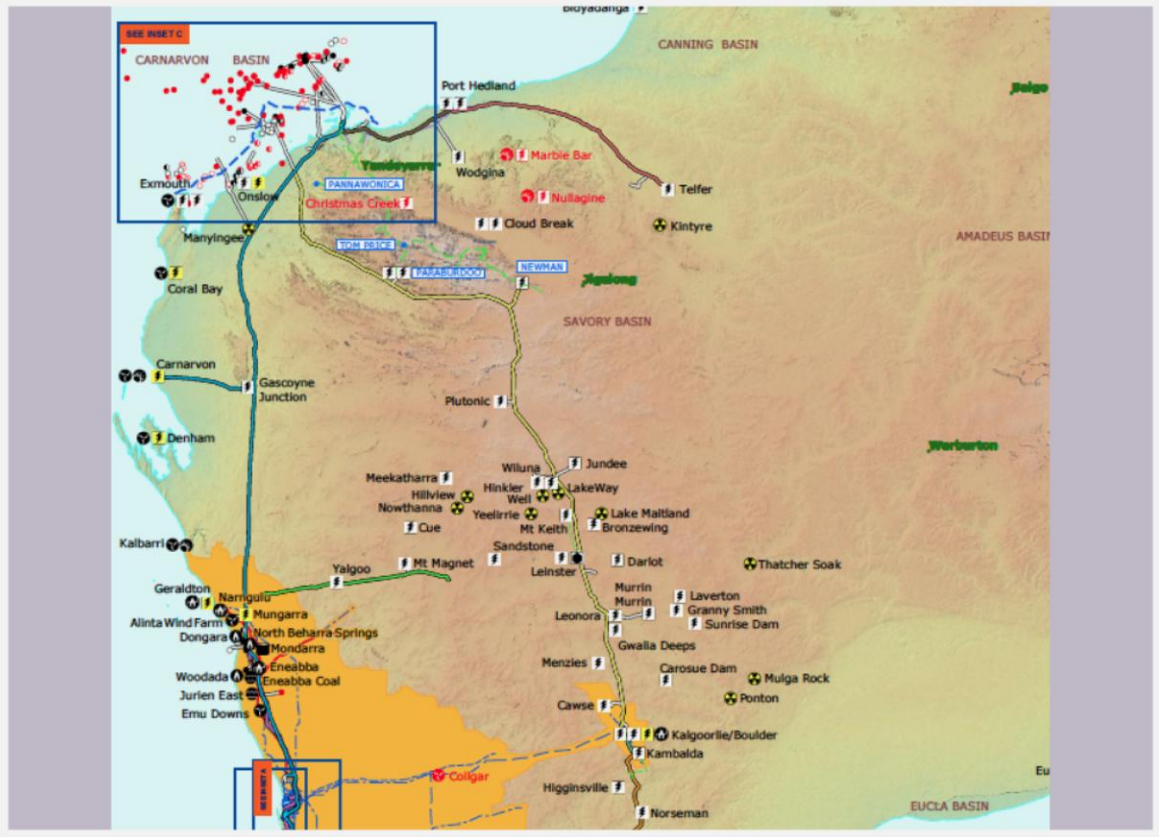


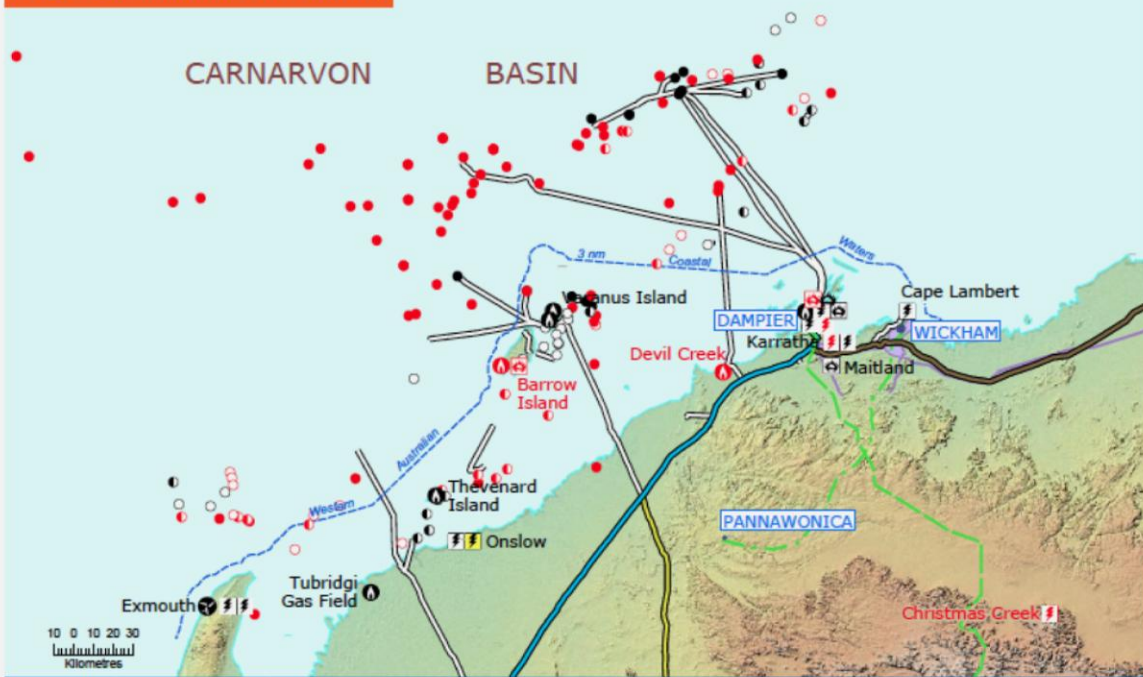
An unconventional look at unconventional gas

