

CENTRAL QUEENSLAND **COAL** DEVELOPMENT PROJECTS

Project	Company	Status	Proposed Start-Up	Est. Cap Exp	Employment	Mining Tenure	New capacity (Total)
Middlemount open-cut	Macarthur Coal / Gloucester Coal	New project, under construction	2011	See Stage 2 (below)	300 (con), 110 (op)	ML granted	1.4 Mt coking and PCI (Stage 1)
Newlands Northern underground	NCA JV (Xstrata Coal Ltd 55%)	Extension, under construction	2011	US\$150m	100 (con)	ML granted	7.5 Mt thermal
Oaky Creek open-cut (Stage 1)	Xstrata Coal Ltd	Re-development, FS underway	2012?	US\$90m	80 e (op)	ML granted	1 Mt coking
Baralaba open-cut	Cockatoo Coal Ltd	Expansion, pre-FS underway	2012?	na	na	ML appln	0.75 Mt PCI & thermal
Isaac Plains open-cut	Aquila / Vale Australia	Expansion, under construction	2012	\$118m	100 (con), 40 (op)	ML appln	2.8 Mt coking, thermal and PCI
Jax open-cut	QCoal Ltd	New project, FS underway	2012	na	150 (op)	ML appln	1.8 Mt (ROM) coking
Curragh open-cut	Wesfarmers Ltd	Expansion, under construction #	2012	\$286m	300 (con), 90 (op)	ML granted	Up to 8.5 Mt coking
Ensham Central B&P underground	Ensham Resources	New project, under construction	2012	\$166m	80 (con), 160 (op)	ML granted	1.7 Mt thermal
Middlemount open-cut	Macarthur Coal / Gloucester Coal	Expansion, EIS and FS in progress	2012	\$500m	400 (op)	ML appln	4 Mt coking and PCI (Stage 2)
Burton open-cut	Peabody Energy Ltd	Expansion, under construction	2012	\$250m e	200 e (con)	ML granted	4 Mt coking
Codrilla open-cut	Macarthur Coal Ltd	New project, EIS & FS in progress	2013	\$250m	170 (con), 240 (op)	ML appln	3.2 Mt PCI
Kestrel underground	Rio Tinto Ltd	Expansion, under construction	2013	US\$2000m	300 (con), existing (op)	ML granted	5.7 Mt hard coking
Foxleigh open-cut	Anglo American Metallurgical Coal Ltd	Extension, EIS and FS in progress	2013	na	90 (op)	ML appln	3.2 Mt PCI
Daunia open-cut	BHP Billiton Mitsubishi Alliance	New project, under construction	2013	\$1600m	1000 (con), 400 (op)	ML granted	4.5 Mt coking and PCI
Millennium open-cut	Peabody Energy Ltd	Expansion, EIS completed	2013	\$276m	50 (con), 160 (op)	ML appln	3.6 Mt coking & PCI
Drake open-cut	QCoal Ltd	New project, EIS & FS underway	2013	\$350m e	350 (con), 250 (op)	ML appln	6 Mt coking and thermal

Source: ABARES May 2011 and DEEDI-Mines, Rockhampton October 2011

CENTRAL QUEENSLAND COAL DEVELOPMENT PROJECTS continued

Project	Company	Status	Proposed Start-Up	Est. Cap Exp	Employment	Mining Tenure	New capacity (Total)
Ellensfield underground	Vale Australia Ltd	New project, EIS in progress	2013	\$800m	460 (con), 340 (op)	ML appln	4.7 Mt coking and thermal
Olive Downs North open-cut	Macarthur Coal Ltd	New project, On-hold	2013	\$20m	100 (con), 80 (op)	ML granted	1 Mt coking and PCI
Dingo West open-cut	Bandanna Energy Ltd	New project, FS completed #	2013	\$134m	220 (con), 110 (op)	ML appln	1 Mt PCI and thermal
Grosvenor underground	Anglo American Metallurgical Coal Ltd	New project, EIS completed	2013	\$1300m	500 (con), 485 (op)	ML appln	5 Mt hard coking (Stage 1)
Washpool open-cut	Aquila Resources Ltd	New project, DFS completed, EIS in progress #	2013	\$368m	310 (con), 370 (op)	ML appln	2.6 Mt coking & PCI
Minyango underground	Guangdong Rising (Aust.) Ltd	New project, EIS & FS underway #	2013	\$750m	500 (con), 450 (op)	ML appln	Up to 7.5 Mt coking & thermal
Broadmeadow underground	BHP Billiton Mitsubishi Alliance	Expansion, under construction	2013	US\$900m	650 (con); existing (op)	ML granted	4.8 Mt coking
Dysart East open-cut and underground	Bengal Coal Ltd	New project, pre-FS underway	2013?	\$450m	300 e (op)	MDL appln	4 Mtpa (ROM) coking
Collinsville open-cut	Xstrata Coal Ltd	Expansion, pre-FS underway	2013	na	na	ML granted	6 Mt coking & thermal
Yarrabee open-cut	Yancoal Aust. Ltd	Expansion, waiting for rail and port allocations #	2013	\$150m e	100 (op)	ML appln	2.8 Mt PCI
Eaglefield (Denham) open-cut	Peabody Energy Ltd	Expansion, EIS in progress	2013	\$1400m	650 (con), 700 (op)	ML granted	Up to 6.8 Mt hard coking
Springsure Creek underground	Bandanna Energy Ltd	New project, EIS underway, FS completed #	2013?	\$1130m	300 (con), 330 (op)	EPC 891	11 Mt thermal (ROM)
Lake Vermont open-cut	Lake Vermont Resources Ltd	Expansion, under construction	2013	\$200m	350 (con), 150 (op)	ML granted	8 Mt coking

Source: ABARES May 2011 and DEEDI-Mines, Rockhampton October 2011

e= unofficial estimate, ROM= run of mine, FS= Feasibility Study, B&P= Bord and Pillar, UG= underground, ML= Mining Lease, appln= application, # secured tonnage allocation for WICT Stage 1.

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**Department of Employment, Economic
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CENTRAL QUEENSLAND COAL DEVELOPMENT PROJECTS continued

Project	Company	Status	Proposed Start-Up	Est. Cap Exp	Employment	Mining Tenure	New capacity (Total)
Styx open-cut	Waratah Coal / Queensland Nickel	New project, pre-FS underway	2013?	na	140 e (con), 110 e (op)	EPC 1029	1 Mt PCI & thermal
Baralaba North and South open-cut	Cockatoo Coal Ltd	New project, FS underway #	2014	\$300m e	300 (op)	ML appln	3.5 Mt PCI and thermal
Byerwen open-cut	QCoal Ltd	New project, EIS & FS underway	2014	\$1500m	500 (con), 1000 (op)	ML appln	10 Mt hard coking and thermal
Rolleston open-cut	Xstrata Coal Ltd	Expansion, FS and EIS underway #	2014	\$US450m	250 (con), 200 (op)	ML appln	Up to 20 Mt thermal (ROM)
Peak Downs open-cut	BHP Billiton Mitsubishi Alliance	Expansion, EIS commenced	2014	\$4000m	350 (op)	ML appln	11 Mt hard coking
Caval Ridge open-cut	BHP Billiton Mitsubishi Alliance	New project, EIS completed	2014		2000 (con), 500 (op)	ML appln	5.5 Mt hard coking
Jellinbah East (Mackenzie North) open-cut	Jellinbah Group	Extension, pre-feasibility underway	2014	\$50-100m	100 (con); existing (op)	ML appln	2 Mt PCI & thermal
Theresa underground	Linc Energy Ltd	New project, EIS in progress	2014?	na	500 (con) 380 (op)	ML appln	6.4 Mt coking & thermal
Goonyella open-cut	BHP Billiton Mitsubishi Alliance	Expansion, EIS in progress	2014?	\$1000m +	1200 (con), 750 (op)	ML appln	Up to 25 Mt hard coking
Tad's Corner (Alpha) open-cut	GVKPIL/ Hancock Coal Ltd	New project, BFS completed, EIS in progress	2014	\$3400m	1535 (con), 1200 (op)	ML appln	30 Mt thermal
China First (Galilee Coal) open-cut and underground	Waratah Coal Ltd	New project, EIS in progress	2014?	\$4000m	2500 (con), 1900 (op)	ML appln	40 Mt thermal
Orion Downs open-cut and UG	Endocoal Ltd	New project, BFS underway	2014	\$100m	200 e (op)	ML appln	2.5 Mt thermal
Carmichael open-cut & UG	Adani Mining Ltd	New project, EIS commenced	2014?	\$4100m	1500 (con), 3000 (op)	ML appln	Up to 60 Mt thermal
New Lenton open-cut	New Hope Corp. Ltd	New project, pre-FS completed	2014	\$400m e	400 e (op)	ML appln	3.5 Mt coking & thermal
Sarum open-cut and UG	Xstrata Coal Ltd	New project, EIS & pre-FS underway	2014	\$700m	400 e (con), 300 e (op)	ML appln	5 Mt coking and thermal