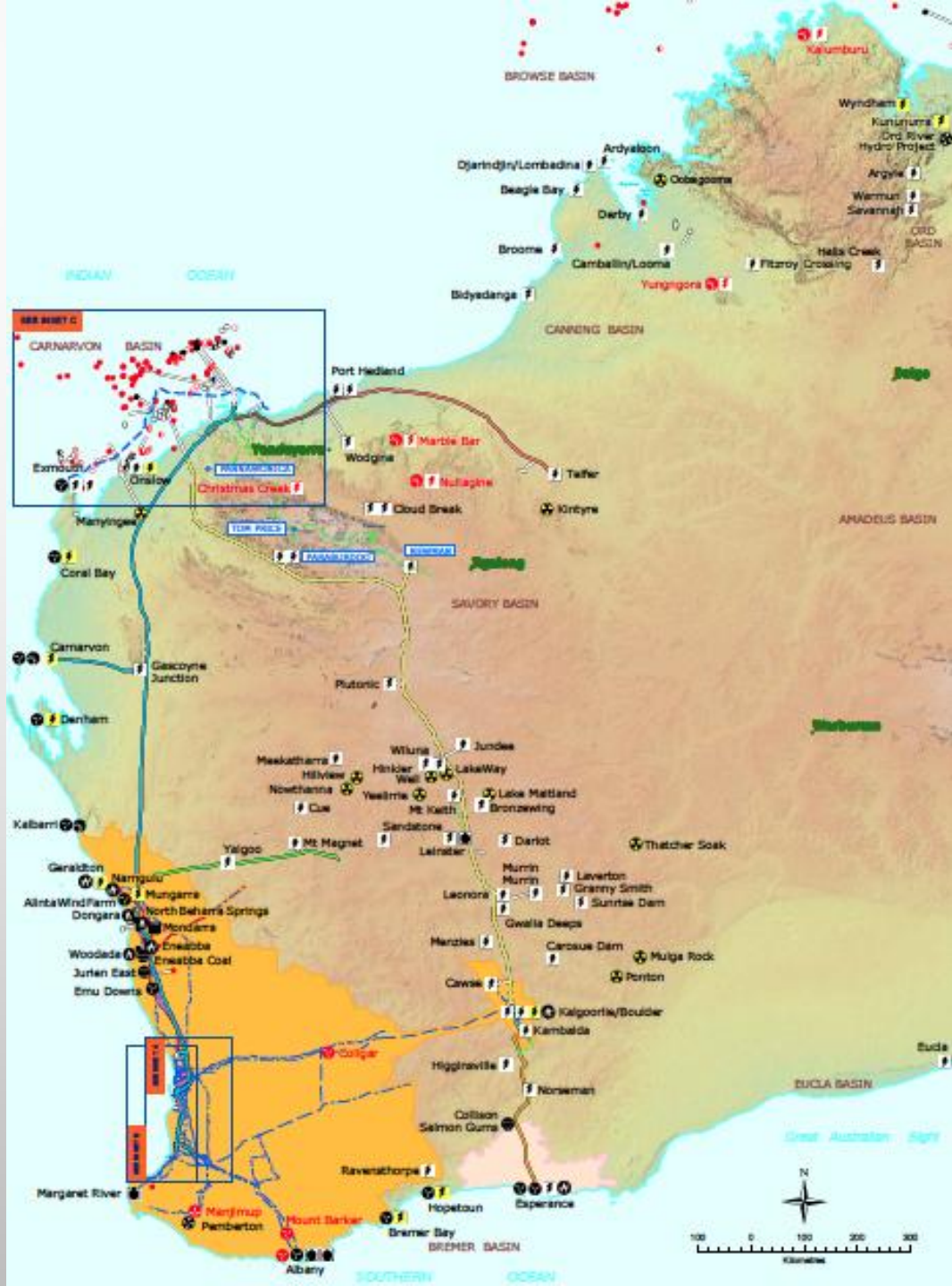






INSET C (CARNARVON BASIN)





Western Australia defines stranded gas

- Estimates of up to 200+ TCF of onshore unconventional gas with only 10% near existing pipeline infrastructure
- The opportunity for local energy generation and liquid fuels (diesel) demand
- Insatiable need for energy for mining sector
 - The State will need at least 1,100 terajoules per day (TJ/day) of new domestic gas production by 2020 to meet demand growth and to replace existing supply as fields decline and contracts expire (Domgas Alliance, 2010)
 - Cloudbreak Mine FMG
 - Midwest “magnetite region”
 - Solar/gas hybrids for fringe of grid power supply
- Insatiable need for diesel for mining sector
 - Micro and scaleable GTL (Extiel and G2L two very promising new technologies)
 - 1 mmcf of 1000 btu Natural Gas = 100 bbl of High Quality Light SynCrude OR 95 bbl of Naphtha/Diesel
 - New processes showing in one case 30% reduction in capex and 70% reduction in opex and in the other commercial at \$40 barrel