Source: ABARES May 2011 and DEEDI-Mines, Rockhampton October 2011

CENTRAL QUEENSLAND COAL DEVELOPMENT PROJECTS continued

Project	Company	Status	Proposed Start-Up	Est. Cap Exp	Employment	Mining Tenure	New capacity (Total)
Eagle Downs underground	Aquila Resources / Vale Australia	New project, EIS & FS completed	2015	\$1254m	500 (con), 410 (op)	ML granted	4.6 Mt hard coking (Stage 1)
Monto open-cut	Macarthur Coal / Burnett Coal	New project, FS in progress	2015?	\$80m e	200 e (op)	ML appln	1 Mt thermal (Stage 1)
Moorvale B&P underground	Macarthur Coal Ltd	Expansion, pre-FS underway	2015?	\$180m e	80 e (con) 160 e (op)	ML granted	1 Mt coking and PCI
Talwood underground	Aquila Resources Ltd	New project, Scoping Study completed	2015?	na	350 e (op)	EPC 985	3.6 Mt coking & thermal
Arcturus open-cut and underground	Bandanna Energy Ltd	New project, EIS underway, FS completed	2015?	\$235m	240 (con), 200 (op)	EPC 1221	5 Mt thermal
South Galilee open-cut and UG	Bandanna Energy Ltd	New project, EIS and FS in progress	2015	\$4150m	2000 (con), 1280 (op)	ML appln	13.6 Mt thermal
Kevin's Corner open-cut and UG	GVKPIL	New project, EIS & BFS in progress	2015?	\$6600m	2500 (con), 2000 (op)	ML appln	30 Mt thermal
Curragh South (MDL 162) open-cut	Macarthur Coal Ltd	New project, pre-FS underway	2015?	na	400 e (op)	MDL granted	6 Mtpa (ROM) coking
Willunga open-cut	Macarthur Coal	New project, pre-FS underway	2015?	\$250m e	na	EPC 721	3 Mt PCI and thermal
Togara North underground	Xstrata Coal Ltd	New project, pre-FS underway	2015?	\$800m e	450 e (op)	ML appln	6 Mtpa thermal
Yamala underground	Northern Energy Ltd	New project, on-hold	2017?	\$350m e	200 e (op)	MDL appln	2 Mt thermal & PCI
Eastern Creek open-cut	NCA JV (Xstrata Coal Ltd 55%)	Extension, EIS & pre-FS underway	2016	na	100 e (op)	ML appln	Extend mine life 27 yrs
Belvedere underground	Aquila Resources/Vale	New project, EIS in progress	2016	\$2800m	600 (con), 500 (op)	ML appln	Up to 7 Mt hard coking
Winchester South open-cut	Rio Tinto Ltd	New project, pre-FS to start: Q2 2012	2016?	na	400 e (op)	MDL granted	4 Mt coking & thermal
Saraji East open-cut	BHP Billiton Mitsubishi Alliance	New project, EIS process, On hold	2016?	\$1000m	1000 (con), 300 (op)	ML appln	5 Mt hard coking
Moranbah South underground	Anglo Amer. Met Coal / Exxaro Australia	New project, pre-FS underway	2017	\$1300m	1200 (con), 650 (op)	MDL granted	Up to 4.5 Mt coking

Source: ABARES May 2011 and DEEDI-Mines, Rockhampton October 2011

CENTRAL QUEENSLAND MINERAL DEVELOPMENT PROJECTS

Project	Company	Status	Proposed Start-Up	Est. Cap Exp	Employment	Mining Tenure	New capacity (Total)
Twin Hills Gold-Silver underground	Conquest Mining Ltd	Redevelopment, on hold	2011	\$6m	50 (op)	ML granted	30,000 oz pa
Mt Carlton Copper-Gold-Silver open-cut	Conquest Mining Ltd	New project, committed	2012	\$127m	150 (con), 150 (op)	ML appln	100,000 oz pa gold 6000 tpa copper 2 Mozs pa silver
Moranbah Ammonium Nitrate plant	Incitec Pivot Ltd	New project, under construction	2012	\$935m	550 (con), 80 (op)	Not required	330,000 tpa
Yarwun Alumina refinery	Rio Tinto Alcan Ltd	Expansion, under construction	2012	US\$1800m	1300 (con), 250 (op)	Not required	3.4 Mtpa
Goondicum Industrial minerals open-cut	Belridge Enterprises Ltd	Redevelopment, Feasibility Study completed, on hold	2012	\$15m	35 (op)	ML granted	1.7 Mtpa ROM ore
Wateranga Industrial minerals open-cut	Queensland Industrial Minerals Ltd	New project, EIS commenced, on hold	2013?	\$82m	100 (op)	ML appln	225,000 tpa Ilmenite 765,000 tpa Feldspar 27,000 tpa Apatite
Mount Morgan Gold Tailings Re-treatment	Norton Gold Fields Ltd	New project, Feasibility Study completed, on hold	2014?	\$45m	80 (con), 50 (op)	ML granted	35,000 oz pa (Stage 1)
East End Limestone open-cut	Cement Australia Ltd	Expansion, EIS in commenced	2014	na	Existing (op)	ML appln	na
Marlborough Nickel-Cobalt open-cut	Gladstone Pacific Nickel Ltd	New project, EIS completed, On hold	2014?	\$120m	500 (con), 200 (op)	ML granted	2.7 Mtpa nickel-cobalt ore
Mount Cannindah Copper-Gold open-cut	Planet Metals Ltd	New project, Resource extension drilling	2014?	\$80m	90 e (op)	ML granted	8200 tpa copper 5900 oz gold 275,000 oz silver
Mount Kroombit Copper-Zinc open-cut	Argonaut Resources NL	New project, Scoping Study completed, on hold	2015?	\$87m	na	ML granted	1.5 Mtpa copper-zinc ore
Anthony Molybdenum open-cut	Zamia Metals Ltd	New project, Scoping Study in progress	2015?	\$200m	na	EPM 15145	5 Mtpa molybdenum ore

Source: ABARES May 2011 and DEEDI-Mines, Rockhampton October 2011

na= not available, MDL= Mineral Development Licence, EPC= Exploration Permit for Coal, EPM= Exploration Permit for Minerals, con= construction, op= operational, tpa= tonnes per annum

CENTRAL QUEENSLAND ENERGY DEVELOPMENT PROJECTS

Project	Company	Status	Proposed Start-Up	Est. Cap Exp	Employment	Tenure	New capacity
Callide Oxyfuel Low Emissions	CS Energy Ltd	New project, commissioning in progress	2011	\$206m	100 (con)	Not required	Capture and store ~17,000 tpa CO2
Stuart Oil Shale Paraho semi-works plant	Queensland Energy Resources Ltd	New project, commissioning in progress	2011	\$100m	150 (con), 50 (op)	PFL 8 grntd	Up to 45 barrels/day
Blackwater CSG Power Station	Bow Energy Ltd	New project, under construction	2012	\$50m	200 (con), 3 (op)	Not required	30 MW
Moura CSG Power Station	Molopo Australia Ltd	New project, Feasibility Study on hold	2012?	\$65m	200 e (con)	Not required	60 MW (Stage 2)
Meridian CSG operation	WestSide Corp Ltd / Mitsui E&P Aust.	Expansion, in progress	2013	\$17m	na	PL granted	25 TJ/day
Fisherman's Landing LNG	LNG Ltd	New project, FEED Study in progress	2014	US\$720m	120 (con), 35 (op)	PPL 161 and PFL 18 grntd	1.5 Mtpa (Stage 1)
Abbott Point LNG	Energy World Corporation	New project, Pre-feasibility Study underway	2014?	US\$500m	na	PFL required	2 Mtpa (Stage 1)
Central Qld gas pipeline	Arrow Energy Ltd / AGL Energy Ltd	New project, Feasibility Study completed, on-hold	2014?	\$475m	300 (con)	PPL 121 grntd	Up to 50 PJpa
Moranbah CSG operation	Arrow Energy Ltd / AGL Energy Ltd	Expansion, in progress	2014?	\$160m	na	PL appln	160 PJpa
Queensland Curtis LNG	BG Group / QGC	New project, under construction; includes 540 km gas pipeline network and gas field development	2014	\$US15,000m	5000 (con), 1000 (op)	PPL 154 and PFL 11 grntd	8.5 Mtpa (Stage 1)
Blackwater & Norwich Park CSG fields	Bow Energy Ltd	New project, EIS commenced	2014	\$400m e	200 (con), 45 (op)	PL applns	Minimum 30 PJpa
Arrow Surat to Gladstone gas pipeline	Arrow Energy Ltd	New project, EIS approved; on hold	2014?	\$600m	300 (con)	PPL 144 grntd	66cm diameter (90 PJpa)
Southern Cross LNG	LNG Impel Ltd	New project, on hold	2015?	na	350 (con), 80 (op)	PFL required	Up to 3.4 Mtpa (Stage 1)

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CENTRAL QUEENSLAND ENERGY DEVELOPMENT PROJECTS continued

Project	Company	Status	Proposed Start-Up	Est. Cap Exp	Employment	Tenure	New capacity
Blackwater to Gladstone gas pipeline	Bow Energy Ltd	New project, EIS commenced	2015	\$300m e	200 e (con)	PPL required	250km length and 51cm diameter
Gladstone LNG	Santos Ltd / PETRONAS	New project, under construction; includes 435 km gas pipeline network and gas field development	2015	\$US16,000m	5000 (con), 1000 (op)	PPL 166 appln and PFL 10 grntd	7.8 Mtpa (Stage 1)
Galilee IGCC Power Station	Waratah Coal Ltd	New project, on hold	2015?	\$1250m	1000 (con), 60 (op)	Not required	450 MW (Stage 1)
Blackwater to Norwich Park gas pipeline	Bow Energy Ltd	New project, EIS commenced	2015	\$100m e	100 e (con)	PPL required	95km length, 30cm diameter
Australia Pacific LNG	Origin Energy / ConocoPhillips	New project, under construction; includes 450 km gas pipeline network and gas field development	2015	\$US14,000m	6000 (con), 1000 (op)	PPL 163 appln and PFL 20 grntd	9 Mtpa (Stage 1)
Arrow Energy LNG	Shell Australia Ltd/ PetroChina	New project, Scoping Study and EIS underway	2016	\$10,000m e	3000 (con), 300 (op)	PFL required	8 Mtpa (Stage 1)
Arrow Bowen Gas pipeline	Arrow Energy Ltd	New project, EIS commenced	2017	\$1000m	650 (con), 10 (op)	PPL required	600km gas pipeline

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PL= Petroleum Lease, PPL= Petroleum Pipeline Licence, PFL= Petroleum Facility Licence

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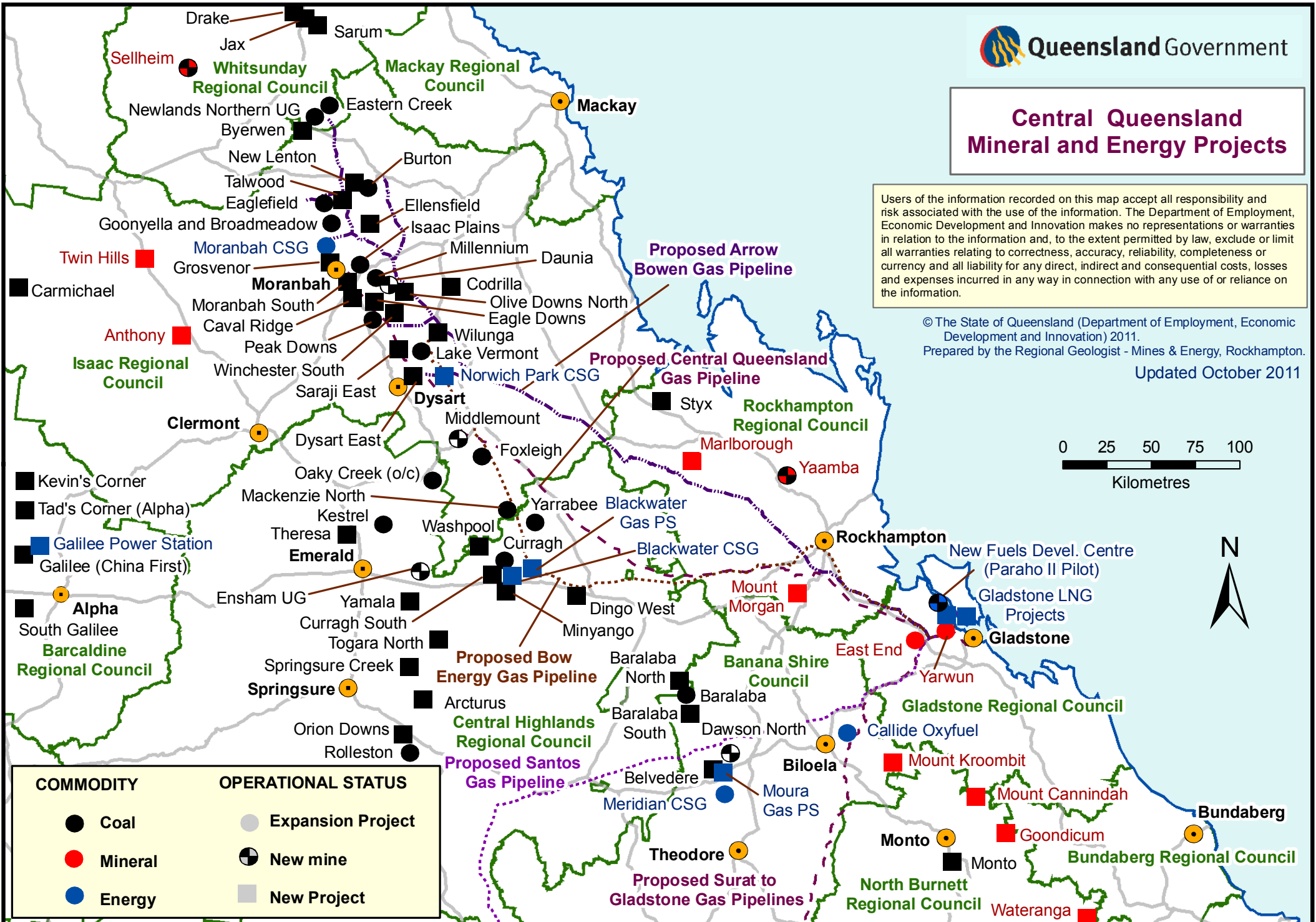
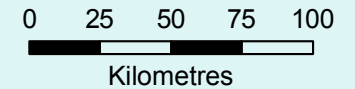
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Central Queensland Mineral and Energy Projects

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Prepared by the Regional Geologist - Mines & Energy, Rockhampton.

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COMMODITY	OPERATIONAL STATUS
● Coal	● Expansion Project
● Mineral	● New mine
● Energy	● New Project